

Financial performance of categorical banking sectors in Bangladesh

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Abstract

This study's objective is to assess the financial performance of the categorical banking sectors in Bangladesh from 2013 to 2017. The study used secondary sources of data that were collected from the Bangladesh Bank's annual reports. Through the use of the CAMEL test, an ANOVA, and an ordinary least squares model, this paper attempts to determine whether there are any appreciable differences in the capital adequacy, asset quality, management efficiency, earning ability, and liquidity among the four categories of banking sector in Bangladesh. The CAMEL test reveals that among the four types of banks, foreign commercial banks do the best. Among the four categories of banks, state-owned development financial institutions have performed the worst. When compared to one another, the four banking organizations' performance is found to be significantly different.

Keywords Financial performance, CAMEL Rating, and Bank

Paper type Research paper

1. Introduction

Banks act as a backbone of business and national economy at present age. Banks play a major role in economic development of a country. Funds are collected from people and given to other investors. By doing this activity, they earn a considerable profit. It works as a financial intermediary. So, the society and development of a country depend on good performance of banks. All kinds of financial and economic deal are handled by the bank. Since liberation, Bangladesh achieves a steady improvement in the banking sector. Number of new banks and branches of existing bank are being increased in almost every year. Bangladesh Bank (BB) is the central bank of Bangladesh. It is known as the mother bank of all banks because the guideline and rules of the central bank must be followed by all banks. For opening a new bank, permission is needed from the government and the central bank. Every bank must have a deposit of a particular fund in the central bank.



There are two types of banks in Bangladesh i.e., scheduled banks, and non-scheduled banks. Scheduled banks are controlled by Bangladesh Bank order 1972 where Non-scheduled bank are controlled by any act. There are 59 scheduled banks and 5 banks that are not scheduled. The scheduled bank is divided into four categories, state-owned commercial banks (SCBs), state-owned development financial institutions (DFIs), Private commercial banks (PCBs), Foreign commercial banks (FCBs). Out of 59 banks, there are 6 state-owned commercial banks (SCBs), 3 state-owned development financial institutions (DFIs), 41 Private commercial banks (PCBs), and 9 Foreign commercial banks (FCBs).

Economic growth and financial system development are strongly correlated (Misra & Aspal, 2013). Effective financial soundness is not only obligatory for economic development of a country but also needed for shareholders, employees and investors (Majumder & Rahman, 2016). This study attempts to evaluate discrepancy in relative financial performance of four categories of banks (SCBs, DFIs, PCBs, and FCBs) in Bangladesh as no depth study is conducted yet to evaluate categorically. The study will focus on capital adequacy, Assets Quality, Management Efficiency, Earning Ability and Liquidity of four groups of banks which are the five parameters of CAMEL rating systems.

2. Literature review

Several scholars have used the CAMEL model to measure financial performance of the banking sector in any economy. Financial performance of the selected fifteen banks in Bangladesh is measured by Majumder and Rahman (2016). CAMEL Model, Composite rankings, average, and ANOVA-test are applied to make comparison regarding performance among selected banks. Considering all of the parameters together of CAMEL, they have shown that Eastern Bank Ltd. holds the first place examined by the CAMEL Model compared to other banks under the study. This is because of its strong performance on five parameters of CAMEL model. Islam and Ashrafuzzaman (2015) evaluated financial performance selected conventional and Islamic banks using Camel rating and t-test. They have observed no significant difference between conventional and Islamic banking in capital adequacy, earnings and management ability but a significant difference in assets utilization.

Nimalathan (2008) highlighted the comparison of the financial performance of the banking sector in Bangladesh using the CAMELS rating system. Using CAMEL rating system, he finds that three banks are in Strong position, thirty-one banks are in Satisfactory position, seven banks are in

Fair, five banks are in Marginal, and two banks are in Unsatisfactory position among 48 banks in Bangladesh. The CAMEL method is also used to evaluate the performance and financial soundness of state bank group by Misra and Aspal (2013). This method was using the five parameters, capital adequacy, asset quality, management efficiency, earning quality, and liquidity. According to capital adequacy and asset quality, SBBJ was highest while SBI got the lowest rank. Under management efficiency parameter, the most top position was taken by SBT and lowest position taken by SBBJ. This study suggests that SBI need to improve its asset quality and capital adequacy, SBP should improve its earning quality, and SBBJ should improve its management efficiency.

