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Financial Parameters of Selected Nationalised Banks in India

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ABSTRACT

The core of the monetary position of a country is Banks. They are the backbone of a sound economy which helps the nation as a whole in the growth path. After globalisation, many foreign and private sector banks have been set up in India and it has given rise to a tough competition among public sector, private sector and foreign banks. So, it is vital to analyse the performance of the banks, which may throw light on their strengths and weaknesses relating to an overall improvement. In this study, the performance is analysed using ratios like Profitability Ratio, Management Efficiency Ratio, Debt Coverage Ratio and Balance Sheet Ratio. The top five Nationalised banks (based on their Market Capitalisation in June 2018) have been selected for the study. They are Bank of Baroda, IDBI Bank, Punjab National bank, Central Bank of India and Canara Bank. The study has been done for a term of five fiscal years from 2013-14 to 2017-18. For this purpose, secondary data have been sourced from RBI and the individual banks' annual reports and statistical tools like Mean and ANOVA used.

1. Introduction

The Banking Sector plays an indispensable role in the growth of an economy and the stability of the country, especially in developing countries like India. Almost all the industries depend directly or indirectly on the banking industry.

Indian banking industry is adequately capitalised and well-systematized. The monetary and economic situations of the country are far superior to those of other countries. Many studies regarding credit and liquidity risk have concluded that banks in India are generally buoyant and have the ability to face global crises. Indian Banking sector has endorsed many innovative setups. The way the performance of Banks is analysed differs from other companies' financial parameters, as the Banking Industry is governed with special laws and regulations by the central government and the Reserve Bank of India. Nowadays, Banks have started offering much more than conventional services which include merchant banking, stock broking, mutual funds, online payments and many more. With the introduction of 'PMJDY' scheme by our PM on 15th August 2014, nearly 30 crore new families have benefited and have access to banking and finance.

These kinds of reforms have drawn the attention of the various researchers to analyse the performance of the banking sector. In fact, there are many dimensions of profitability analysis. This paper is an effort to analyse the performance of select nationalised banks of India.

2. Review of literature

Melaku Alemu and Melaku Aweke (2017) have analysed the performance of private commercial banks using CAMEL rating model in their study. Samples of 6 private banks were taken for their study for a period of 10 years. The overall performance of the banks was rated using descriptive statistical tools, and the impact of CAMEL variables were measured using the panel regression model. To determine the profitability impact, explanatory variables were used. The banks were listed on the basis of various descriptive and inferential analyses [1].

Pankil Solanki and Hitesh Shukla (2017), in their research paper, examined the profitability of a few selected private sector and PSBs' in India. The study included two important factors which influenced the profitability evaluation by using statistical tools like mean, deviation from mean along with ANOVA. Yearly analysis of Return on Capital Employed indicated that private banks had outperformed public sector banks. It became imperative for the public banks to make appropriate use of their capital efficiently to achieve better profits and challenge the private sector banks in India [2].

Ahmad Waleed, Muhammad Bilal Shah and Muhammad Kashif Mughal (2015) compared the performance of both Private and Public Banks of Pakistan in their study. Secondary data had been used for the period of 2011-2014. Three categories of ratios were used for analysing the performance of the banks. The findings of the study were based on the bank's size, liquidity and profitability ratios. With respect to the total assets, private banks in Pakistan were larger than the public banks. Private Banks led the public banks on the basis of Liquidity ratios, while the public banks did on the basis of return on assets ratio [3].

Ansarul Haque (2014), examined and evaluated the performance a few major banks in India during the period 2009-2013 in their research paper. The study compared the financial position of various foreign scheduled commercial banks. He used various variables and ANOVA to study the relationship of means in profitability among various banking strata. The study revealed that there was association in the means of the profitability between the foreign banks on the basis of Return on Assets and Net Interest Margin, but there was no association among the banks in respect of Return on Equity [5].

Hemal Pandya (2014), in his research paper entitled, "Identifying Major Determinants of Profitability for selected Nationalized Banks in India," analysed the relationship among the financial ratios of select nationalized banks using various

statistical tools and techniques. The profit of nationalised banks were largely influenced by an overall Business productivity factor. The key determinants of profit of the chosen banks varied among banks; however, the 5 foremost influencing issues were known. It was clearly projected that profit was consistently decreasing until the year 2007-2008; but, subsequently there was a small increase in necessary ratios. Thus, profit contained an unsteady trend over the selected scope of study with a rise in next two-three years [6].

