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FINANCIAL PERFORMANCE OF PUBLIC SECTOR BANKS: AN ANALYSIS USING CAMEL MODEL

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ABSTRACT

Indian banking system are now more consolidated, advanced and efficient than ever, the public sector banks are performing well and become a vital part of Indian Financial System. So, this study has made an attempt to examine the financial performance and position of four public sector banks State Bank of India, Union Bank of India, Canara Bank and Punjab National Bank after their merger, with the use of CAMEL Model, invented in the year 1979. The main statistical tool used are ratios, average, rank and percentage. The study ranked the four selected public sector banks according to the capital adequacy, asset quality, management efficiency, earning quality and liquidity position and thus overall financial performance ranking.

Keywords: *Indian Banking System, Public Sector Banks, CAMEL Model, Asset Quality, Management Efficiency.*

Introduction

India banking system goes back to the 18th century, when the first bank was established named Bank of Hindustan in the year 1776. Since then, a number of banks have been established, restructured and liquidated. These banks are currently regulated under the banking regulation act 1949, which gives Reserve Bank of India the power to licence the banks in India. Banks are classified under different heads, public bank or private bank. Public sector banks are the ones in which more than fifty percent of shareholding lies with the government of India. As per the latest report of department of finance service, ministry of finance there are in total of twelve public sector banks in India. In past few years, with the objective of restructuring the Indian banking system the government of India has announced and implemented a series of banking mergers for public sector banks. Including;

- State Bank of Bikaner and Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala, State Bank of Travancore and Bhartiya Mahila Bankmerged into State Bank of India
- Andhra Bank and Corporation Bank merged into Union Bank of India
- Allahabad Bank merged into Indian Bank
- Syndicate Bank merged into Canara Bank
- Oriental Bank of Commerce and United Bank of India merged into Punjab National Bank

These mergers are aimed to reduce the cost of operation, concentration of banking, reduce the competition, improve the standard of efficiency, increasing the market share and to minimize the non-performing assets. The effectiveness of these mergers is required to be analysed and the present study has examined this by measuring the financial performance of four anchor banks, that is, State Bank of India, Union Bank of India, Canara Bank and Punjab National Bank through camel model. Camel ranking system is an internationally accepted model consisting of five parameters of capital adequacy, asset quality, management efficiency, earning quality and liquidity position, to examine the overall financial performance of financial institutions.

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Review of Literature

Mathiraj S.P., and Ramya, V., (2012): This study aimed to analyse and compare the performance of five private sector banks on the basis of CAMEL model. The study was based on secondary data which was abstracted from the financial statements of each bank for the period 2007 to 2011. For comparison a total of 20 financial ratios were studied and the data were analysed through statistical tool ANOVA. The finding revealed that out of five private banks Kotak Mahindra was the leading bank, ranking first in six out of twenty ratios followed by HDFC Bank.

Gupta, R., (2014): The present study was conducted with the objective to analyse the financial performance and position of public sector banks in India, using ratio-based model CAMEL. The study was conducted for 26 public sector banks for the period 2009-13. The statistical test used in the study were Arithmetic mean, Kolmogorov-Smirnov test and one way ANOVA. The result revealed that the overall performance of all twenty-six public sector banks were significantly different and the banks which revealed low rank need to work upon maintaining an adequate ratio in different aspects.

Kiran, K., (2018): In this study, researcher aimed to compare the financial performance of eleven selected banks, including seven public sector banks and four public sector banks from financial year 2013-14 to 2016-17. The data collected was analysed using financial ratios and averages. The results revealed that as per the composite ranking of 11banks, IndusInd Bank holds the top position followed by four other private banks. SBI holds the top position in public sector banks with overall ranking of sixth position. The results also revealed that private banks outperformed public sector banks in overall performance except in case of liquidity aspect of CAMEL model.

Purohit, A., and Bothra, P., (2018): In present study, researchers made an attempt to compare the financial position and performance of one public sector bank, SBI with one private sector bank, ICICI using CAMEL model for the period 2012-13 to 2016-17. The study was secondary in nature the statistical tool was used including ratio, average, arithmetical mean, rank and percentage. The results of the study revealed that in terms of capital adequacy and asset quality SBI holds a better position whereas in terms of management efficiency, earning quality and liquidity ICICI bank outperforms SBI.

Conceptual Framework

CAMEL Rating System is a ratio-based model to check the overall financial performance of any bank. It includes five major parameters including capital adequacy, asset quality, management efficiency, earning quality and liquidity position. It was first developed by the Federal Financial Institutions Examination Council (FFIEC) in the year 1979, with the objective to assess the overall conditions of banks in the US. In India, this model was adopted by the Reserve Bank of India in the year 1994 for the supervision on financial institutions. The study has taken into account this model for analysing the financial performance of four public sector banks namely State Bank of India, Punjab National Bank, Canara Bank and Union Bank of India. To examine the financial performance of the banks a total of 20 ratios has been selected for five parameters including capital adequacy, asset quality, management efficiency, earning quality and liquidity position.