Anojan and Nimalathasan (2014) compared the financial soundness of the state and private sector banks using CAMEL model in Sri Lanka. They stated that private sector banks are better than state banks in the performance of capital adequacy, earnings, and liquidity position of the banks. The performance of the banking sector in Nigeria by CAMEL rating system from 2006 to 2010 is measured by Adesina (2012). He used fifteen banks as a sample and also ranked through the CAMEL ratios. several studies also have conducted on performance evaluation of the banking sector in Bangladesh (Ibrahim, Mohammad, Hoque, & Khan, 2014; Uddin, Khan, & Farhana, 2015; Uddin, Khan, & Mohammad, 2015; Islam et. al., 2014). The study adopts the CAMEL model and Correlation to examine the overall performance of the banking sector in Bangladesh. This analysis indicated that DFIs has found more vulnerable among the four categories of bank operating in Bangladesh. The study also added that FCBs and PCBs are performing well, whereas SCBs showed a trend of improving performance. The financial soundness of five selected Palestinian Commercial Banks for the year 2015 using the CAMEL rating model were evaluated by Zedan and Daas (2017). According to the analysis, Bank of Palestine got the good rating and Palestinian Commercial Bank got the Bad rating among five banks.

The Financial performance of two major banks in northern India is evaluated by Sangmi and Nazir (2010). CAMEL parameters have been used to highlight the position of banks. They found that selected banks have a good financial soundness according to five parameters of CAMAL rating. Financial performance of the banking industry in Bangladesh from 2013 to 2014 is measured by Moudud-Ul-Huq (2017) and is ranked them under a composite rating system. He selects 10 private commercials banks from 38 PCBs. His study finds that average composite rating of most of the bank is 2.14. His findings give "Strong" rating to Eastern Bank Ltd. His findings also indicate that performance of most of the Private commercial banks in

Bangladesh is quite satisfactory. Chowdhury and Ahmed (2009) conducted a study to evaluate performance of selected banks in Bangladesh using simple regression analysis. They have found that private commercial banks have ability for positive stable growth of branches, deposits, employees, loans and advances, earning per share, net income during 2002 to 2006 in Bangladesh. They have also shown using R² that future prospect of private commercial banks in Bangladesh is very bright.

3. Objectives

Financial performance analysis identifies a company's financial strengths and weaknesses, which help its management to plan and decides the company's future strategies. The main objective of the study is to analyze the financial performance of the categorical banking sectors in Bangladesh. Five research hypotheses tested in this study are as follows:

- a) H₀: There is no significant difference among four banking groups regarding total deposits.
- b) H₀: There is no significant difference among four banking groups in total assets.
- c) H₀: There is no significant difference among four banking groups in return on assets.
- d) H₀: There is no significant among four banking groups regarding return on equity.
- e) H₀: There is no significant difference among four banking groups regarding camel ratios.

4. Methodology

This study is analytical research. The study covers five periods from the year 2013 to 2017. This study is based on secondary data and data are collected from the annual reports of Bangladesh Bank (2019) for the year 2013-2017.

CAMEL model is used to measure the performance of four categories of banks in Bangladesh. It is an important tool to rate the banks (Misra & Aspal, 2013). This rating system was initially introduced in the U.S. in 1979-80 to evaluate a Bank's overall position. It is applied to every bank and credit union in the U.S. and also implemented outside the U.S. by various banking supervisory regulators (Dang, 2011). Bangladesh Bank introduced CAMEL Rating System in 1993 to evaluate the performance of scheduled banks in Bangladesh. "CAMEL is an acronym for the five components of bank safety and soundness" (Dang, 2011). The components are Capital adequacy, Asset quality, Management quality, Earning ability, and Liquidity.

The study uses ten ratios relating to CAMEL frameworks which are given in Table 01 at a glance:

Table 1. Ratios regarding CAMEL frameworks

Acronym	Parameters of CAMEL	Ratios of measuring CAMEL parameters
C	Capital Adequacy	Capital Adequacy Ratio Advances to Total Assets Ratio
A	Assets Quality	Gross NPLs to Total Loans NPLs to Total Assets
M	Management Quality	Expenditure-Income Ratio Advances to Deposit Ratios
E	Earning Ability	Return on Asset (ROA) Return on Equity (ROE)
L	Liquidity	Liquid Assets to Total Assets Ratios Liquid Assets to Total Deposits Ratio

One way classification of ANOVA is applied to test whether there is a statistically significant mean difference among four categorical banking sectors regarding different factors in Bangladesh. A multiple regression analysis is also performed to study the impact of total assets, total deposits, and total advances on net income.

