



INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE AND MANAGEMENT

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PERFORMANCE EVALUATION OF PUBLIC SECTOR BANKS IN INDIA: AN APPLICATION OF CAMEL MODEL

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ABSTRACT

Banking sector is one of the fastest growing sectors in India. To days banking sector becoming more complex. Evaluating Indian banking sector is not an easy task. There are so many factors, which need to be taken care while differentiating good banks from bad ones. To evaluate the performance of banking sector we have chosen the CAMEL model because it measures the performance of banks from each of the important parameter like Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality and Liquidity. After deciding the model we have chosen all public sector banks of India for study. According to the importance of study each parameter is given equal weights. Results shown that on average Andhra Bank was at the top most position followed by Bank of Baroda and Indian Bank also it is observed that Central Bank of India was at the bottom most position followed by UCO bank, Bank of Mysore. The largest Public sector bank in India availed only 20th position.

KEYWORDS

public Sector Banks, Performance Evaluation, CAMEL Model, Ranking Method.

INTRODUCTION

 During the 20th century in most of the nations domestic banking was generally subjected to heavy regulations and financial repression. The growth and financial stability of the country depends on the financial soundness of its banking sector.

The Indian banking sector has been working in a more open and globalize environment for a decade and half since liberalization. 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. Besides, following India's commitment to the WTO, foreign banks have been permitted to open more branches with effect from 1998-99. With the increased competition and the emphatic on profitability, the public sector banks are now moving towards an economic-oriented model departing from the social approach followed for decades. Thus, the restructuring of public sector banks and the emergence of new banks in the private sector as well as the increased competition from foreign banks, have improved the professionalism in the banking sector. The increased presence of the private and foreign banks during the past decade has made the market structure of the banking sector in terms of competitive pricing of services, narrow spreads, and improving the quality of the services. The public sector banks, which had dominated the banking sector for decades, are now feeling the heat of the competition from private and foreign sector banks.

In the above back drop the present study is necessitated to examine the performance of all public sector banks i.e.26 banks during the period 2006-10. The study is based on twenty three ratios of the variables Capital Adequacy, Assets Quality, Management Efficiency, Earnings Quality and Liquidity.

REVIEW OF LITERATURE

In the process of continuous evaluation of the bank's financial performance both in public sector and private sector, the academicians, scholars and administrators have made several studies on the CAMEL model but in different perspectives and in different periods. This has been made me to take up the study on those areas where the study is incomplete. Hence, the knowledge on the current topic of the financial performance of the banks is reviewed here under to appraise the need for the present study.

Cole, Rebel A. and Gunther have made a study on "A CAMEL Rating's Shelf Life" and their findings suggest that, if a bank has not been examined for more than two quarters, off-site monitoring systems usually provide a more accurate indication of survivability than its CAMEL rating.

Lace well, Stephen Kent (2001). This study consists of multiple stages. Stage one in the estimation of cost and alternative profit efficiency scores using a national model and a size-specific model. Previous research referred in the paper asserts that an efficiency component should be added to the current CAMEL regulatory rating system to account for the ever-increasing diverse components of modern financial institutions. Stage two is the selection and Computation of financial ratios deemed to be highly correlated with each component of the CAMEL rating. The research shows that there is definitely a relationship between bank efficiency scores and financial ratios used to proxy a bank's CAMEL rating. It is also evident that certain types of efficiency models are better suited to large banks than to small banks and vice versa. Thus, the addition of an efficiency measure to the current regulatory rating system may in fact be a viable and equitable alternative if a model is chosen which does not penalize a bank based on size.

Richard S Barr, Kory A Killgo, Thomas F Siems, & Sheri Zimmel. (2002) This study reviews previous research on the efficiency and performance of financial institutions and uses Siems and Barr's (1998) data envelopment analysis (DEA) model to evaluate the relative productive efficiency of US commercial banks 1984-1998. It explains the methodology, discusses the input and output measures used and relates bank performance measures to efficiency.

Godlewski has tested the validity of the CAMEL rating typology for bank's default modelisation in emerging markets. He focused explicitly on using a logical model applied to a database of defaulted banks in emerging markets.

Said and Saucier examined the liquidity, solvency and efficiency of Japanese Banks. Using CAMEL rating methodology, for a representative sample of Japanese banks for the period 1993-1999, they evaluated capital adequacy, assets and management quality, earnings ability and liquidity position.

Prasuna analyzed 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 benefited from better services quality, innovative products and better bargains.

Derviz et al. investigated the determinants of the movements in the long term Standard & Poor's and CAMEL bank ratings in the Czech Republic during the period when the three biggest banks, representing approximately 60% of the Czech banking sector's total assets, were privatized (i.e., the time span 1998-2001). Kapil (2005) examined the relationship between the CAMEL ratings and the bank stock performance. The viability of the banks was analyzed 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, (PSBs) were government regulated, and also because all other four components—C, A, E and L—reflect management quality. The remaining four components were analyzed and rated to judge the composite rating.

Satish, Jutur Sharath and Surender adopted CAMEL model to assess the performance of Indian banks. The authors analyzed the performance of 55 banks for the year 2004-05, using this 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.

