JOURNAL: PRIMAX INTERNATIONAL JOURNAL OF COMMERCE AND MANAGEMENT RESEARCH
ISSN: Print ISSN: 2321-3604 Online ISSN: 2321-3612 & Open Access
DOI: 10.17605/OSF.IO/9RXZM
Impact Factor: 7.184
PRIMAX IJCMR VOLUME NO.10, ISSUE NO-2, JULY -SEPTEMBER - 2022
Research Article

PERFORMANCE ANALYSIS OF SELECTED INDIAN BANKS USING CAMEL MODEL

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Abstract: *The banks need to be analysed, evaluated and measured in terms of various parameters as they do deal with public money and stand as the back bone of the economy. If a bank fails, it results into crores of rupees of loss and also the confidence and trust of the investors/depositors is lost. The main question arises here is how to evaluate these banks. They are not commercial organizations like trading concerns that deal with purchase and sale of goods, incurring direct and indirect expenses, generating some revenue. They are the financial institutions that cater the needs of business and households by supplying the credit from the money received from the various people in the form of deposits. So a better and much adopted evaluating system is required to evaluate the banks.Apart from the regular Accounting ratios which are used for a company to evaluate and compare the performances of the company, banks need to have a separate and more scientific nature of evaluation of their performance based on some selected criteria. CAMEL model is one of the such globally accepted and adopted methodology for analysing the performance of the banks. This paper discusses the evaluation and analysis of banks selected in Public and Private sector by using CAMEL model and there by the interpretations for analysis and comparison are made in the findings section of research. The research paper throws light on the rankings of selected banks based on CAMEL model and the areas where they have to improvise.*

Key Words: Indian Banking Sector, Financial Performance, CAMEL Model, Public Sector banks, Private Sector banks.

Introduction

Till 1998, Indian banks were rated based on the assessment of Solvency which is relative to the components of the funds owned.A committee was appointed in 1996 under the chairmanship of Sri Padmanabham to revise the evaluation, supervision and rating procedure for banks. The committee had submitted its observations and stated that the earlier form of rating was not adequate enough as it did not take some serious and important financials such as capital adequacy, efficiency, liquidity etc. though the banks was solvent, it might have serious issues with regard to management efficiency or profitability which were not considered for evaluation. The committee, so, recommended to replace the old system with new system of rating which was adopted in US, called as " CAMEL Model".

Let us see each component of CAMEL and what it contributes for the analysis.

Capital Adequacy Component

Capital is the most important element for a bank. Every bank should have sufficient capital to meet any unexpected risks and to absorb the unexpected losses. The sufficient capital will build depositor's confidence and trust. It lays down foundation for arranging of additional capital. The capital adequacy element comprised of 3 ratios.

1. Capital Adequacy Ratio = Total Capital / Risk Weighted Assets
2. Debt to Equity Ratio = Total Debt/ Total Equity
3. Advances to Assets Ratio= Total Advances / Total Assets

Assets Quality Component

This is one of the key elements and measures the indication of Non Performing Assets of a bank's total advances. The major assets for the banks are advances. If the advances are recoverable and promising good returns, the business of banking and growth are inter dependent. The loans or advances , other assets, off balance sheet items are the revenue generated sources for a bank. On the other hand, credit risk is attached with the advances granted. So, this component explains what kind of assets the bank has, the quality of assets and the efficient and quality debtors the bank possess and measures the sensitivity of loans. The components has three ratios

1. Net NPA / Total Assets ratio
2. Net NPA / Total Advances ratio
3. Total Investments/ Total Assets ratio

Management Efficiency Component

In most of the financial institutions, management quality decisions will have an effect on the profit numbers of the business. In any organization, Management plays very important role as they take prominent and proactive decisions with regard to various risk preparatory measures. It shows how management is responding to various issues raised in the bank and the reflection of their efficiency is qualitatively subjective in bank's performance. The component has three ratios:

1. Total Advances/ Total Deposits ratio
2. Business Per Employee = (Total Deposits + Total Advances) / Number of Employees
3. Profit Per Employee = Net Profit/ Number of Employees

Earnings Efficiency Component

This is one of the important components that relates the trio-aspects of a bank- the profitability, growth of organization in present and future earnings and sustainable nature. It has also three main ratios to compute:

1. Net Interest Margin/ Total Assets ratio
2. Net Profit/ Total Assets ratio
3. Non-Interest Income/ Total Income ratio

Liquidity Component

Liquidity reflects the capacity of the banks in meeting the depositor's obligations as and when they occur. A good amount of liquidity ensures good consistency and safety for the bank. The following are the crucial ratios in this component.

