Research article Available online www.ijsrr.org ISSN: 2279–0543

International Journal of Scientific Research and Reviews

A Study on Financial Performance of Selected Public Sector Banks in India Using Camel Approach

* E.T. Lokganathan and and **T. Christy Cresida

*Dr. E.T. Lokganathan M.C.S., M.B.A., M.Phil., PGDCA., Ph.D., Associate Professor in Corporate Secretaryship & Professional Accounting, Kongu Arts and Science College (Autonomous), Erode, Tamil Nadu, India. Email: lokgu@yahoo.co.in, Mob : 9788796626

** Mrs. T. Christy Cresida, M.com (CA)., M.phil., Assistant Professor, Department of Corporate Secretaryship, Dr.NGP Arts and Science College, Coimbatore, Tamil nadu, India. Email: christycresida@gmail.com, Mob: 9994725370.

ABSTRACT

The progression of an economy is significantly dependent upon deployment as well as optimum utilization of resources and most importantly on operational efficiency of the various sectors, of which banking sector plays a very vital role. Banking sector helps in stimulation of capital formation, innovation and monetization in addition to facilitation of monetary policy. It is imperative to carefully evaluate and analyze the performance of banks to ensure a healthy financial system and an efficient economy. The present study attempts to evaluate the performance of public sector banks in India using CAMEL approach for a five year period from 2014 to 2018.The present study evaluate the performance of selected public sector banks are Bank of Baroda , Canara Bank, Indian bank, Punjab national bank, and State bank of India. It is observed that on an average SBI was at the top position followed by Bank of Baroda and Punjab National Bank. It is also noted that Indian bank was at the bottom position in selected CAMELS ratios.

KEYWORDS : Banking, Financial Performance, Public Sector Banks, Capital Adequacy, Management Efficiency

***Corresponding author**

Dr. E.T. Lokganathan

Dr. E.T. Lokganathan M.C.S., M.B.A., M. Phil., PGDCA., Ph.D.,

Associate Professor in Corporate Secretary ship & Professional Accounting,

Kongu Arts and Science College

(Autonomous), Erode, Tamil Nadu, India.

Email: lokgu@yahoo.co.in, Mob : 9788796626

INTRODUCTION

Finance is an essential factor for the working of any economy. It is one of the vital ingredients for the development of any country. Financial system of a country plays a very crucial role in functioning of the economy by allowing transfer of resources from depositors to investors. Efficient intermediation of funds from savers to users enables the productive application of available resources. The greater the efficiency of the financial system in resource generation and allocation, the higher is its likely contribution to economic growth. The important role played by the banks in the provision of intermediation services and the capital formation process in an emerging economy like as India hardly needs to be emphasized. The progress and growth of Indian banking is in line with the twin objectives of financial stability and growth. Banking in India has increased its size by capitalizing on all the business opportunities available. The capital adequacy ratio of Indian banks has increased and is now in a much better position in relation to other emerging market economies. The rapid growth of the Indian economy has had its positive impact on banks too. Banking reforms in India had the objectives of improving the macro economic policy framework for banks and Improvement in the financial health and competitive position of banks. According to Crowt her, a bank "collects money from those who have it to spare or saving it out of their incomes and it lends this money to those who require it".

CAMELS are basically a ratio-based model for evaluating the performance of banks. In the1980’s CAMEL rating system was first introduced by US supervisory authorities as a system of rating for on-site examinations of banking institution. Under this system each banking institution subject to on site examination is evaluated on the basis of five critical dimensions relating to its operations and performance, which are referred to as the component factors. They are Capital adequacy, Asset quality, Management, Earnings, and Liquidity used to reflect the financial performance, financial condition, operating soundness and regulatory compliance of the banking institution. A sixth component relating to sensitivity to market risk has been added in 1997; hence the acronym was changed to CAMELS.