Sarker examined the CAMEL model for regulation and supervision of Islamic banks by the central bank in Bangladesh. With the experience of more than two decades the Islamic banking now covers more than one third of the private banking system of the country and no concerted effort has been made to add a Shariah component both in on-site and off-site banking supervision system of the central bank. Rather it is being done on the basis of the secular supervisory and regulatory system as chosen for the traditional banks and financial institutions. To fill the gap, an attempt had been made in this paper to review the CAMEL standard set by the BASEL Committee for off-site supervision of the banking institutions. This study enabled the regulators and supervisors to get a Shariah benchmark to supervise and inspect Islamic banks and Islamic financial institutions from an Islamic perspective. This effort added a new 'S' to the CAMEL rating system as Shariah rating and CAMEL has become 'CAMELS' rating system.

Bhayani analyzed the performance of new private sector banks through the help of the CAMEL model. Four leading private sector banks – Industrial Credit & Investment Corporation of India, Housing Development Finance Corporation, Unit Trust of India and Industrial Development Bank of India - had been taken as a sample.

Singh, D., & Kohli, G. (200620). The banking and financial sector in India underwent a significant liberalization process in the early 1990s, which led to reforms in the banking and financial sector and changed the Indian banking structure. During the period from 1992 to 1997, interest rates were liberalized and banks were allowed to fix lending rates. By 1977 CRR was reduced to 9.5% and SLR was reduced to 25%. As a sequel to these reforms, new private sector banks were allowed entry in the market. Many of these private sector banks brought with them new technologies. Private sector banks started product innovation and competition. Even then Indians prefer nationalized banks for their services. The failure of Global Trust Bank made Indian depositors to question the sustainability of private sector banks. This paper attempts to undertake SWOT analysis of 20 old and 10 new private sector banks. These banks have also been ranked on the basis of financial data for the years 2003-2005. The study has used CAMEL model for evaluating these banks.

Gupta and Kaur conducted the study with the main objective to assess the performance of Indian Private Sector Banks on the basis of Camel Model and gave rating to top five and bottom five banks. They ranked 20 old and 10 new private sector banks on the basis of CAMEL model. They considered the financial data for the period of five years i.e. from 2003-07.

Dr.Maheshwara Reddy and Prof. C.R. Reddy (2009) conducted a comparative study on management of NPAs in regional rural banks.

METHODOLOGY

CAMEL is basically ratio based model for evaluating the performance of banks. It is a management tool that measures Capital Adequacy, Assets Quality, efficiency of Management, quality of Earnings and Liquidity of financial institutions. Various ratios are explained as follows.

CAPITAL ADEQUACY

It is important for a bank to maintain depositors' confidence and preventing the bank from going bankrupt. It reflects the overall financial condition of banks and also the ability of management to meet the need of additional capital. It also indicates whether the bank has enough capital to absorb unexpected losses. Capital adequacy ratios act as indicators of bank leverage. The following ratios measure capital adequacy:

CAPITAL ADEQUACY RATIO: The capital adequacy ratio is developed to ensure that banks can absorb a reasonable level of losses occurred due to operational losses and determine the capacity of the bank in meeting the losses. The higher the ratio, the more will be the protection of investors. The banks are required to maintain the capital adequacy ratio (CAR) as specified by RBI from time to time. As per the latest RBI norms, the banks should have a CAR of 9 per cent.

DEBT-EQUALITY 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. It is the proportion of total outside liability to net worth. 'Outside Liabilities' includes total borrowings, deposits and other liabilities. 'Net Worth' includes equity capital and reserves and surplus. Higher ratio indicates less protection for the creditors and depositors in the banking system.

ADVANCE TO ASSETS RATIO: This is the ratio of the total advances to total assets and indicates a bank's aggressiveness in lending which ultimately results in better profitability. Higher ratio of advances/ deposits including receivables (assets) is preferred to a lower one

GOVERNMENT SECURITIES TO TOTAL INVESTMENTS: The percentage of investment in Government securities to total investments is an important indicator showing the risk-taking ability of the bank. It is a bank's strategy to have high profits, high risk or low profits, low risk. It also gives a view as to the availability of alternative investment opportunities.

ASSETS QUALITY

The quality of assets in an important parameter to gauge the strength of bank. The prime motto behind measuring the assets quality is to ascertain the component of non-performing assets as a percentage of the total assets. This indicates what types of advances the bank has made to generate interest income. The ratios necessary to assess the assets quality are:

NET NPAS TO TOTAL ASSETS: This ratio discloses the efficiency of bank in assessing the credit risk and, to an extent, recovering the debts. It is arrived at by dividing the net non-performing assets by total assets

NET NPAS TO NET ADVANCES: It is the most standard measure of assets quality measuring the net non-performing assets as a percentage to net advances. Net non-performing assets are gross non-performing assets minus net of provisions on Non-performing assets and interest in suspense account.

TOTAL INVESTMENTS TO TOTAL ASSETS: Total investment to total assets indicates the extent of deployment of assets in investment as against advances. This ratio is used as a tool to measure the percentage of total assets locked up in investments, which, by conventional definition, does not form part of the core income of a bank.

