

# PERFORMANCE MEASUREMENT SYSTEM IN INDIAN BANKING SECTOR IN CAMEL FRAMEWORK

## A COMPARATIVE STUDY OF PRIVATE AND FOREIGN BANKS IN INDIA

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### **P**URPOSE

*THE Banking sector is a crucial linkage between the household sectors and firms and forms the backbone of an economy. It forms the basis for all the productive activities taking place in an economy and the performance of the economy is judged by the performance of its banking sector. The banking sector constitutes a major part of the financial service sector and its soundness is necessary for healthy, dynamic, growing, and vibrant economy. A sound and healthy banking sector ensures an efficient, profitable, stable, flexible, and productive economy.*

**Design/Methodology/Approach:** *The present research work has been undertaken to measure the performance of the banking sector in India by analyzing the performance of Private and Foreign banks with the help of CAMEL MODEL Approach. The Camel Model approach incorporates important parameters like Capital Adequacy, Assets Quality, Management Efficiency, Earnings Quality, and Liquidity.*

**Research Limitations/Implications/Practical Implications/Originality/Value Findings:** *The data was collected from the annual reports of five private banks and five foreign banks in India covering the period of five years starting from 2007-08 to 2011-2012 and the data analysis was conducted by using Analysis of Variance (ANOVA)- Two way classification model and is analytical in nature. The study reveals that among the private banks performance of ICICI Bank was the best and among the foreign banks performance of Antwerp Diamond Bank was best.*

**Key Words:** *Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality, and Liquidity.*

### **Introduction**

The outbreak of reforms in financial sector has resulted in tremendous change in the banking sector of the country during the last two decades. The process of economic reforms started in the year 1991 brought a new concept of liberalization which enabled new private sector banks and foreign banks to have more and more branches in the Indian Banking sector. These banks came up with attractive policies and provided better customer services to satisfy the ever increasing needs of Indian customers. They gave a tough competition to the nationalized banks in this process, but in turn they themselves faced the competition from the nationalized banks which had witnessed phenomenal growth in the past. The reforms have led to the increase in resource productivity, increasing level of deposits, credits

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and profitability and decrease in non-performing assets (Badola & Verma, 2006). The private and foreign banks have to work even harder to prove themselves and win the faith of the common public of the country. Due to new technological developments and creative innovations these banks achieved unprecedented growth during the last two decades. Private banks are the early adopter of technology and took more IT initiative than public sector banks (Mittal & Dhingra, 2007). The CAMEL MODEL approach is an excellent approach to examine the performance of the private and foreign banks since it attempts to detect in advance, the challenges faced by these banks. CAMEL model is actually a ratio based model used for evaluating the performance of banks and is used for ranking or rating of the banks.

### **Justification of the Study**

As the number of private banks as well as foreign banks increased, they imposed a lot of competition to each other. The private banks and the foreign banks had the task to make a place for them in the Indian economy where the common public was very rigid in its approach and had belief and faith only on nationalized banks, since, they feared of losing their savings to private or foreign banks. In spite of more and more services, facilities and professionalism of private and foreign banks, it was very difficult for them to generate faith among the people of the country. All this required a total restructuring of activities and search of new techniques. For all these reasons, it is very important to measure the soundness of these banks and also to ensure about their efficiency and performances.

### **Review of Literature**

Prasuna (2003) suggested that 'tough competition amongst the banks benefits the consumers with better facilities, innovative products, and better bargains'. A competitive banking system promotes the efficiency, and therefore, important for growth, but market power is necessary for stability in the banking system (Northcott, 2004). Aggarwal & Sinha (2010) found that in India, there does not seem to be any working model of analyzing the financial performance. Bodla and Verma (2006) analyzed that to strengthen the position the public sector banks must strive to greatly enhance efficiency through a control over shrinking spread, increasing non-interest income, and maximizing business per employee and per branch, etc. Bodla and Verma (2006) emphasized that the prime objective of the CAMEL model of rating banking institutions is to catch up the comparative performance of various banks. In the views of Ghosh Saibal (2010), privatization improves bank soundness, enhances profitability and efficiency since the government ownership has been empirically proven to be detrimental to growth. Goyal, (2010) analyzes the various risk management measures and strategies in place in India owing to increase in competition, deregulation, innovative financial instruments and delivery channels.

