

# PERFORMANCE MEASUREMENT OF PRIVATE COMMERCIAL BANKS IN BANGLADESH: A COMPARATIVE STUDY

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## ABSTRACT

Banks play a significant role in the economic development of every nation. This study is planned to measure the generation wise performance of selected private sector banks, scheduled on both the DSE and CSE, in Bangladesh through wide-spread use of financial ratios. This study attempts principally to determine the financial performance of some selected PCBs in Bangladesh for the period 2014-2018 and to identify whether the banks are performing well or not. The aim of this study is also to identify which generation banks are performing well. To do so, different financial ratios like Current ratio, net loans to deposit and borrowing ratio, loans to deposit ratio, net loans to total asset ratio, debt ratios, ROE, ROA, asset utilization ratio, EM, NIM, net non-interest margin, net operating margin, (EPS), net profit margin, P/E ratio, break even yield, interest yield, and statistical tools like mean, (SD) and CV as well as Trend analysis is done to indicate the performance. The performances of banks are dependent more on the management's ability in formulating strategic plans and the efficient implementation of its strategies. Here, Out of 17 ratios, first generation banks had topmost position at 6 ratios, second generation banks had superior position in 8 ratios and third generation banks also had good position in the 7 ratios and 4th generation banks are good position in only 1 ratio. Some of these ratios have same position in different generation. The study findings can be helpful for management of PCBs in Bangladesh to improve their financial performance and invent policies that will progress their performance.

**Key Words:** Private Commercial Banks, Performance, Measurement, Comparative

## 1. INTRODUCTION

A typical performance measurement helps businesses in periodically setting business goals and then providing feedback to managers on progress towards those goals. Banks help in the transfer of wealth between different generations. So to be able to perform all these functions with ease and with certain standard a bank must perform well and in simpler words, it should be efficient. Financial analysis is structural and logical way to present overall financial performance of a financial institution. It's also help to assess and decision making for business function. In financial analysis process ratio analysis is the most leading and reasonable structure to help business related stakeholder. Financial ratio analysis is an essential tool to compare the performance with the past performance. This

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research study is mainly based on measuring Financial Performance of Private Commercial Banks.

## 1.1. OBJECTIVES OF THE RESEARCH

The main objective of this study is to find out the financial performance of private commercial banks in Bangladesh. Specific objectives are to:

- i) analyze the current performance of private commercial banks;
- ii) compare financial performance with the satisfactory level;
- iii) find out the causes behind this performance;
- iv) and make recommendations on it.

## 2. LITERATURE REVIEW

Review of the theoretical foundation of the paper is composed of review of various literatures and studies that evaluate commercial banks in relation to financial performance. Performance means the results of activities of an organization or investment for a given period of time.

Starting with the question "What is performance?" Meyer argues that performance measurement, if used correctly, offers the potential for the managers to understand which of the activities generates revenues that exceed costs. Developing this theme, he introduced the notion of activity based revenue as a measurement methodology and illustrates how this approach has the potential to overcome some of the shortcomings encounter in the measurement system used by the organization today (Meyer & Gupta, 1994).

"A performance measurement system is the information system which is at the heart of the performance management process and it is of critical importance to the effective and efficient functioning of the performance management system" (p. 533). Bititci, Carrie & Mcdevitt (1997). "A business performance measurement system refers to the use of a multi-dimensional set of performance measures for the planning and management of a business" Bourne, Neely, Mills & Platts (2003).

"Performance measurement may be done annually to improve public accountability and policy decision making," write Wholey and Newcomer, "or done more frequently to improve management and program effectiveness" (1997, 98).

Susan W. (2003) stated that lenders often rely on ratio analysis because it allows them to see how one's business is doing and how compare it compares to

other businesses which they have loaned money. The potential loan creditor also requires information about security that the Ratio Analysis can be provided (Hingorani N.L. and A.R. Ramanathan, 1986).

Ratio analysis is a useful tool for business owners as well. It measures the health of the business whether it is a bank or a multinational corporation. It helps to measure the performance of the business, to diagnose potential problems and to see how well it is doing over time (Spathis, K., and Doumplos M., 2002).

Bakar and Tahir (2009) in their paper used multiple linear regression technique and simulated neural network techniques for predicting bank performance. ROA was used as dependent variable of bank performance and seven variables including liquidity, credit risk, cost to income ratio, size and concentration ratio, were used as independent variables.

Almazari (2011), studied the financial performance of seven Jordanian commercial banks. He used the ROA as a measure of banks' performance and the bank size, asset management and operational efficiency as three independent variables affecting ROA. The results of his analysis revealed a strong negative correlation between ROA and banks' size, a strong positive correlation between ROA and asset management ratio, and a negative weak correlation between ROA and operational efficiency.

Ali, Akhtar and Ahmed, (2011) conducted a comprehensive study about banks' profitability in Pakistan, where they found significant relation between asset management ratio, capital and economic growth and with ROA. While they found that operating efficiency, asset management and economic growth are significant with the ROE.