PERCENTAGE CHANGE IN NPAs: This measure tracks the movement in Net NPAs over previous year. The higher the reduction in the Net NPA level, the better it for the bank

DIVIDEND PAYOUT RATIO: Dividend pay-out ratio is used to find the extent to which earnings per share have been retained in the business for expansion. It is an important ratio because retained earnings of profits enables a company to grow and pay more dividends in future

RETURN ON ASSETS: An indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings.

NET INTEREST MARGIN: It is an important measure of bank's core income (income from lending operations). It is the difference between the interest income and interest expended as a percentage of average earning assets.

MANAGEMENT EFFICIENCY

Management efficiency is another important element of the CAMEL Model. The ratio in this segment involves subjective analysis to measure the efficiency and effectiveness of management. The management of bank takes crucial decisions depending on its risk perception. It sets vision and goals for the organization and

sees that it achieves them. This parameter is used to evaluate management efficiency as to assign premium to better quality banks and discount poorly managed ones. The ratios used to evaluate management efficiency are described as:

TOTAL ADVANCES TO TOTAL DEPOSITS: This ratio measures the efficiency and ability of the bank's management in converting the deposits available with the bank excluding other funds like equity capital, etc. into high earning advances. Total deposits include demand deposits, savings deposits, term deposits and deposits of other banks, total advances include the receivables.

PROFIT PER EMPLOYEE: This shows the surplus earned per employee. It is known by dividing the profit after tax earned by the bank by the total number of employees. The higher the ratio, the higher the efficiency of the management.

BUSINESS PER EMPLOYEE: Business per employee shows the productivity of human force of bank. It is used as a tool to measure the efficiency of employees of a bank in generating business for the bank. It is calculated by dividing the total business by total number of employees. Higher the ratio, the better it is for the bank

RETURN ON NET WORTH: It is a measure of the profitability of a bank. Here, PAT is expressed as a percentage of Average Net Worth.

EARNING QUALITY

The quality of earnings is a very important criterion that determines the ability of a bank to earn consistently. It basically determines the profitability of bank and explains its sustainability and growth in earnings in future. This parameter gains importance in the light of argument that much of a bank's income is earned through non-core activities like investments, treasury operations and corporate advisory services and so on. The following ratios explain the quality of income generation.

OPERATING PROFIT TO AVERAGE WORKING FUNDS: This indicates how much a bank can earn profit from its operations for every rupee spent in the form of working fund. This is arrived at by dividing the operating profit by average working funds.. The better utilization of funds will result in higher operating profits.

PERCENTAGE GROWTH IN NET PROFIT: It is the percentage change in net profit over the previous year.

NET PROFIT/ AVERAGE ASSETS (PAT/AA): This ratio measures return on assets employed or the efficiency in utilization of assets. It is arrived by dividing the net profits by average assets, which is the average of total assets in the current year and previous year.

LIQUIDITY

Risk of liquidity is curse to the image of bank. Bank has to take a proper care to hedge the liquidity risk; at the same time ensuring good percentage of funds are invested in high return generating securities, so that it is in a position to generate profit with provision liquidity to the depositors. The following ratios are used to measure the liquidity under the CAMEL Model. They are:

LIQUID ASSETS TO DEMAND DEPOSITS: This ratio measures the ability of bank to meet the demand from depositors in a particular year. To offer higher liquidity for them, bank has to invest these funds in highly liquid form.

LIQUID ASSETS TO TOTAL DEPOSITS: This ratio measures the liquidity available to the total deposits of the bank.

LIQUID ASSETS TO TOTAL ASSETS: It measures the overall liquidity position of the bank. The liquid asset includes cash in hand, balance with institutions and money at call and short notice. The total assets include the revaluation of all the assets.

G-SEC TO TOTAL ASSETS: It measures the risk involved in the assets. This ratio measures the Government securities as proportionate to total assets.

APPROVED SECURITIES/TOTAL ASSETS: This is arrived by dividing the total amount invested in Approved securities by Total Assets.

The period for evaluating performance through CAMEL in this study ranges from 2005-06 to 2009-10, i.e., for 5 years. The absolute data for twenty six public sector banks on capital adequacy, asset quality, management efficiency, earning quality and liquidity ratios is collected from various sources such as annual reports of the banks, PROWESS, Ace Analyzer, Analyst journal. Internet has been an important source of secondary data. All the banks were first individually ranked based on the sub-parameters of each parameter. The sum of these ranks was then taken to arrive at the group average of individual banks for each parameter. Finally the composite rankings for the banks were arrived at after computing the average of these group averages. Banks were ranked in the ascending/descending order based on the individual sub-parameter.

