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**FINANCIAL PERFORMANCE OF SELECTED BANKS USING CAMELS MODEL****Dr. S. RAJARAJESWARI****HEAD****DEPARTMENT OF BUSINESS ADMINISTRATION****SRI MEENAKSHI GOVERNMENT ARTS COLLEGE FOR WOMEN (A)****MADURAI****K. SRINIVASAN****RESEARCH SCHOLAR****MADURAI KAMARAJ UNIVERSITY****MADURAI****ABSTRACT**

Banking sector is one of the fastest growing sectors in India. Today's banking sector becoming more complex. Evaluating Indian banking sector is not an easy task. There are so many factors, which need to be taken care while differentiating good banks from bad ones. This paper examines the execution of certain private and public sector banks. Four banks from private sector viz. ICICI, HDFC, Axis and YES and four banks from public sector viz. SBI, BOI, Indian bank and Canara bank were chosen for this analysis. The data were collected for a period from 2007-2008 to 2016-2017 (10 years). To evaluate the performance of banking sector we have chosen the CAMELS model (Capital adequacy, Asset quality, Management efficiency, Earning quality, and Liquidity and sensitivity). Based on CAMELS rating, HDFC & AXIS Bank are considered as performing above average; whereas BOI & Indian Bank is seen as below average. Thus, it could be concluded that in all the parameters of the CAMELS Model, the performance of the private sector is found to be better than the public sector.

**KEYWORDS**

private and public sector banks, performance evaluation.

**JEL CODES**

G20, G21.

**INTRODUCTION**

In any economy banking sector plays a vital role for overall development of agriculture, small business and different industries. In the pre-nationalisation period bank had been managed by few people who were serving their vested interest for their personal gains. Indian banking is the lifeline of the nation and its people. Banking has helped in developing the vital sectors of the economy and usher in a new dawn of progress on the Indian horizon. The sector has translated the hopes and aspirations of millions of people into reality. But to do so, it has had to control miles and miles of difficult terrain, suffer the indignities of foreign rule and the pangs of partition. Today, Indian banks can confidently compete with modern banks of the world. For the past three decades India's banking system has several outstanding achievements to its credit. The banks are the main participants of the financial system in India.

The banking sector offers several facilities and opportunities to their customers. The bank also offers investment and insurance products. As a variety of models for cooperation and integration among financial industries have emerged, some of the traditional distinctions between banks, insurance companies, and security firms have diminished. Before the establishment of banks, the financial activities were handled by money lenders and individuals. At that time the interest rates were very high. Again, there were no security for public savings and no uniformity regarding loans. So as to overcome such problems the organized banking sector was established, which was fully regulated by the government.

**REVIEW OF LITERATURE**

Prasad and Ravinder (2012) used CAMEL model for 20 nationalized banks based on the analysis Andhra Bank, Bank of Baroda & Sindh bank acquired the highest rank and central bank of India was ranked as last bank.

Mithraj and Ramya (2014) used CAMEL model analysed the performance of five private banks HDFC, Axis, ICICI, Kotak Mahindra and ING Vysya. Twenty variables related to the study was used and concluded that on comparing the performance of all fine private banks, all banks all succeeded in maintaining CAR at highest level and out of twenty factors Kodak Mahindra is the best in six ratios followed by HDFC (5 ratios).

Swati Sharma and Ajay Kumar Patel and (2019) have analyzed the performance of SBI group using CAMEL model for the period of 5 years and identified on the basis of averages of four ratios of capital adequacy SBBJ and SBH positioned first and second.

Panboli, Kiran Birda, (2019) have analysed the performance of private and public sector banks in India for five years. It is concluded the private sectors banks are performing better than the public sector banks.

Geetha Sharma, Amendeep Kaur Arora (2016) using CAMEL model analysed, 8 public and private sector banks for the year (2014-15) and concluded private performance have ranked better than public sector banks. IDBI and Central Bank of India took last position in their performance.

**STATEMENT OF THE PROBLEM**

Financial system for bankers has undergone various changes due to change in policy, norms, reputation of the Reserve Banks. Many researchers have carried out in this area of analyse the performance of Bankers on Profitability determinant and financial indicators. This study has been carried out to the analyse the financial performance based on the CAMELS model based on four selected public & private Bankers.

**OBJECTIVES**

1. To examine the financial performance of selective private and public sector banks by the CAMELS model
2. To rank them according to the parameter under the CAMELS model

**RESEARCH METHODOLOGY****SCOPE OF THE STUDY**

The present study covers only four public sector banks and four private sector banks which is operates during the period of 2007 to 2017. This study has used financial ratios to investigate the Banking performance namely – capital adequacy ratio, asset quantity ratio, management efficiency ratio, earning quality ratios and liquidity ratios.

**SOURCE**

The data source was secondary. The performance of the bankers was taken from bank’s website, annual report, various sources and research paper on financial performance.

**SAMPLING**

The researcher has selected four public sector four private sector banks and the financial performance examiner uses CAMELS model. The prime four bankers each from public sector and private sector were taken for analysis of the study period of the studies. The work period is from 2007-2017

