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An Empirical Study on Financial Performance Analysis of Selected Public Sector Banks in India

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ABSTRACT

The banking Sector plays a vital role in the overall development and economic growth of the country. In India the banking sector is growing at a fast pace. The Present research paper examines the financial performance of selected public sector banks in India for the period of five years i.e from 2012-'13 to 2016-'17. This study is based on published secondary data of selected public sector banks viz. State Bank of India, Punjab National Bank, Indian Bank, Canara Bank & Vijaya Bank for period under study. The data collected is analysed using financial and statistical tools. During the study, it is found that financial performance of the banking companies is satisfactory. The companies short term solvency as well as long term solvency and profitability is also satisfactory.

1. Introduction

India, at present is one of the fastest growing economies in the world. Banking industry plays an important role for the economic life of the nation. Banking sector in India is undergoing through a major transition and is still in progress. In India the banking sector majorly comprises of public sector banks and private sector banks. According to a report of ICRA Limited, the public sector banks hold over 75% of total assets of the banking industry with the private and foreign banks holding 18.2% and 6.5% respectively. The short term solvency of any bank is reflected by its liquidity, while its long term survival & growth depends on its profit generating capacity. Basel committee for banking supervision (2008) defined liquidity as the ability of bank to increase the assets and meet obligations as they become due, without incurring unacceptable losses. The Basel accord III also stressed banks to maintain sufficient liquidity including high quality liquid asset to survive in a couple of adverse events. Bank's profitability is the ability of a bank to generate revenue in excess of cost, in relation to the bank's capital base. A sound and profitable banking sector is capable to absorb negative shocks and contribute to the stability of the financial system. **(Athanasoglou, Brissimis and Delis, 2005)**.In the light of the banking crisis in recent years worldwide, the authors attempt to examine the safety and soundness of selected public sector banks in India.

2. Objectives of study

The objectives of the study are as follows:

1. To analyse the overall financial performance of selected sample companies for the period of study.
2. To evaluate solvency and liquidity of sample companies during period of study.
3. To examine profitability and earning capacity of sample companies during period of study.

3. Research Methodology

For the purpose of study, the top five public sector banks ranked on the basis of net profit for the year ended on 31st March, 2017 as derived and displayed on moneycontrol.com is selected. As shown in Table No.1 the top five companies are State Bank of India, Punjab National Bank, Indian Bank, Canara Bank & Vijaya Bank. These companies are well established and are operating in India for more than 85 years. The study is based on secondary data collected from the published annual reports of the sample companies for the period of five years commencing from 2012-13 to 2016-17. The analysis and interpretation is carried out using selected ratios as suggested in CAMEL model & other financial ratios. The acronym CAMEL refers to the five components of a bank's condition that are assessed viz; ; Capital adequacy, Asset quality, Management, Earnings& Liquidity. Appropriate Statistical & financial techniques are also used for analysing and interpreting the financial performance and position of sample companies.

Table 1: Net Profit of Sample companies for the year ended on 31st March 2017

Banks	Net Profit(Amount in crore)
State Bank of India (SBI)	10484.10
Indian Bank (IB)	1383.14
Punjab National Bank (PNB)	1324.80
Canara Bank (CANB)	1121.92
Vijaya Bank(VIJB)	750.49

(Source: Money Control.Com)

4. Analysis & Interpretation

The study is carried out based on various ratios like Capital adequacy ratio, Net NPA to Net advances ratio, Net Interest Margin ratio, Return on Assets, Credit Deposit ratio, , Cost to income ratio, Cash Deposit ratio & Cost to Deposit ratio.

4.1 Capital Adequacy Ratio:

Capital adequacy ratio (CAR) is the ratio of bank's capital to risk i.e. expressed as a percentage of a bank's risk weighted

credit assets. It is used to protect depositors and promote the stability & efficiency of financial system of the country. Capital adequacy ratio is calculated by using the formula.

Capital Adequacy Ratio = (Tier 1 capital) + (Tier 2 capital) x 100
Risk weighted assets

Tier 1 capital consists of Core Capital depicting primary funding source of the bank and includes equity capital and disclosed reserves. The higher the proportion of such capital in the total capital (Tier I +Tier II), higher is the capacity of the bank to absorb losses without ceasing its operation. Tier 2 capital is a secondary component of bank total Capital which includes revaluation reserves, undisclosed reserves, and hybrid instruments and subordinated term debt. Tier 2 capital is used to absorb losses in the event of liquidation. As compared to Tier 1 Capital, Tier 2 capital is considered less reliable as it is more difficult to accurately calculate and is composed of assets that are more difficult to liquidate. As of 2017, under Basel III, a bank's Tier 1 and Tier 2 capital must be at least 8% of its risk-weighted assets. The minimum capital adequacy ratio suggested is 10.5%. The table no. 2 as follows shows CAR of Sample companies:

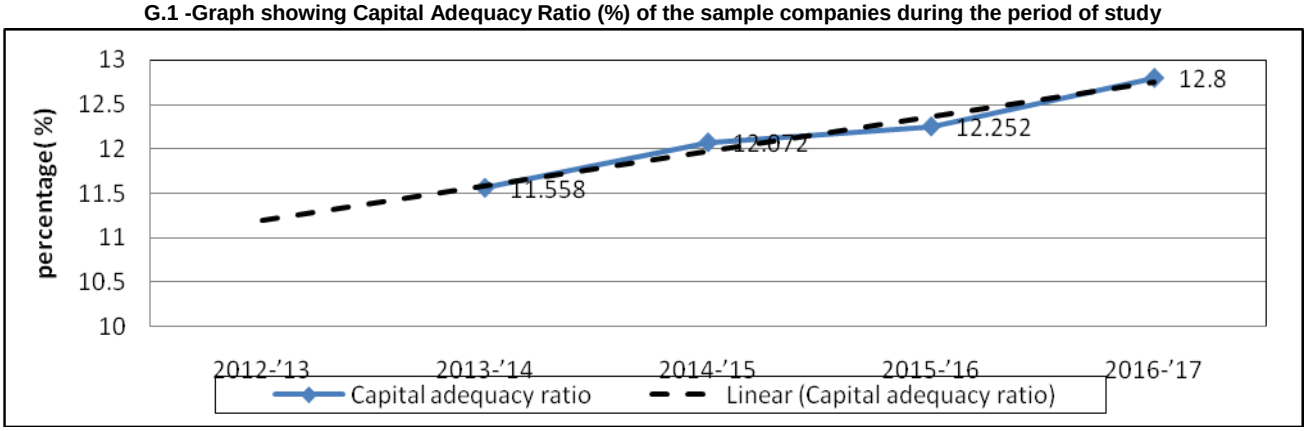
Table 2: Capital Adequacy Ratio (%) of sample companies for period under study

Year\Banks	SBI	PNB	IB	CANB	VIJB	Average
2012-13	N.A.	N.A.	N.A.	N.A.	N.A.	**N.A.**
2013-14	12.44	11.52	12.64	10.63	10.56	**11.56**
2014-15	12.00	12.21	12.86	10.56	12.73	**12.07**
2015-16	13.12	11.28	13.20	11.08	12.58	**12.25**
2016-17	13.11	11.66	13.64	12.86	12.73	**12.80**
Average	**12.67**	**11.67**	**13.09**	**11.28**	**12.15**	**12.17**

(Source: Published Annual Reports for the period of Study)

Table no.2 exhibits Capital Adequacy ratio of the sample companies during the period of study. The overall average Capital Adequacy ratio of the sample companies is 12.1705 which is quite high as per the standard norm of 10.5% .

G.1 -Graph showing Capital Adequacy Ratio (%) of the sample companies during the period of study



(Source: Table 2)

The ratio showed an overall increasing trend throughout the period of study. The average Capital adequacy ratio increased from 11.56%in 2013-14 to 12.80% in the year 2016-17.The diagrammatic presentation of the ratio also shows an increasing trend as exhibited in Graph G.1. Indian Bank has highest average i.e. 13.09% while Canara bank has least average i.e. 11.28%during the period of study. The higher the capital adequacy ratios a bank has, the greater the level of unexpected losses it can absorb before becoming insolvent. In short, it reveals that all the sample banks have achieved minimum CAR during study period but Indian Bank have got better position when compared to selected other banks in terms of capital adequacy ratio during the period of study.

4.2 Net NPA to Net Advances Ratio:

The quality of advances is an important parameter to examine the degree of financial strength. The ratio ascertains the composition of non-performing assets as a percentage of the total loans. Non-performing advances are those on which interest is overdue the account remains out of order for more than 90 days and ceases to generate Interest income. Lower ratio indicates better quality of advances more assured interest income. The ratio is calculated is as follows:

Net NPA to Net Advances Ratio = Net NPA/ Net Advances × 100

As exhibited in Table No. 3, the overall average Net NPA to Net Advances Ratio was 10.15 % and it showed an overall increasing trend throughout the period under study. The State Bank of India has highest average ratio of 35.86% followed by PNB having 5.12% while all other banks had an average ratio of less than 5%.Thus it can be interpreted that excepting SBI and PNB the position of other sample banking companies is quite better and their qualities of advances are more of performing in nature. The overall increasing ratio as also depicted by G.2 indicates that all the public sector banking

