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## A CAMEL MODEL ANALYSIS OF SELECTED PUBLIC AND PRIVATE SECTOR BANKS IN INDIA

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### ABSTRACT

*Banking is one of the fastest growing sectors in India. Banking sector helps in boosting capital formation, innovation and monetization along with facilitation of monetary policy. Not only the depositors treat sound financial health of a bank as the guarantee but it is equally significant for the shareholders, employees and whole economy of a country as well. The present study measures the financial health of top public sector and private sector banks operating in India using CAMEL Analysis. In the study, two public and two private sector bank namely State Bank of India, PNB Bank, ICICI Bank, and AXIS Bank have been selected as a sample. Data used for the study pertains from 2014-15 to 2018-19 and has been collected from the annual reports of respective banks. To study every major variable use of various ratios have been made which helps to analyze the variable in better way.*

**Keywords:** Banks, CAMEL approach, Capital adequacy, Liquidity, Asset Quality, Management efficiency, Earning Quality, Liquidity

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### INTRODUCTION:

A strong, sustainable and viable banking system plays an important role in the overall development of an economy. Banking sector has contributed in bringing a revolutionary change in reforming sector on the path of economic growth. In fact, it is the backbone of the economy and one of the key indicators to assess the level of development of any country. Performance of the banking sector is an effective measure and indicator to check the performance of any economy to a large extent. The banking sector reforms were started in India as a follow up measure of financial sector reforms and economic liberalization in the country. The banking sector being the life line of the economy has been given due weight age in the financial sector reforms. More competitiveness, productivity and efficiency and adherence to international accounting standards were the basic intentions behind the initiation of reforms in Indian banking industry.

Indian banking industry initiated in the early 1990s have been continued till now. As a result of these reforms, there have been substantial changes in the bye laws, organization, scope and activity level of Indian Banking sector. Thus, Indian banking industry has shown tremendous growth in the post liberalization era.



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Banking performance is assessed by implementing a regulatory banking supervision framework. One of such measures of supervisory regulation is the CAMEL rating system. In 1980s, US supervisory authorities introduced CAMEL rating system as a system of rating the banks for on-site examinations of banking institutions. It proved to be a beneficial and efficient tool in response to the financial crunch in 2008 by the U.S. government. Camel approach is an effective tool to determine the relative financial strength of a bank and to suggest relevant measures to improve shortcomings of a bank. In India, on the recommendations of Padmanabham Working Group (1995) committee, RBI adopted this approach in 1996. At present, two Supervisory Rating Models CAMELS (capital adequacy, asset quality, management quality, earnings, liquidity and sensitivity to market risk or systems & control) and CACS (capital, asset quality, compliance and systems & control) are being used in India for rating of the Indian Commercial Banks and Foreign Banks operating in India respectively.

#### **LITERATURE REVIEW:**

**Misra and Aspal (2013)** evaluate the performance and financial well being of State bank group encompassing State bank of India, State bank of Hyderabad, State bank of Patiala, State bank of Mysore, State bank of Bikaner and Jaipur and State bank of Travancore for a period of three years i.e. from 2009-2011. One way ANOVA is applied to determine whether significant difference exists between the means of CAMEL ratio. They bring out that State bank of India needs to focus on Capital adequacy and asset quality while State bank of Bikaner and Jaipur and state bank of Patiala have to work on improvement of management efficiency and earning quality respectively.

**Gupta (2014)** evaluates the performance of public sector banks in India using CAMEL approach for a period of five years from 2009 to 2013 and brings out that Andhra Bank stood at first position followed by Bank of Baroda and state bank of Hyderabad while United bank of India secured the least position.

**Singh (2015)** analyses the overall profitability of four private sector banks i.e. AXIS Bank, ICICI bank, Karur Vysya Bank and Yes Bank. He measures the performance of the banks on the basis of profitability ratios like interest spread, return on long term funds, net profit margin, adjusted cash margin, return on assets and return on net worth. ANOVA is also applied to find out the significant relationship between interest spread, return on long term funds, net profit margin, adjusted cash margin, return on assets and return on net worth among selected private sector banks.

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**Garg and Kumari (2015)** examine the different perspectives of profitability of five major private banks for ten years from 2004 to 2014 using ratio analysis and ANOVA technique. They conclude that HDFC Bank has been the excellent performer over the last decade.

**Meena (2016)** assesses the performance of different public sector and private sector banks by using CAMEL model. In his study, he also investigates the factors that affect the financial performance of the selected public sector and private sector banks and finds that the management of NPAs is the weakest area of private sector and public sector banks.

**Srinivasan and Saminathan (2016)** apply CAMEL model to rank the public sector, private sector and foreign banks on the basis of financial performance from 2012 to 2014. They also find out that significant difference lies between the mean values of Camel ratios of public sector, private sector and foreign banks during the period of study.