1. Liquid Assets/ Total Assets ratio
2. Liquid Assets/Total Deposits ratio

Review of Literature

Dr R Mayakakkannan ,C.Jaya Shankar, 2020– The research was made to study the financial performance of all Public and Private sector banks during 2015-2020. The CAMEL model was used. Mean differences and t-test is used to analyze the performance. The study revealed that though in some aspects, Public Sector Banks are good but in most of the aspects Private sector banks are outperforming.

S.Panboli and KiranBirda, 2019 - The study was mainly aimedin comparing the financial performance of the selected banks (Public and Private) using CAMEL model. The period of study was 2012-2017. The banks selected are SBI, PNB, BOB,UBI, CB,HDFC, ICICI, KMB, AXIS and Yes bank. The study revealed that HDFC bank stood in 1st place, ICICI in 2nd and the least rant is given to Canara bank.

DhruvaKinnari , 2017- In his thesis, chosen a study period of 2007 to 2017 to analyse and compare the working of banks.Total of 7 banks which are totally Public sector banks were taken. The statistical measures like Standard Deviation, Two way ANOVA, Ratio Analysis were taken to analyse the performance. The study has found the performance of all sample banks for the study period for both Basel I and Basel II norms remained above than stipulated standard declared by the RBI, and in capital adequacy performance of all sample banks are more than satisfactory

Vinodh Kumar and Bhawan Malhotra, 2017- The authors aimed to differentiate the performance of the given selected banks (Private sector) using CAMEL model. The period of study was 2007-2017. The banks selected are HDFC, ICICI, KMB, AXIS and Indus Indbank.The study revealed that AXIS bank stood in 1st place, KMB in 2nd and the least rant is given to Indus Ind Bank.

M. Keshari, 2016- In his research paper "Analyzing the Financial Strength of Selected Banks", has taken two banks namely, J & K Bank, South Indian Bank for the period of 2005-2014. CAMEL model is used along with Average, SD and One Way ANOVA. The study revealed that South Indian Bank is performing less than that of J & K Bank.

ChiragJiyani, 2016- In his thesis in comparing the financial evaluation of selected banks (Private sector) , the researcher has chosen the study of 2006 to 2015. The banks selected were ICICI, HDFC & AXIS. The researcher has used Ratio Analysis to evaluate the performance of banks. The thesis found many findings based on various ratios. All banks have been performing extremely well with good profit over gross income. With regard to high return on assets, except HDFC other two banks are well performing. Credit Deposit Ratio is high in latest years when compared with earlier years. Current Ratio is steeper in all banks but in ICICI it is in high position, followed by HDFC bank. ICICI bank is having highest net profit margin ratio followed by HDFC and AXIS. ICICI is having highest average net return on assets followed by AXIS and HDFC, When comes to risk level, ICICI is in top with low risk levels and also top in Cash deposit ratio. AXIS bank is good in highest average quick ratio while ICICI bank leads in highest average dividend pay out ratio.

JaspreetKaur, ManpreetKaur and Dr Simranjith Singh, 2015- They have analyzed the financial performance of selected Public Sector banks namely SBI, PNB, BOB, BOI, Canara Bank. The period of study was taken from 2009 to 2014. CAMEL was used to analyze the performance of banks. Also, the averages and ranks are used to assess the performance. According to the study, bank of Baroda is in top place, followed by PNB and Canara bank at the third place.

Dr Sneha S Shukla, 2015 -In her paper , analysis of financial strength of Public and private sector banks, the researcher has taken 3 Public (BOB, IDBI & PNB) and 3 Private (AXIS, ICICI & HDFC) banks for the period of 2010-2013. The research tool used was CAMEL model along with mean and Variance. It has concluded that, HDFC & BOB are top in Capital adequacy, HDFC in Asset quality, HDFC and ICICI in Management efficiency, HDFC in Earnings, ICICI in Liquidity. Over all, the study ranked HDFC in 1st place, ICICI in 2nd and BOB in 3rd place.

Objectives

This research paper has the following objectives

1. To analyse the financial performance of banksselected using the CAMEL.
2. To interpret and compare the CAMEL ratios of the banks selected.
3. To find the best performing bank among all from the analysis and comparison done through the CAMEL model.

