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PERFORMANCE EVALUATION OF SELECTED PRIVATE COMMERCIAL BANKS IN INDIA: A CAMEL APPROACH

Dr. L. Santhi Assistant Professor Department of Commerce, VET Institute of Arts and Science (Co-Education) College, Thindal, Erode.
Mr. Praveen Mathew Ph.D. Research Scholar, Department of Commerce, VET Institute of Arts and Science (Co-Education) College, Thindal, Erode.

Abstract
This study attempt to show the financial soundness of selected private commercial banks in India under CAMEL approach. CAMEL rating has been considered as one of the widely used tools for judging Capital adequacy, Asset quality, Management ability, Earning quality and Liquidity of the commercial banks by the regulators all around the world. Total time span of the study is seven years. The study employed appropriate financial ratios and statistical tools for validating the data. This study found that, in composite CAMEL ranking of private sector banks, derived from the analysis, HDFC had secured first rank followed by Axis bank (2) and Federal Bank (3). Finally, this study concluded that HDFC is the market leader from the private sector banks.

1. Introduction
"Finance is the life blood of all economic activity in an around the world, so banks have vital role in the development of the all economies in globally". This paper envisages to study the financial performance of selected private commercial banks in India during 2007-2014. For judging the financial performance, CAMEL model is used. Banking Experts all over the world employ CAMEL model to assess the financial soundness of commercial banks in order to bring out inconsistency in performance, if any, which are working under the same ownership, economic, regulatory and market conditions in anywhere of the world. The model was first developed by US bankers.

The performance of private sector banks have been ranked with reference to capital adequacy, asset quality, management efficiency, earning quality and liquidity (CAMEL) for the period of seven years. The following banks are used to fulfill the objective of the study.
Federal Bank, ICICI, HDFC, Karur Vysya, Yes Bank, Axis Bank, City Union, South Indian Bank, Lakshmi Vilas and Dana Lakshmi.

1.1 Objective of the Study
The overall objective of the study is to investigate financial soundness of selected private commercial banks in India.

2. Methodology of the Study
2.1 Data Source and Sample Selection
In order to verify the objective of the study, data was gathered from various secondary sources like annual reports related to banks and annual financial statements published by BANKSCOPE data base. BANKSCOPE data base is a complete financial analysis tool, combining information on 11,000 world bank's financial Data. The information includes detailed spreadsheet data (all relevant information for the current study), ownership information (shareholders and subsidiaries), Reuter's news articles, ratings and rating reports. The data is updated 18 times a year. The study had chosen 10 banks out of 20 banks for the Purpose of analysis. Total sample cavers around 50 percent of total private banks in India (Total 20 Private Commercial Banks).
2.2 Data Analysis
The Current study employed various ratio analysis and ANOVA technique for validate data and fulfill the objective of the study.
2.3 Limitations of the Study

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The accuracy of the results and conclusion has highly depending on the accuracy of the data.

3 Composite Capital Adequacy

Capital adequacy is a reflection of the inner strength of a bank, which would enable a bank to sustain its stability during the times of crisis. Hence capital adequacy have a bearing on the overall performance of a bank. Capital adequacy is judged by checking those ratios which directly indicate financial soundness such as TIER 1 ratio, Total capital ratio (Capital adequacy ratio), Equity to net loans and Equity to liabilities.

Table 1 presents the average ratios of various sub parameters of composite capital adequacy for the period 2007-2013. Higher the ratio, better the capital adequacy of the bank.