A profitable and sound banking sector is at a better point to endure adverse upsets and adds performance in the financial system (Athanasoglou et al., 2008). Sen Gupta (2011) paper deals with the introduction of Basel III norms post the 2008 financial crisis, and the challenges associated with its implementation in India. Chaudhary & Singh (2012) analyze the impact of the financial reforms of 1991 on the increase in soundness of Indian Banking through its impact on the assets quality. According to them the key players to ensure this soundness are again, risk management, NPA levels, effective cost management and financial inclusion. Khatik & Nag (2014) suggested banks to increase its Capital Adequacy Ratio in order to maintain its depositors' confidence and to promote the stability and efficiency of its financial system.

### **Objectives of the Study**

This study has the following objectives:

- To analyze the concept of CAMEL Model approach.

- To examine the Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality, and Liquidity of Private and Foreign banks.
- To study the overall performances and soundness of Private and Foreign banks with the help of CAMEL Model approach.

### **Hypotheses of the Study**

Ho1: There is no significant difference in the Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality, and Liquidity of Private and Foreign banks.

Ho2: There is no significant difference in the overall performances and soundness of Private and Foreign banks as per the CAMEL Model approach.

### **Methodology**

For the study, statistical data has been collected from various annual reports published periodically by the Private and Foreign banks. The statistical techniques like percentage, averages, coefficient of variation, two way ANOVA have also been applied. For proper analysis and evaluation of operational performance and financial strength, the individual items of profit and loss accounts and balance sheet have also been regrouped.

### **Limitations of the Study**

Limitations are always a part of any kind of research work, as the report is mainly based on secondary data; proper care must be taken in knowing the limitations of the required study.

- i. The financial performance of the company is shown just for the last five years, ending 2012. Hence, any uneven trend before or beyond the set period will be the limitations of the study.
- ii. This analysis is based on only monetary information, analysis of the non monetary factors have not been studied.
- iii. As per the requirement of the study some data have been grouped and sub grouped.

### **Performance Measurement of Private and Foreign Banks in India on the basis of CAMEL Model**

CAMEL model is the mechanism which is used for the critical analysis of the balance sheet of banks and the presentation of such analysis to provide for the assessment of the health of the banks. In the present research work, CAMEL model has been used as a measuring rod to measure the capital adequacy, assets quality, management efficiency, earning quality and liquidity of five private banks and five foreign banks operating in India.

### **Capital Adequacy Ratio**

Capital Adequacy indicates the financial health of a banking unit. Capital Adequacy maintains depositors' confidence and promotes the stability and efficiency of financial system. Capital Adequacy reflects the overall financial conditions of banks and its ability to meet the need for additional capital. It also shows the bank's ability to meet financial instability. Banks have to maintain Capital Adequacy as specified by RBI. As per RBI norms, Banks in India should have Capital Adequacy of 12%. It is calculated as follows:

$$\text{Capital Adequacy Ratio} = \frac{(\text{Tier I} + \text{Tier II}) \text{ Capital}}{\text{Risk Weighted Assets}} * 100$$

**Table No. 1: Statement showing Capital Adequacy Ratio (%)**

Year	Private Banks					Foreign Banks				
	Axis Bank	HDFC Bank	ICICI Bank	IndusInd Bank	ING Vysya Bank	Antwerp Diamond Bank	Bank of Bahrain & Kuwait	Barclays Bank	Citi Bank	Honkong and Shanghai Banking Corporation (HSBC)
2007-2008	13.73	13.60	13.96	11.91	10.20	37.09	21.61	21.11	12.00	10.59
2008-2009	13.69	15.69	15.53	12.55	11.65	26.79	25.52	17.07	13.23	15.31
2009-2010	15.80	17.44	19.41	15.33	14.91	33.72	25.01	16.99	18.14	18.03
2010-2011	12.65	16.22	19.54	15.89	12.94	33.73	23.28	14.89	17.31	18.03
2011-2012	13.66	16.52	18.52	13.85	14.00	25.60	38.60	14.99	16.03	16.04
Mean	13.91	15.89	17.39	13.91	12.74	31.39	26.80	17.01	15.34	15.60
Rank	3	2	1	3	4	1	2	3	5	4
S.D.	1.03	1.28	2.25	1.54	1.67	4.43	6.06	2.25	2.36	2.73
C.V. (%)	7.41	8.05	12.91	11.04	13.12	14.11	22.60	13.25	15.37	17.48