RESULTS AND ANALYSIS

CAPITAL ADEQUACY: The various ratios measuring capital adequacy of public sector banks are depicted in Annexure I. It is clear from these tables that all banks are maintained higher CAR than the prescribed level. According to the norms of RBI, each bank in India has to maintain 9 % of their risk weighted assets as Capital. It is found that the corporation bank secured the top position with highest average CAR of 13.56 followed by Indian Bank (13.38), Bank of Baroda (13.35), SBBJ (13.26) and Indian overseas bank (13.15). UCO bank was at the bottom most position with a least average CAR of 11.38. In terms of Debit equity ratio Indian bank was at the top position with least average of 0.42 followed by OBC (0.48), Allahabad bank (0.68), Dena bank (0.69) and Andhra bank (0.73). SBI availed the 20th position with an average D/E ratio of 1.52. IDBI stood at the last position. In case of Advances to assets SBT was at the first position with highest average of 62.95, followed by SBM (62.05), Syndicate bank (60.76), SBBJ (60.75) and UCO bank (60.47). United bank of India was at the bottom most position with least average of 52.04. The largest public sector bank SBI availed only the 21st position with an average of 56.28. State bank of Patiala was at the top most position in Government securities to Investments with highest average of 94.8, followed by SBBJ (94.57), SBT (91.62), SBM (91.42) and SBH (89.14). IDBI was at the last position with the least average of 72.4. SBI stood at the 21st place with an average of 79.86.

On the basis of group averages of four sub parameters of capital adequacy SBBJ was at the top position with group average 7, followed by Canara bank (7.75), Andhra bank (8.25), SBT (9.75) and SBP (10.25). SBI stood at 24th position due to its poor performance in D/E ratio, Adv/Ast, G-sec/ Inv. UCO bank failed in maintaining CAR, D/E ratio and G-Sec/Inv and availed the last position. Central bank of India stood in 25th position due to its failure in CAR, Adv/Ast. IDBI excels well in CAR and Adv/Ast but lagging in controlling D/E ratio and G-Sec/ Inv and availed 22nd position. Due to the poor performance in Adv/Ast and G- Sec/ Inv, United bank of India also positioned 22nd.

ASSETS QUALITY: Annexure II represent Asset Quality position of sample banks during 2006-10, in terms of Net NPAs to Total Assets, Net NPAs to Net Advances, Total Investments to total Assets and Change in NPAs. Andhra bank was at the top position with an average NNPA/TA of 0.12, followed by SBH (0.17), P&S bank (0.21), Indian bank (0.22) and Corporation bank (0.23). IDBI was at the last position with an average of 22.9. In case of NNPA/NA it's again Andhra bank was at the top position with a least average of 0.12 followed by SBH (0.24), Indian bank (0.32), P&S bank (0.35) and Corporation bank (0.37). SBI positioned at last with the highest average of 1.61. In terms of TI/TA, Bank of India was at the first position with an average of 24.96 followed by BOB (25.05), SBBJ (25.63), SBP (25.99) and Syndicate bank (26.04). United bank of India was at the last position with highest average of 34.83. Indian bank was at the first position in percentage change in NPAs with an average of -4.93, followed by Central bank of India(-4.05), Bank of Baroda(0.874), Corporation Bank(1.528) and United bank of India(4.244). PNB performed well in NNPA/TA, NNPA/NA and TI/TA and failed in controlling change in NPAs.

On the basis of group averages of sub-parameters, Bank of Baroda was at the top position with group average(4.5), followed by Andhra bank(5), Corporation bank(6.75), Indian Bank(8.25) and SBP(10.5). SBI availed 24th position due to its poor performance in all sub-parameters of Asset Quality. BOM totally failed in all sub-parameters and positioned at last. United bank of India & UCO bank performed well in change in NPAs, but its performance was not good at other sub-parameters.

MANAGEMENT EFFICIENCY: Annexure III exhibits the various ratios representing the level of Management Efficiency of public sector banks in terms of Total Advances to Total Deposits, Profit per Employee, Business per Employee and return on Net Worth. It is observed from these tables that almost all ratios of all the banks indicate uptrend. IDBI was at the top most position with an average TA/TD of 125.1, followed by SBT (76.03), SBM (74.44), SBI (73.8) and SBBJ (73.42). United bank of India stood at last position with average TA/TD of 59.22. In terms of profit per employee United Bank of India secured the top position with 0.33 followed by IDBI (0.088), Corporation Bank (0.068), OBC (0.06) and P&S bank (0.05). Central bank of India was at the bottom most position with an average PPE of 0.018 during the study period. At the front of Business per employee, IDBI was at the first place with an average 18.72, followed by OBC (9.42), Corporation Bank (8.642), SBP (7.316) and BOB (7.112). Indian bank stood at the last position with least BPE 4.084. SBT was at the top position in RONW with the

highest average 23.7 followed by IOB (23), SBH (21.1), UBI (20.8) and P&S bank (20.5). IDBI excels well in TA/TD, PPE and BPE but completely failed in achieving RONW.

On the basis of group averages of sub-parameters, P&S bank was at the top most position with group average 6, followed by UBI& IDBI(7.5), BOI&SBT(9.25). Central bank of India&BOM stood at the last two positions due to its poor performance in all the sub-parameters. Due to the poor performance in TA/TD, PPE and RONW, Vijaya bank availed 24th position. United bank of India was at top in PPE, but totally failed in TA/TD, BPE and RONW availed 23rd position. UCO bank availed 22nd position due to its poor performance in TA/TD, PPE and RONW.