Table 1 Composite Capital Adequacy of Private Commercial Banks

Sup-Parameters										
Banks	**T 1 R**	**RANK**	**T C R**	**RANK**	**E/ N L**	**RANK**	**E/ L**	**RANK**	**G AVERAGE**	**G RANK**
FEDERAL	14.68	1	17.04	1	15.30	3	10.30	2	1.75	1
ICICI	11.12	5	16.45	3	18.84	1	11.23	1	2.50	2
HDFC	10.81	6	15.18	4	15.61	2	9.51	3	3.75	3
KARUR V	13.36	2	14.31	6	12.76	6	8.73	5	4.75	5
YES BANK	10.25	8	16.69	2	14.10	4	9.03	4	4.50	4
AXIS BANK	10.33	7	14.49	5	13.60	5	8.67	6	5.75	6
CITY UNION	11.56	3	12.86	8	11.30	7	7.63	7	6.25	7
SIB	11.23	4	13.75	7	9.36	9	6.17	9	7.25	8
LAKSHMI V	9.65	9	12.43	9	9.94	8	6.66	8	8.5	9
DXB	8.31	10	11.18	10	9.17	10	5.70	10	10	10
$\bar{X}$	**11.13**		**14.11**		**13.00**		**8.36**		**5.38**	
σ	**1.81**		**1.95**		**3.13**		**1.80**		**2.78**	
C.V	**16.25**		**13.48**		**24.06**		**21.57**		**51.71**	

3.1 Tier 1 Ratio of capital adequacy measures Tier 1 capital, includes shareholders equity, perpetual non-cumulative preference shares, disclosed reserves and innovative capital instruments. This ratio of at least 4% is mandatory as per RBI norms. Higher the ratio, better the bank. Federal bank secured first rank under this measure, continued by Karur Vysya (2), City Union (3), and SIB (4). DXB (10) have recorded lowest position among the sample group and Laksmi Vilas (9). Since the individual ratios calculation, Covariance (CV) result is 16.25 percent, the variation across the banks is somewhat high, when comparing to the group mean value 10.80 percent.

3.2 Total Capital 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 same. The higher the ratio, better the protection of investors. The bank is required to maintain the capital adequacy ratio (CAR) as specified by RBI from time to time. It measures Tier 1 + Tier 2 of the bank. This ratio should be minimum 8 percent. The intra group position shows that, total capital ratios of all banks maintained more than the mandatory 8 percent. Some notable banks maintained double the mandatory rate of 8 percent, viz. Federal (17.04 %), ICICI (16.48 percent), Yes

Bank (16.69 percent). The group mean (13.48 percent) more than the mandatory level of 8 percent and further there was no difference in the ranking order of federal bank at Tier 1 and TCR. The above cited table indicates, all private banks have maintained capital adequacy more than the mandatory 8 Percent.
3.3 Equity to Net Loans ratio measures the Equity cushion available for the banks to absorb losses on the loan account. Higher the ratio, better the bank among the group. In this analysis, Federal pushed back first to third rank when compared to Tier 1 and TCR ratios. First rank goes to ICICI 18.84 percent (1^{st} R), HDFC 15.61 percent (2^{nd} R) and Federal 15.30 percent (3^{rd} R). DXB has recorded the lowest position (10^{th} R) followed by SIB (9^{th} R). The group mean (12.53 percent) and CV (23.89 percent) have noticed a very high variation across the banks (C.V double than mean).
3.4 Equities to Liabilities is a leverage ratio. It calculated with Debt plus total shareholders' equity. The results indicated 1^{st} rank held by ICICI (11.23 percent) followed by Federal (10.30%) and being bottom two positions recorded by DXB 5.70 percent (10^{th} R) and SIB 6.17 percent (9^{th} **R**). Group mean was 8.02 percent. At this juncture no mandatory norms fixed by the regulators.
In group ranks achieved by banks under the four sub-parameters were averaged, Federal bank 1.75 percent (1^{st} R), ICICI 2.50 percent (2^{nd} R), HDFC 3.75 percent (3^{rd} R) and the fourth position recorded by Yes Bank. The bottom two positions achieved by the DXB (10^{th} R) and LVB (9^{th} R). This is quite natural in all four sub-parameters, DXB and LVB scored the least position. The results indicated that, Indian private sector commercial banks are adequately capitalized for their cheerful operations. The above cited table shows in all sub-parameters of composite capital adequacy of selected samples recorded first and second positions by Federal and ICICI bank. Hence Federal and ICICI have dominated market leadership among the selected study banks during the period of 206-2014.

4. Composite Performance in Asset Quality

The quality of assets in banking business is primarily assessed on the basis of its ability to recover the outstanding loans and advances made in due time. To gauge the assets quality, four sub-parameters are chosen. There are: LLR/GL, LLP/NIR, LLR/IL, IL/EQ.