LITERATURE REVIEW

Agarwal Pankaj K et al[1] (2011) made an attempt to compare the performance of PSBs with their Private sector counterparts on globally accepted CAMEL model. The study discovered that PSBs have lower capital adequacy than private sector banks, while the asset quality of PSBs is superior to private sector banks which reflected in their gross NPAs and there is no significant difference in the net NPA performance of these Banks. It is further discovered that the management efficiency and the earnings performance of PSBs is similar to that of private sector banks, while on liquidity yardstick, the private sector banks have outperformed the PSBs.

Chaudhry and Singh[2] (2012) analyzed the impact of the financial reforms on the soundness of Indian Banking through its impact on the asset quality. The study identified the key players as risk management, NPA levels, effective cost management and financial inclusion.

Madhurima Lall[3] (2017) analyses the financial performance of selected public sector banks in India using the CAMEL model for the period 2013-2016. It is found that under the CAMELS parameter SBI is at the first position with overall composite ranking average, followed by Bank of Baroda and Punjab national bank on second and third position respectively. It also observed that Canara Bank was at the bottom most position in selected CAMELS ratios.

OBJECTIVES

1. To evaluate the financial performance of selected public sector banks using CAMELS model.
2. To give suggestions for the financial improvement of public sector banks in India.

RESEARCH METHODOLOGY

The present study is a descriptive based analytical research design. Out of 27 public sector banks only five public sector banks are selected for the study. They are Bank of Baroda, Canara Bank, Indian Bank, Punjab National Bank, and State Bank of India. The study had used the secondary data published by the Reserve Bank of India for the period 2014-2018. Seventeen financial ratios have been selected to assess the performance of banks. Five years average has been calculated with the help of arithmetic mean.

ANALYSIS AND DISCUSSION

Capital Adequacy

Capital Adequacy is an important indicator of the financial health for a banking entity. This indicates the banks capacity to maintain capital commensurate with the nature and extent of all types of risks, as also the ability of the bank's managers to identify measure, monitor and control these risks. It reflects the overall financial condition of the banks and also the ability of management to meet the requirement for additional capital. The following ratios measure the capital adequacy.

(i) Capital Adequacy Ratio (CAR)

This ratio is advocated to ensure that banks can bear a reasonable amount of losses occurring during the operations and to ascertain bank's loss bearing capacity. Higher the ratio reflects that banks are stronger and the investors are more protected. In India, the banks have to maintain a CRAR of 9 percent. Capital to Risk-weighted Assets Ratio (CRAR) is calculated by dividing Tier-I and Tier-II capital with Risk Weighted Assets. Tier 1 capital includes shareholders' equity; perpetual noncumulative preference shares, disclosed reserves and innovative capital instruments. Tier 2 capital includes undisclosed reserves, revaluation reserves of fixed assets and long-term holdings of equity securities, general provisions/general loan loss reserves; hybrid debt capital instruments and subordinated debt.

Table -1Capital Adequacy Ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	12.28	10.63	12.64	11.52	12.44
2015	12.61	10.56	12.86	12.21	12.00
2016	13.18	11.08	9.67	11.28	13.12
2017	12.24	12.86	13.64	11.66	13.11
2018	12.13	13.22	12.55	9.20	12.60
Mean	**12.48**	**11.67**	**12.27**	**11.17**	**12.65**
Rank	**2**	**4**	**3**	**5**	**1**

Source: Secondary Data Available in Statistical Reports of RBI

Table-1 depicts that State Bank of India is ranked first with the highest CRAR of 12.65 percent Followed by Bank of Baroda. Punjab National Bank scored the lowest position with lowest CRAR of 11.17 percent.

(ii) Debt Equity Ratio (D/E)

The debt-equity ratio reflects the degree of leverage of a bank. It expresses the proportion of debt and equity in the total fund structure of the bank. It is computed by dividing total borrowings of the bank with shareholders' net worth. Net worth encompasses equity share capital, and reserves and surpluses. Higher ratio reflects less protection for the depositors and creditors and vice-versa.