EARNING QUALITY & PROFITABILITY: Annexure IV presents the earning quality and profitability positions of public sector banks in terms of operating profit by average working funds, percentage growth in net profit, net profit to average assets, dividend payout ratio, return on assets and net interest margin. Indian bank was at the top position with an average OP/AWF of 2.6, followed by Corporation bank (2.5), PNB (2.4), IOB (2.3) and Andhra bank (2.2). IDBI was at the bottom most position with least average of 1.1. In case of PAT growth BOM was at the first position with an average of 141.5, followed by Dena bank (58.67). BOB (51.71), BOI (49.6) and P&S bank (49). IOB was at the last place with least average 5.11. In case of PAT/AA, P&S bank stood at the top place with an average 1.27, followed by IB (1.21), PNB (1.13), and Andhra bank (1.04). Central bank of India positioned at last with least average of 0.43. In terms DPR, Andhra bank secured the top place with highest average of 31.91, followed by BOM (25.72), Vijaya bank (24.76), OBC (22.9) and Corporation bank (21.492). In terms of ROA, Indian bank was at the top position with average 1.5, followed by Andhra bank and PNB (1.2), Corporation bank& IOB (1.18). Its again CBI was at the bottom most position average on return of assets as 0.5.

On the basis of group average, Indian bank was at the top position with group average (4.83) followed by PNB (6), Andhra bank (6.5), Corporation bank (8) and IOB (8.83). SBI stood at 15th position. CBI totally failed in all sub-parameters and was at the bottom most position. UCO bank was at 25th position, IDBI at 24th place. Due to the poor performance in OP/AWF, PAT/AA, ROA and NIM, United bank of India positioned at 23rd. Syndicate bank performed well in DPR, but its performance was not good in other sub-parameters and secured 22nd place.

LIQUIDITY: Annexure V presents liquidity position of sample banks in terms of liquid assets to demand deposit, liquid assets to total deposits, liquid assets to total assets, government securities to total assets and approved securities to total assets. SBP was at the first place in LA/TD with highest average of 202.928, followed by BOB (196.354), BOI (192.114), P&S bank (171.63) and SBT (158.158). SBI secured the last position with least average of 95.03. In case of LA/TD, Corporation bank got first position with highest average of 15.994, followed by IDBI (15.914), SBI (15.89), BOB (15.58) and SBH (14.39). SBT was at the bottom most position with least average 8.636. In contest of LA/TA, BOB was at top with the average 13.3 followed by Corporation bank (13.25), SBI (12.10), BOI (12), SBH (11.856). SBT was at the last position. Indian bank was at the top position in G-Sec/TA with an average 27.142, followed by united bank (27.034), BOM (26.1), P&S bank and SBH. BOB was at the bottom most position with least average 19.34. In terms of AS/TA, BOB (0.626) was at the top most position followed by IB (0.672), CBI (0.558), Allahabad bank (0.5) and PNB (0.46). IDBI performance was not good in this aspect and availed the bottom most position.

On the basis of group averages of the sub parameters, BOB stood at the top position with group average 6.8, followed by SBP (8.4), BOI (8.8), IB (9.6) and P&S bank (10.2). UBI completely failed in maintaining all these sub-parameters and placed at last.

OVERALL RANKING: As stated in initial part of this paper, CAMEL model is used to rating the banks according to their performance. It is clear from Annexure VI that Andhra bank is ranked at top position with composite average 8.22, followed by BOB (9.38), Indian bank (10.03), Corporation bank (10.47) and Punjab national bank (10.47). SBI, the largest bank in India availed only 20th position. Central bank of India was at the bottom most position followed by UCO bank, Bank of Maharashtra, United bank of India and Vijaya bank

CONCLUSION

Economic development of any country is mainly influenced by the growth of the banking industry in that country. The current study has been conducted to examine the economic sustainability of all public sector banks in India using CAMEL model during the period 2006-10. The study revealed that

- State Bank of Bikaner and Jaipur stood at top position in terms of capital adequacy.
- In front of assets quality Bank of Baroda placed at first position.
- Punjab & Sindh Bank was at top most position in case of management efficiency.
- In context of earnings quality Indian bank positioned at first.
- It's again BOB stood at first position in front of Liquidity.
- Overall performance table shows that, Andhra bank is ranked first followed by Bank of Baroda, Indian Bank, Corporation Bank and Punjab National Bank.
- The largest public sector bank in India SBI availed only 20th position.
- In bottom five Central bank of India was on the last position i.e., 26th rank, following the other banks UCO bank BOM, United bank of India and Vijaya bank.