5. Results and discussion

The five parameters of CAMEL model of different categorical banks during the period 2013-2017 are calculated and explained in the following sections:

5.1. Capital adequacy

Capital adequacy highlights on the overall capital status of banks and protecting depositors and other creditors from potential losses that a bank may incur. It covers all probable financial risks related to interest rate, liquidity, operation, credit, market, reputation, settlement, and environment & climate change, etc. It is beneficial for a bank to conserve & protect stakeholders' confidence and to prevent the bank from being bankrupt (Misra & Aspal, 2013). Capital adequacy ratio (CAR) and advances to assets ratio are used to determine the capital adequacy. The group average of two ratios of capital adequacy is presented in Table 2.

Table 2. Rank of banks according to composite capital adequacy

Types of Banks	CAR		Advances/Assets		Group Rank	
	AVG	Rank	AVG	Rank	AVG	Rank
SCBs	7.28	3	39.78	4	3.5	4
DFIs	5.64	4	80.38	1	2.5	3
PCBs	12.48	2	64.16	2	2	1.5
FCBs	23.74	1	43.82	3	2	1.5

Table 2 shows that PCBs and FCBs are at the top position regarding capital adequacy. It is a good sign for both PCBs and FCBs which indicates their ability to absorb unexpected losses. DFIs and SCBs are at the third and fourth position respectively. Low CAR and Advances/Assets ratio is the main reason for the poor performance of SCBs which shows that this sector faces relative capital inadequacy.

5.2. Assets quality

Asset quality is an essential parameter for examining the degree of financial soundness of a bank. "Asset quality expresses how much of risky assets having by the banks on its total assets" (Majumder & Rahman, 2016). The most important measurement to demonstrate the asset quality of the bank is the ratio of Non-Performing Loans (NPLs) to total loans and NPLs to total assets (Bangladesh Bank, Annual Report-2019). Lower ratio indicates better assets quality of the bank. Composite average and ranking of two ratios of assets quality is shown in Table 3.

Table 3. Rank of banks according to composite assets quality

Types of Banks	NPLs to total loans		NPLs to total assets		Group Rank	
	AVG	Rank	AVG	Rank	AVG	Rank
SCBs	23.03	3	9.45	3	3	3
DFIs	26.44	4	18.63	4	4	4
PCBs	4.78	1	3.26	1	1	1
FCBs	7.44	2	3.47	2	2	2

It is observed from Table 3 that PCBs has lowest non-performing loan to Total loan. The findings reveal that PCBs has strong loan recovery capability on time. FCBs and SCBs confirm the ranking of two and third position respectively. DFIs obtain the lowest position with rank due to its weak loan recovery and exhibit a higher risk involved in total assets.

5.3. Management quality

Management quality is the most important parameter of CAMEL for knowing the strength and growth of any financial institution. The total expenditure to total income ratios and advances to deposit ratios are used to determine management quality.

Table 4. Composite rank of management quality of banks

Types of Banks	Expenditure-Income Ratio		Advances to Deposits Ratio		Group Rank	
	AVG	Rank	AVG	Rank	AVG	Rank
SCBs	84.84	3	50.56	4	3.5	4
DFIs	114	4	103.26	1	2.5	3
PCBs	75.3	2	83.6	2	2	1.5
FCBs	47.3	1	66.25	3	2	1.5

Table 4 shows that PCBs and FCBs are the top positions with the group average of 2 which mean that those banking sector performed well in the management of expenditure as well as convert deposit into advances. DFIs obtained the third place with the group average of 2.5. The score of SCBs is the lowest position due to its poor performance in expenditure-income ratio and advances to deposits ratio.

5.4. Earning ability

Earnings ability reflects the quality of a bank’s profitability and its ability to earn consistently. It determines the profitability of the bank and explains its sustainability and growth in earnings in the future (Majumder & Rahman, 2017). Two ratios are used to assess the earnings ability of the banks under study. The first ratio is the net income to total assets or “ROA” (return on assets) the second ratio used is “ROE” (Return on Equity).

Table 5. Composite rank of earnings ability of banks

Types of Banks	Return on Assets		Return on Equity		Group Rank	
	AVG	Rank	AVG	Rank	AVG	Rank
SCBs	0.01	3	-1.31	3	3	3
DFIs	-1.13	4	-6.9	4	4	4
PCBs	0.97	2	10.77	2	2	2
FCBs	2.82	1	14.72	1	1	1

Table 5 indicates that FCBs holds the top position in obtaining profit than other groups of banks because of their strong earning capability. PCBs and SCBs secure the second and third position respectively. DFIs have negative returns due to its higher non-performing loan and expenditure.

