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CHAPTER 6
SUMMARY, FINDINGS, SUGGESTIONS AND CONCLUSIONS

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6.1 INTRODUCTION

A sound financial system is indispensable for a healthy and vibrant economy. The banking sector constitutes a predominant component of the financial services industry. The performance of any economy to a large extent is dependent on the performance of the banking sector. The banking sector’s performance is seen as the replica of economic activities of the nation, as a healthy banking system acts as the bedrock of social, economic and industrial growth of a nation. It is important to measure the performance of the banking sector through a performance measurement system that provides an opportunity to assess the performance of Indian banks. The present supervisory system in the banking sector is a substantial improvement over the earlier system in terms of frequency, coverage and focus as also the tool employed. Majority of the Basel Core Principles for effective banking supervision have already been adhered to and the rest is at the stage of implementation.

Two supervisory rating models based on CAMELS (Capital Adequacy, Assets Quality, Management, Earning, Liquidity, Systems and Controls or sensitivity to market risk) and CACS (Capital Adequacy, Assets Quality, Compliance, Systems and Controls) factors for rating of Indian commercial Banks and Foreign Banks operate in India respectively, have been worked out on the lines recommended by the Padmanabhan Working Group (1995). These ratings would enable the RBI to identify the banks whose condition warrants special supervisory attention. Two decades have elapsed since the initiation of banking sector reforms in India. Over this period, the banking sector has experienced a paradigm shift. Hence, it is high time to make performance appraisal of this sector. Accordingly, a framework for the evaluation of the current strength of the system, and of operations and the performance of the banks has been provided by the Reserve Bank’s measuring road of ‘CAMELS’ which stands for capital adequacy, assets quality, management efficiency, earning quality, liquidity and systems and control or sensitivity to market risk.

The main endeavour of CAMEL system is to detect problems before they manifest themselves. The RBI has instituted this mechanism for critical analysis of the balance-sheet of banks by themselves and presentation of such analysis to provide for
internal assessment of the health of banks. The analysis, which is made available to the RBI, forms a supplement to the system of off-site monitoring of banks. The prime objective of the CAMEL model of rating banking institutions is to catch up the comparative performance of various banks (Bodla and Verma, 2006). CAMEL is, basically, a ratio-based model for evaluating the performance of banks. It is a model for ranking/rating of the banks. In the present study an attempt is made to analyze the performance of selected Public and private sector banks in India using CAMEL framework with following main objectives:

[1] To understand and identify the current major trends in the banking operation.


[3] To analyses the financial performance of the selected banks from the view point of CAMEL model.

[4] To make suggestions for the better performance of selected bank

6.2 SUMMARY

Chapter wise summary is described below:

- **Chapter-One: Indian Banking Industry: An Overview**

  The First Chapter presents an overview of Indian Banking Industry, which covers-introduction- the word ‘BANK’ origin- meaning of bank-definition of bank- history of banking in India- challenges of Indian banking sector- problem and prospect of banking sector in India-financial performance of banks (group wise)- conclusion

- **Chapter-Two: Performance Appraisal and ‘CAMEL’ Model, A conceptual Frame work**

  The Second Chapter gives the conceptual frame work of performance appraisal and ‘CAMEL’ Model that includes- meaning and concept of performance-meaning of financial performance-how to measure performance: concept of measurement- areas of performance- meaning

- **Chapter-Three: Research Methodology**

The third chapter focuses on the Research Methodology that includes: Introduction – Title of the Research Problem – Literature Review – Objectives of study – Sources of the Data - Period of the study – Sample of the study – Scope of the study – Tools and Techniques – Hypotheses of the study – Significance of the study – Outline of the chapter plan – Limitations of the study.

- **Chapter-Four: Profile of sampled Banks**

The Fourth Chapter covers profile of five public sector banks and five private sector banks in India.