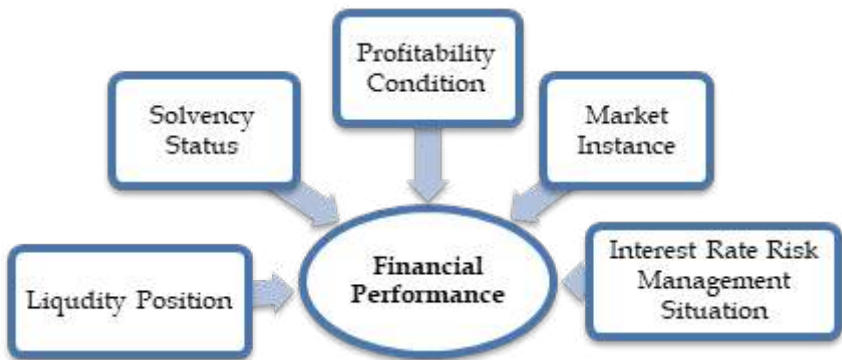
Uddin and Bristy (Dec 2014), in their paper stated that some factors can be taken as the indicator of performance evaluation of private commercial banks. These are the growth rate, earning per share, profitability rate, increase or decrease of fixed assets, assessment of net income, sector enhancement, accumulation of greater deposit, smooth loan recovery etc. They used Number of Branches, Employees, Deposit, Loan and Advances, Classified Loan, Net Income and Earnings per Share to analyzed performance of PCBs.

Qamruzzaman (2014), in his paper used some factors that can be taken as the indicator of Performance and Financial soundness of financial institution (Banks). He used different financial ratios like Return on Assets (ROA), Return on Equity (ROE), Cost to Income Ratio (C/I), Liquid assets to deposit-borrowing ratio (LADST), Net Loans to total asset ratio (NLTA) and Net loans to deposit and

borrowing (NLDST) for measuring the performance.

Various researchers used several ratios in discrete ways. In this research paper, integrated forms of some ratios are used. To conduct this research, some variables have been identified to measure. These are Current ratio, Net loans to deposit and borrowing ratio, Loans to deposit ratio, Liquid asset to deposit borrowing ratio, Net loans to total asset ratio, debt ratios, ROE, ROA, Asset utilization ratio, Equity Multiplier, Net interest margin, Net non-interest margin, Net operating margin, Earning per share (EPS), Net profit margin, Burden Ratio, price earnings ratio, Break even Yield and Interest yield. These variables will help to measure the performance of the selected private commercial banks in this study.

Model: Conceptual framework of financial performance measurement by ratio analysis



Source: Developed by author

### 3. RESEARCH METHODOLOGY

This study is actually descriptive type of research. The study opted to use this kind of research considering the goal of the study to find out the performance of Private Commercial Banks using ratio analysis and make recommendations for the study.

Population of this research is all Private Commercial Banks in Bangladesh except pure Islamic banks in Bangladesh.

In this study, the sampling technique is disproportionate Stratified random sampling. The population is divided into various generations that are strata. The samples are selected according to the data availability among the first, second, third

and fourth generation conventional banks. One thing is to be clarify that the banks which are established before 1990 are first generation banks, within (1990-2000) are second generation banks, within (2000-2010) are third generation banks and after 2010 are fourth generation banks. In this research, the samples are 10 Private Commercial Banks. Here samples are as follows:

Table 1: List of the sample banks

| Category | Generation        | Name of banks             | Sample size |
|----------|-------------------|---------------------------|-------------|
| PCBS     | First Generation  | National Bank Limited     | 03          |
|          |                   | IFIC Bank Limited         |             |
|          |                   | The City Bank Limited     |             |
|          | Second Generation | Southeast Bank Limited    | 03          |
|          |                   | Dutch Bangla Bank Limited |             |
|          |                   | Mutual Trust Bank Limited |             |
|          | Third Generation  | Jamuna Bank Limited       | 01          |
|          | Fourth Generation | NRBG Bank Limited         | 03          |
|          |                   | NRBC Bank Limited         |             |
|          |                   | Modhumoti Bank Limited    |             |

The information and data of this report have been collected from secondary sources. The secondary source of data came from the published annual report of the Banks, from websites of the banks and from branches of the banks through convenience way.

Quantitative approach has been adopted for data analysis and interpretation taken the processed data as the base. Mainly trend analysis and cross sectional analysis of data using financial ratio analysis is presented here. So the report relies primarily on an analytical judgment and critical reasoning. This study analyzed the data from 2014-2018.

4. DATA ANALYSIS AND FINDINGS

4.1 Liquidity Position

4.1.1 Current Ratio:

This ratio denotes how many times it is higher of current assets than the current liabilities. The higher current ratio is preferred most. The following table shows the different year’s current ratio of the different banks.