5.5. Liquidity

This is an essential parameter of CAMEL model rating systems. It is a measurement of ability for meeting financial obligations in facing due. A sound liquidity position which indicates solvency of a bank is imperative for getting trust of depositors. Without ensuring adequate liquidity, the banking sector will fail to mobilize its resources for earnings profit, and they maintain sufficient liquidity for ensuring safety and security. The most useful indicators for evaluating the liquidity position in the banking sector are liquid assets to total assets ratios, liquid assets to total deposits ratio, advance deposit ratio (ADR), liquidity coverage ratio (LCR), etc. The study has used first two ratios for assessing liquidity parameter. Combined average and composite rank of two ratios of liquidity is exhibited in Table 6.

Table 6. Composite rank of liquidity of banks

Types of Banks	Liquid Assets to Total Assets		Liquid Assets to Total Deposit		Group Rank	
	AVG	Rank	AVG	Rank	AVG	Rank
SCBs	39.62	2	42.42	2	2	2
DFIs	7.11	4	8.22	4	4	4
PCBs	21.7	3	25.27	3	3	3
FCBs	49.38	1	56.39	1	1	1

Table 6 reveals that FCBs occupy highest percent of liquidity than other groups of banks. The findings indicate that FCBs has enough capital to maintain its financial obligations. SCBs with an average of 2 and PCBs with an average of 3 confirm the second and third place respectively. DFIs hold the least position due to its weak performance in liquid assets to total assets and liquid assets to total deposits ratios.

5.6. Overall ranking performance of the four categories of banks in Bangladesh

The overall group ranking of the four categories of commercial banks in Bangladesh for the period of 2013 to 2017 is presented in Table 7. The capital adequacy ratio of FCBs and PCBs is observed in highest rank, whereas DFIs and SCBs occupy 2nd and 3rd rank respectively. The asset quality parameter of PCBs holds the top position while DFIs occupy the lowest position. Under the management quality parameter, it is observed that top rank taken by both PCBs & FCBs and lowest rank taken by SCBs. In terms of earning quality parameter, the capability of FCBs got the top rank while DFIs at the lowest position. Under the liquidity parameter, FCBs stand on the top position and DFIs on the lowest position.

By considering all of the parameters of CAMEL after composite

ranking, it is seen that FCBs on the top position assessed by the CAMEL Model compared to other categories of banks under the study because of its strong performance on the Capital Adequacy, Asset Quality, Management Quality, Earnings Ability, and Liquidity. PCBs are at the second position and SCBs at the third positions. On the other hand, DFIs are at the lowest position compared to other categories of banks under study because of its weak performance on the Capital Adequacy, Asset Quality, Management Quality, Earnings Ability, and Liquidity.

Table 7. Overall group ranking of the four categories of commercials banks in Bangladesh

Types of Banks	Capital Adequacy (C)	Assets Quality (A)	Management Quality (M)	Earnings Ability (E)	Liquidity (L)	Average	Rank
SCBs	3.5	3	3.5	3	2	3	3
DFIs	2.5	4	2.5	4	4	3.4	4
PCBs	2	1	2	2	3	2	2
FCBs	2	2	2	1	1	1.6	1

The CAMEL rating based on five parameters is considered one of the important methods to evaluate the financial health of the banks. According to first parameter capital adequacy, SCBs and DFIs both banking sector faces insufficient capital position, so these sectors need to raise their capital from security market or others, but it will be better to avoid debt capital. In the case of assets quality, the banking sector of SCBs and DFIs should take necessary steps to recover loans and advances from the customers and the others. All bad or non-performing loans of these sectors can be put under separate management within the same institution allowing it to focus exclusively on non-performing loans and advances to take effective & productive decision when they will go for providing loan and advances. Under the management quality, SCBs and DFIs, both banking sectors need to increase the total income through useful investment ideas. Those banking sectors should try to reduce operating expenses by avoiding over staffs, unnecessary promotion, advertisement, and other activities. Based on earning ability, both SCBs, and DFIs faces low earnings ratio. These banking sectors need to work sincerely and efficiently to raising net income through investment the fund at a high level of return, staff's commitment, creative and productive work, increase customers, etc. In case of liquidity, DFIs should try to increase liquid assets through well recover of the loans and try to reduce current liabilities through avoiding short term borrowings.