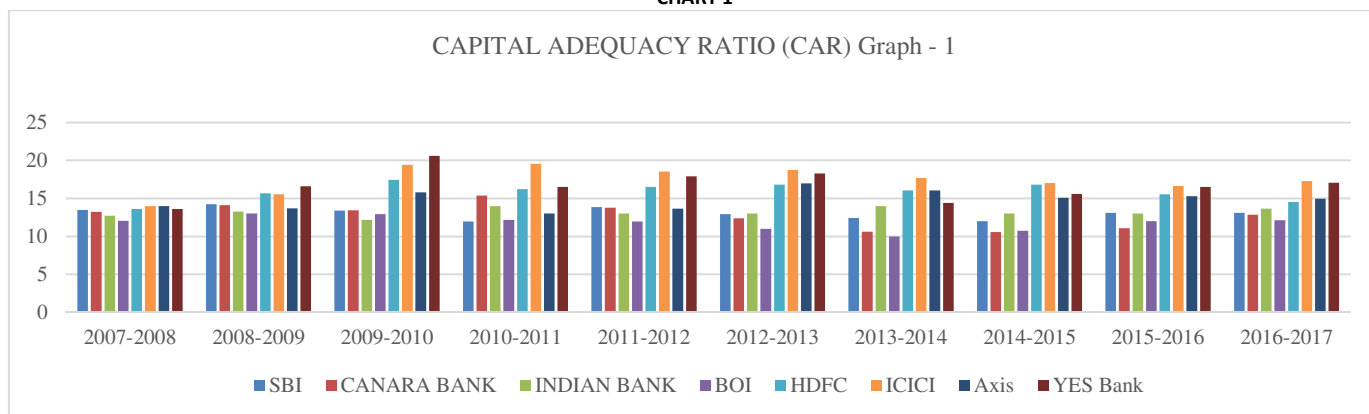
**ANALYSIS AND INTERPRETATION**

**CAPITAL ADEQUACY RATIO (CAR)**

**TABLE 1**

Bank / Year	SBI	CANARA BANK	INDIAN BANK	BOI	HDFC BANK	ICICI BANK	AXIS BANK	YES BANK
<b>2007-2008</b>	13.47	13.25	12.74	12.04	13.60	13.97	13.99	13.6
<b>Rank</b>	5	6	7	8	3	2	1	4
<b>2008-2009</b>	14.25	14.1	13.27	13.01	15.69	15.53	13.69	16.6
<b>Rank</b>	4	5	7	8	2	3	6	1
<b>2009-2010</b>	13.39	13.43	12.16	12.94	17.44	19.41	15.8	20.6
<b>Rank</b>	6	5	8	7	3	2	4	1
<b>2010-2011</b>	11.98	15.38	14.00	12.17	16.22	19.54	13.00	16.5
<b>Rank</b>	8	4	5	7	3	1	6	2
<b>2011-2012</b>	13.86	13.76	13.00	11.95	16.52	18.52	13.66	17.9
<b>Rank</b>	4	5	7	8	3	1	6	2
<b>2012-2013</b>	12.92	12.4	13.00	11.02	16.80	18.74	17.00	18.3
<b>Rank</b>	6	7	5	8	4	1	3	2
<b>2013-2014</b>	12.44	10.63	14.00	9.97	16.07	17.7	16.07	14.4
<b>Rank</b>	6	7	5	8	2	1	2	4
<b>2014-2015</b>	12	10.56	13.00	10.73	16.79	17.02	15.09	15.6
<b>Rank</b>	6	8	5	7	2	1	4	3
<b>2015-2016</b>	13.12	11.08	13.00	12.01	15.53	16.64	15.29	16.5
<b>Rank</b>	5	8	6	7	3	1	4	2
<b>2016-2017</b>	13.11	12.86	13.64	12.14	14.55	17.26	14.95	17.07
<b>Rank</b>	6	7	5	8	4	1	3	2

**CHART 1**



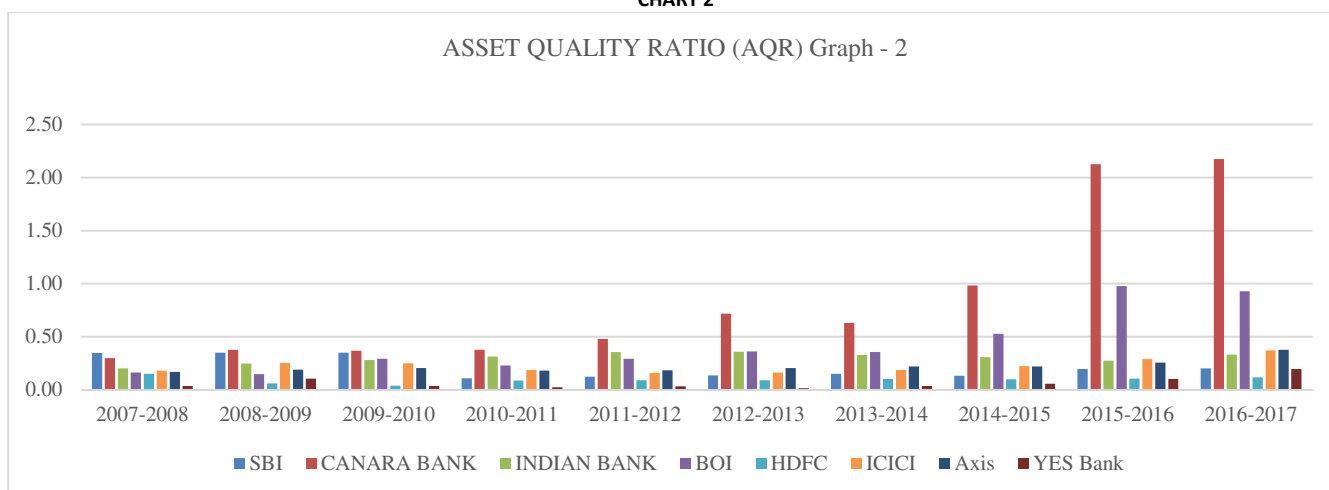
Year 2007 – 2008 The Capital Adequacy Ratio (CAR) value Axis Bank stands tall to take first rank among the list of banks analyzed with 13.99, followed by ICICI Bank with 13.97, next position taken by HDFC Bank 13.60, fourth rank is obtained by Yes Bank 13.60, last four ranks achieved by the public sector banks SBI with 13.47, Canara Bank 13.25, Indian Bank 12.74 and finally BOI with 12.04 in the last rank. During 2008 – 2009 CAR first rank is taken by 16.60, HDFC Bank stood the 2<sup>nd</sup> place 15.69, ICICI Bank stands in the 3<sup>rd</sup> rank with 15.53, SBI stands 4<sup>th</sup> rank 14.25, Canara Bank stood 5<sup>th</sup> place with CAR 14.10 and last three places taken by Axis Bank, Indian Bank and BOI (13.69, 13.27 & 13.01). In the year 2009 – 2010 Once again Yes Bank taken the first rank 20.60, followed by 19.41 (ICICI Bank) and HDFC Bank in the 3<sup>rd</sup> place with CAR (17.44). Last three places go to SBI, BOI and Indian Bank with CAR (13.39, 12.94 & 12.16). 2010 – 2011 ICICI Bank took the first place with CAR of 19.54, 2<sup>nd</sup> place to Yes Bank (16.50), 3<sup>rd</sup> rank to HDFC Bank 16.22, fourth rank taken by Canara Bank 15.38 and last three ranks by Axis Bank, BOI & SBI (13.00, 12.17 & 11.98). 2011 – 2012 ICICI Bank with the first place, CAR (18.52), 2<sup>nd</sup> rank Yes Bank with CAR (17.90), 3<sup>rd</sup> rank with HDFC Bank with CAR (16.52). In the year 2012 – 2013 ICICI Bank stands first again with CAR (18.74), Yes Bank stood 2<sup>nd</sup> with CAR (18.30), Axis Bank (17.00) in the 3<sup>rd</sup> rank, 4<sup>th</sup> Rank HDFC Bank (16.80), 5<sup>th</sup> rank Indian Bank (13.00), SBI with CAR (12.92), seventh rank Canara Bank (12.40) and the last place with BOI (11.02). 2013 – 2014 Again for this year ICICI Bank top the chart with CAR of 17.70, and Axis Bank & HDFC Bank followed with 16.07, 4<sup>th</sup> rank with Yes Bank (14.40), Indian Bank taken 5<sup>th</sup> place with CAR of 14.00, sixth place to SBI (12.44), seventh place to Canara Bank with CAR (10.63) and last slot to the BOI with CAR (9.97). 2014 – 2015 this year also CAR value was high with ICICI Bank (17.02) among the analyzed banks, second place held by HDFC Bank (16.79), third place to Yes Bank (15.60), fourth rank to Axis Bank (15.09), 5<sup>th</sup> rank to Indian Bank (13.00), 6<sup>th</sup> rank to SBI 12.0, 7<sup>th</sup> place to BOI with CAR of (10.73) and eight rank to Canara Bank (10.56). 2015 – 2016 Again ICICI Bank in the first rank (16.64), 2<sup>nd</sup> rank to Yes Bank (16.50), third rank with HDFC Bank (15.53), 4<sup>th</sup> ranks with Axis Bank (15.29), and last three ranks with the public sector banks Indian Bank, BOI and Canara Bank (13.00, 12.01, 11.08). 2016 – 2017 this time also private sector banks in top 4 ranks – ICICI Bank first rank with the CAR of (17.26), Yes Bank with (17.07), Axis bank 14.95 and HDFC with 14.55 and last four ranks with public sector banks Indian bank, SBI, Canara Bank and BOI, their CAR values are (13.64, 13.11, 12.86, 12.14)