- **Chapter-Five: Analysis of Data and Interpretation**

The Fifth Chapter contains data analysis and interpretation of selected Public and Private sector banks in India. The present study has particularly been undertaken for the study of financial performance of selected public and private sector banks in India (with reference to ‘CAMEL’ model) during the period of five years from 2007-08 to 2011-12. In this context, CAMEL parameters - Capital Adequacy Test, Asset Quality Test, Management Efficiency Test, Earning Quality Test & Liquidity Management Test were analysed to study financial performance of selected public and private sector banks in India, during the period of five years. Comparative financial performance analysis for five years on “CAMEL” parameters for selected public sector and private sector banks, so that the study will be helpful in formulating an effective financial strategy and risk management policy.
Chapter-six: Summary, Findings, Suggestions & Conclusions

The sixth chapter includes summary of research work, findings of the study and suggestions for improvement for selected units.

6.3 FINDINGS

The primary findings and conclusions are given hereunder:-

6.3.1 Capital Adequacy Test (C)

Five parameters have been taken for Capital Adequacy Test and each parameter has given a rank according to their characteristics and analyzed accordingly as well as combined or common rank is also given for capital adequacy test.

1. Capital Adequacy Ratio (CAR)
2. Total Debts To Owner’s Fund (Debt Equity) Ratio
3. Advance to Total Assets Ratio
4. Government Security to Investment Ratio
5. Credit Deposit Ratio

ON THE BASES OF RANK OF RATIO AS RANK OF PARAMETER, highest Capital Adequacy Test rank is KOTAK BANK with average (score) rank is 2.9 for all the parameters which is followed by PNB with average (score) rank with 4.2 while lowest average (score) rank is shown by AXIS BANK with average rank 6.9. Lowest score (AVG.) shows the highest CAR. Because bases of parameter is rank of ratios that has been achieved in all calculated ratios of this category. The Calculated value of $F_c = 0.8971866$ and tabular value of $F_t = 2.124029$ at 5% level of significance. The calculated value $F$ is smaller or less than tabular value $F$ ($F_c < F_t$). So, the null hypothesis has been accepted and alternative hypothesis has been rejected. It means all the selected banks have equal Capital Adequacy Test.
ON THE BASES OF AVERAGE OF RATIO AS RANK OF PARAMETER, highest Capital Adequacy Test rank is KOTAK BANK with average score of 52.36 for all the parameters of capital adequacy test. This is followed by PNB with an average of 50.08 while lowest average rank is shown by AXIS BANK with an average of 43.34. Here, highest score (AVG.) shows the highest CAR, because bases of parameter is average score of ratios that has been achieved in all calculated ratios of this category. The Calculated value of $F = 0.0288619$ and tabular value of $F = 2.124029$ at 5% level of significance. The Calculated value of $F$ is smaller or less than table value of $F$ ($F_c < F_t$). So, the null hypothesis has been accepted and alternative hypothesis has been rejected. It means all the selected banks have equal Capital Adequacy Test.

6.3.2 Assets Quality Test (A)

Five parameters have been taken for Assets Quality Test and each parameter has given a rank according to their characteristics and analyzed accordingly as well as combined or common rank is also given for assets quality test.

1. Total Investment To Total Assets Ratio
2. Percentage Change In Net NPAs Ratio
3. Gross NPA to Net Advance Ratio
4. Net NPA to Net Advance Ratio
5. Net NPA to Total Assets Ratio

ON THE BASES OF RANK OF RATIO AS RANK OF PARAMETER, HDFC is having highest Assets Quality Norms with Average score of 3.3 which is followed by BOB with average score of 3.4 & AXIS BANK with 3.5 Average score, while SBI stood at last position due to its poor performance in Gross NPA to net advance ratio, NET NPA to net advance ratio & NET NPA to total assets ratio. Here, Lowest score (AVG.) shows the highest or better assets quality. Because bases of parameter is rank of ratios that has been achieved in all calculated ratios of this category. The Calculated value of $F = 2.324204$ and tabular value of $F = 2.124029$ at 5% level of significance. The Calculated value of $F$ is greater or more than table value of $F$ ($F_c > F_t$). So, the null hypothesis has been rejected and alternative hypothesis has been
accepted. It means all the selected banks have unequal or different Assets Quality Test.

