

Comparative Performance Analysis of Selected Banks Using Camel Model

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Abstract: *With the increased competition and emphasis on profitability, the public sector banks have to face the competition with social welfare objectives. Performance of the banking sector is an effective measure and indicator to check the performance of any economy. The banking sector provides diversified services other than accepting deposits and lending loans like debit cards/credit cards, insurance, safety lockers, ATM, online fund transfer, etc. The present study examines the performance of 6 banks for the period 2013-17 using CAMEL model. Objectives of the study are to compare the performance of selected scheduled commercial bank in India using CAMEL Model and to suggest and conclude based on findings of the study. The present study analyzes the performance of 6 nationalized banks functioning in India. The secondary data was collected from journals, articles. The 6 banks analyzed for the study include 2 national banks, 2 public banks and 2 private banks. The performance of the above banks is analysed using CAMEL model. The components of a bank's performance that are evaluated are: C-Capital Adequacy; A-Assets; M-Management Capability; E-Earnings and L-Liquidity. Sixteen ratios of these components are used to evaluate the banks. It covers period of 5years from 2013 to 2017. The tools used for the data analysis of financial ratios. Secondary data makes use of official website of the selected companies under related banks under selected banks under study. . Evaluation of ranks of banks is based on statistical tool of consistency which is computed using coefficient of variation (Standard Deviation/Arithmetic Mean). The present study tested hypotheses that there is no significant difference in performance of selected banks in India and no significant differences in performance of CAMEL Parameters. It is summarized on an average consistency basis of CAMEL model, Canara bank stands the best among sample banks during the study period. Despite Indian bank secures the second rank, consistent-wise it needs to strive to increase its earnings and maintain adequate liquidity to overcome the problem of short-term insolvency. ICICI has to improve its quality of assets. There is no stability in management efficiency and asset quality of Axis bank. UCO bank needs to overhaul its system and structure.*

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I. Introduction:

A sound financial system is indispensable for the growth of a healthy and vibrant economy. A sound banking industry comprises a paramount component of the financial services sector. The banking system plays a pivotal role in the economy as it intermediates between the surplus fund generation areas to areas of productive asset creation, thus playing a vital role in building major economies. Banking in India has been through a long journey. The Indian banking sector has been working in a more open and globalized environment. The liberalization process of Indian economy has made the entry of new private sector banks possible and allowed the foreign sector banks to increase their branches in the banking sector. The public sector banks had dominated the banking sector. With the increased competition and emphasis on profitability, the public sector banks have to face the competition with social welfare objectives. Performance of the banking sector is an effective measure and indicator to check the performance of any economy. The banking sector provides diversified services other than accepting deposits and lending loans like debit cards/credit cards, insurance, safety lockers, ATM, online fund transfer, etc. The present study examines the performance of 6 banks for the period 2013-17 using CAMEL model.

II. Literature Review:

Prasuna (2004) analysed the performance of Indian Banks by adopting the CAMEL model. The Performance of 65 banks was studied for the period 2003-04. The author concluded that the competition was tough and consumers benefitted from better quality of services, innovative products and better bargains.

Kapil and kapil(2005) examined the relationship between the CAMEL ratings and the bank stock performance. The viability of the banks was analysed on the basis of the offsite supervisory Exam model—CAMEL model. The M for management was not considered in this paper because all public sector banks were government regulated, and also because all other four components—C, A, E and L—reflect management quality. The remaining four components were analysed and rated to judge the composite rating.

Satish and Bharthi (2006) analysed the performance of 55 banks for the year 2004-05, using CAMEL model. They concluded that the Indian Banking system looks sound and information technology will help the banking system grow in strength in future. Banks' initial public offer will be hitting the market to increase their capital and gearing up for the Basel II norms.

Grier (2007) recommended that management is considered to be the single most important element in the CAMEL rating system because it plays a substantial role in bank's success; however it is subject to measure as the asset quality examination.

Siva and Natarajan (2011) empirically tested the applicability of CAMEL norms and its consequential impact on the performance of SBI groups. The study concluded that annual CAMEL scanning helps the commercial bank to diagnose its financial health and alert the bank to take preventive steps for its sustainability.