Research Methodology

Sources of data: This kind of study requires exclusively the secondary data and accordingly various financial reports of the selected banks, RBI reports, various journal research articles in this area of study, books, newspapers, banking magazines etc.

Sample Size: The present study considers total of 6 banks of which three from Public Sector and three from Private sector.

Sample Description:

The banks selected from public sector are-

1.State Bank of India(SBI)

2. Punjab National Bank (PNB)

3.Bank of Baroda (BOB)

and from private sector-

1.HDFC Bank

2.ICICI Bank

3.Kotak Mahindra Bank (KMB).

Statistical tools used: The study calculates the various ratios each component of CAMEL and these ratios are explained above. The various tools used for analysis are –

- Ratio Analysis
- Averages
- Ranking
- Percentage

Study Period: The present research is covering a period of ten years (i.e., from 2011-2020)

Limitations of Study

1. Top 3 banks from public and private sector are taken.
2. For the study, 10 years data from 2011 to 2020 was considered and the recent performance and analysis was not taken.
3. There was no scope for primary data for this study as the analysis could be done only on the basis of secondary data.

FINANCIAL PERFORMANCE ANALYSIS USING CAMEL APPROACH

1. **Capital Adequacy Ratios**: As explained above, Capital adequacy ratios will measure the adequacy and efficiency of capital. The analysis of the three ratios of Capital Adequacy is given below:

Table 1: Capital Adequacy Ratios of Selected banks from 2011-2020

YEAR	CRAR (%)	Rank	D/E RATIO	Rank	Advances/ Assets	Rank	Component Rank Average
SBI	13.07	5	12.07	4	61.66	2	3.67
PNB	11.75	6	14.61	5	61.12	3	4.67
BOB	13.3	4	15.02	6	59.36	4	4.67
HDFC	16.5	3	8.36	2	63.16	1	2.00
ICICI	17.8	1	7.16	1	51	6	1.67
KOTAK	17.6	2	8.44	3	58.87	5	3.33

Source: Compiled from the reports of selected banks

2. **ASSET QUALITY RATIOS:**These are the ratios that measure the quality of assets being maintained by the bank. The analysis of the three ratios of Asset quality is given below:

Table 2: Asset Quality Ratios of Selected banks from 2011-2020

YEAR	NPA/Assets	Rank	NPA/Advances	Rank	Investments /Assets	Rank	Component Rank Average
SBI	1.74	4	2.87	4	25.53	4	3.00
PNB	2.98	6	5.00	6	26.17	3	5.00
BOB	1.54	3	2.66	3	20.71	6	4.00
HDFC	0.17	1	0.27	1	24.59	5	2.33
ICICI	1.06	2	2.05	2	34.88	1	1.67
KOTAK	2.33	5	3.92	5	30.07	2	4.00

Source: Compiled from the reports of selected banks

3. **MANAGEMENT EFFICIENCY RATIOS:** These are the ratios that measure the efficiency and efficacy of Management in various decision makings and proper utilization of resources. The analysis of the three ratios of Management efficiency is given below:

Table 3 : Management Efficiency Ratios of Selected banks from 2011-2020

YEAR	Advances/ Deposits	Rank	Business Per Employee	Rank	Profit Per Employee	Rank	Component Rank Average
SBI	80.08	3	14.42	2	0.05	4	3.00
PNB	74.27	4	13.06	3	0.01	5	4.00
BOB	70.44	5	18.96	1	0.05	4	3.33
HDFC	86.68	2	12.24	4	0.15	1	2.33
ICICI	51.00	6	12.22	5	0.13	3	4.67
KOTAK	120.44	1	8.49	6	0.15	1	2.67

Source: Compiled from the reports of selected banks

4. **Earnings Capacity Ratios** : These are the ratios that will measure the capacity of the bank with regard to their earnings. The earnings (Net Profit) is being associated with other parameters to know how exactly the bank performs. The analysis of the three ratios of Earnings Capacity is given below:

Table 4 : Earnings Capacity Ratios of Selected Banks from 2011-2020

YEAR	Int.Income/ Total Income	Rank	Non-Int .Income /Total Income	Rank	Net Profit/Total Assets	Rank	Component Rank Average
SBI	79.09	4	20.91	3	0.58	4	3.67
PNB	87.78	1	12.22	6	0.11	6	4.33
BOB	87.36	2	12.64	5	0.39	5	4.00
HDFC	83.70	3	16.30	4	1.68	2	3.00
ICICI	56.87	6	43.13	1	1.16	3	3.33
KOTAK	65.31	5	34.69	2	1.89	1	2.67