ON THE BASES OF AVERAGE OF RATIO AS RANK OF PARAMETER, INDUSIND BANK is having highest or better Assets Quality Norms with Average score of 3.3 which is followed by ICICI BANK with average score of 8.69 & KOTAK BANK with 8.90, while PNB stood at last position due to its poor performance in NET NPA ratio. Lowest score (AVG.) shows the highest or better assets quality. The Calculated value of \( F = 0.451807 \) and tabular value of \( F = 2.124029 \) at 5 % level of significance. The Calculated value of \( F \) is smaller or lesser than table value of \( F (F_c < F_t) \). So, the null hypothesis has been accepted and alternative hypothesis has been rejected. It means all the selected banks have equal Assets Quality Test.

6.3.3 **Management Efficiency Test (M)**

Five parameters have been taken for Management Efficiency Test and each parameter has given a rank according to their characteristics and analyzed accordingly as well as combined or common rank is also given for Management Efficiency test.

1. Return on Net worth Ratio
2. Business Per Employee Ratio
3. Business Per Branch Ratio
4. Profit Per Employee Ratio
5. Profit Per Branch Ratio

ON THE BASES OF RANK OF RATIO AS RANK OF PARAMETER, highest Management Efficiency Test rank is AXIS BANK with average score of 2.6 due to its good performance in all the five calculated ratios, Followed by ICICI BANK & BOB with average of 2.8 & 3.8 respectively. SBI scored the lowest position with 10\(^{th}\) rank with a score of 8.4 due to its poor performance in all the five calculated ratios. Here, Lowest score (AVG.) shows the highest or better management Efficiency. Because bases of parameter is rank of ratios that has been achieved in all calculated ratios of this category. The Calculated value of \( F = 2.74202 \) and tabular value of \( F = 2.124029 \) at 5 % level of significance. The Calculated value of \( F \) is greater or more
than table value of F (F<sub>c</sub> > F<sub>t</sub>). So, the null hypothesis has been rejected and alternative hypothesis has been accepted. It means all the selected banks have unequal or different Rank of Management Efficiency Test.

**ON THE BASES OF AVERAGE OF RATIO AS RANK OF PARAMETER,** highest Management Efficiency Test rank is ICICI BANK with average score of 526.98 followed by AXIS BANK & INDUSIND BANK with average score of 489.45 & 392.53 respectively. PNB scored the lowest position with 10<sup>th</sup> rank with a score of 201.97 due to its poor performance in some calculated ratios. **Here, highest score (AVG.) shows the highest Management Efficiency,** because bases of parameter is average score of ratios that has been achieved in all calculated ratios of this category. The Calculated value of F = 0.118459 and tabular value of F = 2.124029 at 5 % level of significance. The Calculated value of F is smaller or lesser than table value of F (F<sub>c</sub> < F<sub>t</sub>). So, the null hypothesis has been accepted and alternative hypothesis has been rejected. It means all the selected banks have equal Rank of Management efficiency Test.

**6.3.4 Earning Quality Test (E)**

Five parameters have been taken for Earning Quality Test and each parameter has given a rank according to their characteristics and analyzed accordingly as well as combined or common rank is also given for Earning Quality Test.

1. Net Interest Margin (NIM) To Total (Av.) Assets Ratio
2. Interest Income To Total Income Ratio
3. Operating Profit To Average Working Fund (Av. Total Assets) Ratio
4. Return on (Average) Assets Ratio
5. Interest Income To Total (Average) Assets Ratio

**ON THE BASES OF RANK OF RATIO AS RANK OF PARAMETER,** highest Earning Quality Test rank is KOTAK BANK with average score of 2 due to its good score in all calculated ratio, followed by HDFC BANK with average score of 3.2 for all the parameters. While lowest average rank is shown by BOB and ICICI BANK with average score of 7.6. **Here, Lowest score (AVG.) shows the highest or better Earning Quality.** Because bases of parameter is rank of ratios that has been achieved.
in all calculated ratios of this category. The Calculated value of $F = 3.63904$ and tabular value of $F = 2.124029$ at 5% level of significance. The Calculated value of $F$ is greater or more than table value of $F$ ($F_c > F_t$). So, the null hypothesis has been rejected and alternative hypothesis has been accepted. It means all the selected banks have unequal or different Earning Quality Test.