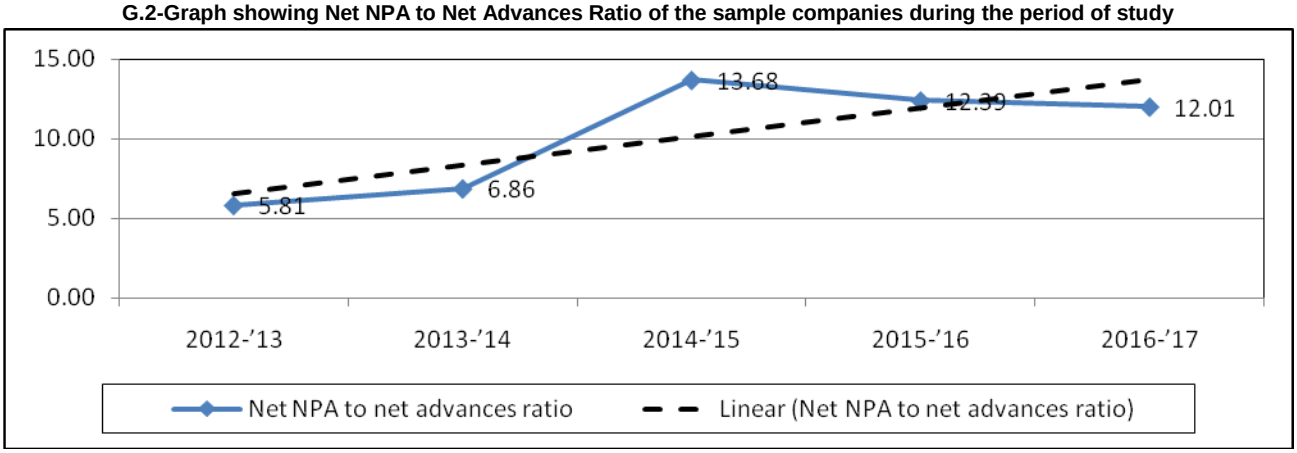
companies need to follows the lending and collection norms in stringent manner so as avoid huge losses in future.

Table 3 :Net NPA to Net Advances Ratio (%)of the sample companies during the period of study

Year\ Banks	SBI	PNB	I B	CANB	VIJB	Average
2012-'13	21.00	2.34	2.23	2.18	1.29	**5.81**
2013-'14	25.70	2.84	2.22	1.98	1.53	**6.86**
2014-'15	57.39	4.05	2.44	2.65	1.89	**13.68**
2015-'16	38.13	8.59	4.09	6.42	4.71	**12.39**
2016-'17	37.09	7.80	4.24	6.33	4.56	**12.01**
Average	**35.86**	**5.12**	**3.04**	**3.91**	**2.80**	**10.15**

(Source: Published Annual Reports for the period of Study)

G.2-Graph showing Net NPA to Net Advances Ratio of the sample companies during the period of study



(Source: Table 3)

4.3 Net Interest margin:

Net Interest margin ratio is a good indicator in measuring bank's overall profitability. It is calculated as follows:,

Net Interest Margin = Net interest / Total Invested Asset × 100

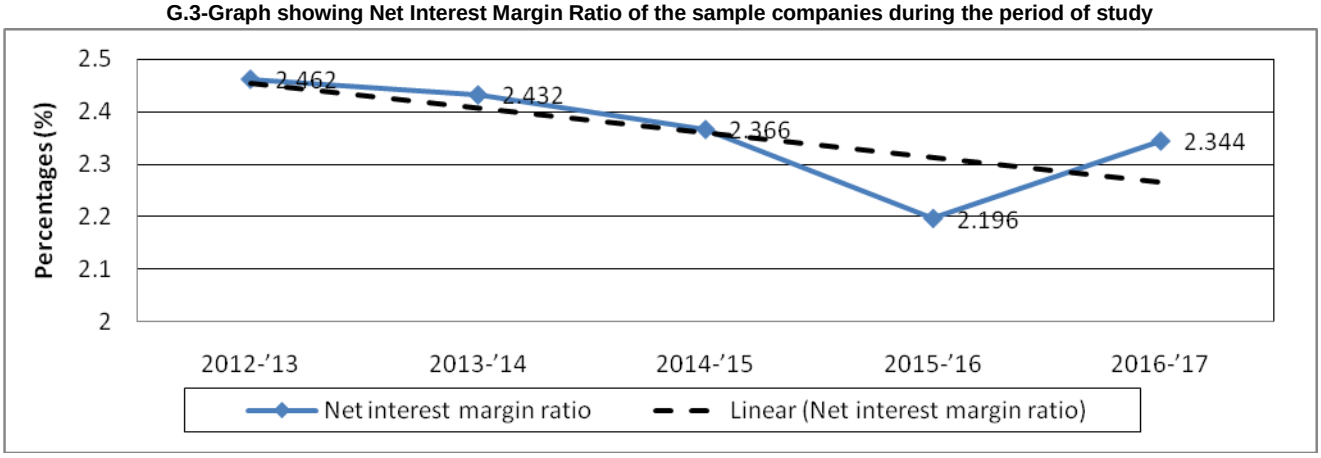
Table 4 : Net Interest Margin Ratio (%) of the sample companies for period under study