ASSET QUALITY RATIO (AQR)

TABLE 2

Bank / Year	SBI	CANARA BANK	INDIAN BANK	BOI	HDFC BANK	ICICI BANK	AXIS BANK	YES BANK
2007-2008	0.35	0.30	0.20	0.16	0.15	0.18	0.17	0.03
Rank	1	2	3	6	7	4	5	8
2008-2009	0.35	0.38	0.25	0.15	0.06	0.25	0.19	0.11
Rank	2	1	4	6	8	3	5	7
2009-2010	0.35	0.37	0.28	0.29	0.04	0.25	0.20	0.04
Rank	2	1	4	3	7	5	6	8
2010-2011	0.11	0.38	0.31	0.23	0.09	0.19	0.18	0.02
Rank	6	1	2	3	7	4	5	8
2011-2012	0.12	0.48	0.36	0.29	0.09	0.16	0.18	0.03
Rank	6	1	2	3	7	5	4	8
2012-2013	0.13	0.72	0.36	0.36	0.09	0.16	0.20	0.02
Rank	6	1	3	2	7	5	4	8
2013-2014	0.15	0.63	0.33	0.36	0.10	0.19	0.22	0.03
Rank	6	1	3	2	7	5	4	8
2014-2015	0.13	0.98	0.31	0.53	0.10	0.22	0.22	0.06
Rank	6	1	3	2	7	4	5	8
2015-2016	0.20	2.13	0.27	0.98	0.11	0.29	0.26	0.10
Rank	6	1	4	2	7	3	5	8
2016-2017	0.20	2.17	0.33	0.93	0.12	0.37	0.38	0.19
Rank	6	1	5	2	8	4	3	7

