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A Comparative Study on Financial Performance of Public Sector Banks in India Through Camel Model

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Abstract

The wider objective of the banking sector reforms in India has been to improve and increase efficiency and profitability of the banks. The banking sector in India has continuously undergone various changes in the areas of prudential, regulatory, disclosure and supervisory norms. It has been passing through the liberalisation process and deregulation of interest regime at the same time. Commercial banks, especially the dominant public sector banks, have been facing competition from their rival banks. The present study is an attempt to compare financial performance of public sector banks based on the CAMEL variables and to find out whether the average performance of both public sector banks differ significantly.

Introduction

Today banking industry is operating in an environment which is highly competitive due to integration of global markets. The rising competition has resulted in new confronts for the Indian banks. Evaluating Indian banking sector is not an easy task. To evaluate the performance of banking sector researcher have chosen the CAMEL model which measures the performance of bank from each of the important parameter like capital adequacy, asset quality, management efficiency, earning quality and liquidity.

CAMEL Model

CAMEL model's framework is Supervisory in nature, consistent with international norms, covers risk-monitoring factors for evaluating the performance of banks. This framework involves the analyses of five indicators that are bound in a group which reflects the position of financial institutions.The banks performance is examined on the basis of five different components under the acronym C-A-M-E-L:

C – Capital Adequacy **A – Asset Quality** **M – Management Efficiency**

E – Earnings Capacity **L – Liquidity**

The banks work under the most volatile conditions and the banking industry as such in the booming phase makes it an interesting subject of study. Amongst these reforms and restructuring the CAMEL Framework has its own contribution to the way modern banking is looked up on now.

Literature Review

Kumarsomaling B. Balikai and Kirankumar R. Bannigol (2019), the study has made an attempt to analyse the financial soundness of 6 nationalised banks which are nationalised in the year 1980. It is found

that the performance of ANDHRA bank is comparatively better in majority of parameters that are being selected. It is also found frond from the calculations that PUNJAB and SINDH bank is also well performing bank just after ANDHRA bank.

G.L.Meena(2018), she analyze and examine the financial performance of public and private sector Banks andit was found that the weakest area of private and public sector banks were management of NPA'S. The overall performance of the different banks was found to be impressive.

Research design

1. **Statement of the Problem:** In the recent years the financial system especially the banks have undergone numerous changes in the form of reforms, regulations & norms. Many studies have been done to analyze the performance of public sector banks on profitability determinants and the financial indicators. However this study will use financial ratios to analyses the bank performance based on the camel model on 2 public sector banks.

2. **Objective of the study**: The objective of the present study is as under:

1. To analyze and interpret the financial performance of the selected banks using CAMEL Model.

2. To offer findings and suggestions about the financial performance of the banks in the light of the study.

3. **Proposed Hypothesis:**

H_0 = There is no significant difference in average percentage of debt equity ratio in selected units.

H_0 = There is no significant difference in average percentage of Total investment to Total assets ratio in selected units.

H_0 = There is no significant difference in average percentage of Total Advances to Total Deposits ratio in selected units.

H_0 = There is no significant difference in average percentage of Interest Income to Total Income ratio in selected units.

H_0 = There is no significant difference in average percentage of Interest Expenses to Interest Earned ratio in selected units.

4. **Sample of study:** In this study, the following two banks have been taken as sample out of total public sector banks. The sample should be selected based on highest market capitalization.

1. State bank of India **2. Bank of Baroda**

5. Data Collection: This study is based on the **secondary data** and is limited to the period of five years.The data are taken from the **published annual reports** of the selected Public Sector banks. Other information is collected from the **official websites.** **6**. **Period of Study:**

The period for evaluating performance through CAMEL is covered five financial consecutive years, i.e. from 2014-15 to 2018-19.

7. **Tools & Technique:**

As an Accounting tools the researcher has used CAMEL model to evaluate the performance of banks with the help of some ratios, and as a Statistical tools. To test the hypothesis the researcher has used **student t test.** It includes Mean, Standard deviation and 'T' test.

Data Analysis:

The CAMEL rating model is based on the evaluation of performance of the banks and financial institutions by measuring its balance sheet, as well as, profit and loss statement on the basis of each component. Which are….

C – Capital Adequacy

Debt Equity Ratio

A – Asset Quality

Total Investments to Total Asset Ratio

M – Management

Total Expenditure to Total Income Ratio

E – Earnings & Profitability

Interest Income to Total Income Ratio:

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L – Liquidity

Interest expenses to Interest Earned Ratio

CAPITAL ADEQUACY - C

Debt-Equity Ratio: This ratio indicates the degree of leverage of a bank. It indicates how much of the bank business is financed through debt and how much through equity.

Debt Equity Ratio = Borrowings/ (Share Capital + reserves)

Table No 1 'T' Test calculation

Unit.	N	Mean	D.F.	S.D.	'T' Calculated	'T'Table Value
SBI	5	14.8	8	0.77	0.321	2.306
BOB	5	15.36		0.54		

The above table 1 shows that the calculated value for the hypothesis is 0.321 which is less than the table value of 2.306 at 5 percent level of significance since the calculated value is less than the table value, it is inferred that there is no significant difference in the average Debt-Equity ratio of banks under study.

ASSET QUALITY– A

Total Investment to Total Asset Ratio: Total investments to total assets indicate the extent of deployment of assets in Investment as against advances.

