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A Study on Operational Efficiency and Financial Strength of Indian Banking Industry

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Abstract

Financial sector plays a pivotal role in the economic development, but, in recent time, it has witnessed that the World Economy is passing through some intricate circumstances as bankruptcy of banking & financial institutions, debt crisis in major economies of the world and euro zone crisis. The scenario has become very uncertain causing recession in major economies like US and Europe. The tempo of development for the Indian banking industry has been remarkable over the past decade. It is evident from the higher pace of credit expansion, expanding profitability and productivity similar to banks in developed markets, lower incidence of non- performing assets and focus on financial inclusion have contributed to making Indian banking vibrant and strong. Indian banks have begun to revise their growth approach and re-evaluate the prospects on hand to keep the economy rolling. It is generally agreed that a strong and healthy banking system is a prerequisite for sustainable economic growth. The banking sector has always been one of the important sectors for investment. In the time of uncertainty, some are arguing that the economies are in the process of recovery, and while others are opining that the world is set for another recession soon. In order to resist negative shocks and maintain financial stability, it is important to identify the Performance of Indian Banking Sector. The current study is mainly concerned with the analysis of Performance Of banking sector in India, that reflects the impact of new competitive environment on the bank's performance in terms of various selected parameters. The article considered the variables like balance sheet operations, efficiency, profitability ,Capital Adequacy, Asset Quality, Sect oral deployment of bank credit, Technological Development, Customer services and Financial Inclusion for a period of 6 years from 2011 to 16. The Data was collected through secondary sources from Statistical Tables relating to banks in India. The results have found strong evidence poor profitability and inefficiency of managing the assets in the year 2016.

Keywords: Capital adequacy; Sect oral deployment of bank credit; Technological development; Net interest margin (NIM); Return on asset (ROA).

1. Introduction

The financial development was given impetus with the adoption of social control over banks in1967 and subsequently nationalization of 14 major scheduled banks in July 1969. Since then the It is against the background of these banking system has formed the core of the Indian circumstances, that the development of a sound financial system. The Indian banking sector constitutes the most significant segment of the financial system of India. The banking sector is one of the biggest service sectors in India and nowadays is in a way to attract the biggest market of Asia in investment. It has been around one and half decade since financial sector reforms were initiated in India. As banks are the major segment of the financial sector in India, reform measures are primarily aimed at improving the performance of the banking sector. An efficient banking system has significant positive externalities, which increases the efficiency of economic transaction in general. The first deals with the history part since the dawn of banking system in India. Government took major step in the 1969 to put the banking sector into systems and it nationalized 14 private banks in the mentioned year. This has been elaborated in Nationalization Banks in India. The last but not the least explains about the scheduled and unscheduled banks in India. Section 42 (6) (a) of RBI Act 1934 lays down the condition of scheduled commercial banks. It is believed that private ownership helps to improve efficiency and performance of bank and accordingly, the Indian government started diluting its equity in PSBs from early 1990s in a phased manner. The privatization of Indian banks really helped to improve their efficiency and performance. Liberalization and Globalization ushered in by the government in the early 90s have thrown open many challenges to the Indian financial sector. Banks, amongst other things, were set on a path to align their accounting standards with the International standards and by global players. They had to have a fresh look into their balance sheet and analyze them critically. In this background, this article is designed to give an outline of performance of Indian banking sector.

1.1. Need for the Study

A sea change has taken place in the banking in 1992-93. The period of little more than two decades banking business has witnessed remarkable changes in perceptions, policies and practices of banks. In the light of sweeping

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changes that have taken place in banking policies and practices and the intensifying competitive environment in the banking sector, forcing the banks to focus in their operations. Therefore, against this background, it is thought desirable and appropriate to evaluate the balance sheet operations, efficiency, profitability, Capital Adequacy, Asset Quality, Sect oral deployment of bank credit, Technological Development, Customer services and Financial Inclusion

1.2. Objective

To study the share of selected components in each selected parameters

To evaluate the performance of banking sector in India on a selected parameters

1.3. Research Design

The study is based on secondary data collected from the Statistical Tables relating to banks in India and other secondary sources like research papers, review papers, published papers of related Banks,. Banks' websites, periodicals, Bank's publications, newspapers etc. A list of the related articles from various journals is also used to develop the basic idea about the particular topic. This paper uses the Compound Annual Growth Rate (CAGR), comparative analysis (variation rate), Common size Analysis (share of each sub parameter) which is expressed in percentages and Trend Analysis, Method to analyze the Performance Of banking sector in India.