CHART 2



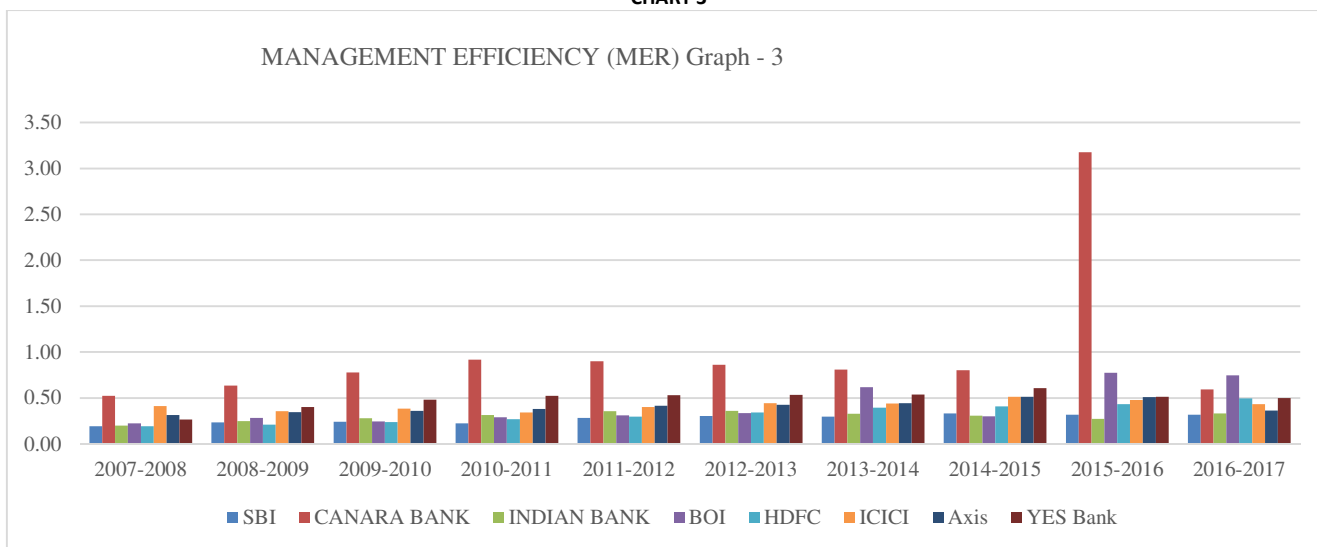
In the year 2007 – 2008 AQR SBI taken first rank (0.35), Canara Bank in the 2<sup>nd</sup> rank 0.30, Indian Bank AQR 0.20, 4<sup>th</sup> rank ICICI Bank 0.18, Axis Bank in the 5<sup>th</sup> rank with AQR (0.17), 6<sup>th</sup> rank BOI 0.16, 7<sup>th</sup> rank HDFC Bank 0.15 and 8<sup>th</sup> rank Yes Bank with AQR 0.03. 2008-2009 Canara Bank with the high rank 0.38, 2<sup>nd</sup> rank SBI 0.35, 3<sup>rd</sup> rank ICICI Bank with AQR of 0.25; and last three ranks BOI, Yes Bank and HDFC Bank (0.15, 0.11 & 0.06). 2009-2010 Canara Bank in the first rank with AQR (0.37), followed by SBI with AQR (0.35), in the 3<sup>rd</sup> rank BOI (0.29), 4<sup>th</sup> Indian Bank with AQR (0.28) and last three rank Axis Bank 0.20, HDFC Bank and Yes Bank 0.04. 2010-2011 AQR Canara Bank taken first rank 0.38, followed by Indian Bank and BOI with 0.31 & 0.23, and fourth rank ICICI Bank (0.19), 5<sup>th</sup> rank Axis Bank 0.18 and last three rank taken by SBI, HDFC Bank & Yes Bank (0.11, 0.09, 0.02). 2011-2012 Canara Bank stood first rank 0.48, followed by Indian Bank 0.36, BOI 0.29, fourth rank to AXIS Bank 0.18, 5<sup>th</sup> rank ICICI Bank 0.16, 6<sup>th</sup> rank SBI 0.12 7<sup>th</sup> rank HDFC Bank 0.09 and last rank Yes Bank with AQR of 0.03. In the 2012 – 2013 Canara Bank stand top among the banks analyzed with AQR 0.72, BOI followed 0.36, Indian Bank in the third place 0.36, Axis Bank in the 4<sup>th</sup> rank 0.20, fifth rank with ICICI Bank 0.16 and last three rank with SBI, HDFC Bank & Yes Bank (0.13, 0.09 & 0.02). During 2013-2014 Canara Bank stands first with 0.63, followed by BOI 0.36 and 3<sup>rd</sup> rank Indian Bank AQR 0.33, 4<sup>th</sup> rank to Axis Bank with AQR 0.22, and last three rank to SBI, HDFC Bank, Yes Bank (0.15, 0.10 & 0.03). 2014 – 2015 during this year Canara Bank stood first rank 0.98, followed by BOI with AQR 0.53 and Indian Bank with AQR 0.31 and last three rank taken by SBI, HDFC Bank and Yes Bank (0.13, 0.10 & 0.06). 2015-2016 Canara Bank with AQR of 2.13, followed by BOI with 0.98, ICICI Bank 0.29, Indian Bank with AQR in the 4<sup>th</sup> rank 0.27, Axis Bank in the 5<sup>th</sup> rank 0.26 and last three ranks to SBI, HDFC Bank and Yes Bank (0.20, 0.11 & 0.10). 2016-2017 Canara Bank with the AQR of 2.17, followed by BOI 0.93 and 3<sup>rd</sup> rank is AXIS Bank 0.38, 4<sup>th</sup> place ICICI Bank with AQR 0.37, and last three ranks to SBI, Yes Bank and HDFC Bank (0.20, 0.19 & 0.12).

MANAGEMENT EFFICIENCY RATIO (MER)

TABLE 3

Bank / Year	SBI	CANARA BANK	INDIAN BANK	BOI	HDFC BANK	ICICI BANK	AXIS BANK	YES BANK
2007-2008	0.19	0.52	0.20	0.22	0.19	0.41	0.32	0.27
Rank	8	1	6	5	7	2	3	4
2008-2009	0.24	0.64	0.25	0.28	0.21	0.35	0.35	0.40
Rank	7	1	6	5	8	3	4	2
2009-2010	0.24	0.78	0.28	0.24	0.24	0.38	0.36	0.48
Rank	7	1	5	6	8	3	4	2
2010-2011	0.22	0.92	0.31	0.29	0.27	0.34	0.38	0.52
Rank	8	1	5	6	7	4	3	2
2011-2012	0.28	0.90	0.36	0.31	0.30	0.40	0.42	0.53
Rank	8	1	5	6	7	4	3	2
2012-2013	0.30	0.86	0.36	0.33	0.34	0.44	0.42	0.54
Rank	8	1	5	7	6	3	4	2
2013-2014	0.30	0.81	0.33	0.62	0.40	0.44	0.44	0.54
Rank	8	1	7	2	6	5	4	3
2014-2015	0.33	0.80	0.31	0.30	0.41	0.51	0.51	0.61
Rank	6	1	7	8	5	3	4	2
2015-2016	0.32	3.18	0.27	0.78	0.43	0.48	0.51	0.51
Rank	7	1	8	2	6	5	4	3
2016-2017	0.32	0.59	0.33	0.75	0.50	0.43	0.36	0.50
Rank	8	2	7	1	4	5	6	3