Total Investments to Total Asset = Total Investments / Total Asset

Table No 2 'T' Test calculation

Unit	N	Mean	D.F.	S.D.	'T' Calculated	'T' Table Value
SBI	5	3.70	8	0.24	0.085	2.306
BOB	5	4.41		0.41		

The above table 2 shows that the calculated value for the hypothesis is 0.085 which is less than the table value of 2.306 at 5 percent level of significance since the calculated value is less than the table value, it is inferred that there is no significant difference in the averagetotal investment to total assets ratio of banks

under study.

MANAGEMENT EFFICIENCY– M

Total Advances to Total Deposits ratio: This ratio indicates the ability of the bank to convert the deposits into high yielding advances.

Total Advances to Total Deposits = Total Advance/ Total Deposit

Table No 3 'T' Test calculation.

Unit	N	Mean.	D.F.	S.D.	'T'Calculated	'T' Table Value
SBI	**5**	**0.78**	**8**	**.003**	**0.017**	**2.306**
BOB	**5**	**0.69**		**0.001**		

The above table 3 shows that the calculated value for the hypothesis is 0.017 which is less than the table value of 2.306 at 5 percent level of significance since the calculated value is less than the table value, it is inferred that there is no significant difference in the average total advances to total deposits ratio of banks under study.

EARNING QUALITY – E

Interest Income to Total Income ratio: The interest income to total income indicates the ability of the bank in generating income from its lending. Interest Income to Total Interest Income ratio = Interest Income / Total Income

Table No 4 'T' Test calculation

Unit	N	Mean	D.F.	S.D.	'T' Calculated	'T' Table Value
SBI	5	0.85	8	0.0004	0.023	2.306
BOB	5	0.89		0.0004		

The above table 4 shows that the calculated value for the hypothesis is 0.023 which is less than the table

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value of 2.306 at 5 percent level of significance since the calculated value is less than the table value, it is inferred that there is no significant difference in the average interest incometo total income ratio of banks under study.

LIQUIDITY - L

Interest Expenses to Interest Earned Ratio: It measures the ability of the bank to meet the interest expenditure on deposits from the interest income from advances.

Interest Expenses to Interest Earned Ratio = Interest Expenditure / Interest Income

Table No 5 'T' Test calculation

Unit	N	Mean	D.F.	S.D.	'T' Calculated	'T' Table Value
SBI	5	0.65	8	7E-05	0.197	2.306
BOB	5	0.67		0.001		

The above table 5 shows that the calculated value for the hypothesis is 0.197 which is less than the table value of 2.306 at 5 percent level of significance since the calculated value is less than the table value, it is inferred that there is no significant difference in the average interest expensesinterest income ratio of banks under study.

Findings based on Ratio Analysis:

According to data analysis and statistical tool, the major findings are as follows:

- Debt-Equity Ratio in average of State Bank of India is 14.82 while Bank of Baroda is having 15.36 average ratios which are higher than SBI; it indicates that BOB is using more debt as compared to equity.
- Total Investment to Total Asset Ratio in average of SBI is 3.70 and for BOB are

4.41. In this case also BOB is having high Total Investment to Total Assets ratio.

- Total Advances to Total Deposits ratio in average of SBI is 0.78 & 0.69 for BOB. IN This case SBI shows having high Total Advances to Total Deposits ratio.

- In the Interest Income to Total Income Ratio, the average ratio of SBI and BOB is 0.85 & 0.89 respectively.

- Interest Expenses to Interest Earned Ratio, the average ratio of SBI is 0.65 & average ratio of BOB is 0.67 respectively during the period of study. The average ratio of SBI is less as compared to BOB, which shows inefficiency of the bank in liquidity position.

Findings based on student 'T' test

Researcher applied student 'T' test & following conclusions is obtain in the table as follows:

Sr. No.	Financial Indicators	Calculated Value	Table Value	H0
A	**Capital Adequacy**			
1.	Debt Equity Ratio	0.321	2.306	Accepted
B	**Asset Quality**			
2.	Total Investments to Total Asset Ratio	0.086	2.306	Accepted
C	**Management**			
3.	Total Advance to Total Deposit Ratio	0.017	2.306	Accepted
D	**Earnings & Profitability**			

4.	Interest Income to Total Income Ratio	0.023	2.306	Accepted
E	**Liquidity**			
5.	Interest Expenses to Interest Earned Ratio	0.197	2.306	Accepted

Limitations of the study:

Following are the limitations of research study.

- The present study is limited to five years information of the select banks only.
- The study is based on secondary data. The data is collected from annual reports, Journals, Magazines and Websites. So, limitations of Secondary data remain with it and also apply to this study.
- In this study, certain accounting & statistical tools are used e.g. Ratios etc. It has its own limitations that also apply to this research work.
- This study covers only select financial performance parameters covered under CAMEL framework and does not take all possible financial factors.
- The study is limited to select 2 private sector banks only.
- Time and resource constraints.
- Thus, above all are limitations during our research study. Despite of these limitations research work is accurate which measures financial performance of the banks.

Suggestions:

- ❖ Debt- Equity Ratio of the BOB is higher than the SBI. So there is requirement to reduce debt because higher ratio adversely affects the bank and it creates endangered condition towards creditors and depositors.
- ❖ The Total Investment to Total Assets Ratio of BOB is greater than the SBI; it is not good condition for

bank because higher ratio indicates higher risk towards bank profitability.

- Total Advances to Total Deposits Ratio of BOB is less than the SBI. It is advisable for bank, to increase the ratio because it measures banks management efficiency & ability to convert deposits into high yielding advances.
- Interest Income to Total Income Ratio of BOB is greater than the SBI; SO BOB is having good earning capacity as compared to SBI.
- Interest expenses to Interest Income Ratio of SBI are less than the BOB. So it is advisable to increase the ratio because it measures the ability of bank to meet its financial obligations as and when they due.

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