**Source:** Compiled from the annual reports of the respective banks. (From 2008 - 2012).

### Interpretation

As it is clear from Table No.1, among the private banks, the Capital Adequacy ratio was highest of the ICICI Bank in the year 2007-2008 when it was 13.96% while among the foreign banks it was highest of Antwerp Diamond Bank when it was 37.09%. In the year 2008-2009, among the private banks, the Capital Adequacy ratio was highest of the HDFC Bank when it was 15.69% while among the foreign banks it was highest of Antwerp Diamond Bank and was 26.79%. In the next year, among the private banks, ICICI Bank had the highest Capital Adequacy ratio of 19.41% while among the foreign banks it was once again the Antwerp Diamond Bank which had the highest Capital Adequacy ratio of 33.72%. In the year 2010-2011, ICICI Bank again had the highest Capital Adequacy ratio of 19.54% and the Antwerp Diamond Bank had the highest Capital Adequacy ratio of 33.73%. In the year 2011-2012, the ICICI Bank had the highest Capital Adequacy ratio of 18.52% among the private banks while Bank of Bahrain and Kuwait had the highest Capital Adequacy ratio of 38.60% among the foreign banks. The study reveals that among the private banks ICICI Bank had the highest average Capital Adequacy ratio of 17.39%, with highest standard deviation of 2.25. It further reflects that among the foreign banks Antwerp Diamond Bank had the highest average Capital Adequacy ratio of 31.39%, but Bank of Bahrain and Kuwait had the highest standard deviation of 6.06.

### Assets Quality

Assets Quality is an important tool to judge the degree of financial strength. It determines the component of non-performing assets as a percentage of total assets. It shows the types of debtors the banks are having. It is a measure of quality of assets when management has not provided for loss on NPAs. It is calculated as follows:

$$\text{Net NPA to Net Advance Ratio} = \frac{\text{Net NPA}}{\text{Net Advance}}$$

**Table No. 2: Statement showing Net NPA to Net Advances Ratio**

Year	Private Banks					Foreign Banks				
	Axis Bank	HDFC Bank	ICICI Bank	IndusInd Bank	ING Vysya Bank	Antwerp Diamond Bank	Bank of Bahrain & Kuwait	Barclays Bank	Citi Bank	Honkong and Shanghai Banking Corporation (HSBC)
2007-2008	0.42	0.47	1.55	2.27	0.70	0.00	1.51	0.42	1.23	0.58
2008-2009	0.40	0.63	2.09	1.14	1.20	3.35	0.09	4.59	2.63	1.42
2009-2010	0.40	0.31	2.12	0.50	1.20	14.32	1.95	5.15	2.14	2.31
2010-2011	0.29	0.19	1.11	0.28	0.39	3.04	0.52	1.46	1.21	0.91
2011-2012	0.27	0.18	0.73	0.27	0.18	1.96	2.52	1.45	0.90	0.62
Mean	0.36	0.36	1.52	0.89	0.73	4.53	1.32	2.61	1.62	1.17
Rank	4	4	1	2	3	1	4	2	3	5
S.D.	0.06	0.17	0.54	0.76	0.41	5.03	0.90	1.89	0.65	0.65
C.V. (%)	17.64	48.45	35.77	85.02	56.53	110.97	68.08	72.25	40.23	55.22