Manvinder Tandon, Bimal Anjum and Julee (2014), in their study, analysed five banks based on various profitability ratios for the period 2009-2014. They used ratios to measure the profitability and the financial performance of the select banks [7].

Mustafa Hassan Mohammad Adam (2014), investigated the financial performance of EBIF, Iraq. Financial ratio analysis was used to measure the bank's performance, and statistical tools were used to analyse the variables under study. The study revealed a concrete behavior of the bank. A few financial variables influenced the financial parameters of the bank. The study recommended to increase the number of bank branches, finance agriculture and SSI industries and use information technology and participation in Capital market [8].

Ayyappan.S and Sakthivadivel.M (2013), in their article, measured 26 financial variables with appropriate statistical tools. In their study, eight select public sector banks were evaluated by considering the profitability variables. The statistical tool Path Analysis determined the firm and opposing inputs of the selected variables under the study term. The bankers had to consider the facts that impacted negatively, which was helpful to improve the profit in this universal competition [9].

Jaimin Patel and Kishore Bhanushali, in their article named, "Comparative Study of Profitability of Nationalised Banks and PSBs," investigated the productivity of three select Indian Banks for the period 2010-2015. A thorough evaluation of the profitability of private and nationalised banks showed positive results. Banking sector faces an increased competition, which makes profit-making a demanding task for Indian banks. They had to work hard for their betterment and rise in profitability. The expenses of the banks should be kept under control and only an efficient use of resources would help them in a greater way [10].

3. Statement of the problem

Profit-making is the most important factor for the survival of any company, and banks are no exception to this motto. To know the banks' performance, measuring the profitability is the only way. Banks are facing many economic crises, political disturbances, frequent policy changes, stringent norms like BASEL III, increasing level of non-performing assets and recent scams. Therefore, the study attempts to analyse the performance of select Nationalised banks in India.

4. Objectives

- To analyse the performance of the chosen Nationalised Indian Banks.
- To recommend remedial measures to boost the banks' performance.

5. Scope of the study

The present study is restricted only to the top 5 Nationalised Banks, and covers a period of five years from 2013-14 to 2017-18.

6. Limitations of the study

- Only data for Five years were considered for analysis.
- The study included only the top five Nationalised Banks and it may not be applicable to other banks.
- Only the quantitative factors were considered for the study.

7. Research Methodology

Sampling Design

Keeping in mind the objective and the scope of this study, the researcher has finalised the study relating to five nationalised banks of India based on the Market Capitalisation on June 2018. The top five banks (Market Capitalisation) are Bank of Baroda (Rs 39,960.52 Cr), IDBI Bank (Rs 25,087.14 Cr), Punjab National Bank (Rs 23,699.52 Cr), Central Bank of India (Rs 21, 233.26 Cr) and Canara Bank (Rs 21,029.46 Cr) are considered for the study. The data for the study have been sourced from secondary data like Annual reports of the concerned banks, RBI, and Capitaline Plus.

Tools used for Analysis

1. Ratio Analysis: Bank-wise ratios were analysed for the five year period.
2. Mean
3. ANOVA (F Test): To identify the relationship among the Banks, ANOVA (F Test) is done.

8. Ratios

To measure the performance of the select banks, the following ratios were calculated:

i. Profitability Ratio

1. **Return on Equity (ROE) ratio:** It indicates how well the investments are utilised to create earnings growth. It is always denoted in percentage.

ROE = Net Income / Shareholders Equity.

ii. Management Efficiency Ratio

a) **Return on Capital Employed (ROCE) ratio:** A higher ROCE signals that a big portion of profits can be ploughed back for the gain of shareholders.

ROCE = Total Income / Capital Employed.

iii. Profit and Loss Account Ratio

a) **Ratio of Operating profit to Total Asset:** This ratio measures the operating profit relative to its total assets. The ratio indicates how efficiently the assets are used to get returns, before the obligations are paid.

iv. Balance Sheet Ratio

a) **Capital Adequacy Ratio (CAR):** It is expressed as capital to risk-weighted assets. It is a regulator that tracks the

banks' ability to absorb a reasonable loss, and it is a statutory compliance.