Prasad and Ravinder (2012) evaluated nationalized banks using CAMEL model for the period 2006 to 2010 and concluded that Andhra Bank was at the top position followed by Bank of Baroda and Punjab & Sind Bank.

Subhal and vishal (2015) evaluated the financial performance of new age private sector banks operating in India for the period 2009-2014. They inferred that Kotak Mahindra Bank occupies the top position in new private sector banks.

Nancy Bawa (2017) compared performance analysis of Nationalized Banks using Camel Model covering 19 nationalised banks and period of 2006-16. He reveals from his study that Indian bank is top in terms of capital adequacy; Bharatiya Mahila Bank in terms of asset quality; IDBI in terms of Management efficiency and earnings quality and Andhra Bank is in overall performance.

Objectives of the study:

1. To compare the performance of selected scheduled commercial bank in India using CAMEL Model.
2. To suggest and conclude based on findings of the study.

III. Data and Methodology:

The present study analyzes the performance of 6 nationalized banks functioning in India. The secondary data was collected from journals, articles. The 6 banks analyzed for the study include 2 national banks, 2 public banks and 2 private banks. The list of 6 nationalized banks and other public and private sector banks used for the study is as follow.

1. Canara Bank
2. Axis Bank
3. UCO Bank
4. ICICI Bank
5. Bank of Baroda
6. Indian Bank

The performance of the above banks is analysed using CAMEL model. The components of a bank's performance that are evaluated are: C-Capital Adequacy; A-Assets; M-Management Capability; E-Earnings and L-Liquidity. Twenty one ratios of these components are used to evaluate the banks.

It covers period of 5 years from 2013 to 2017. The tools used for the data analysis of financial ratios. Secondary data makes use of official website of the selected companies under related banks under selected banks under study. The other information include book, journals, magazines etc are extensively used. The data is suitably tabulated, graphically presented statistically interpreted to draw the findings. Evaluation of ranks of banks is based on statistical tool of consistency which is computed using coefficient of variation (Standard Deviation/Arithmetic Mean).

Hypotheses:

The present study tested the following hypotheses:

H1: There are no significant differences in performance among selected banks in India as assessed by CAMEL model during 2006-07 to 2015-16

H2: There are a no significant differences in performance of CAMEL Parameters during 2006-07 to 2015-16.

Capital Adequacy of the Banks								
Banks	Capital Adequacy		Return on Advances		Return on Equity		Group	
	Consistency	Rank	Consistency	Rank	Consistency	Rank	Average	Rank
Canara Bank	0.082	5	0.52	5	1.59	4	4.33	5
Axis Bank	0.05	4	0.11	2	0.267	2	2.67	3
ICICI Bank	0.041	3	0.73	6	0.128	1	1.67	1
BOB Bank	0.031	2	0.09	1	1.973	5	4	4
UCO Bank	0.136	6	0.52	4	3.511	6	6	6
Indian Bank	0.02	1	0.15	3	0.353	3	2.33	2

A. Capital Adequacy:

- Indian Bank has maintained the most consistency amount of adequate capital to meet legal requirement; to maintain safety and to build confidence of the Depositors and Shareholders funds. It is followed by BOB Bank, ICICI Bank, Axis Bank, Canara Bank and UCO Bank respectively.
- BOB Bank has secured the most consistency Return on Advances among the selected Banks over the study period. It has return of 5.6% of advances followed by Bank of Baroda (5%), Indian Bank (4.4%), Canara Bank (3.9%), Axis Bank (3.7%), and ICICI Bank (2.4%) respectively.
- The most stable Return on Equity is maintained Bank by ICICI bank during the study period. ICICI and Axis are the only banks which have returns more than 10% of Equity Capital. The rest have returns less than 10% of Equity Capital
- Under the most consistency Capital adequacy Parameter, ICICI Bank stands first followed by Indian Bank, Axis Bank, Bank of Baroda, Canara Bank, and UCO Bank respectively.