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ANNEXURES

ANNEXURE I: CAMEL RATING										
CAPITAL ADEQUACY										
Bank	CAR (%)		D/E(times)		ADV/AST(%)		G-SEC/INV(%)		Group	
	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank
Allahabad Bank	12.93	8	0.68	3	58.28	18	76.84	25	13.5	16
Andhra Bank	12.82	9	0.73	5	59.39	12	87.39	7	8.25	3
BOB	13.35	3	0.81	7	58.49	17	77.53	23	12.5	12
BOI	12.29	18	1.67	23	59.94	8	79.99	19	17	18
BOM	11.68	24	1.12	14	57	19	85.45	12	17.25	21
Canara Bank	13.1	6	0.91	9	60.39	6	85.88	10	7.75	2
CBI	11.44	25	0.93	10	55.77	24	83.73	13	18	25
Corporation Bank	13.56	1	0.93	10	56.93	20	78.31	22	13.25	15
Dena Bank	11.86	23	0.69	4	59.74	8	82.29	17	13	14
IB	13.38	2	0.42	1	55.39	25	83.16	14	10.5	6
IDBI Bank	12.67	11	6.81	26	60.11	7	72.4	26	17.5	22
IOB	13.15	5	1.17	16	58.74	16	87.22	8	11.25	8
OBC	12.52	16	0.48	2	59.24	13	85.83	11	10.5	6
P&S BANK	12.18	19	2.03	25	58.79	15	86.52	9	17	18
PNB	13.08	7	0.95	12	58.83	14	83.05	15	12	10
SBBJ	13.26	4	1.33	18	60.75	4	94.57	2	7	1
SBH	12.67	11	1.01	13	56.22	22	89.14	5	12.75	13
SBI	12.81	10	1.52	20	56.28	21	79.86	20	17.75	24
SBM	12.07	20	1.64	21	62.05	2	91.42	4	11.75	9
SBT	12.66	13	1.66	22	62.95	1	91.62	3	9.75	4
State Bank of Patiala	12.62	14	1.15	15	59.42	11	94.8	1	10.25	5
Syndicate Bank	12.01	22	1.3	17	60.76	3	88.62	6	12	10
UBI	12.5	17	1.41	19	59.7	10	79.62	21	16.75	17
UCO Bank	11.38	26	1.72	24	60.47	5	82.21	18	18.25	26
United Bank	12.62	14	0.77	6	52.04	26	77.25	24	17.5	22
Vijaya Bank	12.03	21	0.87	8	56.18	23	82.92	16	17	18

Source: Secondary data collected from Prowess, Ace Analyzer, And Annual Reports Compiled through Excel spread sheet

ANNEXURE II: CAMEL RATINGS										
ASSET QUALITY										
Bank	NNPAs/TA(%)		NNPAs/NA(%)		TI/TA(%)		CH.IN NPs(%)		Group	
	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank
Allahabad Bank	0.6	13	0.73	12	30.17	22	15.51	11	14.5	17
Andhra Bank	0.1	1	0.12	1	26.49	6	15.84	12	5	2
BOB	0.4	6	0.47	7	25.05	2	0.874	3	4.5	1
BOI	0.6	14	0.84	15	24.96	1	31.6	19	12.3	12
BOM	0.8	20	1.21	22	30.43	24	28.85	18	21	26
Canara Bank	0.7	17	0.93	18	27.08	10	13.52	10	13.8	15
CBI	1	23	1.38	24	30.15	21	-4.05	2	17.5	19
Corporation Bank	0.2	5	0.37	5	27.67	13	1.528	4	6.75	3
Dena Bank	1	22	1.1	21	27.24	11	6.308	7	15.3	18
IB	0.2	4	0.32	3	32.69	25	-4.93	1	8.25	4
IDBI Bank	23	26	0.99	19	27.93	15	16.1	13	18.3	21
IOB	0.7	19	1.08	20	28.72	18	60.17	25	20.5	25
OBC	0.5	10	0.66	10	26.65	7	35.51	20	11.8	10
P&S BANK	0.2	3	0.35	4	29.83	20	17.64	15	10.5	5
PNB	0.4	6	0.41	6	27.05	9	106.4	26	11.8	10
SBBJ	0.7	16	0.86	16	25.63	3	7.52	8	10.8	7
SBH	0.2	2	0.24	2	28.82	19	47.91	22	11.3	8
SBI	1.1	24	1.61	26	28.24	16	16.2	14	20	24
SBM	0.4	9	0.59	8	26.88	8	37.88	21	11.5	9
SBT	0.7	18	0.92	17	27.61	12	11.34	9	14	16
State Bank of Patiala	0.6	12	0.63	9	25.99	4	24.02	17	10.5	5
Syndicate Bank	0.6	14	0.82	14	26.04	5	22.33	16	12.3	12
UBI	0.4	6	0.69	11	27.71	14	49	23	13.5	14
UCO Bank	1.2	25	1.55	25	28.6	17	5.372	6	18.3	21
United Bank	1	21	1.27	23	34.83	26	4.244	5	18.8	23
Vijaya Bank	0.5	11	0.8	13	30.33	23	51.1	24	17.8	20

Source: Secondary data collected from Prowess, Ace Analyzer, And Annual Reports Compiled through Excel spread sheet