**Source:** Compiled from the annual reports of the respective banks. (From 2008 - 2012).

### Interpretation

Table No. 2 shows that, among the private banks, the Net NPA to Net Advances Ratio was highest of the IndusInd Bank in the year 2007-2008 when it was 2.27 while among the foreign banks it was highest of Bank of Bahrain and Kuwait when it was 1.51. In the year 2008-2009, among the private banks, the Net NPA to Net Advances Ratio was highest of the ICICI Bank when it was 2.09 while among the foreign banks it was highest of Barclays Bank and was 4.59. In the next year, among the private banks, ICICI Bank had the highest Net NPA to Net Advances Ratio of 2.12 while among the foreign banks it was once again the Antwerp Diamond Bank which had the highest Net NPA to Net Advances Ratio of 14.32. In the year 2010-2011, ICICI Bank again had the highest Net NPA to Net Advances Ratio of 1.11 and the Antwerp Diamond Bank had the highest Net NPA to Net Advances Ratio of 3.04. In the year 2011-2012, the ICICI Bank had the highest Net NPA to Net Advances Ratio of 0.73 among the private banks while Bank of Bahrain and Kuwait had the highest Net NPA to Net Advances Ratio of 2.52 among the foreign banks. The study reveals that among the private banks ICICI Bank had the highest average Net NPA to Net Advances Ratio of 1.52, with highest standard deviation of 0.54. It further reflects that among the foreign banks Antwerp Diamond Bank had the highest average Net NPA to Net Advances Ratio of 4.53, with the highest standard deviation of 5.03.

### Management Efficiency

Ratios in this area involve subjective analysis and efficiency of management. It shows management capability to assign premium to better quality bank and discount the poorly managed ones. For measuring the management efficiency, business per employee has been calculated. Business per employee attempts to measure the efficiency of all the employees of a bank in generating business for the bank. It is calculated as follows:

$$\text{Business Per Employee Ratio} = \frac{\text{Total Business}}{\text{Total No. of Employees}}$$

**Table No. 3: Statement showing Business per Employee (Per Lakh)**

Year	Private Banks					Foreign Banks				
	Axis Bank	HDFC Bank	ICICI Bank	Indus-Ind Bank	ING Vysya Bank	Antwerp Diamond Bank	Bank of Bahrain & Kuwait	Bar-clays Bank	Citi Bank	Honkong and Shanghai Banking Corporation (HSBC)
2007-2008	111.70	50.60	100.80	106.27	54.73	261.90	71.80	94.23	176.38	101.23
2008-2009	106.00	44.60	115.40	83.60	60.64	337.20	61.60	111.01	188.01	96.18
2009-2010	111.10	59.00	76.50	83.75	62.38	195.56	85.00	120.81	197.99	113.55
2010-2011	136.60	65.30	73.50	84.40	67.48	259.23	89.60	143.67	174.59	122.17
2011-2012	127.60	65.40	70.80	78.84	55.98	387.45	133.60	183.14	197.50	165.79
Mean	118.60	56.98	87.40	87.37	60.24	288.27	88.32	130.57	186.89	119.78
Rank	1	5	2	3	4	1	5	3	2	4
S.D.	11.56	8.22	17.61	9.66	4.60	66.88	24.70	30.77	9.99	24.75
C.V. (%)	9.74	14.43	20.15	11.05	7.63	23.20	27.96	23.56	5.34	20.66

**Source:** Compiled from the annual reports of the respective banks. (From 2008 - 2012).

### Interpretation

As it is clear from Table No. 3, among the private banks, the Business per Employee was highest of the Axis Bank in the year 2007-2008 when it was 111.70 while among the foreign banks it was highest of Antwerp Diamond Bank when it was 261.90. In the year 2008-2009, among the private banks, the Business per Employee was highest of the ICICI Bank when it was 115.40 while among the foreign banks it was highest of Antwerp Diamond Bank and was 337.20. In the next year, among the private sectpr banks, Axis Bank had the highest Business per Employee of 111.10 while among the foreign banks it was once again the CITI Bank which had the highest Business per Employee of 197.99. In the year 2010-2011, Axis Bank again had the highest Business per Employee of 136.60 and the Antwerp Diamond Bank had the highest Business per Employee of 259.23. In the year 2011-2012, the Axis Bank had the highest Business per Employee of 127.60 among the private banks while Antwerp Diamond Bank had the highest Business per Employee of 387.45 among the foreign banks. The study reveals that among the private banks Axis Bank had the highest average Business per Employee of 118.60, with highest standard deviation of 17.61 of ICICI Bank. It further reflects that among the foreign banks Antwerp Diamond Bank had the highest average Business per Employee of 288.27, with the highest standard deviation of 66.88.