**Purohit and Bothra (2018)** compare the performance of SBI and ICICI Bank using CAMEL parameters. They conclude that ICICI bank needs to improve its position with regard to capital adequacy and asset quality while SBI need to improve its position with regard to management efficiency, earning quality and liquidity.

#### **NEED OF THE STUDY:**

The present study is undertaken to highlight the comparative analysis on financial performance of selected top public sector and private sector banks in India through CAMEL Analysis Model. Through the study we would come to know the financial position of the selected 4 top banks operating in India.

#### **OBJECTIVES OF THE STUDY**

*The objectives of the study are:*

1. To analyze the financial performance of selected Public sector and Private Sector banks in India on different parameters of camel model.
2. To examine the overall relative financial position of selected Public sector and Private Sector banks in India.

#### **RESEARCH METHODOLOGY**

##### **▪ Data Collection**

The present study is based on Secondary data. The relevant data has been collected from the annual reports of selected banks. In addition to the records of the bank, data were also collected from banking bulletin, websites, newspapers, magazines and various journals.



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▪ **Selected Banks for the study:**

Two public sector and two private sector banks namely, State Bank of India, PNB Bank, ICICI bank, AXIS Bank, have been taken as sample

▪ **Time Period of the study:**

The study covers a period of four financial years i.e. from 2015-19.

▪ **Analytical Tools:**

To look at the financial soundness of the selected Public and Private sector banks in India, internationally accepted CAMEL rating parameters have been applied. CAMEL is an acronym for five parameters (capital adequacy, assets quality, management soundness, earnings and liquidity). CAMEL rating is a subjective model which assesses financial strength of a bank, whereas CAMEL ranking indicates the banks comparative position with reference to other banks. Ratios and averages have been used for analysis. Averages are calculated using MS-Excel.

**Empirical Results and Discussion**

Financial performance of selected public and private sector banks in India on different parameters of CAMEL model

1. **Capital Adequacy:** Capital adequacy is very prominent indicator to measure the financial strength of banking sector. High capital adequacies give enough confidence to stakeholders for their capital security. Capital adequacy shows the strength of bank to bear unexpected losses arise in near future.
2. **Assets Quality:** Assets quality is an important financial indicator to measure the financial strength and health of banking sector. The objective behind the check assets quality is to know quality of assets of bank, assets quality give indication that baking strength to employed assets in profitable project or not.
3. **Management Efficiency:** Management efficiency is third component of the CAMEL model that measures the growth and management efficiency of bank to generate business and profitability. Management efficiency shows that how much bank management or administrative is able to generate business and profits.
4. **Earning Quality:** The earning efficiency is another component of CAMEL model. Earning quality represents the quality of bank's profitability and bank capability to maintain quality and earn consistently. Earning efficiency show the earning trends of banks its future prospects.

5. **Liquidity:** Risk of liquidity can have an effect on the image of bank. Liquidity is a crucial aspect which reflects bank’s ability to meet its financial obligations. An adequate liquidity position means a situation, where organization can obtain sufficient liquid funds, either by increasing liabilities or by converting its assets quickly into cash (Misra & Aspal, 2013).

**Table-1  
Capital Adequacy Ratio**

<b>Ban k</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>AV G</b>	<b>Ran k</b>
SBI	12	13.1 2	13.1 1	12.6	12.7 2	12.7 1	3
PNB	12.8 9	11.2 8	11.6 6	9.2	9.73	10.9 5	4
ICIC I	17.0 2	16.6 4	17.3 9	18.4 2	16.8 9	17.2 7	1
AXI S	15.0 9	15.2 9	14.5 9	16.5 7	15.8 4	15.4 7	2

*Source: Annual Reports*

Table-1 indicates that ICICI bank ranks on the top position with highest CAR OF 17.27 followed by AXIS, SBI and PNB having CAR of 15.47, 12.71 and 10.95. It may conclude which indicates that ICICI and AXIS banks are better performance of the private sector banks capital adequacy ratio.

**Table-2  
Total Investment to Assets**

<b>Ban k</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>AV G</b>	<b>Ran k</b>
SBI	0.23	0.24	0.28	0.30	0.26	0.26	4
PNB	0.23	0.25	0.26	0.26	0.26	0.25	3
ICIC I	0.20	0.23	0.23	0.21	0.21	0.22	1
AXI S	0.29	0.23	0.21	0.22	0.21	0.23	2

*Source: Annual Reports*

Above table-2 total investment to total assets ratio indicates that ICICI bank is on the top position with lowest total investment to total assets ratio of 0.22, followed by AXIS, SBI and PNB having values of 0.23, 0.25 and 0.26. It may concluded that the private sector bank only ICICI shown good asset quality management.