The selected sub-parameters under Asset quality, directly assess the performance of assets of banks and also provide an insight in to the bank's attitude towards risk and risk management.

The financial soundness of the banks under each of these sub-parameters are analysed and ranked. Table 2 exhibited the asset quality performance of all sample Banks.

Table 2 Composite Asset Quality of Private Commercial Banks (2007-2014)

Sup-Parameters										
Banks	**LLR/ GL**	**RANK**	**LLR/ NIR**	**RANK**	**LLR/I L**	**RANK**	**I L /EQUITY**	**RANK**	**G AVERAGE**	**RANK**
YES BANK	0.55	1	8.10	3	225.07	1	2.25	1	1.50	1
KARUR V	1.46	3	4.56	1	71.52	6	15.33	4	3.50	3
AXIS BANK	1.11	2	15.85	6	113.50	3	7.72	2	3.25	2
HDFC	1.50	4	13.01	5	115.38	2	8.66	3	3.50	3
SIB	1.63	5	9.81	4	81.44	5	24.74	8	5.50	5
DXB	6.47	8	6.47	2	67.33	8	37.24	10	7.00	7
FEDERAL	2.48	7	20.06	8	82.41	4	23.69	7	6.50	6
ICICI	2.20	6	25.46	10	68.54	7	16.92	5	7.00	7
CITY UNION	16.59	9	16.59	7	65.78	9	17.04	6	7.75	9
LAKSHMI V	21.31	10	21.31	9	39.30	10	35.67	9	9.50	10
$\bar{X}$	**5.53**		**14.12**		**93.03**		**18.93**			
σ	**7.34**		**6.92**		**51.59**		**11.56**			

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C.V	**132.74**		**48.92**		**55.46**		**61.06**			

4.1 Loan Loss Reserve to Gross Loans Ratio (LLR /GL) this ratio is a reserve for losses expressed as a percentage of total loans of member banks in the group. The value of the ratio means, higher the ratio, poorer the quality of loan portfolio. Yes bank has attained first rank .55 percent followed by Axis Bank 1.11 percent in LLR/GL and last positions among the group, City Union (10th R) and Lakshmi Vilas (9th R). Under this ratio some of the sample banks ratio is more than the mandatory rate of 1.5 percent. All most 50 percent of the banks failed to maintain this norm. As indicated by C.V (132.74 percent) this ratio varies very widely across the banks.

4.2 Loan Loss Provisions to Net Interest Revenue (LLP/NIR) is the association between Loan Loss provisions in the bank total profit and loss account and the interest income over the same period. Ideally this ratio should be as low as possible and in a well-run bank if the lending book indicates higher risk, this should be reflected by higher ratio.

The group mean value was 14.12 percent far below than C.V 43.97 percent. Karur Vysya has occupied its first position (4.56 percent) and second position went to DXB (6.47 percent). From the lowest rank achieved ICICI (10thR) followed by Laskhi Vilas (9thR).

4.3 Loan Loss Reserve to Impaired Loans (LLR/IL) it is used for calculating the percentage of problem loan against loan loss reserve. “Impaired loans” are considered to be the best measure of problem loans. This may be create losses in business of the banks in future. Thus, this ratio illustrates the asset quality of the bank. Across the group Yes bank recorded first rank, followed by HDFC (2nd R), and lowest position held by Lakshmi Vilas (10th R) and City Union (9th R). The group mean 93.02 percent is higher than its group C.V 55.46 percent. It means no wider variations were at Individual bank performance of entire group.

4.4 Impaired Loans to Equity (IL/E) Impaired (problem) loans as a percentage of the bank's equity. This indicates the weakness of the loan portfolio relative to the concerned bank’s business. If the ratio is high this would be a cause for concern. Yes Bank placed the 1st position continued by Axis bank (2nd R), HDFC (3rd R). The ranks obtained on the basis of low ratios. DXB has recorded highest ratio hence at the 10th position followed by Lakshmi Vilas Bank 9th. The table 2 presents most of the banks exhibited double digit ratios as against IL/E. In an average group ratio indicated 18.93 percent) of total loan portfolio of private sector banks was the impaired loans. In this circumstance causes and effect for such high portion should be an area for further study.