### Earning Quality

Earning Quality shows the ability of a bank to earn regularly. It also explains the sustainability and growth in earnings in the future. This factors gains importance on the fact that much of the banks income come through non -core activities i.e., investments, treasury operations, and so on. This ratio expresses the quality of income in form of income generated by core activities income. For measuring the earning quality of five nationalized banks return on average assets ratio was applied which measures the efficiency in utilization of assets. It is calculated as follows:

$$\text{Return on Average Assets Ratio} = \frac{\text{Net Profit}}{\text{Average Assets}} * 100$$

**Table No. 4: Statement showing Return on Average Assets Ratio (%)**

Year	Private Banks					Foreign Banks				
	Axis Bank	HDFC Bank	ICICI Bank	IndusInd Bank	ING Vysya Bank	Antwerp Diamond Bank	Bank of Bahrain & Kuwait	Barclays Bank	Citi Bank	Honkong and Shanghai Banking Corporation (HSBC)
2007-2008	1.24	1.32	1.12	0.34	0.74	1.63	4.08	0.10	2.24	1.82
2008-2009	1.44	1.28	0.98	0.58	0.70	1.64	3.14	0.16	2.12	1.51
2009-2010	1.67	1.53	1.13	1.14	0.80	-0.25	0.37	-3.12	0.96	0.88
2010-2011	1.68	1.58	1.35	1.46	0.89	-1.72	1.99	0.47	1.37	1.68
2011-2012	1.68	1.77	1.50	1.57	1.09	1.20	2.14	-0.91	1.64	1.98
Mean	1.54	1.50	1.22	1.02	0.84	0.50	2.34	-0.66	1.67	1.57
Rank	1	2	3	4	5	4	1	5	2	3
S.D.	0.18	0.18	0.18	0.48	0.14	1.31	1.24	1.31	0.47	0.38
C.V. (%)	11.46	11.99	15.20	47.45	16.43	261.65	52.98	-199.18	28.44	24.15

**Source:** Compiled from the annual reports of the respective banks. (From 2008 - 2012).

### Interpretation

As it is clear from Table No. 4, among the private banks, the Return on Average Assets Ratio was highest of the HDFC Bank in the year 2007-2008 when it was 1.32% while among the foreign banks it was highest of Bank of Bahrain and Kuwait when it was 4.08%. In the year 2008-2009, among the private banks, the Return on Average Assets Ratio was highest of the Axis Bank when it was 1.44% while among the foreign banks it was highest of Bank of Bahrain and Kuwait and was 3.14%. In the next year, among the private banks, Axis Bank had the highest Return on Average Assets Ratio of 1.67% while among the foreign banks it was the CITI Bank which had the highest Return on Average Assets Ratio of 0.96%. In the year 2010-2011, Axis Bank again had the highest Return on Average Assets Ratio of 1.68% and the Bank of Bahrain and Kuwait had the highest Return on Average Assets Ratio of 1.99%. In the year 2011-2012, the Axis Bank had the highest Return on Average Assets Ratio of 1.68% among the private banks while Bank of Bahrain and Kuwait had the highest Return on Average Assets Ratio of 2.14% among the foreign banks. The study reveals that among the private banks Axis Bank had the highest average Return on Average Assets Ratio of 1.54%, with highest standard deviation of 0.48 of IndusInd Bank. It further reflects that among the foreign banks, Bank of Bahrain and Kuwait had the highest average Return on Average Assets Ratio of 2.34%, %, but Antwerp Diamond Bank and Barclays Bank had the highest standard deviation of 1.31.