**Table-3**  
**Total Advances to Total Deposits**

<b>Ban k</b>	<b>201 5</b>	<b>201 6</b>	<b>201 7</b>	<b>201 8</b>	<b>201 9</b>	<b>AV G</b>	<b>Ran k</b>
SBI	0.82	0.85	0.77	0.71	0.75	0.78	3
PNB	0.76	0.78	0.67	0.67	0.68	0.71	4
ICICI	1.07	1.03	0.95	0.91	0.89	0.97	1
AXIS	0.88	0.96	0.92	0.96	0.90	0.92	2

*Source: Annual Reports*

Above table-3 reveals total advances to total deposits ratios are that ICICI bank is ranked on the top position with highest total advances to total deposits ratio of 0.97 followed by AXIS, SBI and PNB having values of 0.92, 0.78 and 0.71. It may conclude that the private sector banks have shown better performance of bank convert deposits into high earning advances.

**Table-4**  
**Interest Income to Total Income**

<b>Ban k</b>	<b>201 5</b>	<b>201 6</b>	<b>201 7</b>	<b>201 8</b>	<b>201 9</b>	<b>AV G</b>	<b>Ran k</b>
SBI	0.81	0.81	0.77	0.86	0.86	0.82	2
PNB	0.88	0.87	0.84	0.84	0.87	0.86	1
ICICI	0.81	0.77	0.73	0.75	0.81	0.77	4
AXIS	0.81	0.81	0.79	0.81	0.81	0.80	3

*Source: Annual Reports*

Table-4 shows that interest income to total income indicates that PNB is on the top position with highest interest income to total income ratio of 0.86, followed by SBI, AXIS and ICICI bank having values of 0.82, 0.80 and 0.77. It concluded that PNB bank having sustainability in income and growth of future earnings indicates the quality of earnings.

**Table-5**  
**Liquidity Assets to Total Assets**

<b>Ban k</b>	<b>201 5</b>	<b>201 6</b>	<b>201 7</b>	<b>201 8</b>	<b>201 9</b>	<b>AV G</b>	<b>Ran k</b>
SBI	0.08	0.07	0.06	0.05	0.06	0.06	4
PNB	0.11	0.12	0.12	0.12	0.09	0.11	2
ICICI	0.09	0.09	0.09	0.08	0.08	0.09	3
AXIS	0.76	0.06	0.08	0.06	0.08	0.21	1

*Source: Annual Reports*

Ranking of the banks under study on the basis of liquid assets to total assets is shown in table-5, which indicates that AXIS bank is ranked on the top position with highest liquidity assets to total assets ratio of 0.21, followed by PNB, ICICI and SBI having values of 0.11, 0.09 and 0.06. It concluded that the SBI bank is low liquidity its meet current financial liabilities, on other hand, AXIS bank is having high liquidity it's indicates making the poor use of their cash and hence blocking the way of profitability.

**Table-6**  
**Composite ranking (Overall Performance) of Banks**

<b>Ban k</b>	<b>C</b>	<b>A</b>	<b>M</b>	<b>E</b>	<b>L</b>	<b>AV G</b>	<b>Ran k</b>
SBI	12.7 1	0.2 6	0.7 8	0.8 2	0.0 6	2.92 6	2
PNB	10.9 5	0.2 5	0.7 1	0.8 6	0.1 1	2.57 6	1
ICICI	17.2 7	0.2 2	0.9 7	0.7 7	0.0 9	3.86 4	4
AXI S	15.4 7	0.2 3	0.9 2	0.8	0.2 1	3.52 6	3

**Source: Annual Reports**

Above composite ranking table show the overall performance of banks on Capital Adequacy, Assets Quality, Management Efficiency, Earning Efficiency and Liquidity CAMEL parameters. It is inferred from the table that PNB overall performance is excellent and bank got 1st position out of four banks. SBI bank overall rank is 2nd followed by AXIS and ICICI 3rd and 4th rank respectively. ICICI bank performs poorly on overall ranking and got 4th position.

### **FINDINGS:**

The paper brings out that performance of public sector banks and private sector banks i.e., State Bank of India, Punjab National Bank, ICICI Bank and AXIS Bank. Therefore, ICICI and AXIS bank occupying the top two positions while SBI and PNB are on least two positions. Only one public sector bank i.e. PNB has managed to secure the position and the other two are selected two private sector banks. All the bottom two banks are public sector banks. The minute analysis of the present study puts the light on the fact that all private sector banks have shown sound performance on capital adequacy, asset quality, management efficiency and earning quality parameter.



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However, on the basis of liquidity one public sector and private sector banks have shown better performance as compared to private and public sector banks. Therefore, only ICICI has shown consistent performance on all the parameters and has fitted itself among four banks on the yardstick of CAMEL model. All the other public sector and private sector banks have to improve capital adequacy, asset quality, management efficiency and earning quality.

### **CONCLUSION:**

Reserve bank of India adopted CAMEL rating system in 1996 along with other existing techniques and procedures in order to evaluate the performance of the banks. The present study analyse the performance of four banks two public sector banks and two private sector banks on the basis of CAMEL model. The results show that private sector banks outperformance public sector banks and first two ranks go to the credit of all the selected private sector banks. The private sector banks have to improve performance on liquidity aspect and public sector banks have to focus on capital adequacy, asset quality, management efficiency and earning quality.

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