Year\Bank	SBI	PNB	I B	CANB	VIJB	Average
2012-'13	2.83	3.10	2.78	1.91	1.69	**2.46**
2013-'14	2.75	2.93	2.33	2.33	1.82	**2.43**
2014-'15	2.69	2.74	2.32	2.32	1.76	**2.36**
2015-'16	2.43	2.29	2.18	2.18	1.9	**2.19**
2016-'17	2.29	2.08	2.36	2.36	2.63	**2.34**
Average	**2.60**	**2.63**	**2.39**	**2.22**	**1.96**	**2.36**

(Source: Published Annual Reports for the period of Study)

Net Interest is the difference between the interest income generated and the amount of interest paid out to their lenders deposit. Higher margins indicate higher profitability and vice versa. Number of factors can significantly impact net interest margin, including interest rates charged by the bank and the source of the bank's assets. As exhibited in the Table no. 4 above net interest margin ratio showed an overall declining trend. The ratio decreased from 2.46% in 2012-13 to 2.19% in 2015-16 and thereafter marginally increased to 2.34% in the last year of study. The declining trend indicates that the profitability of the banking companies have gradually decreased over a period of time. The marginal increase in the last year gives a hope of improvement. It is also observed that PNB has highest average i.e.2.63 while Vijaya bank has lowest average i.e. 1.96 among the selected public sector bank and overall average of all the sample companies together was 2.36%. The diagrammatic representation of the ratio as shown in G.3 also shows overall decreasing trend .The bank could boost this margin by either choosing to charge higher interest rates to or pay less interest to depositors who have bank accounts at the bank.

G.3-Graph showing Net Interest Margin Ratio of the sample companies during the period of study



(Source: Table 4)

4.4 Return On Assets:

Return on assets ratio is calculated to gauge the efficiency with which banks deploy their assets. It measures the capacity of the bankto increase the shareholders' equity. Banks being highly leveraged, a marginal increase of 1%in Return on Assets ratio indicates huge profits. Return on assets ratio is calculated by using the formula,

Return On assets = Net Income/ Total Assets × 100

Table no. 5 shows return on asset ratio of the sample companies during the period of study. The ratio showed an overall decreasing trend throughout the period of study and on an average was 0.603%. The overall declining trend depicts the decreasing efficiency of the banking companies to generate profits over a period of study. It is observed that in the year 2015-16 two of the bank viz., PNB & Canara Bank registered negative earnings of -0.6% and -0.51% respectively. The Vijaya Bank has highest average return on asset ratio of 1.14% followed by Indian bank at 00.67% and Canara Bank has lowest average of 0.27%.

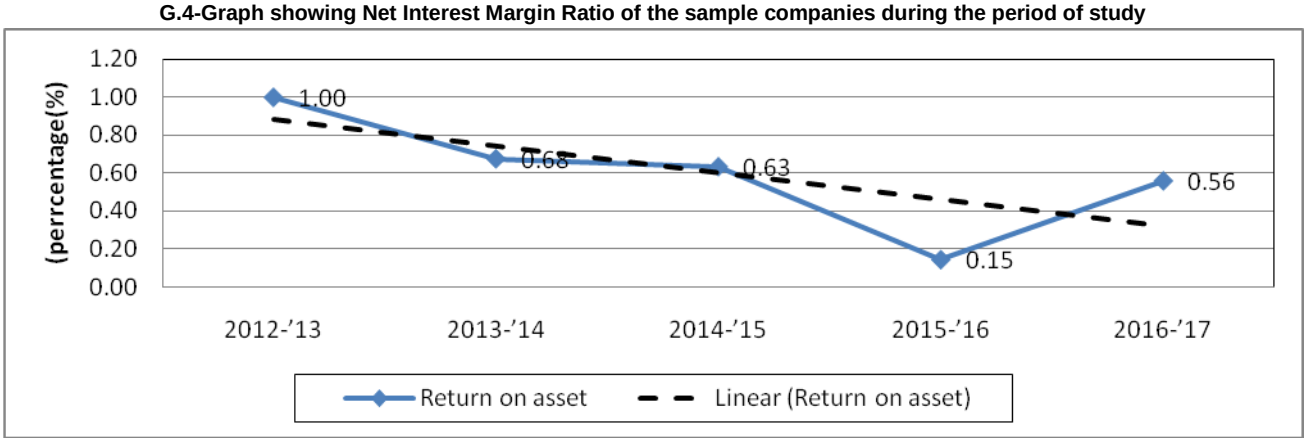
Table 5 : Return On Asset Ratio (%)of the sample companies for period under study