CHART 3



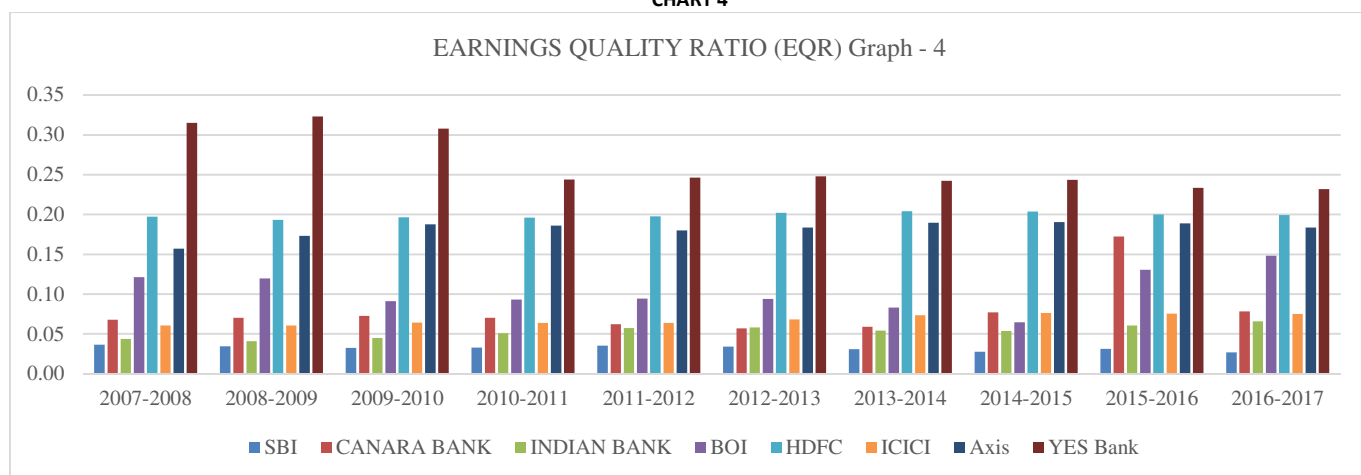
Canara Bank was at the top most position with Total Advances to Total Deposits of 0.52 times for the year 2007 - 2008, followed by ICICI Bank (0.41), and Axis Bank (0.32). At the same time Indian Bank with 0.20, HDFC Bank with 0.19 and SBI with lowest ratio of 0.19 standing at the last three positions as six, seven and eight. During 2008-2009 again Canara Bank tops the chart with 0.64, second place with 0.40 by Yes Bank, third place taken by ICICI Bank with the MER of 0.35, followed by Axis Bank with 0.35, final three positions are Indian Bank (0.25), SBI (0.24) and the last place taken by HDFC (0.24). In the year 2009 – 2010 Canara Bank taken first place, with 0.78 MER, second place taken by Yes Bank 0.48, third place ICICI Bank 0.38, Axis Bank with 0.36 MER in the fourth place and last three places 0.24 MER to BOI, SBI 0.24 and the last place taken by HDFC Bank (0.24). In 2010 – 2011, Canara Bank (0.92) with the first rank, followed by Yes Bank 0.52 and Axis Bank 0.38, ICICI Bank with 0.34 in the last three places taken by BOI 0.29, HDFC Bank 0.27 and finally SBI with MER 0.22. In the year 2011 – 2012 MER 0.90 achieved by Canara Bank, Yes Bank in the 2<sup>nd</sup> place 0.53, 3<sup>rd</sup> place taken by Axis Bank 0.42, fourth place of MER (0.40) ICICI Bank. And last three places are BOI (0.31), HDFC Bank (0.30) and SBI's MER (0.28). During the year 2012 – 2013 MER Canara Bank taken first place (0.86), Yes Bank and ICICI Bank taken 2<sup>nd</sup> and 3<sup>rd</sup> place (0.54 & 0.44), the last 3 ranks taken with minimum value difference 0.34, 0.33 & 0.30 by HDFC Bank, BOI and SBI. In the year 2013 – 2014 again Canara Bank stands first rank (0.81), BOI took the second place (0.62), Yes Bank taken 3<sup>rd</sup> place (0.54), Axis Bank & ICICI Bank (0.44) and last 3<sup>rd</sup> places taken by HDFC Bank, Indian Bank and SBI (0.40, 0.33 & 0.30). 2014 – 2015 Canara Bank stands first rank with 0.80, Yes Bank in the second rank with 0.61, ICICI Bank & Axis Bank with the MER (0.51), SBI, Indian Bank and BOI in the last three ranks of MER (0.33, 0.31 & 0.30). In the year 2015 – 2016 First rank taken by Canara Bank with MER of 3.18, followed by BOI with 0.78 and Yes Bank Axis Bank with 0.51. And last 3 places secured by HDFC Bank, SBI & Indian Bank (0.43, 0.32 & 0.27). In the year 2016 – 2017 the MER's ranking had changed with BOI (0.75) first, Canara Bank 2<sup>nd</sup> (0.59), Yes Bank & HDFC Bank with (0.50), ICICI Bank with (0.43), Axis Bank with 0.36, Indian Bank in the 7<sup>th</sup> rank with 0.33 and SBI with last rank (0.32).

EARNINGS QUALITY RATIO (EQR)

TABLE 4

Bank / Year	SBI	CANARA BANK	INDIAN BANK	BOI	HDFC BANK	ICICI BANK	AXIS BANK	YES BANK
2007-2008	0.04	0.07	0.04	0.12	0.20	0.06	0.16	0.32
Rank	8	5	7	4	2	6	3	1
2008-2009	0.03	0.07	0.04	0.12	0.19	0.06	0.17	0.32
Rank	8	5	7	4	2	6	3	1
2009-2010	0.03	0.07	0.04	0.09	0.20	0.06	0.19	0.31
Rank	8	5	7	4	2	6	3	1
2010-2011	0.03	0.07	0.05	0.09	0.20	0.06	0.19	0.24
Rank	8	5	7	4	2	6	3	1
2011-2012	0.04	0.06	0.06	0.09	0.20	0.06	0.18	0.25
Rank	8	6	7	4	2	5	3	1
2012-2013	0.03	0.06	0.06	0.09	0.20	0.07	0.18	0.25
Rank	8	7	6	4	2	5	3	1
2013-2014	0.03	0.06	0.05	0.08	0.20	0.07	0.19	0.24
Rank	8	6	7	4	2	5	3	1
2014-2015	0.03	0.08	0.05	0.06	0.20	0.08	0.19	0.24
Rank	8	4	7	6	2	5	3	1
2015-2016	0.03	0.17	0.06	0.13	0.20	0.08	0.19	0.23
Rank	8	4	7	5	2	6	3	1
2016-2017	0.03	0.08	0.07	0.15	0.20	0.08	0.18	0.23
Rank	8	5	7	4	2	6	3	1