When all of the parameters of the camel model are considered together, DFIs is found at the lowest position in the camel rating system, this banking sector need to lot of work on the five parameters of CAMEL. SCBs

performance is not good enough and confirmed the third position among the four-banking sector. This sector should work effectively on capital adequacy and management quality. FCBs and PCBs both banking sectors are in a good place and secured the first and second position respectively in the camel rating system. These sectors should try to improve and keep consistent performance on the five components of the camel in the future.

5.7. Hypothesis testing

One way classification of ANOVA is conducted to test whether there is any significant difference among four groups of banks regarding total deposits, total assets, ROA, ROE, CAMEL ratios and findings are explained in the following sections.

5.7.1. Total deposits

To find out if there is any significant difference regarding the performance related to deposits among all the four banking groups from 2013 to 2017, the F test is applied and is shown below:

ANOVA Table						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	78689312.66	3	26229770.89	84.43	0.00	3.24
Within Groups	4970805.1	16	310675.32			
Total	83660117.76	19				

The above-mentioned ANOVA table shows that the value of F is 84.43, which is more than 3.24 at 5% level of significance. Therefore, the null hypothesis is rejected. It means that total deposits of all the four banking groups are significantly different.

5.7.2. Total assets

In terms of total assets, the performance of four banking groups is significantly different or not from 2013 to 2017, the F test is performed and presented below:

ANOVA Table						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	132799890.94	3.00	44266630.31	71.11	0.00	3.24
Within Groups	9960789.16	16.00	622549.32			
Total	142760680.10	19.00				

From the ANOVA table it is found that F is 71.11, which is greater than

the table value of 3.24 at 5% level of significance. Hence, the null hypothesis is rejected. It is indicated that the total assets of four banking groups are significantly different.

5.7.3. Return on assets

In order to determine whether the performance of all four banking groups from 2013 to 2017 is significantly different, the F test is used and is shown below:

ANOVA Table						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	41.86	3.00	13.95	42.36	0.00	3.24
Within Groups	5.27	16.00	0.33			
Total	47.13	19.00				

The above ANOVA table demonstrates that the calculated value of F is 42.36, which exceeds the table value of 3.24 at 5% level of significance. Hence, the null hypothesis is not accepted. It shows that the performance of return on assets among all the four banking groups is significantly different.

5.7.4. Return on equity

To find out whether the return on assets of all four banking groups during the period from 2013 to 2017 is significantly different, the F test is applied and is shown below:

ANOVA Table						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1537.26	3.00	512.42	18.64	0.00	3.24
Within Groups	439.82	16.00	27.49			
Total	1977.08	19.00				

From the above ANOVA table, the value of F is 18.64, which is greater than the table value of 3.24 at 5% level of significance. Hence, the null hypothesis is rejected. It exhibits that the performance of all the four banking groups is significantly different in terms of return on equity.

5.7.5. Camel ratios

To see whether the performance of camel ratio is significantly different or not during the period from 2013 to 2017, the F test is used and is shown below:

ANOVA Table

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	10.60	3.00	3.53	7.64	0.00	3.24
Within Groups	7.40	16.00	0.46			
Total	18.00	19.00				

The ANOVA table says that the calculated value of F is 7.64, which is greater than the table value of 3.24 at 5% level of significance. Hence, the null hypothesis is not accepted. This reveals that there is a significant difference in the performance of camel ratios among all the four banking groups. The ANOVA test means that the performance of the banks in Bangladesh is significantly different in terms of the deposits, assets, return on assets (ROA), return on equity (ROE), and CAMEL model. Therefore, from the findings of the study, the authorities of the related lowest ranking banks should take essential steps to improve their weaknesses.

5.8. Multiple regression findings

Four multiple regression models are fitted to the data separately to examine the effects total assets, deposits, and advances on net income of four categorical sectors of banks in Bangladesh.

5.8.1. State-owned commercial banks (SCBs)

For predicting the net income with the variables of assets, deposits, and advances for the state-owned commercial banks during the period from 2013 to 2017, first multiple regression is applied and results are shown in Table 8.