Year	SBI	PNB	I B	CANB	VIJB	Average
2012-'13	0.9	0.99	1.03	0.7	1.37	**1.00**
2013-'14	0.6	0.61	0.67	0.5	1	**0.69**
2014-'15	0.64	0.51	0.57	0.49	0.96	**0.63**
2015-'16	0.42	-0.6	0.4	-0.51	1.02	**0.15**
2016-'17	0.39	0.18	0.69	0.19	1.35	**0.56**
Average	**0.59**	**0.34**	**0.67**	**0.27**	**1.14**	**0.60**

(Source: Published Annual Reports for the period of Study)

The graphical presentation of the ratio as shown in G.4 also shows an overall declining trend. Thus the overall profitability of the sample companies is poor.

G.4-Graph showing Net Interest Margin Ratio of the sample companies during the period of study



(Source: Table 5)

4.5 Credit Deposit Ratio:

Credit deposit ratio is commonly used statistic for assessing a bank's liquidity. The ratio depicts the percentage of the deposits mobilised used by banking company for lending. In other words it indicates the proportion of bank's core funds being used for lending. Higher ratio indicates poor liquidity insufficient to meet unforeseen fund requirements while lower ratio indicates more liquidity but poor earnings. The total

landings depends on the CRR and SLR revised periodically by RBI. The ratiois calculated as follows:

Credit Deposit Ratio = Total Advances / Total deposits × 100

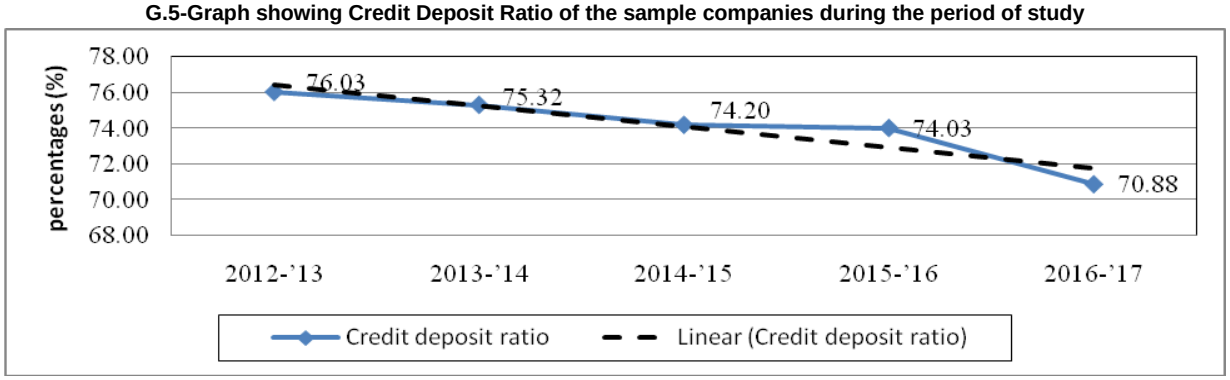
Table 6 :Credit Deposit Ratio (%) of the sample companies for period under study

Year\Bank	SBI	PNB	I B	CANB	VIJB	Average
2012-13	86.94	78.86	74.41	68.05	71.91	**76.03**
2013-14	86.76	77.38	75.31	71.56	65.57	**75.32**
2014-15	82.45	75.90	74.38	69.65	68.62	**74.20**
2015-16	84.57	74.55	72.38	67.68	70.94	**74.03**
2016-17	76.83	67.47	69.97	69.05	71.08	**70.88**
Average	**83.51**	**74.83**	**73.29**	**69.20**	**69.62**	**74.09**

(Source: Published Annual Reports for the period of Study)

The table no.6 shows return on assets ratio of the sample companies throughout the period of study. As revealed by the table above it is observed that the overall average credit deposit ratio of the sample companies shows declining trend. The ratio decreased from 76.03% in the year 2012-13 to 70.88% in the year 2016-17 and on an average registered 74.09%.