Table 2: Generation wise summary table of Current ratio

| Year and Banks          | 2014        | 2015        | 2016        | 2017        | 2018        | Mean        | SD          | CV          |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| First Generation Banks  | 1.17        | 1.19        | 1.18        | 1.19        | 1.07        | 1.16        | 0.05        | 0.04        |
| Second Generation Banks | 1.14        | 1.09        | 1.01        | 0.99        | 1           | 1.05        | 0.07        | 0.06        |
| Third Generation Banks  | 1.08        | 0.91        | 0.53        | 0.75        | 0.57        | 0.77        | 0.23        | 0.30        |
| Fourth Generation Banks | 7.68        | 5.82        | 2.6         | 2.24        | 1.53        | 3.97        | 2.65        | 0.67        |
| <b>Mean</b>             | <b>2.77</b> | <b>2.25</b> | <b>1.33</b> | <b>1.29</b> | <b>1.04</b> | <b>1.74</b> | <b>0.75</b> | <b>0.27</b> |

Source: Established by author from the annual report 2014-2018.

If the current ratio is high, then the company may not be using its current assets or its short-term financing facilities efficiently. This may also indicate problems in working capital management. From the table, we see that, first generation banks position was good compared with second, third and fourth generation banks. First generation banks CV was 0.04. Other banks CV are highest means that their risk is highest. From the above table we can say that, First generation banks position was good comparing among the all generation banks.

#### 4.1.2 Loans to deposit ratio:

Loans to deposit ratio indicates a banks liquidity position. A low ratio of loans to deposits indicates excess liquidity, and potentially low profits, compared to other banks. A high loan-to-deposit ratio presents the risk that some loans may have to be sold at a loss to meet depositors' claims.

Table 3: Generation wise summary table of Loans to deposit ratio

| Year and Banks          | 2014         | 2015         | 2016         | 2017          | 2018         | Mean         | SD           | CV          |
|-------------------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|-------------|
| First Generation Banks  | 165.31       | 139.47       | 161.78       | 171.82        | 87.85        | 145.25       | 34.31        | 0.24        |
| Second Generation Banks | 73.33        | 76.21        | 76.98        | 77.96         | 88.63        | 78.62        | 5.85         | 0.07        |
| Third Generation Banks  | 62.74        | 72.53        | 81.16        | 84.16         | 87.24        | 77.57        | 9.94         | 0.13        |
| Fourth Generation Banks | 63.37        | 70.73        | 75.91        | 84.24         | 85.63        | 75.98        | 9.33         | 0.12        |
| <b>Mean</b>             | <b>91.19</b> | <b>89.74</b> | <b>98.96</b> | <b>104.55</b> | <b>87.34</b> | <b>94.35</b> | <b>14.86</b> | <b>0.14</b> |

Source: Established by author from the annual report 2014-2018.

The loan-to-deposit ratio (LDR) is used to assess a bank's liquidity by comparing a bank's total loans to its total deposits for the same period. The LDR is expressed as a percentage. If the ratio is too high, it means that the bank may not have enough liquidity to cover any unforeseen fund requirements. From the table, we see that, second generation banks position is good compared with first, third and fourth generation banks. Second generation banks CV is 0.07. Other banks CV are greater than that, means their risk is greater. Though the SD was lower for fourth

generation banks. From the above table we can say that, second generation banks position was good comparing among the all generation banks.

**4.1.3 Net Loans to Total Asset Ratio:**

It indicates how much loan is generated from total asset. It is an essential ratio for measuring the liquidity of a bank.

Table 4: Generation wise summary table of Net Loans to Total Asset Ratio

| Year and Banks          | 2014  | 2015  | 2016  | 2017  | 2018  | Mean  | SD    | CV   |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|------|
| First Generation Banks  | 65.8  | 48.44 | 68.68 | 70.65 | 49.74 | 60.66 | 10.71 | 0.18 |
| Second Generation Banks | 61.64 | 64.26 | 65.03 | 67.75 | 68.9  | 65.52 | 2.88  | 0.04 |
| Third Generation Banks  | 55.60 | 60.66 | 69.18 | 72.24 | 73.40 | 66.22 | 7.75  | 0.12 |
| Fourth Generation Banks | 46.15 | 57.25 | 64.39 | 71.94 | 72.71 | 62.49 | 11.09 | 0.18 |
| Mean                    | 57.30 | 57.65 | 66.82 | 70.65 | 66.19 | 63.72 | 8.11  | 0.13 |

Source: Established by author from the annual report 2014-2018.

We see from the table that, almost 55% to 65% loans are from the total asset. For the first generation banks, Net loans to total asset ratio was highest that was 70.65% in 2017. The standard deviation (SD) was very close to the industry average, 10.71%, where industry average was 8.11%. Second generation banks position is well in this perspective. Because it's SD was 2.88% which was lower to the industry average. As SD and CV was 2.88% and 0.04 which was minimal for second generation banks, so its position was better among all.

**4.1.4 Net loans to total deposits and short term borrowings ratio:**

Net loans to total deposits and short term borrowings ratio is another crucial ratio for measuring the performance of the banks. Following table denotes the ratio of first, second, third and generation banks net loans to deposit and borrowing ratio.