### Liquidity

Liquidity of a bank represents its ability to meet its financial responsibilities. Maintaining correct level of liquidity is important for ensured growth and earning. Banks have to be more careful in investments in order to create more profit on investment as well as to provide liquidity to the depositors. High Liquidity ratio shows the banks efficiency. For measuring the liquidity of five nationalized banks liquid assets to total assets ratio was applied which measures the overall liquidity position of the bank. It is calculated as follows:

$$\text{Liquid Assets to Total Assets Ratio} = \frac{\text{Liquid Assets}}{\text{Total Assets}}$$

**Table No. 5: Statement showing Liquid Assets to Total Assets Ratio**

Year	Private Banks					Foreign Banks				
	Axis Bank	HDFC Bank	ICICI Bank	IndusInd Bank	ING Vysya Bank	Antwerp Diamond Bank	Bank of Bahrain & Kuwait	Barclays Bank	Citi Bank	Honkong and Shanghai Banking Corporation (HSBC)
2007-2008	0.14	0.14	0.15	0.14	0.16	0.02	0.25	0.17	0.14	0.12
2008-2009	0.13	0.13	0.14	0.11	0.13	0.06	0.31	0.13	0.13	0.12
2009-2010	0.11	0.16	0.16	0.11	0.13	0.13	0.32	0.15	0.13	0.11
2010-2011	0.11	0.16	0.12	0.12	0.10	0.12	0.26	0.18	0.11	0.08
2011-2012	0.07	0.13	0.15	0.13	0.11	0.10	0.17	0.17	0.08	0.08
Mean	0.11	0.14	0.14	0.12	0.13	0.08	0.26	0.16	0.12	0.10
Rank	5	1	2	4	3	5	1	2	3	4
S.D.	0.02	0.02	0.01	0.01	0.02	0.04	0.06	0.02	0.02	0.02
C.V. (%)	20.99	10.06	7.92	9.12	18.06	45.75	20.90	11.34	16.90	16.46

**Source:** Compiled from the annual reports of the respective banks. (From 2008 - 2012).

### Interpretation

Table No. 5 shows that, among the private banks, the Liquid Assets to Total Assets Ratio was highest of the ING Vysya Bank in the year 2007-2008 when it was 0.16 while among the foreign banks it was highest of Bank of Bahrain and Kuwait when it was 0.25. In the year 2008-2009, among the private banks, the Liquid Assets to Total Assets Ratio was highest of the ICICI Bank when it was 0.14 while among the foreign banks it was highest of Bank of Bahrain and Kuwait and was 0.31. In the next year, among the private banks, both ICICI Bank and HDFC Bank had the highest Liquid Assets to Total Assets Ratio of 0.16 while among the foreign banks it was once again the Bank of Bahrain and Kuwait which had the highest Liquid Assets to Total Assets Ratio of 0.32. In the year 2010-2011, HDFC Bank again had the highest Liquid Assets to Total Assets Ratio of 0.16 and the Bank of Bahrain and Kuwait had the highest Liquid Assets to Total Assets Ratio of 0.26. In the year 2011-2012, the ICICI Bank had the highest Liquid Assets to Total Assets Ratio of 0.15 among the private banks while Bank of Bahrain and Kuwait and Barclays Bank had the highest Liquid Assets to Total Assets Ratio of 0.17 among the foreign banks. The study reveals that among the private banks both ICICI Bank and HDFC Bank had the highest average Liquid Assets to Total Assets Ratio of 0.14, with highest coefficient of variation of 20.99% of Axis Bank. It further reflects that among the foreign banks Bank of Bahrain and Kuwait had the highest average Liquid Assets to Total Assets Ratio of 0.26, but Antwerp Diamond Bank had the highest coefficient of variation of 45.75%.

### Testing of Hypotheses

Null Hypothesis (Ho)-

Ho1: There is no significant difference in the Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality, and Liquidity of Private and Foreign banks.

Ho2: There is no significant difference in the overall performances and soundness of Private and Foreign banks using CAMEL Model approach.