G.5-Graph showing Credit Deposit Ratio of the sample companies during the period of study



(Source: Table 6)

The declining trend indicates stringent norms adopted by RBI in form of increasing CRR % and increasing SLR% during the period of study. The graphical presentation of the ratio as shown in G.5 also reveals an overall declining trend. Considering the present norms of CRR+SLR= 23%, the banks can lend 77% of the deposits. It is observed that SBI is the only sample company which has lended on an average more than the standard norm which indicate that the bank has adopted aggressive policy. The liquidity of all other banking companies is sufficient enough to meet unforeseen contingencies.

4.6 Cost to Income Ratio:

Cost to income ratio measures costs of operating a bank in relation to its operating income. It helps in gauging the efficiency with which the bank is run. The ratio is calculated as follows:

Cost to Income ratio = Operating Expenses/ (Total Income-Interest Paid) x 100

Operating Expenses includes administrative and fixed cost including salaries and property expenses but excluding bad-debts. The operating income includes total income net of interest expended. A low cost to income ratio means the bank is managing its costs well and is not overspending to generate revenue. While high ratio suggests that a bank is not able to control the operating costs.

Table 7:Cost to Income Ratio (%) of the sample companies for period under study

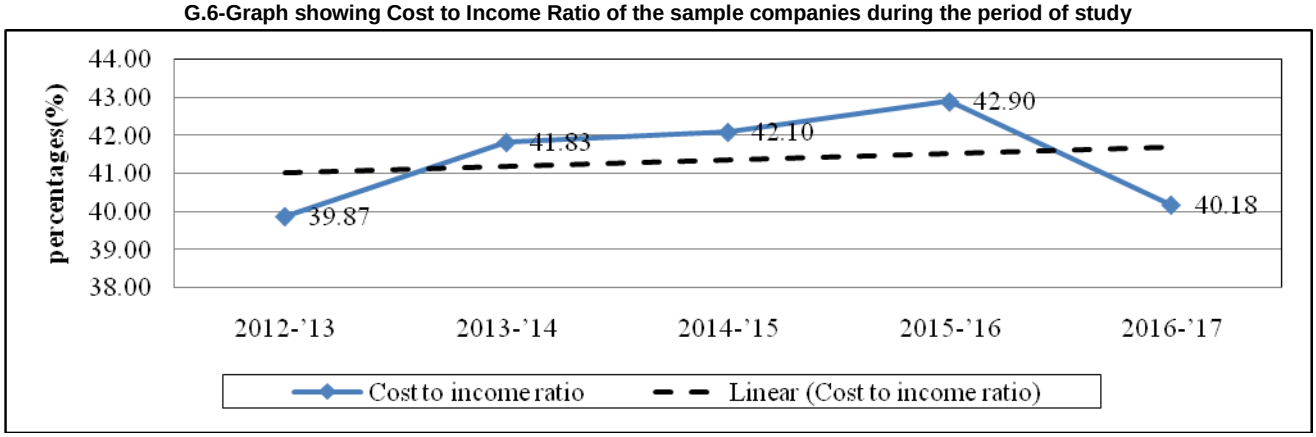
Year\Bank	SBI	PNB	I B	CANB	VIJB	Average
2012-'13	48.51	42.81	47.33	46.61	14.11	**39.87**
2013-'14	52.67	45.06	49.40	47.22	14.80	**41.83**
2014-'15	49.85	46.74	48.26	51.10	14.54	**42.10**
2015-'16	49.13	46.79	51.31	51.18	16.10	**42.90**
2016-'17	47.75	39.17	45.62	48.85	19.50	**40.18**
Average	**49.58**	**44.12**	**48.38**	**48.99**	**15.81**	**41.38**

(Source: Published Annual Reports for the period of Study)

Table no. 7 shows Cost to Income Ratio of the sample companies during the period of study. The overall average ratio of the sample companies was 41.38%. The overall average ratio showed an overall increasing trend. It increased from

39.875 to 42.90% in the year 2015-16. The increasing trend is also exhibited by G.6. Amongst the sample companies, State Bank of India have highest average i.e. 49.58 revealing high operating cost while Vijaya Bank has lowest average i.e. 15.81exhibiting low operating cost. There overall increasing trend as also shown in graph 8 is a signal to all the banks that the profitability in future would decrease. The banking companies should try to decrease their operating cost.