Table 5: Generation wise summary table of Net loans to total deposits and short term borrowings ratio

| Year and Banks          | 2014   | 2015   | 2016   | 2017   | 2018  | Mean   | SD    | CV   |
|-------------------------|--------|--------|--------|--------|-------|--------|-------|------|
| First Generation Banks  | 165.31 | 139.47 | 161.78 | 171.82 | 87.85 | 145.25 | 34.31 | 0.24 |
| Second Generation Banks | 73.33  | 76.21  | 76.98  | 77.96  | 88.63 | 78.62  | 5.85  | 0.07 |
| Third Generation Banks  | 62.74  | 72.53  | 81.16  | 84.16  | 87.24 | 77.57  | 9.94  | 0.13 |
| Fourth Generation Banks | 63.37  | 70.73  | 75.91  | 84.24  | 85.63 | 75.98  | 9.33  | 0.12 |
| Mean                    | 91.19  | 89.74  | 98.96  | 104.55 | 87.34 | 94.35  | 14.86 | 0.14 |

Source: Established by author from the annual report 2014-2018.

From the table we see that, first generation banks average Net loans to

deposit and short term borrowing ratio was 145.25% which is above 100% that is very risky. Its standard deviation and coefficient of variance was 34.31% and 0.24, which was greater than the industry average. The Second generation banks position was good among all. Its standard deviation was 5.85% and coefficient of variance was 0.07, when the industry average was 0.14. Third generation banks net loans to deposit and short term borrowing ratio was low comparing to the first and Second generation banks. Third generation banks average Net loans to deposit and short term borrowing ratio was 77.57%. But standard deviation was 9.94%. Analyzing all the banks, we see that, this ratio was high for all generation banks which indicate that all banks have less liquid assets. Comparing with the industry average, it has been seen that First generation banks had less liquid assets than any other banks and may say that second generation banks position was good for low CV 0.07.

4.2 Solvency Status:

The solvency of a bank depends on how a bank meets the obligation to its customer. Debt ratio is very much important in this perspective. The lower the debt ratio, the higher the banks has its capacity to meet the obligations.

4.2.1 Debt Ratio:

It is a very important ratio for analyzing the ratio analysis of banks. It denotes the solvency position of various banks. Higher debt ratio indicates lower solvency. The debt to equity (debt or financial leverage) ratio indicates the extent to which the business relies on debt financing.

Table 6: Generation wise summary table of Debt Ratio

| Year and Banks          | 2014  | 2015  | 2016  | 2017  | 2018  | Mean  | SD   | CV   |
|-------------------------|-------|-------|-------|-------|-------|-------|------|------|
| First Generation Banks  | 89.82 | 89.95 | 90.61 | 90.18 | 91.06 | 90.32 | 0.51 | 0.01 |
| Second Generation Banks | 92.36 | 92.2  | 92.86 | 93.44 | 93.33 | 92.84 | 0.56 | 0.01 |
| Third Generation Banks  | 92.26 | 89.03 | 90.67 | 92.20 | 92.00 | 91.23 | 1.39 | 0.02 |
| Fourth Generation Banks | 76.27 | 83.05 | 87.72 | 89.94 | 90.49 | 85.49 | 5.93 | 0.07 |
| Mean                    | 87.68 | 88.56 | 90.47 | 91.44 | 91.72 | 89.97 | 2.10 | 0.02 |

Source: Established by author from the annual report 2014-2018.

We know that the banking company depends on the deposit deposited by the client. A high debt ratio is indicative of a company being put at financial risk. From the table, we see that, first and second generation banks' position was good compared with third and fourth generation banks. Both banks CV were 0.01. Third and fourth generation banks CV is highest means that their risk is the highest. From the above table we can say that, first generation banks position was good comparing among the all generation banks.



4.3 Profitability Condition:

In banking sector, the risk-reward tradeoff is constantly present. Risk taking generates higher expected earnings through various mechanisms. For example granting high margin loans to risky customers may increase earnings in the short term but it also increases the credit risk profile and the probability of future losses.

4.3.1. Return on Common Equity (ROE):

Return on equity is very important ratio for shareholders. It is the measurement of return earned on the equity by the investors.

Table 7: Generation wise summary table of Return on Common Equity Ratio

| Year and Banks          | 2014  | 2015  | 2016  | 2017  | 2018  | Mean  | SD   | CV   |
|-------------------------|-------|-------|-------|-------|-------|-------|------|------|
| First Generation Banks  | 11.65 | 11.59 | 14.49 | 11.98 | 8.19  | 11.58 | 2.24 | 0.19 |
| Second Generation Banks | 15.01 | 14.87 | 11.36 | 11.09 | 13.17 | 13.10 | 1.86 | 0.14 |
| Third Generation Banks  | 12.49 | 10.44 | 11.35 | 13.46 | 12.73 | 12.09 | 1.20 | 0.10 |
| Fourth Generation Banks | 1.59  | 5.28  | 6.43  | 7.47  | 11.84 | 6.52  | 3.71 | 0.57 |
| Mean                    | 10.19 | 10.55 | 10.91 | 11.00 | 11.48 | 10.82 | 2.25 | 0.25 |

Source: Established by author from the annual report 2014-2018.