Table -2 Debt Equity Ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	102.29	91.93	35.78	133.81	154.82
2015	88.52	80.57	17.52	116.86	159.72
2016	83.26	85.03	21.58	155.97	224.11
2017	75.95	117.27	73.63	97.41	168.72
2018	144.19	108.99	107.11	148.14	165.26
Mean	**98.84**	**96.75**	**51.12**	**130.43**	**174.52**
Rank	**3**	**2**	**1**	**4**	**5**

Source: Secondary Data Available in Statistical Reports of RBI

In the above table-2 Indian Bank is on the top position with least average of 51.12 percent, followed by Canara Bank 96.75 percent. State Bank of India scored the lowest position.

(iii) Total Advance to Total Asset Ratio (Adv/Ast)

This is the ratio of total advance to total asset. This ratio indicates banks aggressiveness in lending which ultimately results in better profitability. Higher ratio of advances of bank deposits (assets) is preferred to a lower one. Total advances also include receivables. The value of total assets is excluding the revolution of all the assets.

Table -3 Total Advance to Total Asset Ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	60.19	61.20	65.27	63.45	67.48
2015	59.87	60.22	65.27	63.07	63.47
2016	57.16	58.72	63.34	61.78	62.08
2017	55.15	58.61	58.51	58.23	58.06
2018	59.36	61.87	61.95	56.63	56.00
Mean	**58.34**	**60.12**	**62.86**	**60.63**	**61.41**
Rank	**5**	**4**	**1**	**3**	**2**

Source: Secondary Data Available in Statistical Reports of RBI

The table -3 shows that the Indian bank is on the top with highest average of 62.86 percent followed by State bank of India 61.41 percent and Punjab National Bank 60.63 percent. Bank of Baroda scored the lowest position with least average of 58.34 percent.

A – Asset Quality

Asset Quality reflects the magnitude of credit risk prevailing in the bank due to its composition and quality of loans, advances, investments and off- balance sheet activities. The financial soundness of a bank is determined with the quality of assets that the bank possesses. Asset quality defines the financial health of banks against loss of value in the assets, as asset weakening, risks the solvency of the financial institutions especially banks.

(i) Net Non-Performing Assets (NPA) to Net Advances Ratio (NNPA's/ ADV)

Net Nonperforming Assets to Net Advances Ratio is a measure of the overall quality of banks advances. It shows the actual financial burden on the bank. An NPA are those assets for which interest is overdue for more than three months or ninety days. Net NPAs are calculated by reducing cumulative balance of provisions outstanding at the end of the period as well as some other interest adjustments, from gross NPAs. Higher ratio reflects rising bad quality of loans.

Table -4 Net Non-Performing Assets to Net Advances Ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	1.52	1.98	2.26	2.85	2.57
2015	1.89	2.65	2.50	4.06	2.12
2016	5.06	6.42	4.20	8.61	3.81
2017	4.72	6.33	4.39	7.81	3.71
2018	5.49	7.48	3.81	11.24	5.73
Mean	**3.73**	**4.97**	**3.43**	**6.91**	**3.58**
Rank	**3**	**4**	**1**	**5**	**2**

Source: Secondary Data Available in Statistical Reports of RBI

Table - 4 interprets that Indian bank is on top position with least average of 3.43 percent, followed by SBI 3.58 percent and Bank of Baroda 3.73 percent on second and third position respectively . PNB scored the lowest position with highest average of 6.91 percent.

(ii) Total Investment to Total Assets Ratio (Tot INV / Tot ASS Ratio)

This ratio measures the proportion of total assets of the bank that are locked up in investments which does not form a part of the core income of the bank, as against providing advances to the customers. An aggressive bank would have a low investment to asset ratio as a high ratio signifies that the bank has very conventionally kept a high cover of investment to safeguard against the risk of Non-Performing Assets. This adversely affects the profitability of the banks since the interest income generated through investments is much less than interest income earned through granting advances.