CAR = Total Capital / Risk-weighted Assets.

v. Debt Coverage Ratio

a) **Cash Deposit Ratio (CDR):** It is expressed as Total cash in hand, and with RBI by Total Deposits. CDR = (Total cash in hand + Balance with RBI) / Total Deposits.

9. Data Analysis

Table. 1 Profitability Ratio - Return on Equity Ratio of the select banks (%)

Name of Bank \ Year	2014	2015	2016	2017	2018	Mean
Bank Of Baroda	12.61	8.53	-13.42	3.43	-5.6	1.11
IDBI Bank	5.11	3.85	-16.57	-30.08	-50.99	-17.736
Punjab National Bank	9.69	8.12	-11.2	3.47	-32.85	-4.554
Central Bank Of India	-10.24	3.87	-9.85	-14.12	-28.38	-11.744
Canara Bank	10.1	10.21	-10.75	3.96	-14.51	-0.198
Mean	5.454	6.916	-12.358	-6.668	-26.466	

The table depicts the Profitability Ratio of the banks. The Return on Equity ratio is negative for four banks under the study. Bank of Baroda has a positive ratio with 1.11%. Other banks like Canara Bank have -0.198%, Punjab National bank has -4.554%, Central Bank of India -11.744% and IDBI Bank -17.736%. Variations in Mean according to year mean are highest in the 2018 with -26.466%. This is due to IDBI Bank and Punjab National Bank, which led to the highest. IDBI, Punjab National Bank and Central Bank of India have shown a sudden change from the year 2016 onwards.

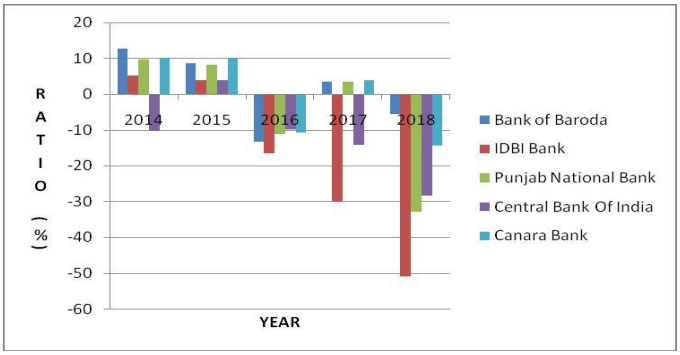

Fig. 1 Profitability Ratio - Return on Equity Ratio of the select banks (%)

Table. 1 (i) Calculation of ANOVA - F Test for the above table

Source of Variation	*SS*	*Df*	*MS*	*F*	*P-Value*	*F crit*
Between Groups	3778.977	4	944.7442	7.423252	0.001	2.866081
Within Groups	2545.365	20	127.2682			
Total	6324.341	24				

Hypothesis

H0 - Mean Return on Equity Ratio does not differ among the select banks.
H1 - Mean Return on Equity Ratio differs among the select banks.
At 5 percent level of significance,

The calculated value of F is 7.423252 and table value is 2.866081
The calculated value of F is greater than the table value.

Hence, Null Hypothesis is rejected.

Inference: The table shows that statistically there is a significant difference in the mean Return on Equity Ratio among the select banks.

Table. 2 Management Efficiency Ratio - Return on Capital Employed Ratio (%)

Name of Bank \ Year	2014	2015	2016	2017	2018	Mean
Bank Of Baroda	7.45	7.15	7.27	7.43	7.37	7.334
IDBI Bank	9.12	9.44	8.7	8.76	8.56	8.916
Punjab National Bank	9.31	9.07	8.58	8.14	7.69	8.558
Central Bank Of India	9.51	9.47	9.09	8.67	8.08	8.964
Canara Bank	9.7	9.39	8.97	8.7	8.11	8.974
Mean	9.018	8.904	8.522	8.34	7.962	

The table demonstrates that the Mean RCE ratio of the four banks Canara Bank (8.974%), Central Bank of India (8.964%), IDBI (8.916) and Punjab National Bank (8.558%) are almost on par. Bank of Baroda shows a consistent ratio throughout the analysis period with small variations unlike other banks. Variations in Mean according to year mean have been on a decreasing trend from the year 2016. The highest mean is in the year 2014 with 9.018% and the lowest in the year 2018 with 7.962%.