1.4. Scope of the Study

The study covers for the period of 6 years data from 2011 to 16.

1.5. Review of Literature

Over the past decade, there has been a considerable growth in studies addressing the profile of the banks. Various studies conducted and numerous suggestions were sought to bring effectiveness in the working and operations of banks. Some of the studies are as follows:

Satya (2006) in his paper entitled "Efficiency Performance in Indian Banking—Use of Data Envelopment Analysis" attempts to measure the relative performance of Indian banks over the period 1997–2004 using the output-oriented CRR DEA model. The analysis uses nine input variables and seven output variables. Segmentation of the banking sector in India was done along the following basis: bank assets size, ownership status and years of operation. Overall, the analysis supports the conclusion that foreign owned banks were on average most efficient and that new banks are more efficient that old ones, which are often burdened with old debts. In terms of size, the smaller banks are globally efficient, but large banks are locally efficient. Moreover, this study finds evidence of concentration of efficiency parameters among peer bank groups.

Malhotra *et al.* (2011) In their paper, "Evaluating The Performance Of Commercial Banks In India" analyzed the performance of commercial banks in India during the period 2005 to 2009. This period covers the pre-credit crisis and the crisis time period. Specifically, the paper examines the behavior of profitability, cost of intermediation, efficiency, soundness of the banking system, and industry concentration for public and private sector Indian commercial banks. The empirical results show that competition in the Indian banking industry has intensified. While the net interest margin has improved, cost of intermediation is actually rising and banks are responding to the increased costs with higher efficiency levels.

Deepti and Pulak (2012) in their paper "Structure, Conduct and Performance of Indian Banking Sector " opined that in the context of initiation of economic reforms in general and changes in policies and regulations of the banking sector in particular, the present paper attempts to examine the structure-conduct-performance relationships in Indian banking sector. It is observed that there have been changes in the market structure of Indian banking sector, conducts of the banks and their performance in the post-reform era, especially during the last decade, though the changes have not been significant in every aspect. Using a panel dataset of 59 banks operating in India during1999-2000 to 2008-2009 and applying the two-stage least squares (2SLS) method of estimation, the paper finds that there exist strong inter-linkages amongst structure of the market, banks' conduct and their financial performance. While market share of a bank depends directly on its market size, asset base, selling efforts, and past financial performance, its selling efforts vary directly with market share, asset base, and past financial performance. As compared to the nationalized banks, market share of the private banks (both domestic and foreign) is found to be lower. But private banks make greater selling efforts and have better financial performance vis-à-vis their public sector counterparts.

Cheenu and Chitwan (2013) in their paper "A Comparative Study on the Performance of Selected Public Sector and Private Sector Banks in India" viewed that Efficiency and profitability of the banking sector in India has assumed primal importance due to intense competition, greater customer demands and changing banking reforms. Since competition cannot be observed directly, various indirect measures in the form of simple indicators or complex models have been devised and used both in theory and in practice. This study attempts to measure the relative performance of Indian banks. For this study, we have used public sector banks and private sector banks. We know that in the service sector, it is difficult to quantify the output because it is intangible. Hence different proxy indicators are used for measuring productivity of banking sector. Segmentation of the banking sector in India was done on bank assets size. Overall, the analysis supports the conclusion that new banks are more efficient that old ones. The public sector banks are not as profitable as other sectors are. It means that efficiency and profitability are interrelated. The key to increase performance depends upon ROA, ROE and NIM.

Shalini (2016) in her paper "Performance of the Indian Banking Industry: A Comparison of Public and Private Sector Banks" sought to analyze the performance of the banking industry in India on the basis of established financial parameters. By using the purposive sampling technique, 46 scheduled commercial banks were studied and the business standard banking annual database was explored to collect the relevant information. Both public and private sector banks were included in the sample and analyzed on the basis of four parameters (size, growth, profitability, and soundness) segregated into 11 financial performance indicators. The findings highlighted that public and private sector banks were not very much different in terms of size and growth parameters. However, significant differences were found in terms of profitability and soundness of business, indicating robust growth prospects for private sector banks. The study represented a pioneering and seminal attempt to provide a number of implications for policy makers, budding researchers, and professionals.