Asset Quality of the Banks								
Banks	Net NPAs to Total Assets		Net NPAs to Net Advances		Change in Net NPAs		Group	
	Consistency	Rank	Consistency	Rank	Consistency	Rank	Average	Rank
Canara Bank	0.5064	5	0.482	2	0.92	2	3	1
Axis Bank	0.1093	2	1.333	6	1.83	4	4	5.5
ICICI Bank	0.7518	6	0.782	5	0.42	1	4	5.5
BOB Bank	0.0931	1	0.558	4	1.99	5	3.33	3
UCO Bank	0.4301	4	0.557	3	0.93	3	3.33	3
Indian Bank	0.173	3	0.298	1	2.11	6	3.33	3

B. Assets Quality:

- The quality of assets in terms of Net NPAs to Total Assets of ICICI Bank is the best in comparison with other selected Banks. It has an average of only 1.42% of total assets which are in deterioration during the study period. The deterioration of assets of Axis Bank is 2.29%, Canara Bank 2.31%, Indian Bank 2.77%, Bank of Baroda 2.94% and UCO Bank 3.08% of Total assets respectively.
- Average Net NPA ratio of the selected Banks is in the range of 0.6% of Axis Bank to 5.4% of UCO Bank over the study period.
- During the study period, the Average Annual change in Net NPAs is the highest of 227.21% of Bank of Baroda. It is followed by Axis Bank of 128.76%, Indian Bank of 73.68%, ICICI of 63.84%, Canara Bank of 51.54% and UCO Bank 45.18% respectively.
- Under Asset Quality assessment, it is disclosed that ICICI and Axis Bank stand top followed by Bank of Baroda, UCO Bank, Indian Bank, and Canara Bank respectively.

Management Efficiency of the Banks								
Banks	Advance to Deposits		Profit per Employee		Business Employee per		Group	
	Consistency	Rank	Consistency	Rank	Consistency	Rank	Average	Rank
Canara Bank	0.02	1	1.57	4	0.025	1	2	1.5
Axis Bank	0.068	5	0.28	3	0.078	5	4.33	5
ICICI Bank	0.041	4	0.11	1	0.107	6	3.67	3
BOB Bank	0.034	3	1.97	5	0.062	4	4	4
UCO Bank	0.096	6	3.62	6	0.052	3	5	6
Indian Bank	0.026	2	0.28	2	0.05	2	2	1.5

C. Management Capability:

- On an average, ICICI Bank is the only bank whose advances are more than that of deposits and hence, it is more risky and aggressive in nature. The other banks have advances in the range of 67% to 86% of total deposits under study period.
- The employees of ICICI Bank are the most efficient in earning profits arithmetically under study. Subsequently other Banks are Axis Bank, Indian Bank, Bank of Baroda, Canara Bank and UCO Bank respectively.
- An average business per Employee of ICICI is the highest recording 19.59% during the study period.. It is followed by other Banks like Canara Bank, Indian Bank, UCO Bank, Axis Bank, and ICICI Bank Respectively.
- Under Management Efficiency criteria, consistency-wise UCO bank is considered the best bank in Management Efficiency on average basis. It is followed by Axis Bank, Bank of Baroda, ICICI Bank, Canara Bank and Indian Bank.

Earnings Quality of the Banks										
Banks	Burden to Total Assets		NIM to Total Assets		Return on Total Assets		Operating Profit to Total Assets		Group	
	Consistency	Rank	Consistency	Rank	Consistency	Rank	Consistency	Rank	Average	Rank
Canara Bank	0.3	2	0.041	2	1.545	4	-0.809	1	2.25	1.5
Axis Bank	0.26	4	0.04	1	0.28	2	-0.869	2	2.25	1.5
ICICI Bank	-1.34	1	0.048	4	0.116	1	-1.06	4	2.5	3
BOB Bank	0.17	6	0.047	3	2.101	5	-1.366	6	5	6
UCO Bank	0.26	3	0.142	6	3.281	6	-1.011	3	4.5	4.5
Indian Bank	0.17	5	0.085	5	0.328	3	-1.197	5	4.5	4.5

D. Earnings Quality:

- Axis Bank has the maximum average return of 1.38% of total asset and minimum of 0.27% of total asset of Canara Bank during the study period.
- ICICI has the least burden of its expenses on total assets during the study period. It is followed by Axis Bank, Canara Bank, UCO Bank, Bank of Baroda and Indian Bank Respectively.
- The average Net Interest Margin to Total Asset of the entire selected bank is not more than 3% and not less than 1.8% under study. The Axis Bank has the highest Net Interest Margin to Total Asset and Canara Bank has the least of 1.8% during the study period.
- All the Banks under study on an average have negative Operating Profit to Total Assets.
- As per Earnings quality assessment, it is disclosed that Axis Bank and Canara Bank secure the highest earnings quality consistently during the study period followed by ICICI Bank, UCO bank, Indian Bank, and BOB bank respectively.