After the careful examination the selected sub-parameters were averaged to gauge the composite asset quality performance, Yes Bank secured first position, followed by Axis Bank (2nd) and (3rd) position placed both KVB and HDFC. Namely very old and experienced banks held the last two positions Lakshmi Vilas (10th),) and City Union (9th). Yes Bank need to be appreciated and its marketing strategies can be used as tool for enhancing the business of other performers in the group.

5.0 Composite Management Efficiency of Private Commercial Banks

Management quality is not just dependent on the current financial performance of performers. Management efficiency means adherence to set of norms, ability to plan and respond to changing environment, leadership and administrative capability of the bank. To analyse these quintessential features of management, four sub-parameters were employed, namely, recurring earning power, equities to total assets, non-operational income to net income and cost to income ratio. These sub-parameters measure the management efficiency not only in terms of increasing revenue but also decreasing cost.

Table 3 Composite Management Efficiency of Private Commercial Banks (2007-2014)

Sup-Parameters

BANKS	REP/TA	RANK	E / TA	RANK	NOI/NI	RANK	C I R	RANK	G AVERAGE	RANK
FEDERAL	2.76	2	9.20	2	17.69	7	38.91	1	3.00	1
YES BANK	2.66	5	7.84	5	7.06	2	42.76	3	3.75	2
KARUR V	2.38	6	8.00	4	7.22	3	42.89	4	4.25	3
CITY UNION	2.67	4	7.07	7	7.84	4	39.49	2	4.25	3
AXIS BANK	2.72	3	7.69	6	11.22	5	45.07	5	4.75	6
ICICI	1.99	7	9.47	1	5.68	1	60.00	9	4.50	5
HDFC	3.17	1	8.47	3	29.23	9	48.80	6	4.75	6
SIB	1.79	8	5.75	8	13.88	6	49.23	7	7.25	8
LAKSHMI V	1.51	9	6.13	10	47.57	10	57.70	8	9.25	10
DXB	0.74	10	5.28	9	25.19	8	81.49	10	9.25	10
$\bar{X}$	**2.24**		**7.49**		**17.26**		**50.63**			
σ	**0.69**		**1.35**		**12.65**		**12.29**			
C.V	**30.93**		**17.99**		**73.31**		**24.27**			

5.1 Recurring Earning Power (REP/TA) ratio calculated after tax profits plus provisions for bad debts as a percentage of banks Total Assets. Effectively this is a Return on Total Assets (ROTA) without deducting provisions. Higher the ratio better the performance. The group, mean ratio was 2.24 percent no wider witnessed from the individual performance. It is evident that HDFC has attained 3.17 percent (1st) position followed by Federal 2.76 percent (2nd) and Axis 2.72 (3rd) and bottom two ranks obtained by DXB .74 percent 10th and LVB 1.51 percent 9$^{th \text{ Position}}$ was recorded.
5.2 Equities to Total Assets (E/TA) Equity is the owner's capital and is a cushion against asset malfunction. This ratio measures the amount of protection afforded to the bank by the Equity. Higher ratio indicates greater efficiency. The mean (7.49 percent) ratio is cluster around the individual banks' ratios. ICICI has recorded first rank and next position placed at Federal bank. The lowest rank achieved by the Lakshmi Vilas (10th R) and DXB (9th R).
5.3 Non - Operational Items to Net Income (NOI/NI) this ratio highlighted the proportion of Non-operational income to the total income. Table above table depicts ICICI secured first position and second position held by Yes Bank, third held by KVB and last rank 10th in Lakshmi Vilas, Next goes to HDFC (9th R). However, the C.V 73.31 highly deviated from the mean percent of 17.26.
5.4 Cost to Income (CTI) ratio is a highly influenced sub-parameter for measuring management efficiency of banks. The major cost element is salaries of the employees and interest payments for the depositors. CTI is a measure of operational efficiency. Lower the ratio higher the performance. Above table indicates, the mean ratio for the group was 50.60 percent. It was shows that more than 50 percent contribution towards fixed charges and other margins. It can be considered as satisfactory level. Federal bank recorded first position (38.91 percent), City Union 39.49 percent (2nd) position and DXB the last position (81.49 percent) 10th and ICICI (60.00 (percent) 9th. In this group DXB and ICICI should adopt good strategy to reduce their high CTI ratios from other banks of the groups.