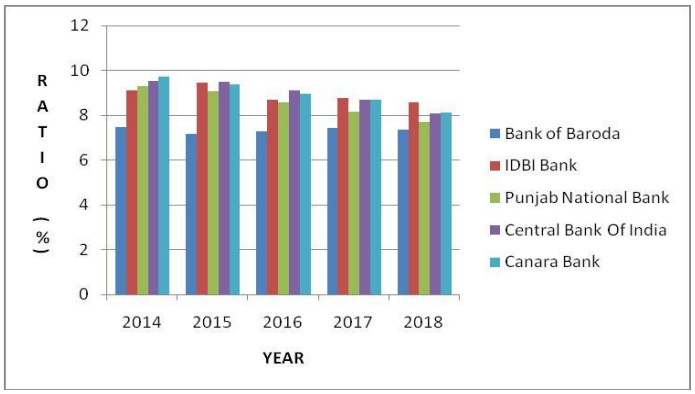

Fig. 2 Management Efficiency Ratio - Return on Capital Employed Ratio (%)

Table. 2 (i) Calculation of ANOVA - F Test for the above table.

Source of Variation	*SS*	*df*	*MS*	*F*	*P-Value*	*F crit*
Between Groups	0.26902	4	0.067255	0.0000001	1.000	2.75871
Within Groups	16791103	25	671644.1			
Total	16791103	29				

Hypothesis

H_0 - Mean Return on Capital Employed Ratio does not differ among the select banks.
H_1 - Mean Return on Capital Employed Ratio differ among the select banks.
At 5% level of significance,
The calculated value of F is 0.0000001 and table value is 2.75871
The calculated value of F is lesser than the table value.
Hence, Null Hypothesis is accepted.

Inference: The table shows that statistically there is no significant difference in the mean ratio of Return on Capital Employed Ratio among the select banks.

Table. 3 Profit and Loss Account Ratio - Ratio of operating profit to Total Asset (%)

Name of Bank \ Year	2014	2015	2016	2017	2018	Mean
Bank Of Baroda	0.01	-0.14	-1.54	-0.77	-1.26	-0.74
IDBI Bank	-0.56	-0.88	-1.88	-2.52	-4.35	-2.038
Punjab National Bank	-0.46	-1.62	-1.05	-2.76	-2.76	-1.73

Central Bank Of India	-1.1	-0.41	-1.09	-1.59	-2.36	-1.31
Canara Bank	-0.3	-0.33	-1.39	-1.1	-1.8	-0.984
Mean	-0.482	-0.676	-1.39	-1.748	-2.506	

The table exhibits that the Mean Profit and Loss Account ratio of all the banks' performance is not efficient as it has resulted negative. This shows that these banks have been facing losses in the operating profit for the period 2014-2018. Among the five banks, IDBI bank has been accounting high continuous loss with -2.038%, followed by and the lowest in the year 2014 with -0.482

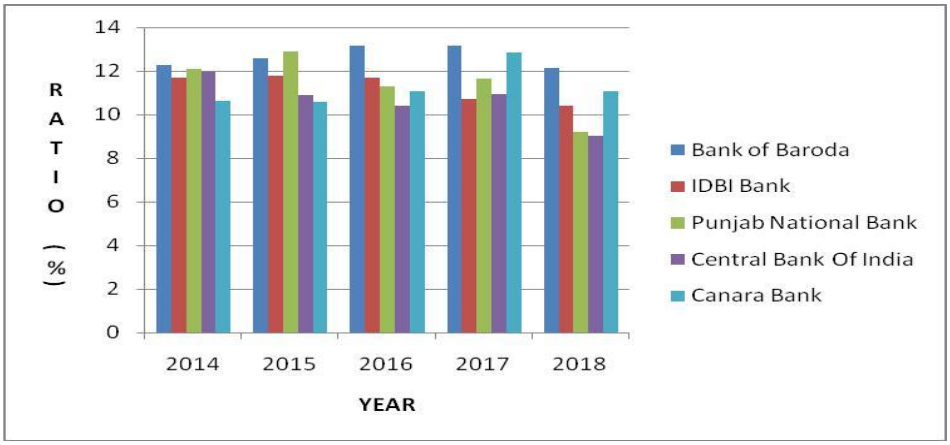

Fig. 3 Profit and Loss Account Ratio - Ratio of operating profit to Total Asset (%)

Table. 3 (i) Calculation of ANOVA - F Test for the above table.