- **Capital Adequacy:** Capital adequacy refers to bank's ability to maintain sufficient capital to perform its financial activities and to meet the needs of the stakeholders. For measuring the capital adequacy of the selected banks, following ratios have been taken into account;
  - Capital Adequacy Ratio
  - Debt-Equity Ratio
  - Advances to Assets Ratio
  - Government Securities to Total Investments Ratio
- **Asset Quality:** Asset quality refers to the performance of assets of the bank, it is an important parameter to judge the financial strength of the bank's assets. For this study the following ratios have been selected to measure the asset quality of the selected bank;
  - Net NPA Ratio
  - Gross NPA Ratio
  - Total Investment to Total Asset Ratio
- **Management Efficiency:** Management efficiency refers to the managers ability to lay out important managerial decision keeping in mind the profitability and objectives of the bank. It is of immense importance for bank to perform efficiently in management, for computing the management efficiency following ratios are selected;

  - Business Per Employee
  - Profit Per Employee
  - Credit Deposit Ratio
  - Return on Net Worth

- **Earning Quality:** Earning quality refers to the banks capability to earn requisitenumber of profits consistently during the life of bank. To measure the earning quality of the selected banks following ratios have been selected;
  - Return on Assets
  - NIM (Net Interest Margin) To Total Assets Ratio
  - Operating Profit to Total Assets Ratio
  - Interest Income to Total Income Ratio

- **Liquidity:** Liquidity refers to the banks' ability to meet its financial obligation. It is vital for the banks to maintain a minimal amount of liquidity to support non delay in payments. For the study to measure the liquidity position of the selected banks following financial ratios have been selected;
  - Government Securities to Total Assets Ratio
  - Liquid Assets to Total Deposits Ratio
  - Liquid Assets to Demand Deposits Ratio
  - Balance at Banks and RBI to Total Assets Ratio

Need of the Study

During the past few years, a series of mergers have been announced and implemented in Indian banking system with the objective to improve the financial soundness of Indian banks and mainly Public Sector Banks. Hence, it is quite essential to evaluate the performance of these banks after mergers. For which this study has taken into account camel model, which has been accepted by reserve bank of India since 1994.

Objectives

- To analyse the financial performance of Public Sector Banks after merger.
- To explore the concept and application of Camel Model in Banking sector.
- To examine the financial position of public sector banks using Camel Model.

Research Methodology

Nature of the Study

This study is descriptive and analytical in nature.

Sample Size

This study has taken into account four public sector banks of India, named State Bank of India, Punjab National Bank, Canara Bank and Union Bank of India.

Period of the Study

This study has taken into account the annual financial data of the selected banks for the financial year 2020-21.

Data Collection

Secondary source of data has been used in the study, which was abstracted from the annual financial report of the selected public sector banks.

Statisctial Tools

To test the financial performance of the selected banks widely known ratio-based CAMEL Model is used. Additionally, the data has been analysed through statistical tools including average, ratio, percentage, rank and arithmetic mean.

Analysis and Interpretation

- **Capital Adequacy**

Table 1: Capital Adequacy

Banks	Capital Adequacy Ratio		Debt Equity Ratio		Advances to Assets Ratio		Government Securities to Total Investments Ratio		Group Rank	
	%	Rank	%	Rank	%	Rank	%	Rank	Average	Rank
SBI	13.97	2	16.550	3	51.605	4	72.827	3	3	3.5
PNB	14.64	1	12.824	1	53.085	3	87.648	1	1.5	1
Canara Bank	13.18	3	17.887	4	54.198	2	86.135	2	2.75	2
Union Bank of India	12.56	4	15.719	2	54.816	1	72.094	4	3	3.5

As per the above table – 01 of capital adequacy, Punjab National Bank holds the top position, followed by Canara Bank, state bank of India and Union Bank of India. All the banks have maintained the minimum capital adequacy as suggested by the Basel norms. Perhaps, on the basis of comparison Union Bank lacks behind in maintaining the competitive ratio of capital adequacy. Moreover, State Bank of India is behind in advances to asset ratio and Canara Bank must work upon their debt equity ratio.

- **Asset Quality**

Table 2: Asset Quality

Banks	Net NPA Ratio		Total Investments to Total Assets Ratio		Gross NPA Ratio		Group Rank	
	%	Rank	%	Rank	%	Rank	Average	Rank
SBI	1.48	1	32.9184035	4	4.95	1	2	2
PNB	5.73	4	31.5981121	3	14.12	3	3.34	4
Canara Bank	3.82	2	24.2629627	1	8.83	2	1.67	1
Union Bank of India	4.62	3	31.32535	2	14.15	4	3	3

As per the above table – 02 of asset quality, three parameters, namely net NPA ratio, gross NPA ratio and Investment to asset ratio has been analysed. On the basis of above analysis, it can be said that Canara Bank is at the first position followed by State Bank of India, Union bank of India and lastly Punjab National Bank. This means that Punjab national bank after the merger has the highest amount of non-performing assets and thus it has a low asset quality, whereas State Bank of India has the best asset quality among the selected public sector banks of India.