Variations were existed ranks achieved under each sub-parameters of Management efficiency under CAMEL model. In group ranking due to high performance, Federal maintained its first position, followed by Yes bank in the second. Third position shared by both KVB and City Union Bank. The bottom rank shared by both DXB and LVB (10th R). These two traditional bank positions are also same in most of the sub-parameters of management efficiency.

6.0 Composite Earning Quality of Private Commercial Banks

It primarily determines the profitability of a bank and explains its sustainability and growth of future earnings and hence management has a particular interest on this parameter. It also attracts the attention of the equity holders who are interested in the ultimate returns which depend on the earning quality. There are four sub-parameters chosen to study the earning quality. They are: Net interest margin, net interest revenue to assets, operational income to assets and return on assets.

Table 4 Composite Earning Quality of Private Commercial Banks

Sup-Parameters										
Banks	**NIM**	**Rank**	**NIR/AA**	**Rank**	**OOI/AA**	**Rank**	**ROAA**	**Rank**	**G Average**	**Rank**
HDFC	4.84	1	4.28	1	1.93	4	1.51	4	2.50	1
CITY UNION	3.53	3	3.14	3	1.28	5	1.55	2	3.25	2
KARUR V	3.24	4	2.94	4	1.22	6	1.56	1	3.75	3
AXIS BANK	3.10	5	2.85	5	2.07	3	1.40	5	4.50	5
FEDERAL	3.67	2	3.37	2	1.14	7	1.24	6	4.25	4
YES BANK	2.85	7	2.59	7	2.11	2	1.54	3	4.75	6
ICICI	2.39	10	2.14	10	3.26	1	1.05	7	7.00	7
SIB	2.92	6	2.73	6	0.81	10	0.95	8	7.50	8
LAKSHMI V	2.75	9	2.45	9	1.08	9	0.55	9	9.00	10
DXB	2.70	8	2.38	8	1.13	8	0.33	10	8.5	9
$\bar{X}$	**3.20**		**2.89**		**1.60**		**1.17**			
σ	**0.69**		**0.61**		**0.74**		**0.44**			
C.V	**21.71**		**21.17**		**46.12**		**37.86**			

6.1 Net Interest Margin, (NIM), This ratio is the net interest income expressed as a percentage in total assets of banks. The mean ratio for the group is 3.20 and the C.V is 21.71 which indicated wider variation across the banks. HDFC has recorded the maximum of 4.84 percent and secured first position followed by Federal bank 3.67 (2nd), and City Union 3.53 percent (3rd), Low performance were found in ICICI (10th R) and LVB (9th R).

6.2 Net Interest Revenue to Average Assets (NIR/AA): This ratio indicates whether a bank has positioned its assets and liabilities efficiently to take advantage of the interest rate changes. This ratio has an impact on the profitability and earning capacity of the bank as it must be large enough to cover the provisions for loan losses and security losses. The maximum was 4.28 percent (HDFC), followed by Federal bank (3.37 percent). The lowest ratio indicated by ICICI (2.14 percent) followed by LVB (2.45 percent). Since group mean was 2.89 percent and C.V 21.17 percent the moderate variation across the banks were found in analysis.

6.3 Other Operational Income to Average Assets (OOI/AA) its mean income generated from modern banking. This ratio indicates to what extent fees and other income represents earnings of the bank (other than conventional income). Higher ratio is considered as a better bank. ICICI has secured the maximum of 3.26 percent and the minimum of .81 percent was witnessed in SIB. Across the banks wider variations were witnessed, this ratio is much higher than to other ratios.

6.4 Return on Average Assets (ROAA), is employed to know the input and output relationship of the banks. If one rupee is invested what is the return. Higher ratio indicates better efficiency. As conspicuous in the table KVB secured first position followed by City Union (1.55 percent), and Yes Bank (1.54 percent). The bottom three positions held by DXB (10th R), Lakshmivilas (9th R), and SIB (8th R) respectively.