Source: Compiled from the reports of selected banks

Liquidity Ratios : These ratios will measure the short term solvency and immediate payment capacity of a bank. The analysis of the ratios of liquidity is given below:

Table 5: Liquidity Ratios of Selected banks from 2011-2020

YEAR	Liquid Assets/Total Assets	Rank	Liquid Assets/ Total Deposits	Rank	Component Rank Average
SBI	8.76	3	11.40	4	3.50
PNB	9.19	2	11.12	5	3.50
BOB	16.18	1	19.12	1	1.00
HDFC	7.16	5	9.82	6	5.50
ICICI	7.32	4	14.54	2	3.00
KOTAK	6.56	6	12.73	3	4.50

Source: Compiled from the reports of selected banks

Overall Analysis of CAMEL rating based on Components Rank Average

Table 6: Overall Ranking of all banks using CAMEL approach

OVERALL ANALYSIS OF COMPONENTS RANK AVERAGES							
BANK	C	A	M	E	L	GRAND AVERAGE	GRAND COMPOSITE RANK
SBI	3.67	4.00	2.67	3.67	3.50	3.50	5
PNB	4.67	5.00	3.67	4.33	3.50	4.23	6
BOB	4.67	4.00	3.00	4.00	1.00	3.33	3
HDFC	2.00	2.33	2.33	3.00	5.50	3.03	2
ICICI	2.67	1.67	4.33	3.33	3.00	3.00	1
KOTAK MAHINDRA	3.33	4.00	2.67	2.67	4.50	3.43	4

From the tables from 6 to 10, it can be seen that different banks have excelled in different components and accordingly the ranks are assigned. For each component, the averages are taken and accordingly the category ranks are assigned based on averages for each of the banks. In some components, some banks have done well and in some, they are not up to the mark.

Findings

From all the tables from 6 to 10 , the following findings are made with regard to performance of banks in all the components of CAMEL.

- With regard to Capital Adequacy component, ICICI bank has done an excellent performance in maintaining the capital adequacy ratios, low debt to assets ratio. HDFC is next to ICICI bank and performed well. PNB and BOB, are in the least ranks in maintaining proper capital norms.

- In Asset quality component, again ICICI bank has outperformed well in maintaining the assets with less risk of NPAs. Here also, HDFC bank done excellent job after ICICI bank. Punjab National Bank was in the least as it has got more NPAs.
- With regard to Management efficiency component, HDFC has performed well to maintain good amount of advances, profits and total business. Kotak Mahindra and SBI have also done well with regard to these ratios after HDFC bank. Surprisingly, ICICI has bagged the last rank in this category.
- With regard to Earnings Capacity component, Kotak Mahindra bank did well to maintain good amount of interest and non interest incomes that lead to high net profits. Next to that , HDFC and ICICI have managed their performances. PNB is in the least position in earnings efficiency.
- Bank of Baroda maintained balanced liquidity position with regard to Liquidity component, followed by ICICI and SBI. HDFC was in least position with regard to liquid assets structure and management.
- Over all analysis can be observed where the individual ranks based on components are again taken for a grand average and accordingly a grand composite rank is assigned for each of the banks. ICICI bank stood in first position , followed by HDFC bank. The third place is captured by Bank of Baroda. The new generation private sector bank, Kotak Mahindra gained the 4th position. The largest Public sector bank , SBI is limited to 5th position. The second largest public sector bank, Punjab National Bank stood in the least position, i.e. , at 6th rank.

Suggestions

From the above tables and analysis, it is clear that private sector banks are performing very well than the public sector banks. ICICI bank enjoying the top position where as PNB is in least rank and should think different strategies to grow in the coming years to improvise the ranking. Also, State bank of India (SBI), the largest public sector banks has not left its mark any where in the performance which is a detrimental to the bank and economy too. These two banks should think why the performance is poor and accordingly formulate the strategies for future challenges.

Conclusion

To conclude, the banks which are backbone for any economy- should keep on giving consistent positive performance in their activities. Public sector banks in India should come out of their comfort zone in rendering services to the customers. They should observe the strategies adopted by the private banks in accelerating the deposits and recovering the loans. A combination and proper balance of public and private sector banks would surely lead to a greater economic development and welfare in the economy.

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