This ratio denotes how much return comes from the equity capital. A higher ROE is usually better while a falling ROE may indicate a less efficient usage of equity capital. From the table, we see that, fourth generation bank's position is good compared with first, second and third generation banks. Fourth generation bank's CV is 0.57 which is highest. Third generation bank's CV was 0.17 which is lowest means that their risk is lowest. From the above table we can say that, Third generation banks position is good comparing among the all generation banks.

4.3.2. Return on Total Assets (ROA):

Return on total asset can be got by breaking down the Return on Equity. It is an important ratio for measuring the profitability of the banks.

Table 8: Generation wise summary table of Return on Total Asset Ratio

| Year and Banks          | 2014 | 2015 | 2016 | 2017 | 2018 | Mean | SD   | CV   |
|-------------------------|------|------|------|------|------|------|------|------|
| First Generation Banks  | 1.1  | 1.21 | 1.4  | 1.18 | 0.74 | 1.13 | 0.24 | 0.22 |
| Second Generation Banks | 1.16 | 1.12 | 0.79 | 0.69 | 0.87 | 0.93 | 0.21 | 0.22 |
| Third Generation Banks  | 0.97 | 1.15 | 1.06 | 1.05 | 1.02 | 1.05 | 0.07 | 0.06 |
| Fourth Generation Banks | 0.59 | 1.61 | 1.3  | 1.25 | 1.46 | 1.24 | 0.39 | 0.31 |
| Mean                    | 0.96 | 1.27 | 1.14 | 1.04 | 1.02 | 1.09 | 0.23 | 0.20 |

Source: Established by author from the annual report 2014-2018.

A high ROA shows that the company has a solid performance as far as

finance and operation of the company is concerned. A low ROA is not a good sign for the growth of the company. A low ROA indicates that the company is not able to make maximum use of its assets for getting more profits. From the table, we see that, Third generation banks position is good compared with first, second and fourth generation banks. Third generation banks CV is 0.06. Though the average ROA is highest for fourth generation banks. From the above table we can say that, third generation banks position is good comparing among the all generation banks.

#### 4.3.3. Asset Utilization Ratio:

Asset Utilization Ratio was another ratio which influences the Return on Equity. The higher Asset Utilization Ratio denotes the well performance of a bank.

Table 9: Generation wise summary table of Asset Utilization Ratio

| Year and Banks          | 2014        | 2015        | 2016        | 2017        | 2018        | Mean        | SD          | CV          |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| First Generation Banks  | 5.31        | 5.11        | 5.16        | 4.67        | 4.01        | 4.85        | 0.53        | 0.11        |
| Second Generation Banks | 5.41        | 5.12        | 4.9         | 4.75        | 4.98        | 5.03        | 0.25        | 0.05        |
| Third Generation Banks  | 4.49        | 4.97        | 4.84        | 4.49        | 4.39        | 4.64        | 0.25        | 0.05        |
| Fourth Generation Banks | 4.04        | 5.35        | 4.89        | 5.04        | 4.73        | 4.81        | 0.49        | 0.10        |
| <b>Mean</b>             | <b>4.81</b> | <b>5.14</b> | <b>4.95</b> | <b>4.74</b> | <b>4.53</b> | <b>4.83</b> | <b>0.38</b> | <b>0.08</b> |

Source: Established by author from the annual report 2014-2018.

An optimal asset utilization ratio means the company is being more efficient with each dollar of assets held. From the table, we see that, second and third generation banks position was good compared with first and fourth generation banks. First generation banks CV was 0.11. Second, third and fourth generation banks CV is lowest that is 0.05 means that their risk is lowest. From the above table we can say that, second and third generation banks position was good comparing among the all generation banks.

#### 4.3.4. Equity Multiplier:

Equity Multiplier was another ratio that influences the Return on Equity ratio. It is measured by times. Though a high equity multiplier is not necessarily means the better condition, but most of the cases high equity multiplier is preferable.

Table 10: Generation wise summary table of Equity Multiplier

| Year and Banks          | 2014         | 2015        | 2016         | 2017         | 2018         | Mean         | SD          | CV          |
|-------------------------|--------------|-------------|--------------|--------------|--------------|--------------|-------------|-------------|
| First Generation Banks  | 10.23        | 10.59       | 11.15        | 10.32        | 11.45        | 10.75        | 0.53        | 0.05        |
| Second Generation Banks | 13.9         | 13.5        | 14.51        | 15.44        | 15.1         | 14.49        | 0.81        | 0.06        |
| Third Generation Banks  | 12.92        | 9.12        | 10.72        | 12.82        | 12.50        | 11.62        | 1.66        | 0.14        |
| Fourth Generation Banks | 4.38         | 6.27        | 8.66         | 10.88        | 11.67        | 8.37         | 3.07        | 0.37        |
| <b>Mean</b>             | <b>10.36</b> | <b>9.87</b> | <b>11.26</b> | <b>12.37</b> | <b>12.68</b> | <b>11.31</b> | <b>1.52</b> | <b>0.15</b> |

Source: Established by author from the annual report 2014-2018.