- **Management Efficiency**

Table 3: Management Efficiency

Banks	Business Per Employee		Profit Per Employee		Credit Deposit Ratio		Return on Net Worth		Group Rank	
	%	Rank	%	Rank	%	Rank	%	Rank	Average	Rank
SBI	23.73	1	0.08235	1	67.305	1	7.637	1	1	1
PNB	18.85	3	0.02	4	60.998	4	4.380	4	3.75	4
Canara Bank	18.14	4	0.03	3	63.234	3	6.71	2	3	3
Union Bank of India	19.23	2	0.04	2	64.097	2	4.79	3	2.25	2

The analysis shown in above table – 03, reflects that State Bank of India is the most management efficiency in terms of all four parameter, that is, business per employee, profit per employee, credit deposit ration and return on net worth. It can also be stated that Punjab National Bank has the least management efficiency mainly on credit deposit ratio and return on equity. Also, Canara Bank has performed low in terms of business per employee as compared with other selected banks.

- **Earning Quality**

Table 4: Earning Quality

Banks	Return on Assets		NIM to Total Assets Ratio		Operating Profit to Total Assets Ratio		Interest Income to Total Income Ratio		Group Rank	
	%	Rank	%	Rank	%	Rank	%	Rank	Average	Rank
SBI	0.434	1	2.52	1	-1.71	4	72.17	4	2.5	2
PNB	0.317	2	2.427	2	2.018	1	86.183	1	1.5	1
Canara Bank	0.23	4	2.122	4	1.696	2	74.966	3	3.25	4
Union Bank of India	0.26	3	2.328	3	-1.02	3	83.297	2	2.75	3

On the basis of above table – 04, Punjab National Bank was ahead on the parameter of earning quality followed by state bank of India, Union Bank of India and at last Canara Bank. Canara Bank has the lowest return on asset as well as net interest margin ratio in comparison with other banks. Additionally, State Bank of India has outperformed other banks in return of asset and NIM to total asset ratio but is far behind in other two ratios of earning quality.

- **Liquidity**

Table 5: Liquidity

Banks	Government securities to Total Assets Ratio		Liquid Assets to Total Deposits Ratio		Liquid Assets to Demand Deposits Ratio		Balance at banks and RBI to Total assets Ratio		Group Rank	
	%	Rank	%	Rank	%	Rank	%	Rank	Average	Rank
SBI	23.973	2	9.359	3	120.198	4	7.176	4	3.25	3.5
PNB	27.695	1	10.176	2	148.151	2	8.886	2	1.75	1.5
Canara Bank	20.899	4	17.692	1	362.673	1	15.164	1	1.75	1.5
Union Bank of India	22.584	3	9.157	4	133.049	3	7.831	3	3.25	3.5

The above table – 05 indicates that Punjab National Bank and Canara Bank both the banks have outperformed Union Bank India and State Bank of India. Furthermore, Canara Bank has performed exceptional in maintaining its liquid assets but has lacked in the investment of government securities. On the other hand, Punjab National Bank has adequate investments in government securities as well as liquid assets.

Overall Performance

Table 6: Composite Ranking

Banks	Capital Adequacy (C)	Asset Quality (A)	Management Efficiency (M)	Earning Quality (E)	Liquidity (L)	Average	Rank
SBI	3	2	1	2.5	3.25	2.35	1
PNB	1.5	3.333	3.75	1.5	1.75	2.367	2
Canara Bank	2.75	1.667	3	3.25	1.75	2.483	3
Union Bank of India	3	3	2.25	2.75	3.25	2.85	4

In the above table – 06, overall performance of the selected public banks has been ranked according to the rank average of all the five parameters of CAMEL Model. The result showed that State Bank of India has ranked first in the composite ranking of all the five parameters of the model, followed by Punjab NationalBank then Canara Bank and lastly Union Bank of India.

Result and Findings

- The findings indicated that State Bank of India has the best market efficiency but is quite behind in terms of liquidity position and capital adequacy.
- Punjab National Bank is leading in case of capital efficiency and earning quality but somewhere lacks in asset quality as well as management efficiency.
- Canara Bank is phenomenal in asset quality and maintaining liquidity but has performed low in the parameters of capital adequacy, management efficiency and earning quality.
- Union Bank of India has been ranked the lowest in the overall CAMEL ranking system.

Conclusion

Mergers are treated as one of the best expansion strategies in every industry and in banking sector it becomes more effective and reliable for the expansion to increase consumer base and market share that leads their profitability. Further it helps to abolish undesirable competition, helps in financial recovery, and to manage NPA. Indian banking sector is also continuously using the mergers and acquisitions to enhance their overall performance. This study has been focused on financial performance of all the selected banks by using CAMEL Model after the mega merger. As study revealed that all the banks worked well after the mergers and one of Asia's largest banks SBI ranked number one in overall position but lacked in having a competitive liquid position. Whereas, PNB has need to do some work on its management efficiency for the improvement because they are somewhat lacking behind in comparison to other selected banks. Canara bank, ranked as third, have to improve their earning quality. And lastly, Union Bank of India which is ranked the last in this analysis needs to work upon its overall performance especially in the parameter of capital adequacy.

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