In group ranking under earning quality HDFC recorded first position followed by City Union (2), KVB (3) because of their stable performance in selected all indicators. DXB and Laksmvilas have been pushed back to the last positions due to nastiest performance in throughout the analysis. In the absence of any bench marking or standard ratio from the banking regulators, researcher can't effectively infer that whether banks performed satisfactorily in composite Earning quality.

7.0 Composite Liquidity Performance of Private Commercial Banks

Liquidity for a bank is the quantum of assets which are easily convertible into cash in order to meet their obligations. Liquidity is a crucial parameter in CAMEL as it reflects bank's ability to meet its financial obligations and lack of liquidity can have an undesirable impact on the credibility of the bank. The liquidity ratios indicate the bank's short-term solvency and its ability to pay-off the liabilities. There are four sub-parameters chosen to measure the liquidity position. They are interbank ratio, Net loans to total assets, Liquid assets to short term funds and Liquid assets to total deposits.

Table 5 Composite Liquidity Performance of Private Commercial Banks (2007-2014)

Sup-Parameters										
Banks	**IBR**	**Rank**	**NL/TA**	**Rank**	**LA/D&STF**	**Rank**	**LA/TD&B**	**Rank**	**G Average**	**Rank**
HDFC	285.01	1	54.29	2	12.24	2	12.24	2	1.75	1
DXB	136.10	5	57.46	5	12.85	1	12.85	1	3.00	2
ICICI	134.94	6	50.88	1	11.39	3	11.29	3	3.25	3
AXIS BANK	84.00	7	56.24	4	10.40	4	9.86	4	7.75	9
CITY UNION	166.57	3	62.71	9	9.74	5	9.70	5	5.50	4
FEDERAL	247.97	2	60.16	6	8.69	9	8.69	8	6.25	5
SIB	144.81	4	61.60	8	9.05	7	9.04	7	6.50	6
LAKSHMI V	53.31	9	61.86	7	9.45	6	9.41	6	7.00	7
YES BANK	31.96	10	55.31	3	8.73	8	8.69	9	7.50	8
KARUR V	87.13	8	62.75	10	7.61	10	6.98	10	9.50	10
$\bar{X}$	**137.18**		**58.33**		**10.02**		**9.88**			
σ	**80.62**		**4.10**		**1.68**		**1.78**			
C.V	**58.77**		**7.03**		**16.82**		**18.05**			

7.1 Interbank Ratio (IBR) is a bank lent money to other banks divided by money borrowed from other banks calculated in percentage. If this ratio is greater than 100 percent, it indicates that the bank is a net placer of funds, and therefore more liquid assets. The mean ratio for the group is 137.18 percent indicating that the group is a net placer of funds in the banking industry. HDFC (1), Federal (2), City Union (3) and SIB (4) are the netplacer of in this analysis. They scored more than 100 percent in ratios. The low performance were found in Yes bank at (10), Lakshmi Vilas (9), KVB (8). These banks considered as a net borrower in the group. when comparing to all other ratios Yes Bank pushed back at 10^{th} positions as it is understandable that being leader among the group it is a leading lender in the group. Finally, the data exhibited Wider variations were existed in Inter Bank variations on selected sample banks.

7.2 Net Loans to Total Assets (NL/TA) is a liquidity ratio that indicates the proportion of assets that are tied up in loans. It means the proportion of loan in assets of the banks. The higher the ratio, the less liquid the bank will be. The mean ratio for the group is 58.33 percent and ratios of across the banks utmost consistency was witnessed in results.

7.3 Liquid Assets to Deposits and Short-Term Funding (LA/D&STF) as evidenced from the above table, DXB (12.58 percent) has achieved first position followed by HDFC (12.24 percent) and ICICI (11.39 percent). The mean ratio for the group was 10.02 percent utmost consistency was witnessed. The worst three positions are indicated in KVB (10), Federal (9) and LVB (8).

Though this ratio is considered to be better if it is higher, it also signals for excessive working up funds for the sake of liquidity.