It is better to have a low equity multiplier, because a company uses less debt to finance its assets. From the table, we see that, first generation banks position was good compared with second, third and fourth generation banks. First generation banks CV was 0.05. Other banks CV are highest means that their risk is highest. From the above table we can say that, Frist generation banks position was good comparing among the all generation banks.

4.3.5. Net Interest Margin:

Net interest margin denotes the spread between the interest earned and the interest expenses. The higher Net interest margin is preferable because it indicates the higher interest revenue earned. And it also indicates that the interest cost is lower than the interest revenue earned.

Table 11: Generation wise summary table of Net Interest Margin

| Year and Banks          | 2014 | 2015 | 2016 | 2017 | 2018 | Mean | SD   | CV   |
|-------------------------|------|------|------|------|------|------|------|------|
| First Generation Banks  | 2.2  | 1.89 | 2.02 | 2.24 | 2.04 | 2.08 | 0.14 | 0.07 |
| Second Generation Banks | 2.26 | 2.38 | 2.46 | 2.33 | 2.68 | 2.42 | 0.16 | 0.07 |
| Third Generation Banks  | 1.14 | 1.19 | 1.52 | 1.95 | 2.37 | 1.63 | 0.52 | 0.32 |
| Fourth Generation Banks | 1.66 | 1.59 | 2.61 | 2.96 | 3.18 | 2.40 | 0.74 | 0.31 |
| Mean                    | 1.82 | 1.76 | 2.15 | 2.37 | 2.57 | 2.13 | 0.39 | 0.19 |

Source: Established by author from the annual report 2014-2018.

Net interest margin is a profitability metric that measures how much a bank earns in interest compared to the outgoing expenditures it pays consumers. A positive net interest margin indicates a bank invests efficiently, while a negative return implies investment inefficiencies. From the table, we see that, first and second generation banks position was good compared with third and fourth generation banks. Their CV was 0.07 for both.

4.3.6. Net Non-Interest Margin:

Net non-interest margin indicates the difference between noninterest revenue and the non-interest expenses. Increase in the noninterest margin denotes that bank is increasing its performance. Higher non interest margin means the bank has the ability to collect other service fees.

Table 12: Generation wise summary table of Net Non-Interest Margin

| Year and Banks          | 2014  | 2015 | 2016  | 2017  | 2018  | Mean  | SD   | CV     |
|-------------------------|-------|------|-------|-------|-------|-------|------|--------|
| First Generation Banks  | 0.27  | 0.82 | 0.74  | 0.15  | -0.17 | 0.36  | 0.42 | 1.15   |
| Second Generation Banks | 0.48  | 0.17 | -0.14 | -0.2  | -0.41 | -0.02 | 0.35 | -17.41 |
| Third Generation Banks  | 1.17  | 1.42 | 0.98  | 0.27  | -0.25 | 0.72  | 0.69 | 0.96   |
| Fourth Generation Banks | -0.11 | 1.03 | -0.12 | -0.13 | -0.59 | 0.02  | 0.60 | 37.64  |
| Mean                    | 0.45  | 0.86 | 0.37  | 0.02  | -0.36 | 0.27  | 0.51 | 5.59   |

Source: Established by author from the annual report 2014-2018.

Net non-interest margin is a financial measurement that helps assess the usefulness of revenue from non-interest items such as fees and service charges. This is a measurement of significance, particularly for banks. From the table, we see that, third generation banks position is good compared with first, fourth and third generation banks. Fourth generation bank's CV is 37.64 means their risk is highest. From the above table we can say that, third generation banks position is good comparing among the all generation banks.

#### 4.3.7. Net operating Margin:

Net operating margin represents the operating efficiencies of a bank. Higher Net operating margin denotes a bank has greater control of managing operational expenses.

Table 13: Generation wise summary table of Net Operating Margin

| Year and Banks          | 2014        | 2015        | 2016        | 2017        | 2018        | Mean        | SD          | CV          |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| First Generation Banks  | 1.94        | 1.8         | 2.06        | 1.72        | 1.39        | 1.78        | 0.25        | 0.14        |
| Second Generation Banks | 2.2         | 2.0         | 1.49        | 1.34        | 1.43        | 1.69        | 0.38        | 0.23        |
| Third Generation Banks  | 1.38        | 1.56        | 1.72        | 1.81        | 1.65        | 1.62        | 0.16        | 0.10        |
| Fourth Generation Banks | 1.07        | 2.25        | 2.14        | 2.21        | 2.18        | 1.97        | 0.50        | 0.26        |
| <b>Mean</b>             | <b>1.65</b> | <b>1.90</b> | <b>1.85</b> | <b>1.77</b> | <b>1.66</b> | <b>1.77</b> | <b>0.33</b> | <b>0.18</b> |

Source: Established by author from the annual report 2014-2018.

A higher operating margin means that the company has less financial risk. Operating margin can be considered total revenue from product sales less all costs before adjustment for taxes, dividends to shareholders, and interest on debt. From the table, we see that, third generation banks position is good compared with first, second and fourth generation banks. Fourth generation banks CV is 0.26, though their average net operating margin was 1.97%. From the above table we can say that, third generation banks position is good comparing among the all generation banks.