CHART 4



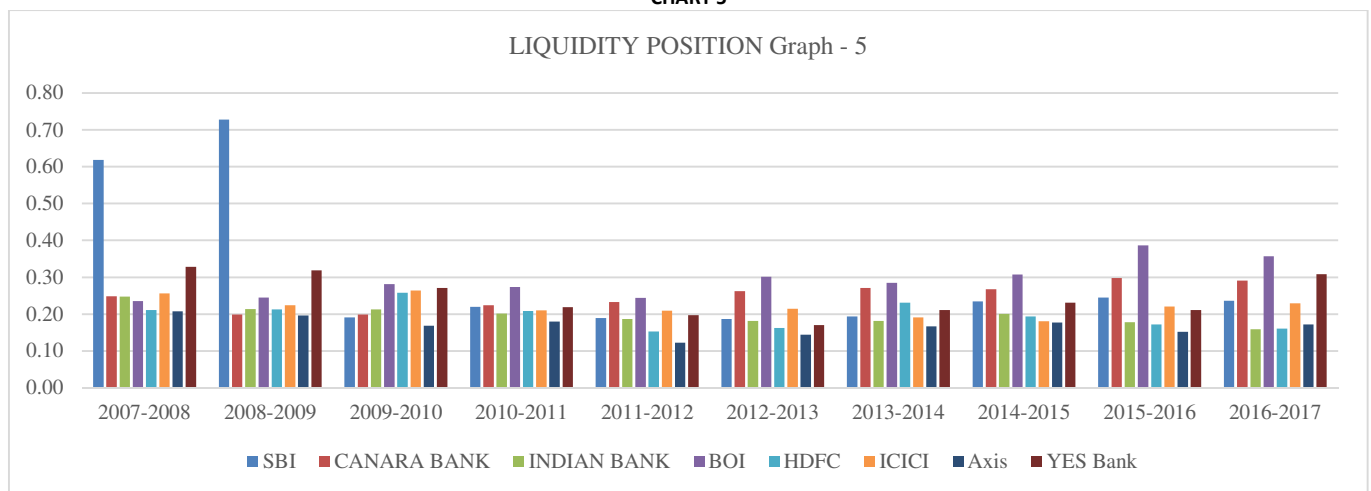
During the year 2007-2008 Earnings Quality Ratio Yes Bank stands first rank 0.32, followed HDFC Bank 0.20, third rank to Axis Bank with EQR 0.16, 4<sup>th</sup> rank to BOI (0.12), Fifth rank to Canara Bank (0.07), last three ranks to ICICI Bank, Indian Bank and SBI (0.06, 0.04 & 0.04). In the year 2008-2009 Yes Bank stand first with EQR (0.32), followed by HDFC Bank with EQR (0.19), third rank Axis Bank 0.17, fourth rank to BOI (0.12), Canara Bank next rank (0.07), last three ranks to ICICI Bank, Indian Bank and SBI (0.06, 0.04 & 0.03). 2009-2010 Yes Bank taken first rank 0.31, followed by second HDFC Bank 0.20, third rank to Axis Bank with EQR 0.19, fourth to BOI 0.09, Canara Bank taken 5<sup>th</sup> rank 0.07 and last three ranks to ICICI Bank, Indian Bank and SBI (0.06, 0.04 and 0.03). In the year 2010-2011 again Yes Bank started first rank with Yes Bank EQR 0.24, followed HDFC Bank 0.20, third rank Axis Bank 0.19, fourth rank taken by BOI with EQR of 0.09, fifth rank to Canara Bank 0.07, ICICI Bank with sixth rank EQR 0.06, seventh rank to Indian Bank (0.05) and the last rank to SBI with EQR 0.03. 2011-2012 Yes Bank in first rank with EQR (0.18), followed by HDFC Bank (0.20), third rank Axis Bank with EQR of 0.18, fourth rank to BOI 0.09, fifth rank to 0.06, sixth rank to Canara Bank EQR 0.06, seventh Rank to Indian Bank with 0.06 and last rank to SBI 0.04. 2012-2013 this year also Yes Bank stood first rank with EQR 0.25, followed by HDFC Bank 0.20, Axis Bank with 0.18 EQR, fourth rank to BOI with 0.09, 5<sup>th</sup> rank to ICICI Bank with EQR 0.07, and last three ranks to Indian Bank, Canara Bank and SBI (0.06 & 0.03). 2013-2014 first rank with Yes Bank 0.24, 2<sup>nd</sup> rank HDFC Bank 0.20, 3<sup>rd</sup> rank to Axis Bank 0.19, 4<sup>th</sup> rank BOI with EQR 0.08, 5<sup>th</sup> rank to ICICI Bank with 0.07, sixth rank to Canara Bank 0.06, seventh rank to Indian Bank 0.05, and 8<sup>th</sup> rank to SBI 0.03. 2014-2015 Yes Bank in the first rank with EQR 0.24, HDFC Bank in 2<sup>nd</sup> rank in 0.20, Axis Bank with 0.19, 4<sup>th</sup> rank to Canara Bank 0.08, 5<sup>th</sup> rank to ICICI Bank EQR 0.08, 6<sup>th</sup> rank BOI with EQR 0.06, 7<sup>th</sup> rank to Indian Bank with EQR 0.05, SBI in 8<sup>th</sup> rank with 0.03. During the year 2015-2016 Yes Bank with first rank 0.23, HDFC Bank with EQR 0.20, 3<sup>rd</sup> rank Axis Bank 0.19, 4<sup>th</sup> rank Canara Bank 0.17, 5<sup>th</sup> rank to BOI 0.13, 6<sup>th</sup> rank ICICI Bank 0.08, 7<sup>th</sup> rank Indian Bank 0.06, and 8<sup>th</sup> rank to SBI with EQR 0.03. In the year 2016 – 2017 again Yes Bank taken 1<sup>st</sup> rank 0.23, HDFC Bank in the 2<sup>nd</sup> rank 0.20, Axis Bank in 3<sup>rd</sup> rank 0.18, 4<sup>th</sup> rank to BOI 0.15, 5<sup>th</sup> rank to Canara Bank with EQR 0.08, and last three ranks to ICICI Bank, Indian Bank and SBI (0.08, 0.07 and 0.03)

LIQUIDITY POSITION RATIO (LPR)

TABLE 5

Bank / Year	SBI	CANARA BANK	INDIAN BANK	BOI	HDFC BANK	ICICI BANK	AXIS BANK	YES BANK
2007-2008	0.62	0.25	0.25	0.24	0.21	0.26	0.21	0.33
Rank	1	4	5	6	7	3	8	2
2008-2009	0.73	0.20	0.21	0.24	0.21	0.22	0.20	0.32
Rank	1	7	5	3	6	4	8	2
2009-2010	0.19	0.20	0.21	0.28	0.26	0.26	0.17	0.27
Rank	7	6	5	1	4	3	8	2
2010-2011	0.22	0.22	0.20	0.27	0.21	0.21	0.18	0.22
Rank	3	2	7	1	6	5	8	4
2011-2012	0.19	0.23	0.19	0.24	0.15	0.21	0.12	0.20
Rank	5	2	6	1	7	3	8	4
2012-2013	0.19	0.26	0.18	0.30	0.16	0.21	0.14	0.17
Rank	4	2	5	1	7	3	8	6
2013-2014	0.19	0.27	0.18	0.29	0.23	0.19	0.17	0.21
Rank	5	2	7	1	3	6	8	4
2014-2015	0.23	0.27	0.20	0.31	0.19	0.18	0.18	0.23
Rank	3	2	5	1	6	7	8	4
2015-2016	0.25	0.30	0.18	0.39	0.17	0.22	0.15	0.21
Rank	3	2	6	1	7	4	8	5
2016-2017	0.24	0.29	0.16	0.36	0.16	0.23	0.17	0.31
Rank	4	3	8	1	7	5	6	2