ON THE BASES OF AVERAGE OF RATIO AS RANK OF PARAMETER, highest Earning Quality Test rank is KOTAK BANK with average ratio (score) of 21.17 due to its good score in all calculated ratio, followed by PNB with average ratio (score) of 20.54 for all the parameters. While ICICI BANK showing lowest rank with average ratio (score) of 18.52. Here, highest score (AVG.) shows the highest or better earning Quality, because bases of parameter is average score of ratios that has been achieved in all calculated ratios of this category. The Calculated value of $F = 0.00256$ and tabular value of $F = 2.124029$ at 5% level of significance. The Calculated value of $F$ is smaller or lesser than table value of $F$ ($F_c < F_t$). So, the null hypothesis has been accepted and alternative hypothesis has been rejected. It means all the selected banks have equal Earning Quality Test.

6.3.5 Liquidity Management Test (L)

Five parameters have been taken for Liquidity Management Test and each parameter has given a rank according to their characteristics and analysed accordingly as well as combined or common rank is also given for Liquidity Management Test.

1. Liquid Asset To Total Assets Ratio
2. Liquid Asset To Total Deposit Ratio
3. Liquid Assets To Demand Deposits Ratio
4. Government Security to Total Assets Ratio
5. Approved Securities To Total Assets Ratio

ON THE BASES OF RANK OF RATIO AS RANK OF PARAMETER, highest Liquidity Management Test rank is BOB with average rank is 3 for all the parameters which is followed by BOI with average rank with 3.8 while lowest average rank is
shown by KOTAK Bank with average rank 8.1. **Here, Lowest score (AVG.) shows the highest or better Liquidity management.** Because bases of parameter is rank of ratios that has been achieved in all calculated ratios of this category. The Calculated value of $F = 1.7339331$ and tabular value of $F = 2.124029$ at 5% level of significance. The Calculated value of $F$ is smaller or lesser than table value of $F$ ($F_c < F_t$). So, the null hypothesis has been accepted and alternative hypothesis has been rejected. It means all the selected banks have equal Liquidity Management test.

**ON THE BASES OF AVERAGE OF RATIO AS RANK OF PARAMETER,** highest Liquidity Management Test rank is BOB with average score of 48.36% for all the parameters which are followed by BOI with average score of 45.34% while lowest rank is shown by KOTAK Bank with average score of 17.34% for all parameters. **Here, highest score (AVG.) shows the highest or better Liquidity Management,** because bases of parameter is average score of ratios that has been achieved in all calculated ratios of this category. The Calculated value of $F = 0.246916$ and tabular value of $F = 2.124029$ at 5% level of significance. The Calculated value of $F$ is smaller or lesser than table value of $F$ ($F_c < F_t$). So, the null hypothesis has been accepted and alternative hypothesis has been rejected. It means all the selected banks have equal liquidity Management Test.

### 6.3.6 Overall “CAMEL” Rank Test

(C) CAPITAL ADEQUACY TEST  
(A) ASSET QUALITY TEST  
(M) MANAGEMENT EFFICIENCY TEST  
(E) EARNING EFFICIENCY TEST  
(L) LIQUIDITY MANAGEMENT TEST

**ON THE BASES OF RANK OF RATIO AS RANK OF PARAMETER,** first Overall CAMEL rank from the selected research unit is for BOB which is followed by HDFC BANK. While, ICICI, AXIS & INDUSIND BANK stood on similar rank. Last rank is of SBI. **Here, Lowest score (AVG.) shows the highest or better OVERALL CAMEL RANK.** Because bases of parameter is rank of ratios that has been achieved in all calculated ratios of that particular category. The Calculated value of $F =
0.811114 and tabular value of $F = 2.124029$ at 5 \% level of significance. The Calculated value of $F$ is smaller or lesser than table value of $F$ ($F_c < F_t$). So, the null hypothesis has been accepted and alternative hypothesis has been rejected. It means all the selected banks have equal Overall “CAMEL” Rank Test.