ANNEXURE III: CAMEL RATINGS										
MANAGEMENT EFFICIENCY										
Bank	TA/TD(%)		PPE (Lakhs)		BPE(Lakhs)		RONW(%)		GROUP	
	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank
Allahabad Bank	66.65	21	0.046	9	5.89	15	20.31	7	13	15
Andhra Bank	68.87	14	0.048	7	6.51	9	19.67	9	9.75	6
BOB	68.49	16	0.046	9	7.11	5	14.89	19	12.25	13
BOI	71.24	6	0.042	14	6.75	7	19.58	10	9.25	4
BOM	65.1	22	0.02	24	5.25	20	13.38	21	21.75	25
Canara Bank	69.74	11	0.044	11	6.73	8	18.76	13	10.75	9
CBI	62.67	25	0.018	26	4.43	25	9.828	24	25	26
Corporation Bank	68.82	15	0.068	3	8.64	3	14.93	18	9.75	6
Dena Bank	67.52	20	0.038	18	6.4	10	15.28	16	16	19
IB	64.37	23	0.05	5	4.08	26	18.28	14	17	21
IDBI Bank	125.1	1	0.088	2	18.7	1	1.77	26	7.5	2
IOB	70.15	10	0.04	15	5.61	17	22.96	2	11	10
OBC	68.39	17	0.06	4	9.42	2	10.47	23	11.5	12
P&S BANK	70.42	8	0.05	5	6.95	6	20.53	5	6	1
PNB	69.74	12	0.044	11	5.41	19	20.23	8	12.5	14
SBBJ	73.42	5	0.03	20	4.55	24	18.99	11	15	18
SBH	67.99	18	0.044	11	6.17	12	21.06	3	11	10
SBI	73.8	4	0.034	19	4.61	23	14.85	20	16.5	20
SBM	74.44	3	0.03	20	4.91	21	18.79	12	14	17
SBT	76.03	2	0.038	16	5.6	18	23.7	1	9.25	4
State Bank of Patiala	71.09	7	0.038	16	7.32	4	16.43	15	10.5	8
Syndicate Bank	69.33	13	0.03	20	5.84	16	20.5	6	13.75	16
UBI	70.42	8	0.048	7	6.38	11	20.84	4	7.5	2
UCO Bank	68.25	18	0.02	24	6.13	13	15.06	17	18	22
United Bank	59.22	26	0.33	1	4.73	22	8.73	25	18.5	23
Vijaya Bank	64.09	24	0.026	23	6.06	14	11.78	22	20.75	24

Source: Secondary data collected from Prowess, Ace Analyzer, And Annual Reports Compiled through Excel spread sheet

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ANNEXURE IV: CAMEL RATINGS														
EARNINGS QUALITY														
Bank	OP/AWF (%)		PAT GROWTH		PAT/AA		DPR(%)		ROA(%)		NIM(%)		Group	
	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank
Allahabad Bank	2.11	7	20.03	19	1.04	5	18.82	11	1.17	6	2.4	10	9.67	6
Andhra Bank	2.23	5	17.46	22	1.06	4	31.91	1	1.2	2	2.63	5	6.5	3
BOB	2.01	13	51.71	3	0.88	14	19.24	9	0.96	14	2.37	12	10.8	9
BOI	2.08	9	49.6	4	0.91	12	16.31	19	1	13	2.33	15	12	12
BOM	1.44	23	141.5	1	0.52	21	25.72	2	0.61	22	2.4	10	13.2	13
Canara Bank	2.03	11	24.48	16	0.96	9	18.14	15	1.05	11	2.28	17	13.2	13
CBI	1.4	24	20.62	18	0.43	26	13.46	21	0.5	26	2.11	23	23	26
Corporation Bank	2.48	2	25.16	14	1	7	21.49	5	1.18	4	2.32	16	8	4
Dena Bank	1.92	17	58.67	2	0.74	18	9.678	25	0.79	19	2.37	12	15.5	17
IB	2.64	1	43.55	7	1.21	2	17.57	17	1.5	1	3.1	1	4.83	1
IDBI Bank	1.1	26	34.76	9	0.51	22	19.73	7	0.6	23	0.65	26	18.8	24
IOB	2.28	4	5.112	26	1.02	6	18.85	10	1.18	4	2.8	3	8.83	5
OBC	1.8	19	16.85	23	0.7	20	22.9	4	0.82	18	2.15	22	17.7	20
P&S BANK	2.01	13	49	5	1.27	1	0	26	1.16	7	2.36	14	11	10
PNB	2.37	3	28.82	12	1.13	3	18.36	14	1.2	2	2.99	2	6	2
SBBJ	2.03	11	13.82	25	0.75	16	17.06	18	0.84	16	2.65	4	15	16
SBH	2.08	9	22.6	17	0.9	13	10.13	24	1.03	12	2.2	21	16	18
SBI	1.98	15	17.86	21	0.87	15	18.82	11	0.96	14	2.52	8	14	15
SBM	2.1	8	40.64	8	0.92	10	11.89	23	1.06	8	2.56	6	10.5	8
SBT	1.98	15	32.25	10	0.92	10	14	20	1.06	8	2.55	7	11.7	11
State Bank of Patiala	1.86	18	24.99	15	0.75	16	20.12	6	0.76	20	1.72	25	16.7	19
Syndicate Bank	1.6	21	15.67	24	0.73	19	19.67	8	0.83	17	2.27	18	17.8	22
UBI	2.21	6	26.22	13	0.97	8	17.94	16	1.06	8	2.44	9	10	7
UCO Bank	1.37	25	30.21	11	0.48	24	12.53	22	0.53	25	1.89	24	21.8	25
United Bank	1.5	22	45.61	6	0.46	25	18.39	13	0.55	24	2.24	19	18.2	23
Vijaya Bank	1.77	20	19.39	20	0.51	22	24.76	3	0.65	21	2.22	20	17.7	20