2. Data Analysis and Interpretation

Table-1. Variation Rate in balance sheet operations during 2011 to 2016

Balance Sheet Operations(Rs in Billion)	2011	2012	Variation (%)	2012	2013	Variation (%)	2013	2014	Variation (%)	2014	2015	Variation (%)	2015	2016	Variation (%)
Deposits (Rs)	56,159	64,537	15	64,537	74297	15	74297	85332	15	85332	94338	11	94338	100927	7
Borrowings (Rs)	6,755	8,401	25	8,401	10104	20	10104	11013	9	11013	11499	4	11499	12835	12
Loans and advances(Rs)	42,975	50,746	18	50,746	58798	16	58798	67352	15	67352	73882	10	73882	78965	7
Investments (Rs)	19,236	22,305	16.0	22,305	26131	17	26131	28833	10	28833	29776	3	29776	31740	7

Source: Collected and compiled from year wise RBI data base

The above table highlights the absolute quantum of deposits, borrowings, loans and advances & investments and their annual growth rates during the study period 2011-12 to 2015-16.It is clear from the table that the absolute quantum of deposits, borrowings, loans and advances & investments increased significantly during the period under study. But the growth rates are observed during the study period fluctuated but it is observed during the study period that there are no negative growth rates. In case of deposits growth rate it remained same 15% for first three years of the study later on it declined to 11% and 7% in next two years respectively. The Highest annual growth rate of borrowings is found in the year 2011-12 (25%) but there was continuously declined till the year 2104-2015 and then increased to 12% in the year 2015 – 16.In case of loans and advances there was a continuous decline in the growth rate. On the other hand the annual growth rate of investments was fluctuating.

Table-2. Trends in balance sheet operations During 2011 to 2016

Balance Sheet Operations (Rs in Billion)	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016
Deposits (Rs)	56,159	64,537	74297	85332	94338	100927	**100**	**115**	**132**	**152**	**168**	**180**
Borrowings (Rs)	6,755	8,401	10104	11013	11499	12835	**100**	**124**	**150**	**163**	**170**	**190**
Loans and advances(Rs)	42,975	50,746	58798	67352	73882	78965	**100**	**118**	**137**	**157**	**172**	**184**
Investments (Rs)	19,236	22,305	26131	28833	29776	31740	**100**	**116**	**136**	**150**	**155**	**165**

Source: Collected and compiled from year wise RBI data base

As per the above table it has been found that all the selected parameters of balance sheet operations moves in increasing trend as it is compared to its base year value during the year 2011

Table-3. Growth rate in balance sheet operations during 2011 to 2016

Balance Sheet Operations (Rs in Billion)	2011	2012	2013	2014	2015	2016	CAGR
Deposits (Rs)	56,159	64,537	74297	85332	94338	100927	**10.26%**
Borrowings (Rs)	6,755	8,401	10104	11013	11499	12835	**11.29%**
Loans and advances(Rs)	42,975	50,746	58798	67352	73882	78965	**10.67%**
Investments (Rs)	19,236	22,305	26131	28833	29776	31740	**8.7%**

Source: Collected and compiled from year wise RBI data base

The above table show the value of of CAGR (Compound Annual Growth Rate) in Borrowings was the highest at11.29% and it denotes that the borrowings had a highest growth in its Balance sheet operations and the value of CAGR in investments was the lowest at 8.70% and it denotes that investments had a lesser growth in its balance sheet operations than all other selected parameters

Table-4. Share of each component in the total Liabilities During 2011 to 2016

Balance Sheet Operations (Rs in Billion)	2011	2012	2013	2014	2015	2016
Deposits (Rs)	56159(89)	64537(88)	74297(88)	85332(88)	94338(89)	100927(89)
Borrowings (Rs)	6755(11)	8401(12)	10104 (12)	11013 (12)	11499(11)	12835(11)
Total Liabilities	62914(100)	72938(100)	84401(100)	96345(100)	105837(100)	113762(100)