Table -5 Total Investment to Total Assets Ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	17.60	25.78	25.00	26.12	22.24
2015	16.33	25.92	23.71	24.84	23.52
2016	17.94	25.73	26.06	23.65	24.41
2017	18.65	25.75	30.95	25.92	28.30
2018	22.66	23.35	28.25	26.15	30.71
Mean	**18.63**	**25.30**	**26.79**	**25.33**	**25.83**
Rank	**1**	**2**	**5**	**3**	**4**

Source: Secondary Data Available in Statistical Reports of RBI

The table-5 depicts that Bank of Baroda is on the top position with least average of 18.63 percent, followed by Canara Bank 25.30 percent and Punjab national bank 25.33 percent. Indian Bank scored the lowest position with highest ratio of 26.79 percent.

(iii) Secured Advances to Total Advances

In order to minimize credit risk, banks sanction secured advances. Generally an advance is sanctioned in lieu of a security of asset, the realizable value of which always equal to or greater than the amount of such advance. A higher proportion of secured advances reveal the sound asset quality and low credit default risk.

The below table-6 depicts that Punjab national bank is on the top position with highest average of 90.87 percent, followed by Bank of Baroda 85.60 percent and Canara bank 85.22 percent. State Bank of India scored the lowest position with least ratio of 81.08 percent.

Table -6 Secured Advances to Total Advances

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	86.29	83.72	82.01	93.46	83.55
2015	87.47	82.81	86.03	94.12	80.07
2016	88.22	86.05	84.89	92.95	78.43
2017	84.27	84.25	81.32	88.59	81.99
2018	81.78	89.29	89.90	85.27	81.38
Mean	**85.60**	**85.22**	**84.83**	**90.87**	**81.08**
Rank	**2**	**3**	**4**	**1**	**5**

Source: Secondary Data Available in Statistical Reports of RBI

Management Efficiency

Management Efficiency is an important element of the CAMEL model. The management of the 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.

(i) Total Advance to Total Deposit Ratio (Tot ADV/Tot DEP Ratio)

This ratio measures the efficiency and ability of banks 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.

Table -7 Total Advance to Total Deposit Ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	69.79	71.56	75.31	77.38	86.76
2015	69.32	69.65	74.38	75.90	82.45
2016	66.85	67.68	72.38	74.55	84.57
2017	63.70	69.05	69.97	67.47	76.83
2018	72.28	72.74	75.17	67.54	71.49
Mean	**68.38**	**70.13**	**73.44**	**72.56**	**80.42**
Rank	**5**	**4**	**2**	**3**	**1**

Source: Secondary Data Available in Statistical Reports of RBI

Table -7 interprets that State bank of India is on top position with highest average of 80.42 percent followed by Indian Bank 73.44 percent and Punjab national bank 72.56 percent, on second and third position respectively. Bank of Baroda scored the lowest position with least average of 68.38 percent.

(ii) Profit per Employee (PPE)

The ratio indicates the surplus earned per employee. It specifies the average profit generated per person employed. An upright management will inspire and stimulate employee to earn more profit for the bank. A high ratio clearly signifies efficient management. It is calculated by dividing the profit after tax earned by the bank with the total number of employees.

Table -8 Profit per Employee

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	1.00	0.50	0.60	0.50	0.49
2015	0.70	0.50	0.50	0.50	0.60
2016	-1.00	-0.50	0.35	-0.60	0.47
2017	0.30	0.30	0.70	0.20	0.51
2018	-0.40	-0.70	0.60	-1.70	-0.24
Mean	**0.12**	**0.02**	**0.55**	**-0.22**	**0.36**
Rank	**3**	**4**	**1**	**5**	**2**

Source: Secondary Data Available in Statistical Reports of RBI

Table 8 Interprets that Indian bank is on top position with highest average of 0.55 percent, followed by State Bank of India 0.36 percent and Bank of Baroda 0.12 percent, on second and third position respectively. Punjab national bank scored the lowest position with least average of -0.22 percent.

(iii) Business per Employee (BPE)

Business per employee ratio shows the productivity of employees of the bank and is used as a tool to measure the efficiency of all the employees of a bank in generating business for the bank. It indicates how much business each employee is producing for the bank. It is calculated by dividing the total business by total number of employees.