#### 4.3.8. Earnings per Share (EPS):

EPS or Earnings per share are most important for any bank. It represents the profit earns per share. It should be noted that, at present all share's face value are 10 taka per share. The following table considered 10 taka per share face value.

Table 14: Generation wise summary table of Earnings per Share

| Year and Banks          | 2014 | 2015 | 2016 | 2017 | 2018 | Mean | SD   | CV   |
|-------------------------|------|------|------|------|------|------|------|------|
| First Generation Banks  | 2.83 | 2.82 | 3.43 | 2.59 | 1.66 | 2.67 | 0.64 | 0.24 |
| Second Generation Banks | 6.11 | 7.38 | 4.92 | 5.53 | 8.46 | 6.48 | 1.43 | 0.22 |
| Third Generation Banks  | 2.62 | 2.68 | 2.92 | 3.38 | 3.07 | 2.93 | 0.31 | 0.11 |
| Fourth Generation Banks | 0.23 | 1    | 1.31 | 1.49 | 2.1  | 1.23 | 0.69 | 0.56 |
| Mean                    | 2.95 | 3.47 | 3.15 | 3.25 | 3.82 | 3.33 | 0.77 | 0.28 |

Source: Established by author from the annual report 2014-2018.

A higher EPS indicates more value because investors will pay more for a company with higher profits. From the table, we see that, Fourth generation banks CV is 0.56, Second generation average EPS is 6.48% which is highest and Third generation banks CV was lowest and it was 0.11. From the above table we can say that, second and third generation banks position is good compared with first, and fourth generation banks. Here one thing is to be considered that, in third generation banks, there are only one bank.

4.3.9. Net Profit Margin:

Net profit margin is an important ratio of the ratio analysis for a bank. After deducting all cost Net profit margin is calculated. So, it represents the actual profit percentage.

Table 15: Generation wise summary table of Net Profit Margin

| Year and Banks          | 2014  | 2015  | 2016  | 2017  | 2018  | Mean  | SD   | CV   |
|-------------------------|-------|-------|-------|-------|-------|-------|------|------|
| First Generation Banks  | 37.05 | 34.96 | 39.16 | 36.49 | 35.31 | 36.59 | 1.67 | 0.05 |
| Second Generation Banks | 41.56 | 39.01 | 31.4  | 28.21 | 28.79 | 33.79 | 6.11 | 0.18 |
| Third Generation Banks  | 30.81 | 31.32 | 35.52 | 40.44 | 37.53 | 35.12 | 4.10 | 0.12 |
| Fourth Generation Banks | 22.09 | 37.99 | 43.6  | 43.39 | 44.81 | 38.38 | 9.48 | 0.25 |
| Mean                    | 32.88 | 35.82 | 37.42 | 37.13 | 36.61 | 35.97 | 5.34 | 0.15 |

Source: Established by author from the annual report 2014-2018.

Net profit margin, indicates how much net income a company makes with total sales achieved. A higher net profit margin means that a company is more efficient at converting sales into actual profit. Here, CV is lowest for first generation banks and it is 0.05. Fourth generation banks average net profit margin was 38.38% and CV is 0.25. From the above table we can say that, first generation bank’s position is good comparing among the all generation banks.

4.4. Market instance:

4.4.1. Price/Earnings (P/E) Ratio:

This ratio indicates either the share is overpriced or not. The more the price earnings ratio, the more gain by the shareholder. Their share price increases and they are benefited.

Table 16: Generation wise summary table of Price Earnings Ratio

| Year and Banks          | 2014        | 2015        | 2016        | 2017        | 2018        | Mean        | SD          | CV          |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| First Generation Banks  | 7.61        | 7.12        | 5.76        | 7.53        | 8.79        | 7.36        | 1.09        | 0.15        |
| Second Generation Banks | 7.09        | 5.95        | 9           | 12.03       | 7.18        | 8.25        | 2.38        | 0.29        |
| Third Generation Banks  | 4.69        | 4.52        | 5.11        | 6.69        | 5.74        | 5.35        | 0.88        | 0.17        |
| Fourth Generation Banks | 2.46        | 1.93        | 1.46        | 9.13        | 6.46        | 4.29        | 3.36        | 0.78        |
| <b>Mean</b>             | <b>5.46</b> | <b>4.88</b> | <b>5.33</b> | <b>8.85</b> | <b>7.04</b> | <b>6.31</b> | <b>1.93</b> | <b>0.35</b> |

Source: Established by author from the annual report 2014-2018.

Higher Price Earnings ratios are typically considered to indicate higher growth and increased revenue potential, or at least that investors are anticipating higher growth. From the table, we see that, first generation bank's position is good compared with second, third and fourth generation banks. Fourth generation bank's SD was highest and CV is 0.78. From the above table we can say that, first generation bank's position is good comparing among the all generation banks.

#### 4.5. Interest Rate Risk Management Situation:

##### 4.5.1. Break Even Yield:

It indicates that what the banks' earnings to cover the cost are.