Liquidity Parameter of the Banks								
Banks	Credit to Deposit Ratio		Investment to Deposit Ratio		Cash to Deposit Ratio		Group	
	Consistency	Rank	Consistency	Rank	Average	Rank	Average	Rank
Canara Bank	0.094	4	0.051	1	0.02	1	2	1
Axis Bank	0.089	2	0.132	5	0.07	5	4	5
ICICI Bank	0.037	1	0.207	6	0.04	4	3.67	3
BOB Bank	0.105	5	0.095	2	0.03	3	3.33	2
UCO Bank	0.09	3	0.105	3	0.1	6	4	5
Indian Bank	0.167	6	0.112	4	0.03	2	4	5

E. Liquidity:

- All Banks under study are maintaining Cash balance in the range of 6.62% of Total Deposits of ICICI Bank to 3.46% of total Deposits of UCO Bank.
- ICICI Bank invests more than 46% of deposits in other Investments and hence, it is the most conservative Bank. Bank of Baroda has only 21.61% of its Deposit investing in other Investment and hence, it is aggressive Bank.

- ICICI Bank is the only bank whose advances are more than that of deposits. The other banks have advances in the range of 67% to 86% of Total Deposits.
- As per Liquidity Parameter, the most liquid bank is Canara Bank followed by Bank of Baroda, ICICI Bank, Axis Bank, Indian Bank and UCO Bank respectively.

Overall Performance of the Banks												
Banks	Capital Adequacy Ratio		Asset Quality		Management Efficiency		Earnings Quality		Liquidity		Group	
	Average	Rank	Average	Rank	Average	Rank	Average	Rank	Average	Rank	Average	Rank
Canara Bank	4.33	5	3	1	2	1.5	2.25	1.5	2	1	2.716	1
Axis Bank	2.67	3	4	5.5	4.33	5	2.25	1.5	4	5	3.45	5
ICICI Bank	1.67	1	4	5.5	3.67	3	2.5	3	3.67	3	3.102	3
BOB Bank	4	4	3.33	3	4	4	5	6	3.33	2	3.932	4
UCO Bank	6	6	3.33	3	5	6	4.5	4.5	4	5	4.566	6
Indian Bank	2.33	2	3.33	3	2	1.5	4.5	4.5	4	5	3.232	2

On average consistency basis of CAMEL model, Canara bank stands the best among sample banks during the study period. Despite Indian bank secure the second rank consistent-wise, it needs to strive to increase its earnings and maintain adequate liquidity to overcome the problem of short-term insolvency. ICICI has to improve its quality of assets. There is no stability in management efficiency and asset quality of Axis bank. UCO bank needs to overhaul its system and structure

On testing F statistic from ANOVA, it is evident that Prob. Value of 0.861927 rejects alternative hypothesis. Hence, there are no significant differences among selected banks under study. Similarly on testing equality of means of CAMEL parameters among selected parameters, it is found that there is rejection of null hypotheses since the prob, value of F statistic is 0.000

Suggestions:

- 1) To boost the confidence of stakeholders, Canara Bank has to improve in maintaining capital adequacy.
- 2) UCO bank has to adopt measures for minimizing cost and increase effective utilization of resources to maximize profit per employee and return on total assets.
- 3) Canara Bank has to check NPAs and avoiding from slippage of potential NPAs to purify its quality of assets. It has to carefully evaluate credit application; keenly monitor movement of potential NPAs and skillfully strategize recovery measures.
- 4) ICICI bank should properly balance between Advances and Deposits to avoid the risk of solvency through aggressive nature.

IV. Conclusion:

From the study it is summarized on an average consistency basis of CAMEL model, Canara bank stands the best among sample banks during the study period. Despite Indian bank secures the second rank, consistent-wise it needs to strive to increase its earnings and maintain adequate liquidity to overcome the problem of short-term insolvency. ICICI has to improve its quality of assets. There is no stability in management efficiency and asset quality of Axis bank. UCO bank needs to overhaul its system and structure.