Source: Collected and compiled from year wise RBI data base

The above table shows almost a stable share of deposits and borrowings in the total liabilities, during the period of this study

Table-5. Share of each component in the total assets during 2011 to 2016

Balance Sheet Operations (Rs in Billion)	2011	2012	2013	2014	2015	2016
Loans and advances(Rs)	42975(69)	50746(69)	58798 (69)	67352 (70)	73882(71)	78965(71)
Investments (Rs)	19236(31)	22305(31)	26131 (31)	28833 (30)	29776 (29)	31740 (29)
Total Assets	62211(100)	73051(100)	84929 (100)	96185(100)	103658(100)	110705 (100)

Source: Collected and compiled from year wise RBI data base

It is observed from the above table that the share of loans and advances is more than the double of the share of investments during the study period i.e from 2011 -2016

Table-6. Variation Rate in Profitability parameters During 2011 to 2016

Profitability	2011	2012	Variation (%)	2012	2013	Variation (%)	2013	2014	Variation (%)	2014	2015	Variation (%)	2015	2016	Variation (%)
Net profit (Rsin Billion)	703	817	**16**	817	912	**12**	912	809	**-11**	809	891	**10**	891	341	**-62**
ROA (%)	1.10	1.08	**2**	1.08	1	**7**	1	0.8	**-20**	0.8	0.8	**0**	0.8	0.3	**-62.5**
ROE (%)	15	14.60	**2**	14.60	13.8	**5**	13.8	10.7	**-22**	10.7	10.4	**-2.8**	10.4	3.6	**-65**
NIM (%)	2.91	2.90	**0.3**	2.90	2.6	**10**	2.6	2.7	**3%**	2.7	2.6	**-3**	2.6	2.6	**0**

Source: Collected and compiled from year wise RBI data base

During the study period, the major indicators of profitability, that is, banks' Net Profit, ROA, ROE and NIM showed a substantial decline, reflecting the impact of a sharp decline in profitability. In the year 2012-13, even though the net profit increased in absolute terms the variation during the period witnessed declining trend and further in the next year it has declined both in terms of absolute and growth rate gradually it increased in 2014 -15 financial year but again in the year there was a tremendous decrease. In case of ROE it has observed from the above table that the first two years of the study witnessed increasing trend and later on decreasing trend and there was a sharp decrease in the year 2015-2016 This trend of ROE is almost similar to ROA and NIM. So the current observations on profitability indicate that they do not perform at satisfactory level.

Table-7. Trends in Profitability Parameters During 2011 to 2016

Profitability	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016
Net profit (Rsin Billion)	703	817	912	809	891	341	**100**	**116**	**130**	**115**	**127**	**49**
ROA (%)	1.10	1.08	1	0.8	0.8	0.3	**100**	**98**	**91**	**73**	**73**	**27**
ROE(%)	14.96	14.6	13.8	10.7	10.4	3.6	**100**	**98**	**92**	**72**	**70**	**24**
NIM (%)	2.91	2.90	2.6	2.7	2.6	2.6	**100**	**99**	**89**	**93**	**89**	**89**

Source: Collected and compiled from year wise RBI data base

The trend of the profitability of banks is calculated by taking the 2011 as a base year .It has been noticed from the above table that Return on Asset (ROA), Return on Equity (ROE) and Net Interest Margin (NIM) showed continuous declining trend from the base year whereas in case of net profit it resulted in increasing trend up to the financial year 2015, but in the year 2016 it has declined sharply

Table-8. Growth rate in Profitability Parameters During 2011 to 2016

Profitability	2011	2012	2013	2014	2015	2016	CAGR
Net profit (Rsin Billion)	703	817	912	809	891	341	**-11.36%**
ROA (%)	1.10	1.08	1	0.8	0.8	0.3	**-19.47%**
ROE(%)	14.96	14.60	13.8	10.7	10.4	3.6	**-21.13%**
NIM (%)	2.91	2.90	2.6	2.7	2.6	2.6	**-1.86%**

Source: Collected and compiled from year wise RBI data base

The above table results a negative impact on profitability of scheduled commercial banks