Table -9 Business per Employee

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	186.50	143.84	145.30	128.30	106.38
2015	188.90	143.50	144.30	131.90	123.40
2016	168.00	144.46	153.10	135.90	141.10
2017	174.90	144.28	148.80	141.70	162.40
2018	176.60	148.05	185.60	147.40	167.00
Mean	**178.98**	**144.82**	**155.42**	**137.04**	**140.05**
Rank	**1**	**3**	**2**	**5**	**4**

Source: Secondary Data Available in Statistical Reports of RBI

Table -9 explains that Bank of Baroda is on top position with highest average of 178.98 percent, followed by Indian bank 155.42 percent and Bank of Baroda 144.82 percent, on second and third position respectively. Punjab National Bank scored the lowest position with least average of 137.04 percent.

E – 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 of future. The following ratios explain the quality of income generation.

(i) Return on Asset

Net profit to total asset indicates the efficiency of the banks in utilizing their assets in generating profits. A higher ratio indicates the better income generating capacity of the assets and better efficiency of management in future. This is arrived by dividing the net profit by total asset.

The below table -10 interprets that Indian bank is on top position with highest average of 0.55 percent followed by State Bank of India 0.40 percent and Bank of Baroda 0.06 percent, on second and third position respectively. Punjab national bank scored the lowest position with least average of -0.17 percent.

Table -10 Return on Asset

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	0.75	0.54	0.67	0.64	0.65
2015	0.49	0.55	0.54	0.53	0.68
2016	-0.78	-0.52	0.36	-0.61	0.46
2017	0.20	0.20	0.67	0.19	0.41
2018	-0.34	-0.75	0.53	-1.60	-0.19
Mean	**0.06**	**0.04**	**0.55**	**-0.17**	**0.40**
Rank	**3**	**4**	**1**	**5**	**2**

Source: Secondary Data Available in Statistical Reports of RBI

(ii) Operating Profit to Total Asset Ratio

This ratio indicates how much a bank can perform its operations net on the operating expenses for every rupee spent on total asset. This is arrived at by dividing the operating profit by total asset. The higher the ratio, the better it is. This ratio determines the total operating profit total asset employed. The better utilization of asset will result in higher operating profit. Banks which use their assets efficiently will tend to have a better average than the industry average.

Table -11 Operating Profit to Total Asset Ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	1.54	1.50	1.66	2.21	1.91
2015	1.44	1.34	1.59	2.07	2.10
2016	1.27	1.30	1.53	1.92	2.01
2017	1.61	1.57	1.90	2.10	2.01
2018	1.70	1.59	2.12	1.39	1.93
Mean	**1.51**	**1.46**	**1.76**	**1.93**	**1.99**
Rank	**4**	**5**	**3**	**2**	**1**

Source: Secondary Data Available in Statistical Reports of RBI

Table -11 explains that State Bank of India is on top position with highest average of 1.99 percent, followed by Punjab National Bank 1.93 percent and Indian Bank 1.76 percent, on second and third position respectively. Canara Bank scored the lowest position with least average of 1.46 percent.

(iii) Interest Income to Total Income

This ratio measures the income from lending operations as a percentage of the total income generated by the bank in a year. Interest income includes income on advances, interest on deposits with the RBI, and dividend income. This ratio is arrived by dividing the interest income by total income.

Table -12 Interest Income to Total Income ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	89.71	90.95	91.74	90.42	88.02
2015	90.70	90.57	92.08	88.71	87.09
2016	91.79	90.29	92.08	90.07	89.81
2017	86.19	84.56	87.88	84.08	83.19
2018	86.76	85.59	87.67	84.38	83.17
Mean	**89.03**	**88.39**	**90.29**	**87.53**	**86.25**
Rank	**2**	**3**	**1**	**4**	**5**

Source: Secondary Data Available in Statistical Reports of RBI

In the table -12 Indian Bank is on the top position with highest average of 90.29 percent, followed by Bank of Baroda 89.03 percent. State Bank of India scored the lowest position.