Source: Secondary data collected from Prowess, Ace Analyzer, And Annual Reports Compiled through Excel spread sheet

ANNEXURE V: CAMEL RATINGS : LIQUIDITY												
Bank	LA/DD (%)		LA/TD (%)		LA/TA		G-SEC/TA		AS/TA		GROUP	
	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank	Avg	Rank
Allahabad Bank	119.51	22	9.802	25	8.57	23	23.2	15	0.5	4	17.8	24
Andhra Bank	152.33	6	13.5	9	11.6	8	23.02	17	0.22	18	11.6	8
BOB	196.35	2	15.58	4	13.3	1	19.34	26	0.676	1	6.8	1
BOI	192.11	3	14.27	6	12	4	19.88	25	0.434	6	8.8	3
BOM	105.69	24	11.4	20	9.99	18	26.1	3	0.206	19	16.8	21
Canara Bank	136.07	12	11.33	21	9.8	20	23.24	14	0.306	13	16	19
CBI	133.11	13	12.25	16	10.9	15	25.18	7	0.558	3	10.8	6
Corporation Bank	97.552	25	15.99	1	13.3	2	21.55	23	0.17	22	14.6	15
Dena Bank	136.52	11	12.64	14	11.2	12	22.43	21	0.278	15	14.6	15
IB	150.71	7	11.49	19	9.89	19	27.14	1	0.672	2	9.6	4
IDBI Bank	128.52	16	15.91	2	7.99	25	20.35	24	0.006	26	18.6	25
IOB	126.03	18	11.97	18	10	16	25.02	9	0.258	17	15.6	17
OBC	145.42	8	13.23	12	11.5	9	22.84	18	0.272	16	12.6	13
P&S BANK	171.63	4	12	17	10	16	25.79	4	0.367	10	10.2	5
PNB	127.06	17	13.99	7	11.8	6	22.44	20	0.46	5	11	7
SBBJ	143.54	10	13.41	10	11.1	13	24.24	12	0.198	20	13	14
SBH	123	19	14.39	5	11.9	5	25.78	5	0.144	24	11.6	8
SBI	95.032	26	15.89	3	12.1	3	22.61	19	0.398	7	11.6	8
SBM	119.93	21	9.878	23	8.23	24	24.56	11	0.39	9	17.6	23
SBT	158.16	5	8.636	26	7.14	26	25.32	6	0.184	21	16.8	21
State Bank of Patiala	202.93	1	13.65	8	11.4	10	24.6	10	0.306	13	8.4	2
Syndicate Bank	131.33	15	12.91	13	11.3	11	23.09	16	0.154	23	15.6	17
UBI	116.52	23	11.33	21	9.62	21	22.04	22	0.332	12	19.8	26
UCO Bank	131.48	14	9.846	24	8.73	22	23.47	13	0.398	7	16	19
United Bank	120.4	20	12.43	15	10.9	14	27.03	2	0.34	11	12.4	12
Vijaya Bank	145.35	9	13.32	11	11.7	7	25.18	7	0.114	25	11.8	11

Source: Secondary data collected from Prowess, Ace Analyzer, And Annual Reports Compiled through Excel spread sheet

ANNEXURE VI: CAMEL RATINGS							
Overall performance							
Bank	C	A	M	E	L	Avg	Rank
Allahabad Bank	13.5	14.5	13	9.67	17.8	13.7	17
Andhra Bank	8.25	5	9.75	6.5	11.6	8.22	1
BOB	12.5	4.5	12.25	10.8	6.8	9.38	2
BOI	17	12.25	9.25	12	8.8	11.9	8
BOM	17.25	21	21.75	13.2	16.8	18	24
Canara Bank	7.75	13.75	10.75	13.2	16	12.3	10
CBI	18	17.5	25	23	10.8	18.9	26
Corporation Bank	13.25	6.75	9.75	8	14.6	10.5	4
Dena Bank	13	15.25	16	15.5	14.6	14.9	19
IB	10.5	8.25	17	4.83	9.6	10	3
IDBI Bank	17.5	18.25	7.5	18.8	18.6	16.1	21
IOB	11.25	20.5	11	8.83	15.6	13.4	15
OBC	10.5	11.75	11.5	17.7	12.6	12.8	13
P&S BANK	17	10.5	6	11	10.2	10.9	6
PNB	12	11.75	12.5	6	11	10.7	5
SBBJ	7	10.75	15	15	13	12.2	9
SBH	12.75	11.25	11	16	11.6	12.5	12
SBI	17.75	20	16.5	14	11.6	16	20
SBM	11.75	11.5	14	10.5	17.6	13.1	14
SBT	9.75	14	9.25	11.7	16.8	12.3	10
State Bank of Patiala	10.25	10.5	10.5	16.7	8.4	11.3	7
Syndicate Bank	12	12.25	13.75	17.8	15.6	14.3	18
UBI	16.75	13.5	7.5	10	19.8	13.5	16
UCO Bank	18.25	18.25	18	21.8	16	18.5	25
United Bank	17.5	18.75	18.5	18.2	12.4	17.1	23
Vijaya Bank	17	17.75	20.75	17.7	11.8	17	22

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