**ON THE BASES OF AVERAGE OF RATIO AS RANK OF PARAMETER**, first Overall CAMEL rank from the selected research unit is for ICICI BANK with average score of 126.71 which is followed by AXIS BANK with average score of 115.78 while PNB is showing lowest rank with average score of 65.03. Private sector banks are showing better overall rank than public sector banks. **Here, highest score (AVG.) shows the highest or better OVERALL “CAMEL” RANK**, because bases of parameter is average score of ratios that has been achieved in all calculated ratios of that particular category. The Calculated value of $F = 0.098102$ and tabular value of $F = 2.124029$ at 5 \% level of significance. The Calculated value of $F$ is smaller or lesser than table value of $F$ ($F_c < F_t$). So, the null hypothesis has been accepted and alternative hypothesis has been rejected. It means all the selected banks have equal Overall “CAMEL” Rank Test.

It was found that private sector banks were better than public sector banks in utilizing the available resources such as assets and Branches, which can be inferred from ratios such as Operating Profit to Average Working Fund (Total Assets), Return on Asset, Business per Branch, and Profit per Branch. Also, it was found (more or less) that banks whose investment ratios in Government Securities were more tended to have less Gross Non Performing Assets and Net Non-Performing Assets. Only a few banks have maintained the lower rate of Gross and Net Non-Performing Assets. This shows that overall, private sector banks are performing better than public sector banks.
6.4 SUGGESTIONS

For improvement of financial performance of selected public sector and private sector banks, following suggestions emerges for consideration and attention.

(A) Though, the CAPITAL ADEQUACY (norms) RATIO seems adequate at present, but considering the Basel-III norms requirements of CAR & present level of NPAs, The measures, which banks can undertake to raise its capital base and improve its capital adequacy ratio are:
   1. Augmenting capital through equity and /Debt route.
   3. Retaining earning on profits.
   4. Improving Asset quality.

(B) In the context of ASSETS QUALITY, The NPAs of Indian banks are high but in case of public sector bank it is higher than Private Sector Bank. There is a need to fix special norms by RBI in order to reduce the NPAs. Private Sector Banks need to improve (reduce) their Total Investment against the Total Assets. The banks should charge price for their services in a remarkable manner and should plug all leakage of income. Apart from service charges income from letter of credit; guarantee should be tapped within prudential limits.

(C) For MANAGEMENT EFFICIENCY, It was also observed in the study that public sector banks were not utilizing their resources optimally. The business per Branch and profit per Branch ratios in public sector banks are too low. Hence it is necessary for public sector banks to improve the productivity/efficiency of Branches, either by increasing business through incentives or training to employees or by reducing cost.

(D) EARNING QUALITY of Public Sector Bank as well as Private Sector Bank is poor. In case of Public Sector Banks income from interest is better but their income from operating profit to Average Working Fund and non-interest income (i.e. fee, commission etc.) is very low. The Public Sector Banks have to work on this area in order to improve their overall profitability & financial performance. For Private Sector Banks, Net Interest Margin to Total Assets is better but they need to improve their Return on Net worth Ratio.
(E) HIGHER LIQUIDITY shows the low profitability but low liquidity may cause of loss a credit. The Public Sector Bank has excess liquid assets (Liquidity) against their deposit or total assets. The Public Sector Bank needs to utilize their liquidity in such a manner which will enable them to gather higher profit.