Liquidity

Liquidity in banks is managed by an effective mechanism called the Asset and Liability Management. It reduces maturity mismatches between assets and liabilities to optimize returns. 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 required to assess the liquidity.

(i) Liquid Asset to Total Deposit

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. Total deposits include demand deposits, savings deposits, term deposits and deposits of other financial institutions. Liquid assets include cash in hand, balance with the RBI, and balance with other banks (both in India and abroad), and money at call and short notice. Liquid Asset to Total Deposit is calculated by dividing Liquid Asset to Total Deposit.

Table-13 Liquid Asset to Total Deposit

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	23.00	10.65	6.46	10.01	9.50
2015	24.02	10.26	7.73	11.15	9.81
2016	23.32	11.82	6.73	13.67	9.67
2017	25.00	11.87	5.50	14.20	8.41
2018	15.71	9.51	6.20	14.86	7.09
Mean	**22.21**	**10.82**	**6.52**	**12.77**	**8.89**
Rank	**1**	**3**	**5**	**2**	**4**

Source: Secondary Data Available in Statistical Reports of RBI

In the table-13 Bank of Baroda is on the top position with highest average of 22.21 percent, followed by Punjab National Bank 12.77 percent. Indian bank scored the lowest position.

(ii) Cash to Deposit Ratio (CD Ratio)

This is an important parameter to measure liquidity as it reveals the availability of average cash balance against total deposits in a bank. It is the proportion of money a bank should have available against the total amount of money deposited by its customers. Cash being liquid of all the assets gives the complete picture of the liquidity of the bank. Banks need to maintain sound cash to deposit ratio so as to ensure that large volume of cash is not maintained, as idle cash does not generate any returns and will subsequently endanger the earnings quality of the bank.

The below table -14 explains that State Bank of India is on top position with highest average of 6.55 percent, followed by Punjab National Bank 4.61 percent and Indian Bank 4.58 percent, on second and third position respectively. Bank of Baroda scored the lowest position with least average of 3.66 percent.

Table -14 Cash to Deposit Ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	3.27	5.27	4.78	4.93	6.09
2015	3.64	4.64	4.91	4.83	7.35
2016	3.78	4.31	5.15	4.79	7.49
2017	3.79	4.02	3.06	4.05	6.26
2018	3.84	4.21	5.04	4.48	5.56
Mean	**3.66**	**4.49**	**4.58**	**4.61**	**6.55**
Rank	**5**	**4**	**3**	**2**	**1**

Source: Secondary Data Available in Statistical Reports of RBI

(iii) Liquid Asset to Total Asset

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.

Table -15 Liquid Asset to Total Asset

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	19.84	9.11	5.60	8.21	7.39
2015	20.74	8.87	6.78	9.27	7.55
2016	19.94	10.25	5.89	11.33	7.10
2017	21.65	10.08	4.60	12.26	6.35
2018	12.90	8.09	5.11	12.46	5.55
Mean	**19.01**	**9.28**	**5.59**	**10.70**	**6.78**
Rank	**1**	**3**	**5**	**2**	**4**

Source: Secondary Data Available in Statistical Reports of RBI

The Table 15 depicts that Bank of Baroda is on top position with highest average of 19.01 percent followed by Punjab National Bank 10.70 percent and Canara Bank 9.28 percent, on second and third position respectively. Indian bank scored the lowest position with least average of 5.59 percent.

S – Sensitivity to Market Risk

It refers to the risk that changes in market conditions would adversely impact earnings and capital. Market Risk encompasses exposures associated with changes in interest rates, foreign exchange rates, commodity prices, equity prices, etc. While all of these items are important, the primary risk in most banks is interest rate risk (IRR), which will be the focus of this module. The diversified nature of bank operations makes them vulnerable to various kinds of financial risks. Sensitivity analysis reflects institution’s exposure to interest rate risk, foreign exchange volatility and equity price risks (these risks are summed in market risk).