7.4 Liquid Assets to Total Deposits and Borrowings (LA/TD & B) this ratio has its denominator as deposits and borrowings with the exception of capital instruments. Hence higher the ratio higher the liquidity for the banks. Based on this ratio analysis, DXB has got 1^{st} position followed by HDFC (2^{nd}), ICICI (3^{rd}) and KVB (10^{th}) being the last.

In group analysis recorded by the banks under the four sub-parameters for the time span of (2007-14) was averaged and composite ranking has been assigned to all the 10 banks. HDFC has obtained a spectacular performance in most of the sub-parameters. Therefore, HDFC has secured at first position, followed by DXB and ICICI. The bottom ranks achieved by the KVB and Yes bank respectively.

8.0 Composite CAMEL Ranking of Private Banks

Table 6 presents the ranking of selected private commercial banks in terms of their performance in various sub-parameters of CAMEL. Individual ranks attained under CAMEL are averaged and group ranking were computed for the entire study.

Table 6 Composite CAMEL Ranking of Private Sector Banks (2007-2014) (in percentage)

COMPOSITE CAMEL RANKING OF ALL BANKS							
Banks	**C**	**A**	**M**	**E**	**L**	**Average**	**Rank**
HDFC	1	1	1	1	1	1	1
AXIS BANK	2	3	2	2	2	2.2	2
FEDERAL	3	2	3	3	3	2.8	3
YES BANK	5	3	3	5	9	5	5
KARUR V	4	5	6	4	4	4.6	4
ICICI	6	7	5	6	5	5.8	6
CITY UNION	7	6	6	7	6	6.4	7
SIB	8	7	8	8	7	7.6	8
DXB	9	9	10	10	8	9.2	9
LAKSHMI Vilas	10	10	10	9	10	9.8	10

Test of Significance

To test whether there were significant differences in the inter-bank performance of the selected Private Banks under CAMEL parameters, the following hypothesis was formulated and tested using ANOVA.

H0: There is no significant difference in the inter-bank performance of the selected Private commercial banks under CAMEL parameters

Ha: There is significant difference in the inter-bank performance of the selected Private commercial banks under CAMEL parameters

Table 7ANOVA Results

Composite CAMEL Ranking of Private Sector Banks (2007-2014)					
	Sum of Squares	**Df**	**Mean Square**	**F**	**Table Value**
Between Groups	384.720	9	42.747	45.475	2.52
Within Groups	37.600	40	. 940		
Total	422.320	49			

Based on the ANOVA results, it had been statistically proved that, there are significant differences in the inter-bank performance of the private sector banks as the calculated value of F (45.475) is greater than the table value (2.52) with very low p-value. Hence, we reject the null hypothesis and accept the alternative hypothesis that there are significant differences in the inter-bank performance of the private sector banks under CAMEL parameters.

Conclusion

In composite CAMEL ranking of private sector banks, derived from the analysis, HDFC had secured first rank followed by Axis bank (2) and Federal Bank (3). HDFC excelled in Earning quality and liquidity, indicated good performance in capital adequacy and asset quality. The weak spot for this bank was Management Efficiency. Federal bank's managerial strategy may be a lesson for HDFC and others in the group. Federal Bank excelled in capital adequacy and Management Efficiency but lost in Asset Quality and Earning quality. Yes bank's asset Quality model and management efficiency model might be a lesson for Federal bank. Axis bank indicates a stable and uniform performance (not very high nor very low) in all the sub parameters. Yes bank, even though excelled in Asset Quality and Management efficiency, lost in earning quality. HDFC's model may be a lesson in earning quality. Even though Karur Vysya Bank recorded a stable and uniform performance in 4 parameters, its lowest ranking in earning quality pulled it down to 5th place in group ranking. HDFC's model might be a lesson for Karur Vysya in this parameter. On the other side, Lakshmi Vilas bank was in the bottom of the ranking table, and DXB 9th position. The performance of these three banks was far from satisfactory and the CAMEL model of HDFC, Axis, Federal bank and Yes bank might be lessons for these three banks. The above findings supported by studies of **P.Karthikeyan and B.Shangari (2014), Sneha S Shukla (2015)** (same conclusion of this study).

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