CHART 5



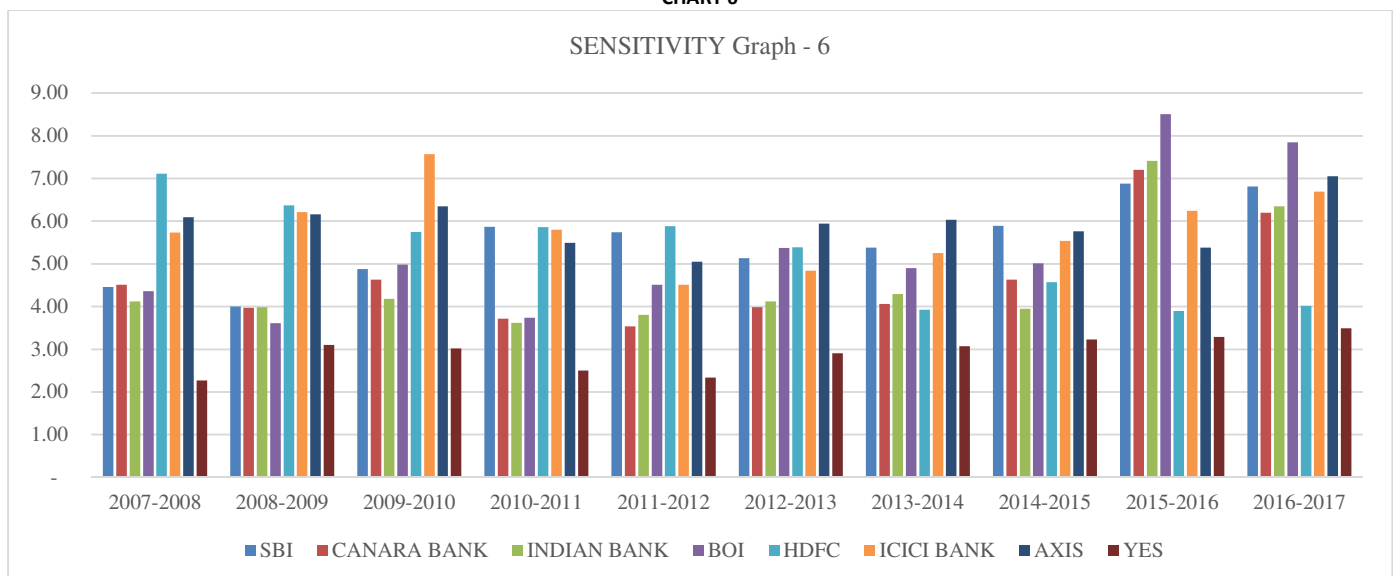
During the year 2007 – 2008 liquidity Ratio SBI sands first rank with 0.62, followed by Yes Bank 0.33, 3<sup>rd</sup> rank to ICICI Bank 0.26, 4<sup>th</sup> ranks Canara Bank 0.25, 5<sup>th</sup> rank Indian Bank with 0.25, and last three ranks to BOI (0.24), HDFC Bank (0.21) and Axis Bank (0.21). In the year 2008 – 2009 again SBI in the first rank 0.73, 2<sup>nd</sup> rank with Yes Bank 0.32, 3<sup>rd</sup> rank BOI with Liquidity Ratio with 0.24, and last three rank HDFC Bank 0.21, Canara Bank with 0.20 and finally Axis Bank with 0.20. 2009-2010 BOI in the first rank with Liquidity Ratio of 0.28, Yes Bank with 0.27 in second rank, 3<sup>rd</sup> rank with ICICI Bank 0.26, 4<sup>th</sup> rank with HDFC Bank 0.26, 5<sup>th</sup> rank Indian Bank 0.21 and last three ranks Canara Bank, SBI and Axis Bank (0.20, 0.19 & 0.17). In the year 2010 – 2011 BOI in the 1<sup>st</sup> with 0.27, followed by Canara Bank 0.22, and SBI & Yes bank 0.22 and last three ranks to HDFC Bank, Indian Bank and Axis Bank (0.21, 0.20 & 0.18). 2011-2012 1<sup>st</sup> rank BOI with LPR, BOI with 0.24, 2<sup>nd</sup> rank to Canara Bank with LPR 0.23, 3<sup>rd</sup> rank to ICICI Bank with 0.21, 4<sup>th</sup> rank to yes Bank with LPR 0.20, 5<sup>th</sup> rank SBI & Indian bank with 0.19, HDFC Bank in seventh rank 0.15, and 8<sup>th</sup> rank to Axis Bank 0.12. In the year 2012 – 2013 LPR's first rank taken by BOI with 0.30, Canara Bank 0.26 in the 2<sup>nd</sup> rank, ICICI Bank with 3<sup>rd</sup> rank (0.21), 4<sup>th</sup> rank with SBI 0.19, Indian bank 0.18 in 5<sup>th</sup> rank, 6<sup>th</sup> rank to Yes bank 0.17, 7<sup>th</sup> rank HDFC Bank 0.16, and last rank to Axis Bank with LPR 0.14. In the year 2013-2014 BOI taken first rank with LPR 0.29, Canara Bank with LPR 0.27, 3<sup>rd</sup> rank HDFC Bank 0.23, 4<sup>th</sup> rank to Yes Bank with 0.21, 5<sup>th</sup> rank SBI & ICICI Bank with LPR 0.19, and last 2 ranks to Indian Bank & Axis Bank (0.18 & 0.17). 2014-2015 BOI in the first rank 0.31, Canara Bank 0.27 in the 2<sup>nd</sup> rank and 3<sup>rd</sup> rank to SBI 0.23 and last three HDFC Bank, ICICI Bank & Axis Bank (0.19 & 0.18). In the year 2015 – 2016 first rank to BOI with LPR with 0.39, 2<sup>nd</sup> rank Canara Bank 0.30, 3<sup>rd</sup> rank SBI with 0.25, 4<sup>th</sup> rank ICICI Bank 0.22, 5<sup>th</sup> rank Yes Bank 0.21 and last 3 ranks Indian Bank 0.18, HDFC Bank 0.17 and Axis Bank in 8<sup>th</sup> place with 0.15. Year 2016 – 2017 BOI in the 1<sup>st</sup> rank 0.36, 2<sup>nd</sup> rank to Yes Bank with LPR of 0.31, 3<sup>rd</sup> rank Canara Bank LPR of 0.29, SBI in the 4<sup>th</sup> rank 0.24, ICICI Bank in 5<sup>th</sup> rank 0.23, Axis Bank in the 6<sup>th</sup> rank 0.17, 7<sup>th</sup> rank to HDFC Bank with LPR 0.16, and 8<sup>th</sup> rank to Indian Bank with LPR 0.16.