Table-9. Variation Rate in Capital adequacy ratio during 2011 to 2016

Capital Adequacy Ratio	2011	2012	Variation	2012	2013	Variation	2013	2014	Variation	2014	2015	Variation	2015	2016	Variation
CRAR (%)	14.2	14.2	0.4	14.2	13.9	-2	13.9	13	**-6.00%**	13	13	**0.00%**	13	13.3	**2%**
Tier 1 as % to total Capital	70.6	72.8	3	72.8	74.1	-2	74.1	77.5	**5.00%**	77.5	79.7	**3%**	79.7	81.2	**2%**
CRAR TIER 1 %	10.0	10.4	4	10.4	10.3	-1	10.3	10.1	**-2.00%**	10.1	10.3	**2%**	10.3	10..8	**5%**

Source: Collected and compiled from year wise RBI data base

As per the above table the variation rate in CRAR witnessed a declining trend from 2011-12 to 2013-2014, in the year 2014-2015 it remained constant and in the year 2015-16 there was a moderate increasing trend

Table-10. Trends in Capital adequacy ratio during 2011 to 2016

Capital Adequacy Ratio	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016
CRAR (%)	14.19	14.24	13.9	13	13	13.3	**100**	**101**	**98**	**92**	**92**	**94**
Tier 1 as % to total Capital	70.6	72.8	74.1	77.5	79.7	81.2	**100**	**103**	**105**	**110**	**113**	**115**
CRAR TIER 1 %	10.0	10.4	10.3	10.1	10.3	10..8	**100**	**104**	**103**	**101**	**103**	**108**

Source: Collected and compiled from year wise RBI data base

From the above table it is depicted that the trend of capital adequacy ratio increased slightly in the year 2012 as compared to the base year 2011 but later on it has continuously decreased till 2016. in case of tier 1 capital it witnessed an increasing trend during the study period

Table-11. Variation Rate in Asset Quality During 2011 to 2016

Asset Quality	2011	2012	Variation (%)	2012	2013	Variation (%)	2013	2014	Variation (%)	2014	2015	Variation (%)	2015	2016	Variation (%)
Gross NPAs (Rs in Billion)	979	1,423	**45.3**	1,423	1941	**35**	1941	2544	**31**	2544	3233	**27**	3233	6120	**89**
Net NPAs (Rs in Billion)	417	649	**56**	649	987	**51**	987	1426	**44**	1426	1754	**23**	1754	3498	**99**
GNPAR (%)	2.5	3.1	**24**	3.1	3.2	**3**	3.2	3.8	**19**	3.8	4.3	**13**	4.3	7.5	**74**
NNPAR (%)	1.1	1.4	**27**	1.4	1.7	**21**	1.7	2.1	**24**	2.1	2.4	**14**	2.4	4.4	**83**
Provision Coverage Ratio (%)	55.1	52.5	**-5**	52.5	47.6	**-9**	47.6	44.7	**-6**	44.7	44	**-2**	44	41.5	**-6**
Slippage Ratio (%)	2.03	2.51	**24**	2.51	2.8	**12**	2.8	3.3	**18**	3.3	3.2	**-3**	3.2	6.9	**115**

Source: Collected and compiled from year wise RBI data base

The above table shows the amount of gross NPAs of the banking sector for the period 2011 to 16. A look into the table reveals that the variation rate of gross NPAs decreased up to 2014-15 and increased thereafter in the year 2015-2016. In case of Net NPAs also the growth rate shows a decreasing trend up to 2014-15 and increased thereafter in the year 2015-2016 No definite trend of slippage ratio is observed during the study period. From the growth rate of GNPAR and NNPAR as shown in the table, it can be argued that banking industry failed to prove its efficiency in managing its loan assets.

Table-12. Growth rate in Capital adequacy ratio during 2011 to 2016

Capital Adequacy Ratio	2011	2012	2013	2014	2015	2016	CAGR
CRAR (%)	14.2	14.2	13.9	13	13	13.3	**-1.07%**
Tier 1 as % to total Capital	70.6	72.8	74.1	77.5	79.7	81.2	**2.36%**
CRAR TIER 1 %	10.0	10.4	10.3	10.1	10.3	10..8	**1.29%**

Source: Collected and compiled from year wise RBI data base

The above table reveals the fact that the CAGR of CRAR reduced to -1.07% but the contribution of tier 1 capital increased