Source of Variation	*SS*	*df*	*MS*	*F*	*P-Value*	*F crit*
Between Groups	13.5175	4	3.379374	6.088414	0.002	2.866081
Within Groups	11.101	20	0.55505			
Total	24.6185	24				

Hypothesis

H_0 - Mean ratio of Operating profit to Total Asset does not differ among the select banks.

H_1 - Mean ratio of Operating profit to Total Asset differ among the select banks.

At 5 percent level of significance,

The calculated value of F is 6.088414, and table value is 2.866081

The calculated value of F is greater than the table value.

Hence, Null Hypothesis is rejected.

Inference: The table shows that statistically there is a significant difference in the mean ratio of Operating Profit to Total Asset Ratio among the select banks.

Table. 4 Balance Sheet Ratio - Capital Adequacy Ratio (%)

Name of Bank \ Year	**2014**	**2015**	**2016**	**2017**	**2018**	**Mean**
Bank Of Baroda	12.28	12.6	13.17	13.17	12.13	12.67
IDBI Bank	11.68	11.76	11.67	10.7	10.41	11.244
Punjab National Bank	12.11	12.89	11.28	11.66	9.2	11.428
Central Bank Of India	11.96	10.9	10.41	10.95	9.04	10.652
Canara Bank	10.63	10.56	11.08	12.86	11.08	11.242
Mean	11.732	11.742	11.522	11.868	10.372	

Financial Parameters of Selected Nationalised Banks in India

The table shows that the Mean Capital Adequacy Ratio of Bank of Baroda with 12.67 % is the highest, when compared to the other banks under the study, followed by Punjab National Bank with 11.428%, IDBI bank with 11.244%, Canara Bank with 11.242% and, finally, Central Bank of

India with 10.652%. The Capital Adequacy Ratio of all the banks is on par with RBI norms. Variation in Mean according to year mean is showing a fluctuating trend year after year. The

highest Mean was in the year 2017 with 11.868% and lowest in the year 2018 with 10.372%.

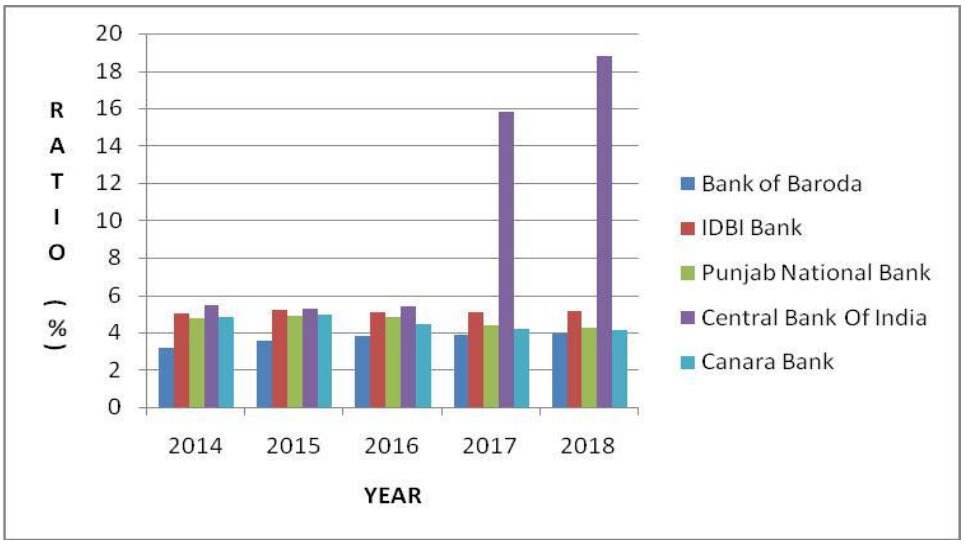

Figure 4: Balance Sheet Ratio - Capital Adequacy Ratio (%)

Table. 4 (i) Calculation of ANOVA - F Test for the above table.