SENSITIVITY RATIO (SR)

TABLE 6

Bank / Year	SBI	CANARA BANK	INDIAN BANK	BOI	HDFC BANK	ICICI BANK	AXIS BANK	YES BANK
2007-2008	4.46	4.51	4.12	4.36	7.11	5.73	6.09	2.27
Rank	5	4	7	6	1	3	2	8
2008-2009	4.00	3.97	3.99	3.61	6.37	6.21	6.16	3.10
Rank	4	6	5	7	1	2	3	8
2009-2010	4.88	4.63	4.18	4.98	5.75	7.57	6.35	3.02
Rank	5	6	7	4	3	1	2	8
2010-2011	5.87	3.72	3.62	3.74	5.86	5.80	5.49	2.50
Rank	1	6	7	5	2	3	4	8
2011-2012	5.74	3.54	3.81	4.51	5.88	4.51	5.05	2.34
Rank	2	7	6	4	1	4	3	8
2012-2013	5.13	3.99	4.12	5.37	5.39	4.84	5.94	2.91
Rank	4	7	6	3	2	5	1	8
2013-2014	5.38	4.06	4.29	4.90	3.93	5.25	6.03	3.07
Rank	2	6	5	4	7	3	1	8
2014-2015	5.89	4.63	3.95	5.01	4.57	5.54	5.76	3.23
Rank	1	5	7	4	6	3	2	8
2015-2016	6.88	7.20	7.41	8.51	3.90	6.24	5.38	3.29
Rank	4	3	2	1	7	5	6	8
2016-2017	6.81	6.20	6.35	7.85	4.02	6.69	7.05	3.49
Rank	3	6	5	1	7	4	2	8

CHART 6



Sensitivity Ratio in the year 2007 – 2008 HDFC Bank stood first with (7.11), Axis bank with sensitivity second rank 6.09, ICICI Bank in the third rank (5.73), fourth rank secure by Canara Bank with sensitivity ratio 4.51 and last three ranks secured by BOI, Indian Bank and Yes Bank (4.36, 4.12 & 2.27). During the year 2008-2009 HDFC Bank stood first with the SR of 6.37, second secured by ICICI Bank 6.21, third place Axis Bank 6.16, fourth place to SBI 4.00 and last three place secured by Canara Bank, BOI and Yes Bank (3.97, 3.61 & 3.10). 2009 – 2010 ICIC Bank ranked first with 5.75 t with SR of 7.57, Axis Bank with 6.35, HDFC Bank with 5.75, BOI with 4.98 and with last three ranks with Canara Bank, Indian Bank and Yes Bank (4.63, 4.18 and 3.02). In the 2010-2011 SBI took the first place with 5.87, HDFC Bank with SR of 5.86, ICICI Bank (5.80) in the third rank, Axis Bank 5.49 with 4<sup>th</sup> rank and BOI in the 5<sup>th</sup> rank (3.74), and last three ranks to Canara Bank, Indian Bank and Yes Bank (3.72, 3.62 & 2.50). 2011-2012 HDFC Bank in the first rank 5.88, second rank with SBI 5.74, third rank with Axis Bank 5.05, 4<sup>th</sup> rank with ICICI Bank & BOI with SR 4.51, and last three ranks with Indian Bank 3.81, Canara Bank with SR value 3.54 and the 8<sup>th</sup> rank is Yes Bank 2.34. During the year 2012-2013 Axis Bank's SR stands first with 5.94, HDFC Bank with 5.39 in second rank. BOI in the 3<sup>rd</sup> rank with SR (5.37), 4<sup>th</sup> rank to SBI with SR value 5.13, ICICI Bank in fifth rank (4.84), Indian Bank stood in the sixth rank with SR value 4.12, 7<sup>th</sup> rank taken by Canara Bank 3.99 and the eight rank was taken by Yes Bank 2.91. In the year 2013-2014 Axis bank's SR with 6.03 in the first rank, followed by SBI with SR 5.38 and in the 3<sup>rd</sup> rank ICICI Bank 5.25, 4<sup>th</sup> rank BOI with SR value 4.90, 5<sup>th</sup> rank Indian Bank 4.29, Canara Bank in the 6<sup>th</sup> rank 4.06 HDFC Bank in the 7<sup>th</sup> rank 3.93 and 8<sup>th</sup> rank was Yes bank 3.07. During 2014-2015 SBI stand 5.89; Axis Bank in the 2<sup>nd</sup> rank 5.76; ICICI Bank with SR value 5.54 in 3<sup>rd</sup> ranks, 4<sup>th</sup> rank BOI 5.01, Canara Bank with 4.63 in 5<sup>th</sup> rank, HDFC Bank in 6<sup>th</sup> place with SR value 4.57, seventh rank Indian Bank 3.95 and 8<sup>th</sup> rank Yes Bank 3.23. 2015-2016 BOI stands in first rank 8.51, Indian Bank stood 2<sup>nd</sup> rank 7.41, Canara Bank in 3<sup>rd</sup> rank 7.20, SBI in the 4<sup>th</sup> rank with SR value of 6.88; ICICI Bank in the 5<sup>th</sup> rank 6.24, 6<sup>th</sup> rank Axis Bank with 5.38, seventh rank 3.90 and 8<sup>th</sup> rank Yes bank 3.29. 2016-2017 BOI taken first rank 7.85; 2<sup>nd</sup> rank Axis Bank 7.05; third rank taken by SBI 6.81, fourth rank ICICI Bank with the SR value of 6.69, and last three ranks for the year Canara Bank, HDFC Bank and Yes Bank (6.20, 4.02 & 3.49)

CONCLUSION

Economic development of any country is mainly influenced by the growth of the banking industry in that country. The current study has been examined the economic sustainability of eight banks in India using CAMELS model during the period 2007-17. The study reveals mixed results over these years. The private sector banks out played public sector banks in the some of the CAMELS parameters like in MER and AQR, Canara Bank stood top, in CAR, ICICI Bank raked high and Yes Bank tops in EQR and the bottom position in Rankings is taken up by Public Sector Banks, Indian Bank in many parameters of CAMELS and it is followed by BOI. There is scope of improvisation in Public Sector banks in terms of AQR and EQR.

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