Table-13. Trends in Asset Quality During 2011 to 2016

Asset Quality	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016
Gross NPAs (Rs in Billion)	979	1,423	1941	2544	3233	6120	**100**	**145**	**198**	**260**	**330**	**625**
Net NPAs (Rs in Billion)	417	649	987	1426	1754	3498	**100**	**156**	**237**	**342**	**421**	**839**
GNPAR (%)	2.5	3.1	3.2	3.8	4.3	7.5	**100**	**124**	**128**	**152**	**172**	**300**
NNPAR (%)	1.1	1.4	1.7	2.1	2.4	4.4	**100**	**127**	**155**	**191**	**218**	**400**
Provision Coverage Ratio (%)	55.1	52.5	47.6	44.7	44	41.5	**100**	**95**	**86**	**81**	**80**	**75**
Slippage Ratio (%)	2.03	2.51	2.8	3.3	3.2	6.9	**100**	**124**	**138**	**163**	**158**	**340**

Source: Collected and compiled from year wise RBI data base

The above table depicts that all parameters of Asset quality have increased continuously throughout the study period, except in the case of provision coverage ratio

Table-14. Growth rate in Asset Quality During 2011 to 2016

Asset Quality	2011	2012	2013	2014	2015	2016	CAGR (%)
Gross NPAs (Rs in Billion)	979	1,423	1941	2544	3233	6120	**35.73**
Net NPAs (Rs in Billion)	417	649	987	1426	1754	3498	**42.54**
GNPAR (%)	2.5	3.1	3.2	3.8	4.3	7.5	**20.09**
NNPAR (%)	1.1	1.4	1.7	2.1	2.4	4.4	**25.99**
Provision Coverage Ratio (%)	55.1	52.5	47.6	44.7	44	41.5	**-.4.61**
Slippage Ratio (%)	2.03	2.51	2.8	3.3	3.2	6.9	**22.62**

Source: Collected and compiled from year wise RBI data base

It is seen from the above table that the provision coverage ratio had a lowest CAGR and the Net NPAs had the highest CAGR.

Table-15. Variation Rate in Sectoral Deployment of bank credit During 2011 to 2016

Sectoral Deployment of Bank Credit (Rs in Billion)	2011	2012	Variation (%)	2012	2013	Variation (%)	2013	2014	Variation (%)	2014	2015	Variation (%)	2015	2016	Variation (%)
Gross Bank Credit	36,674	42,897	**16**	42,897	49642	**13**	49642	56208	**13**	56208	61023	**9**	61023	66500	**9**
Agriculture	4,603	5,226	**13**	5,226	5899	**8**	5899	6660	**13**	6660	7659	**15**	7659	8829	**15**
Industry	16,208	19,659	**20**	19,659	22302	**15**	22302	25165	**13**	25165	26576	**6**	26576	27307	**3**
Services	9,008	10,330	**14**	10,330	11519	**13**	11519	13375	**16**	13375	14131	**6**	14131	15411	**9**
Personel Loans	6,854	7,683	**13**	7,683	8976	**14**	8976	10097	**12**	10097	11663	**16**	11663	13922	**19**

Source: Collected and compiled from year wise RBI data base

The above table presents the results of sect oral deployment of bank credit. In Case of Gross bank credit the variation rate declined up to 2014-15 and remained stable in 2015 -16. Agriculture variation rate decreased in the year 2012-13 as it compared to previous year but increased in the next two years and remained constant in the year 2015-16. industry variation rate decreased continuously during the study period. Services variation rate showed an alternative trend of increasing and decreasing personal loan resulted in the increasing trend except in the year 2013-14.

Table-16. Trends in Sect oral Deployment of Bank Credit During 2011 to 2016

Sectoral Deployment of Bank Credit (Rs in Billion)	2011	2012	2013	2014	2015	2016	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Gross Bank Credit	36,674	42,897	49642	56208	61023	66500	**100**	**117**	**135**	**153**	**166**	**181**
Agriculture	4,603	5,226	5899	6660	7659	8829	**100**	**114**	**128**	**145**	**166**	**192**
Industry	16,208	19,659	22302	25165	26576	27307	**100**	**121**	**138**	**155**	**164**	**168**
Services	9,008	10,330	11519	13375	14131	15411	**100**	**115**	**128**	**149**	**157**	**171**
Personel Loans	6,854	7,683	8976	10097	11663	13922	**100**	**112**	**131**	**147**	**170**	**203**