Further research can be undertaken extending period of data, increase the number of samples, and cover different nature of banks to give appropriate representation.

References:

- [1]. Grier waymond A (2007), Credit Analysis of Financial Institutions, Euromoney Institution Investor PLC, United kingdom.
- [2]. Gupta Ruchi(2014), "an Analysis of Indian public sector banks using Camel approach", IOSR journal of Business and Management, Vol.16, No.1,pp.94-102
- [3]. Indian banks' association, <http://www.iba.org.in/>
- [4]. Kumar S and Gulati R(2008), "An Examination of Technical, Pure Technical and scale Efficiencies of Indian public sector Banks usind DEA", European journal of Business and Economics, Vol.1, No.2,pp.33-69
- [5]. Nurazi Ridwan and Evans Michael (2005), "An Indonesian study of the use of CAMEL(S) Ratios as predictors of Bank Failure", Journal of Economic and Social Policy, Vol.10, No.1,pp.1-23.
- [6]. Prasad K N and Ravinder G(2012), " A Camel model analysis of nationalized Banks in India", international Journal of Trade and Commerce, vol.1, No.1, pp.23-33.
- [7]. Reserve Bank of India, <http://dbie.rbi.org.in/DBIE/dbie.rbi?site=home>
- [8]. Prasuna D G (2004), "performance snapshot 2003-04", chatered Financial Analyst, Vol.X, No.11,pp.6-13.

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- [9]. Satish D and Bharthi Y Bala(2006), "Indian banking Coming of Age; performance Snap shot 2005-2006", chartered Financial Analyst, Octoer,Special issue,p.6-30.
- [10]. siva S and Natarajan P(2011), " CAMEL Rating scanning(CRS) of SBI Groups", Journal of Banking Financial Services and Insurance research, Vol.1, No.7,pp.1-17.
- [11]. **Nancy Bawa(2017)**, "Comparative performance analysis of Nationalized Banks: A CAMELI Model Analysis", The IUP Journal of Bank Mamngement, Vol.XVI, No. 4. Nov. 2017. PP. 35-49.

Appendix-1

Parameters of CAMEL Ratings															
Banks	Capital Adequacy			Assets Quality			Management Capability			Earnings Quality			Liquidity		
	Car	ROA	ROE	Net NPA s to Total Assets	Net NPAs to Net Advances	change in Net NPAs	Total advances to Total Deposits	Profit per Employee:	Business per Employee	ROTA	Burd en to Total Assets	NIM to Total Assets	Opera ting Profit to Total Assets	Cash to Deposit	Total Investment to Deposit Ratio:
Canara bank	11.51	0.04	0.05	0.02	0.04	51.54	0.69	0.03	14.72	0.00	0.02	-0.01	0.05	0.31	0.69
Axis bank	15.68	0.04	0.14	0.02	0.01	128.76	0.86	0.14	13.20	0.00	0.03	-0.01	0.06	0.38	0.86
ICICI bank	17.50	0.02	0.12	0.01	0.02	63.84	1.01	0.14	10.72	0.00	0.03	-0.01	0.07	0.47	1.01
BOB bank	12.90	0.05	0.05	0.03	0.03	227.21	0.68	0.04	19.60	0.00	0.02	-0.01	0.03	0.22	0.68
UCO bank	12.06	0.06	0.04	0.03	0.05	45.18	0.68	0.02	13.51	0.00	0.02	-0.02	0.04	0.35	0.68
India bank	13.18	0.04	0.08	0.03	0.03	73.68	0.73	0.06	14.48	0.01	0.02	0.00	0.05	0.30	0.73

Appendix-2

ANOVA						
Group of Banks	SS	df	MS	F	P-value	F crit
Between Groups	1621.99	5	324.398	0.379032	0.861927	2.315689236
Within Groups	77027.3	90	855.8589			
Total	78649.29	95				

Appendix-3

ANOVA						
Group of CAMEL Parameters	SS	df	MS	F	P-value	F crit
Between Groups	54232.02	15	3615.468	11.8456	1.13E-14	1.793221789
Within Groups	24417.28	80	305.216			
Total	78649.29	95				

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