Table 8. Regression results of SCBs

Variable	Coefficients	P-value
Intercept	9531.02	0.07
Total Assets	-56.66	0.11
Total Deposits	77.85	0.08
Total Advances	-0.19	0.12
R ² =0.52		

The slope of assets is -56.66 in this model. That means one unit increase in total assets of the SCBs will decrease 56.66 units net income if other things remain the same. The slope of the deposits is found 77.85 indicates per unit increase in the deposits of the SCBs will increase 77.85 unit of net income. However, all independent variables are found insignificant.

5.8.2. *Development financial institutions (DFIs)*

To forecast the net income for Development Financial Institutions for the period 2013 to 2017 with variables of assets deposits and advances, the 2nd multiple regression is fitted to the data and findings are presented in Table 9.

Table 9. Regression results of DFIs

Variable	Coefficients	P-value
Intercept	84.78	0.89
Total Assets	16.72	0.01
Total Deposits	1.80	0.70
Total Advances	-0.27	0.00
R2=0.93		

The asset slope indicates that DFIs net income will be increased by 16.72 units with the one unit increasing of assets. The total assets variable is observed highly significant. Total advances of DFIs are found to have a negative significant effect on net income. The value of R2 shows that 93% variation in net income can be explained by three selected variables.

5.8.3. *Private commercial banks (PCBs)*

Another multiple regression is applied to measure impact of variables of assets, deposits, and advances on net income for Private Commercial Banks and findings are given in Table 10.

Table 10. Regression results of PCBs

Variable	Coefficients	P-value
Intercept	1740.98	0.37
Total Assets	-12.21	0.26
Total Deposits	10.87	0.30
Total Advances	0.07	0.20
R2=0.58		

Slope of asset from Table 10 indicates one unit rise in PCBs assets will reduce 12.21 units of net income. In the case of deposits, per unit increase in the deposits of the PCBs will increase 10.87 units of net income. On the other side one unit increase in advances of the PCBs will increase 0.07 unit of net income.

5.8.4. *Foreign commercial banks (FCBs)*

For knowing the status of net income of the Foreign Commercial Banks during the period from 2013 to 2017 with variables of assets, deposits and

advances, another multiple regression is used and results are demonstrated in Table 11;

Table 11. Regression results of FCBs

	Coefficients	P-value
Intercept	62.23	0.92
Total Assets	0.45	0.91
Total Deposits	2.08	0.79
Total Advances	0.02	0.50
R ² =0.59		

The slope of assets shows that one unit increase in assets of the FCBs will increase 0.45 unit of net income. The slope of the deposits means that one unit increasing of deposits of the FCBs will increase net income by 2.08 units. Table 11 indicates insignificant effect of assets, deposits and advances on net income.

According to multiple regression tests, the SCBs must be efficient enough to increase the quality of their assets & advances and find out useful investment ideas to maximize net income. DFIs should give concentration on their advances to manage effectively into higher earnings as well as take better decisions when they will provide loans and advances as this sector cannot use their loan and advances efficiently. The banking sector of PCBs should try to increase the quality of their assets through useful investment ideas to maximize net income.

6. Conclusion

The number of banks in a country depends on the size of its territory, GDP, population, economy, etc. Currently, 59 banks operate in Bangladesh, and this may be enough compared to the size of the Bangladesh economy. Some Economists opined that there is no need for a new bank and suggest that authorities should focus on improving the performance of existing banks (Islam & Kallol, 2017). In this study, CAMEL rating technique is used to evaluate the financial performance of banks in Bangladesh. The CAMEL rating system is a method, which is widely used for measuring the performance of capital adequacy, assets quality, management quality, earnings ability, and liquidity of banks in Bangladesh. Based on CAMEL rating system, this study finally concludes that Foreign Commercial Banks (FCBs) are performing better and taken the first position where Development Financial Institution (DFIs) are performing worse and got the fourth position among the four types of banks. Private Commercial Banks

(PCBs) shows their prosperous performance which confirmed the second place of the camel ranking and state-owned Commercial Banks (SCBs) indicates a trend of improving performance and secured third place of the camel ranking.

The results of this research demonstrate that there is a statistically significant difference in the performance of the four types of banks in term of deposits, assets, return on assets (ROA), return on equity (ROE), and CAMEL ratios during the period of study. It can also be concluded that low-ranking banks need to improve their performance in order to reach the desired standards.

The findings of the study can be useful for the management to undertake decisions regarding the improvement of the banking sector in Bangladesh and formulate policies as per the analyses. If the recommendations given in this study are implemented by the policymakers, the banking sector can overcome its current problems and contribute to the rapid development of Bangladesh's economy.

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