Table 17: Generation wise summary table of Break Even Yield

| Year and Banks          | 2014        | 2015        | 2016        | 2017        | 2018        | Mean        | SD          | CV          |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| First Generation Banks  | 5.61        | 5.13        | 4.2         | 3.86        | 4.8         | 4.72        | 0.70        | 0.15        |
| Second Generation Banks | 5.58        | 4.55        | 3.65        | 3.16        | 3.82        | 4.15        | 0.94        | 0.23        |
| Third Generation Banks  | 6.31        | 5.71        | 4.22        | 3.86        | 4.28        | 4.88        | 1.07        | 0.22        |
| Fourth Generation Banks | 4.89        | 6.08        | 5.15        | 5.1         | 5.94        | 5.43        | 0.54        | 0.10        |
| <b>Mean</b>             | <b>5.60</b> | <b>5.37</b> | <b>4.31</b> | <b>4.00</b> | <b>4.71</b> | <b>4.80</b> | <b>0.81</b> | <b>0.17</b> |

Source: Established by author from the annual report 2014-2018.

From the above table, Break even yield has been described. Second generation bank's average Break even yield was 4.15% which was lowest among all generation banks. Its standard deviation was 0.94% and coefficient of variance was 0.23. Fourth generation banks average Break even yield was 5.43%, its standard deviation was 0.54% and its coefficient of variance was 0.10. In that case, fourth generation bank's position was good. They can cover the cost better than others.

##### 4.5.2. Interest Yield:

Interest yield represents the interest income of a banks or organization in terms of percentage of asset.

Table 18: Generation wise summary table of Interest Yield

| Year and Banks          | 2014 | 2015 | 2016 | 2017 | 2018 | Mean | SD   | CV   |
|-------------------------|------|------|------|------|------|------|------|------|
| First Generation Banks  | 7.8  | 7.02 | 6.22 | 6.1  | 6.85 | 6.80 | 0.69 | 0.10 |
| Second Generation Banks | 7.84 | 6.93 | 6.12 | 5.49 | 6.5  | 6.58 | 0.88 | 0.13 |
| Third Generation Banks  | 0.74 | 6.91 | 5.74 | 5.80 | 6.65 | 5.17 | 2.53 | 0.49 |
| Fourth Generation Banks | 6.55 | 7.67 | 7.76 | 8.06 | 9.13 | 7.83 | 0.92 | 0.12 |
| Mean                    | 5.73 | 7.13 | 6.46 | 6.36 | 7.28 | 6.59 | 1.25 | 0.21 |

Source: Established by author from the annual report 2014-2018.

From the above table, Interest yield has been described. First generation bank’s average Interest yield was 6.80%, its standard deviation was 0.69% and coefficient of variance was 0.10, which was lowest among all generation banks. Second generation banks average Interest yield was 6.58%, its standard deviation was 0.88% and its coefficient of variance was 0.13. Third generation bank’s average Interest yield was 5.17%. Its standard deviation and coefficient of variance was 2.53% and 0.49, which was highest among all. In this case, First generation bank’s position was good.

In summary, out of 17 ratios, first generation banks had topmost or good position in 6 ratios, second generation banks also had good position in 8 ratios, third generation banks had superior position in 7 ratios and last but not the least, fourth generation banks had superior position in only one ratio. It is to be noted that, there are only one bank in third generation and in some ratio analysis both 2nd and 3rd generation banks are in same position. So, among all, second generation banks position was good considering all factors. Though all these five categories collectively represent performance of a bank, among all, Profitability condition is the most important for measuring a bank’s performance. In both cross sectional and time series analysis bank’s performance was satisfactory because in most of the cases coefficient of variance was above the industry average.

5. RECOMMENDATION

Private commercial banks are important financial institutions of our economy. We should utilize this sector properly. Everything has affirmative and negative sides. This study found some weak points of banks by measuring performance. Some suggestions are given below to overcome the weaknesses:

- Fourth generation banks are lagging behind in most of the ratios. They should progress in all fields.
- Careful monitoring is needed to reduce default loans.
- Strict Supervision must be adapted in case of high risk borrowers. Time to time visit to the projects should be done by the bank officials. Highly efficient employees should take responsibility for loans and advance section.

## 6. CONCLUSION

On the basis of analysis of these data, it can be said that as this study based on the FRA, not based on the size, management efficiency is needed most to do well in almost all ratio performances. Loan disbursement should be economical based on the deposit collection. Skilled management is needed for mobilizing the liquidity as higher liquidity lessens the profit. In case of profitability analysis, total revenue (interest and noninterest revenue) should be increased and total expense (interest expense and non-interest expense) should be decreased. For attaining these, banks can find out the new sources of revenue collection and should try to minimize the less important cost. After that, banks can attain a wealthy profit or earnings available to common stock holders. Then it can improve the profitability ratios. This study also adds break even yield and interest yield as new entrance in FRA method. It shows that, they are also important in risk measurement for a bank.

This study will also pave the way of efficient and effective strategic decision making by the managers. From the academic point of view this research will provide a new perspective in evaluating the financial performance of Bangladeshi commercial banks of different generations. The findings of this study will enrich the present literature and it will help researchers in their future academic and research endeavors.

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