**Table No. 6: Analysis of Variance (ANOVA) Table: Two Way Classification Model**

Sources of Variation	Sum of Squares	d.f.	Mean Squares	Ratio of F
Between Columns (CAMEL)	-19.68	4	-4.92	-1.88
Between Rows (Banks)	18.42	9	2.05	0.78
Residual or Error	94.08	36	2.61	
<b>Total</b>	<b>92.82</b>	<b>49</b>		

### Interpretation of ANOVA

The critical value of F for  $v_1 = 4$  and  $v_2 = 36$  at 5% level of significance is 2.63 whereas the calculated value of F is -1.88. Since the calculated value of F is less than the table value, we conclude that there is no significant difference in the Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality, and Liquidity of Private and Foreign banks. Hence, null hypothesis is accepted.

The critical value of F for  $v_1 = 9$  and  $v_2 = 36$  at 5% level of significance is 2.15 whereas the calculated value of F is 0.78. Since the calculated value of F is less than the table value, we conclude that there is no significant difference in the performances and soundness of the five Private and five foreign banks on the basis of CAMEL Approach during the study period. Hence, null hypothesis is accepted.

### Conclusion

Table No.7, shows overall ranking, based on CAMEL Model to rate the performance of five private and five foreign banks in India. It is clear from the table that ICICI Bank has been ranked at the top position among the five private banks with composite average of 1.8. The HDFC Bank and Axis Bank secured the 2<sup>nd</sup> position with composite average of almost 2.8 each. The next was the IndusInd Bank which secured the 3<sup>rd</sup> position with the composite average of 3.2 and in the last position was the ING Vysya Bank which secured the 4<sup>th</sup> rank with the composite average of 3.8. While, comparing the performances of foreign banks based on CAMEL model it was revealed that Antwerp Diamond Bank has ranked at the top position among the five foreign banks with composite average of 2.4. The 2<sup>nd</sup> position was

**Table No. 7: Composite Ranking: Overall Performance**

Name of Private Banks	C	A	M	E	L	Average	Rank
Axis Bank	3	4	1	1	5	2.8	2
HDFC Bank	2	4	5	2	1	2.8	2
ICICI Bank	1	1	2	3	2	1.8	1
IndusInd Bank	3	2	3	4	4	3.2	3
ING Vysya Bank	4	3	4	5	3	3.8	4
Name of Foreign Banks	C	A	M	E	L	Average	Rank
Antwerp Diamond Bank	1	1	1	4	5	2.4	1
Bank of Bahrain and Kuwait	2	4	5	1	1	2.6	2
Barclays Bank	3	2	3	5	2	3	3
Citi Bank	5	3	2	2	3	3	3
Honkong and Shanghai Banking Corporation (HSBC)	4	5	4	3	4	4	4

secured by Bank of Bahrain and Kuwait which had a composite average of 2.6. The Barclays Bank and Citi Bank secured the 3<sup>rd</sup> position with composite average of 3 each and in the last position was the Honkong and Shanghai Banking Corporation (HSBC) which secured the 4<sup>th</sup> rank with the composite average of 4.

## Recommendations

The following recommendations could be laid down in the light of the findings:

- i. The ING Vysya Bank and the CITI Bank needs to increase its Capital Adequacy Ratio in order to uphold its depositors' buoyancy and to endorse the firmness and competence of its financial system.
- ii. The AXIS Bank, HDFC Bank, and Honkong and Shanghai Banking Corporation (HSBC) should give due importance to the administration of its assets since, the quality of assets is an imperative factor to gauge the degree of financial strength.
- iii. The HDFC Bank and Bank of Bahrain and Kuwait should improve its management efficiency in order to take critical decisions depending on the jeopardy perception.
- iv. The ING Vysya Bank and Barclays Bank should improve the quality of its core banking activities i.e., from lending activities in order to increase income. Since, quality of earning is a decisive factor that determines the capacity of a bank to earn consistently.
- v. The AXIS Bank and Antwerp Diamond Bank should give utmost importance to its liquidity position and should try to improve it, since liquidity is a crucial aspect which measures the bank's capability to meet its financial obligations.

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