G.6-Graph showing Cost to Income Ratio of the sample companies during the period of study



(Source: Table 7)

4.7 Cost of Deposit Ratio:

Cost of deposit is the interest paid by banking companies on the deposits deployed. The ratio has a direct impact on bank's profitability. The lower ratio indicates higher profitability as cheaper funds available to the bank for lending purpose. Low cost of deposits can be the key for bank's profitability in the long run. The ratio is calculated as follows:

Cost of Deposit Ratio = Total interest paid on deposits /Average Deposit × 100

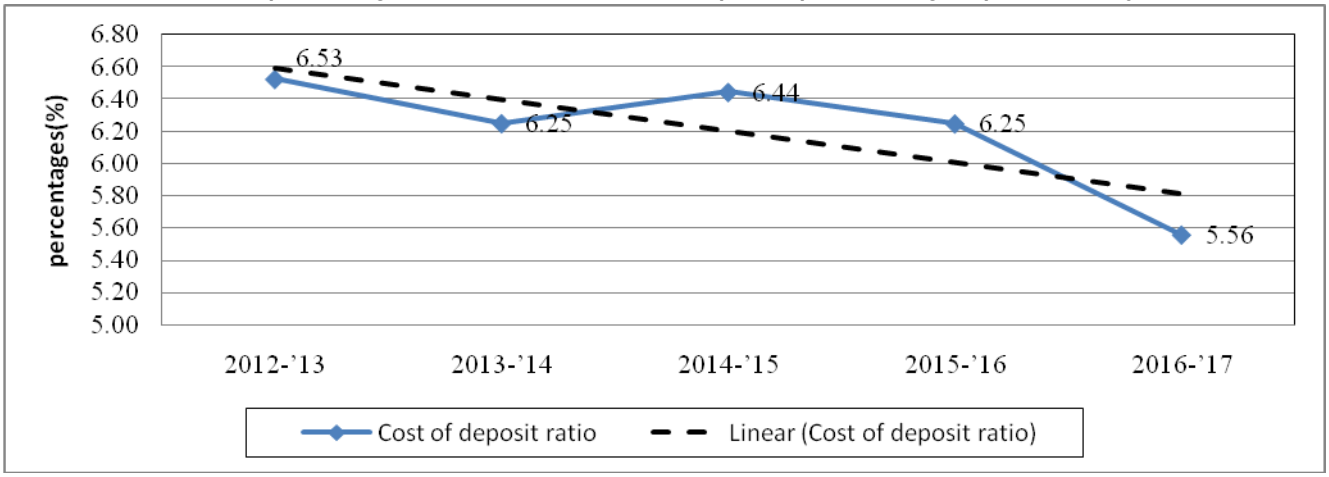
Table 8: Cost of Deposit Ratio (%) of the sample companies for period under study

Year\Bank	SBI	PNB	I B	CANB	VIJB	Average
2012-'13	5.61	6.51	6.35	7.10	7.06	**6.53**
2013-'14	5.59	5.59	6.54	6.81	6.72	**6.25**
2014-'15	5.65	5.51	6.62	6.76	7.68	**6.44**
2015-'16	5.71	5.39	6.48	6.74	6.92	**6.25**
2016-'17	5.16	4.81	5.78	5.97	6.04	**5.56**
Average	**5.55**	**5.56**	**6.36**	**6.68**	**6.88**	**6.20**

(Source: Published Annual Reports for the period of Study)

It is observed from table 8 that Vijaya Bank has highest average i.e. 6.88% while State Bank of India has lowest average i.e. 5.55% among the selected public sector bank and overall average is 6,20 over a period of study. There is overall declining trend as shown in graphG. 7. Lower cost will generate better returns. In short, it reveals that State Bank of India have got better position when compared to selected other banks in terms of cash deposit ratio during the period of study. The overall declining trend of the ratio is due to decrease in the interest rate deposits offered by the banking companies on Fixed, Savings and Current deposits.

G.7-Graph showing Cost to Income Ratio of the sample companies during the period of study



(Source: Table 8)

4.8 Cash Deposit Ratio:

Cash deposit ratio helps to evaluate absolute liquidity of the bank. Every banking company operating in India is required to maintain statutory liquidity in form of liquid assets in hand. The liquid asset includes Government approved encumbered securities, Money at call and short Notice, balance in the current accounts with other banks and cash in hand and balance with RBI. The immediate absolute liquidity in form of cash in hand and balance with RBI helps the management of banking company to pay its demand liabilities immediately and to meet other operating liability. Higher the ratio more is the absolute liquidity and vice-versa. The ratio is calculated by using the formula:

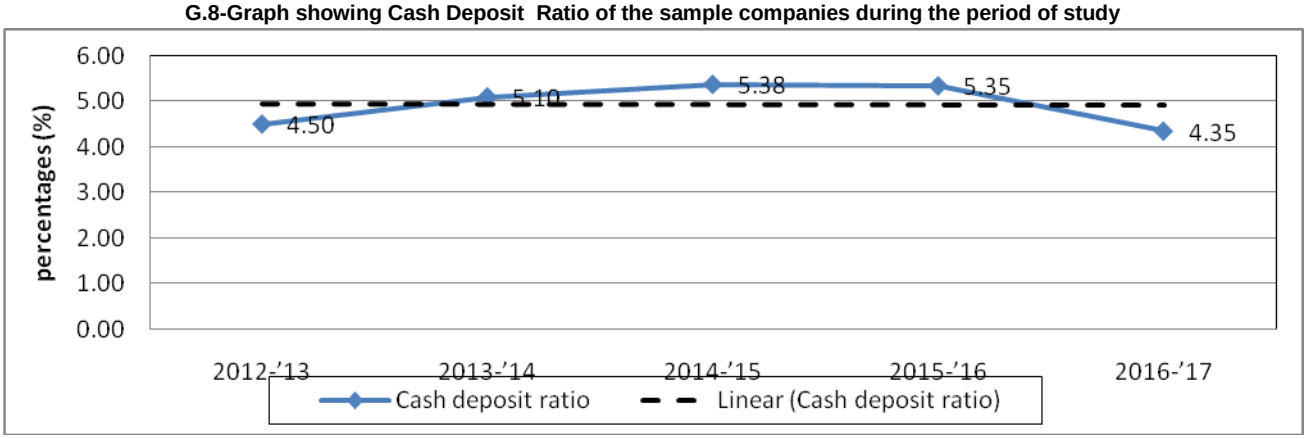
Cash Deposit Ratio = Cash in hand +balance with RBI/ Total deposits x 100

Table 9: Cash Deposit Ratio (%) of the sample companies for period under study

Year\Bank	SBI	PNB	IB	CANB	VIJB	Average
2012-'13	4.61	4.57	4.98	4.33	4.04	**4.50**
2013-'14	6.09	4.93	4.78	5.27	4.46	**5.10**
2014-'15	7.35	4.83	4.91	4.64	5.17	**5.38**
2015-'16	7.49	4.79	5.15	4.31	5.00	**5.35**
2016-'17	6.26	4.05	3.06	4.02	4.34	**4.35**
Average	**6.36**	**4.63**	**4.57**	**4.51**	**4.60**	**4.94**

(Source: Published Annual Reports for the period of Study)

G.8-Graph showing Cash Deposit Ratio of the sample companies during the period of study



(Source: Table 9)

Table no. 9 exhibits cash deposit ratio of the sample companies during the period of study. SBI has highest average 6.36% and Indian Bank has lowest average 4.57% among the selected public sector bank and overall average is 4.94% over a period of study. The overall ratio was 4.50% in 2012-13 increased to 5.38% in the year 2014-15 and marginally decreased to 4.35%. From G.8 it can be observed that the overall linear trend depicting liquidity remains almost the same throughout the period of study. Higher ratio shows that a bank has created more cash assets from its deposits. In short, it reveals that Canara Bank have got better position when compared to selected other banks in terms of cash deposit ratio during the period of study.

5. Conclusion

In India the banking sector is one of the fastest growing sectors. After analysing the five public sector banking companies selected on their net profit earnings, it could be concluded that their overall financial performance is satisfactory. The capital adequacy ratio of all the sample companies is more than the standard norm of 10.5% throughout the period of study which indicates stability and their significant contribution in strengthening the Indian financial system. The overall profitability as measured with Net Interest Margin and Return on Asset ratio is satisfactory except for PNB and CANB registering the negative Return on Asset in the year 2015-16. The sample companies can increase the profitability by controlling the Operating Cost which is quite high in all the sample companies except for VIJB. The proportion of Non performing Advances in all the selected banking companies is not high except for the SBI which showed an average Net NPA to Net advances ratio of 35.86%% It seems that SBI has adopted an aggressive policy in advancing the loans which is reflected by high credit deposit ratio. The liquidity measured by Cash to deposit ratio is also quite satisfactory. Though the financial performance seems to be satisfactory the actual position can be gauged when compared with the industry performance as a whole which also includes private sector banks. It is observed worldwide that the private sector banking companies including foreign banking companies operating in India does well as compared to public sector banking companies. In this highly competitive global environment it is imperative for the public sector bank to show outstanding performance in various parameters.

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