(i) Net Interest Income to Total Asset Ratio

In the most simplistic terms, interest rate risk is a balancing act. Banks are trying to balance the quantity of reprising assets with the quantity of re pricing liabilities. The Net Interest Margin (NIM) is calculated by dividing net interest income to total asset.

Table -16Net Interest Income to Total Asset Ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	1.98	1.98	2.49	3.14	2.93
2015	1.92	1.86	2.35	2.87	2.86
2016	1.84	1.77	2.24	2.41	2.60
2017	1.98	1.74	2.44	2.16	2.44
2018	2.19	2.03	2.66	2.01	2.43
Mean	**1.98**	**1.87**	**2.43**	**2.51**	**2.65**
Rank	**4**	**5**	**3**	**2**	**1**

Source: Secondary Data Available in Statistical Reports of RBI

In the table-16 State bank of India is on the top position with highest average of 2.65 percent, followed by Punjab National Bank 2.51 percent. Canara bank scored the lowest position.

(ii) Total Securities to Total Assets Ratio

This ratio reflects the risk-taking capability of a bank. It is a bank‘s policy to have high profits, high risk or low profits, low risk. It also suggests information about the accessible alternative investment opportunities. This ratio reveals the correlation between banks’ securities and total assets. It also provides the percentage change of its portfolio with respect to alteration in interest rates. The total security to total asset is calculated by dividing total securities to total asset.

Table -17 Total Securities to Total Assets Ratio

Year /Bank	Bank of Baroda	Canara Bank	Indian Bank	Punjab National Bank	State Bank of India
2014	15.52	23.89	23.44	24.22	19.03
2015	14.47	24.54	23.57	23.62	20.42
2016	16.00	24.43	24.67	22.48	21.81
2017	17.09	24.88	30.68	24.70	23.99
2018	21.31	22.64	28.00	24.69	27.42
Mean	**16.87**	**24.07**	**26.07**	**23.94**	**22.53**
Rank	**5**	**2**	**1**	**3**	**4**

Source: Secondary Data Available in Statistical Reports of RBI

The table-17 Indian Bank is on the top position with highest average of 26.07 percent, followed by Canara Bank 24.07 percent. Bank of Baroda scored the lowest position.

In order to assess the overall performance of selected public sector banks, composite rating and results are calculated through ratios for the study period 2014-2018. It is found that under the CAMELS parameter SBI is at the first position with overall composite ranking average followed by Bank of Baroda and Punjab national bank on second and third position respectively. Indian bank at the lowest position.

CONCLUSION

Due to radical changes in the banking sector in the recent years, the commercial banks all around the world have improved their supervision quality and techniques. In evaluating the functioning of the banks, many of the developed countries are now following uniform financial rating system (CAMELS RATING) along with other existing procedures and techniques. The study reveals that State bank of India ranks first having the good performance followed by Bank of Baroda, where as Indian bank has secured the last rank in terms of performance. Also, it can be concluded that the banks with least ranking need to improve their performance to come up to the desired standards.

SUGGESTIONS

1. For an effective monitoring system, more standard financial ratios should be established and

applied periodically.

2. The evolution of profitability indicators suggest that banks should reduce the higher cost of deposits and concentrate on high yielding advances which will ultimately improve their earnings.

REFERENCES

1. **Agarwal Pankaj K et al[1],** "Performance of Public Sector Banks in the New Economy: A Comparison with Private Sector Banks", Bank Quest, 2011; 82(4): 43 – 51.
2. **Chaudhry,Sahila and Singh, Sultan[2]** "*Impact of Reforms on the Asset Quality in Indian Banking*", International Journal of Multidisciplinary, 2012; 5(2): 17-24 .
3. **MadhurimaLall and Ravi Agarwal[3] "***A CAMEL Model Analysis of Select Public Sector Banks in India*" EPRA International Journal of Economic and Business Review, 2017; 5(4): 153-162.
4. **Chakrabarti Rajesh & Chawla Gaurav,** *"Money and Finance-Banking Efficiency in India since the Reforms- An Assessment"*, Money and Finance, 2005; 2: 22-23.
5. www.rbi.org.in