Source of Variation	*SS*	*df*	*MS*	*F*	*P-Value*	*F crit*
Between Groups	7.533704	4	1.883426	1.730168	0.183	2.866081
Within Groups	21.7716	20	1.08858			
Total	29.3053	24				

Hypothesis

H_0 - Mean Capital Adequacy Ratio does not differ among the select banks.
H_1 - Mean Capital Adequacy Ratio differ among the select banks.
At 5 percent level of significance,
The calculated value of F is 1.730168 and table value is 2.866081

Table. 5 (i) Calculation of ANOVA - F Test for the above table.

Source of Variation	*SS*	*df*	*MS*	*F*	*P-Value*	*F crit*
Between Groups	31.17428	4	7.79357	0.557569	0.696	2.866081
Within Groups	279.5555	20	13.97778			
Total	310.7298	24				

Hypothesis

H_0 - Mean Cash Deposit Ratio does not differ among the select banks.
H_1 - Mean Cash Deposit Ratio differ among the select banks.
At 5 percent level of significance,
The calculated value of F is 0.557569 and table value is 2.866081
The calculated value of F is less than the table value. Hence, Null Hypothesis is accepted.

Inference: The table shows that statistically there is no significant difference in the mean Cash Deposit Ratio among the select banks.

10. Findings

- Bank of Baroda is the only bank with a positive Return on Equity Ratio with 1.11% when compared to other banks in the study. Other banks have recorded a negative ratio which indicates loss. It shows that the banks have not utilised their investments to create growth in earnings. In the year 2016, all the banks recorded negative ratio. This may be the effect of demonetisation. IDBI bank has recorded a high loss of -50.99% for the year 2018.
- Canara Bank, Central Bank of India and IDBI bank are almost on par with their Return on Capital Employed ratio of 8.9%. It shows the efficiency of the banks in using their capital, indicating a good signal for the share holders.
- As far as the Profit and Loss account ratio is concerned, all the five banks have depicted a negative Mean of operating profit to Total Assets. Among the five banks, IDBI has recorded the highest negative ratio of -2.038%. The Operating profit of all the banks under the study has recorded losses. This shows the operational inefficiency of the banks.
- With regard to Capital Adequacy ratio, Bank Of Baroda tops the list with 12.67%. It shows that Bank of Baroda is in the best position to absorb the losses, if any, as its CAR is high among other banks.
- Central Bank of India has the highest Cash Deposit Ratio of 10.148% among other banks. It showed an abnormal increase by 193% in the year 2017 and by 19% in the year 2018.
- Year 2018 revealed a bad situation of the banks under study, as the ROE and Operating profit to Total Asset ratio recorded the highest negative ratio (-26.466 and -2.506 respectively).

11. Suggestions

In the last few years, Nationalised banks have recorded less profit than the private sector as per the RBI report on **'TPBI 2017-18'**. Therefore, Nationalised banks should use their capital in the most efficient and effective way in order to maximise the shareholders' returns and for a high market capitalisation.

- Bank of Baroda should concentrate on their management efficiency as their return on capital employed ratio and Cash Deposit Ratio are the least when compared to other banks under study.
- IDBI bank should increase their operational efficiency as it has recorded a high negative profitability.
- Capital Adequacy Ratio of Central Bank of India should be increased, to cover their losses in a better way.
- Punjab National Bank and Canara Bank should improve their Debt Coverage Ratio as their Cash Deposit Ratio is less.

12. Conclusions

This study examines various ratios which help in analysing the profitability position of the select Nationalised banks in India. The ANOVA model identified the relationship of various ratios among the select Nationalised banks. RBI has come out with stringent rules after the scams of banks, especially public sector banks. March 2019 has been made the deadline to implement Basel III norms for all the banks. Further, the conversion of stressed assets by RBI, have badly affected the profitability of many banks due to increase in provisions for NPAs. So, the banks should focus on the factors which negatively influence them, which will be helpful to improve the overall profitability of the banks. Banks should utilise all possible ways to improve the performance of banks. Efforts should be made to decrease the expenses and utilise the resource in the most effective way.

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