(F) In order to sustain their competitiveness, banks must focus on their performance. The results of the study suggest that some of the banks are not utilizing their assets in the best possible way. Hence, banks need to concentrate on the better utilization of assets which will increase their profitability.

(G) Some of Public & private sector banks have poor performance in terms of earnings and asset quality. These can be improved by having better portfolio management. In fact, it was observed in the study that banks having a higher proportion of investment in government securities have lower rates of nonperforming assets. Also, better portfolio management is needed to increase the earnings, to reach an optimal balance between returns and risk.

(H) Technology has affected all the sectors around the world. The banking sector is also affected in a big way by it. The technology not only improves the efficiency of services etc. but also reduces the cost. The Public Sector Banks were very slow in adopting the technology and cost reduction. There is a need for Public Sector Bank to increase the profit per Branch, Business per Branch and converting their deposits into advances by adopting technology i.e. information technology, e-commerce etc.

(I) The banks should reduce their NPA by adopting various measures within the constraints of RBI guidelines. The banks should declare the thrust area for loans and advances. A bank may choose retail loans over corporate loan.

(J) The Banks should make the best use of their branch network, to raise low cost deposits to attract funds of the banks. Management of market will be essential apart from appropriate structure of the instrument for raising funds.
6.5 LIMITATIONS

There were some limitations inherent in the study. The study was completely done on the basis of ratios calculated from the income statements and balance sheets. It has not been possible to get sensitive real data on actual CAMEL ratings. It has not been possible to get a personal interview with the top management or employees of the bank.

6.6 SCOPE FOR THE FUTURE RESEARCH

There is a wide scope for the further research in this area. The present study can be enriched by using or adding ‘S’ in acronym of “CAMEL”, which was later added and “CAMEL” expanded to “CAMELS”. ‘S’ represents the sensitivity to market risk or systems & control. Study can also be enriched by applying the extended parametric tests or other statistical tools & techniques.

The present study has covered limited sample size and time only. It has covered five public and five private sector banks for a period of five years. So, the same may be extended or expanded beyond that also.

This study was limited only to the study of financial performance of selected public and private sector banks in India (with reference to “CAMEL” model). But Further Research can be made on:

3. A comparative study of Branch Productivity and Employee Productivity of Selected Public Sector and Private Sector Banks in India.
6.7 **CONCLUSION**

Here we have obtained a ranking of selected five public sector banks and five private sector banks in terms of their CAMEL variable values. Ranking the commercial banks is difficult to the extent that any type of ranking is subject to criticism as the ratios used for the purpose of ranking can be interpreted in the way one likes. This method of analysis provides a simplistic, reader friendly version of presenting complex data regarding performance of a set of players in the banking industry. The ranking system makes judging and analysing the financial data of banks much simpler for the common man. Thus through this particular data set, it can be established that private sector banks are at the top of the list with their performances in terms of soundness (Capital Adequacy, Assets Quality, Management Efficiency) being the best. Public sector banks have taken a backseat and display low economic soundness in comparison. This implies that the Government needs to focus more on the Public Sector Banks in order to increase the Return on Average Assets Ratio, Operating Profit to Average Working Fund Ratio, NIM to Total Assets Ratio, Profit per Branch, and Business per Branch etc. Though these will be good for the soundness of the bank, but sometimes it may defeat the purpose of Public Sector Banks lending at comparative lower rates and having more focus on priority sector lending.

As for convergence, using parameters of the CAMEL model, we can see that the private sector banks are heading towards convergence, not in the short, but in the long run. Most of these banks lie in a similar rank region. However, these banks’ assets etc. vary a great deal and they cannot be judged solely based on the absolute values of the CAMEL ratios. Looking at the trend, we can say that private banks are growing at a faster pace than public sector banks and will head towards convergence faster than the PSBs.

**Recently, Kotak Mahindra Bank has merged ING Vysya Bank with itself, which shows the trend and mood that, prevails in the banking sector especially in the private banking sector.** Considering the need of time and situation, to survive and to remain competitive, Public sector banks need some big merger and consolidation.