Source: Collected and compiled from year wise RBI data base

As per the above table it has been found that all the selected parameters of sectoral Deployment of bank credit shows the increasing trend as it is compared to its base year value during the year 2011

Table-17. Growth rate in Sectoral Deployment of Bank Credit During 2011 to 2016

Sectoral Deployment of Bank Credit (Rs in Billion)	2011	2012	2013	2014	2015	2016	CAGR (%)
Gross Bank Credit	36,674	42,897	49642	56208	61023	66500	**10.43**
Agriculture	4,603	5,226	5899	6660	7659	8829	**11.47**
Industry	16,208	19,659	22302	25165	26576	27307	**9.08**
Services	9,008	10,330	11519	13375	14131	15411	**9.36**
Personel Loans	6,854	7,683	8976	10097	11663	13922	**12.54**

Source: Collected and compiled from year wise RBI data base

The above table shows the value of CAGR in personnel loan was the highest at12.54% and it denotes that personnel banks had a highest growth in its sectorial deployment of bank credit than all sectors

Table-18. Share of the sector in the total sect oral deployment during 2011 to 16

Sectoral Deployment of Bank Credit (Rs in Billion)	2011	2012	2013	2014	2015	2016
Gross Bank Credit	36674(49)	42897(50)	49642(50)	56208(50)	61023(50)	66500(50)
Agriculture	4603(6)	5226(6)	5899 (6)	6660(6)	7659 (6)	8829(7)
Industry	16208(22)	19659(23)	22302(23)	25165(23)	26576(22)	27307(21)
Services	9008(12)	10330(12)	11519(12)	13375(12)	14131(12)	15411(12)
Personel Loans	8654(11)	7683(9)	8976(9)	10097(9)	11663(10)	13922(10)
Total	75347(100)	85795(100)	98338(100)	111505(100)	121052(100)	131969(100)

Source: Collected and compiled from year wise RBI data base

The above table demonstrates the results of the share of each sector in the total sect oral deployment of bank credit. It is observed that the share of gross bank credit out of the total sect oral deployment of bank credit is 50% throught out the study period i.e., from 2011 to 2016. The next highest share belongs to industry ,then the service and personnel loans sector share is almost same, and the least share is agriculture.

Table-19. Variation Rate in Technological Development During 2011 to 2016

Technological Development	2011	2012	Variation (%)	2012	2013	Variation (%)	2013	2014	Variation (%)	2014	2015	Variation (%)	2015	2016	Variation (%)
Total Number of Credit Cards (in MiMillion)	18	17	**-2.2**	17.65	20	**11**	20	19	**-5**	19	21	**11**	21	25	**19**
Total Number of Debitt Cards (in MiMillion)	228	278	**22.1**	278	331	**19**	331	394	**19**	394	553	**40**	553	662	**20**
Total Number of ATMs	74,505	95,686	**28.4**	95,686	114014	**19**	114014	161750	**42**	161750	189279	**17**	189279	212061	**12**

Source: Collected and compiled from year wise RBI data base

The above table reveals that Variation rate in the number of outstanding debit cards decelerated sharply to 20 per cent in 2015-16 from 40 per cent in the previous year. However, credit cards registered increased growth of 19 per cent during the year as against 11 per cent during 2014-15

Table-20. Trends in Technological Development During 2011 to 2016

Technological Development	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016
Total Number of Credit Cards (in MiMillion)	18	17	20	19	21	25	**100**	**94**	**111**	**106**	**117**	**139**
Total Number of Debitt Cards (in MiMillion)	228	278	331	394	553	662	**100**	**122**	**145**	**173**	**243**	**290**
Number of ATMs	74,505	95,686	114014	161750	189279	212061	**100**	**129**	**153**	**217**	**254**	**285**

Source: Collected and compiled from year wise RBI data base

From the above table it has witnessed that one of the important factors is that the technological development of banks have positive growth rate

Table-21. Growth rate in Technological Development During 2011 to 2016

Technological Development	2011	2012	2013	2014	2015	2016	CAGR (%)
Total Number of Credit Cards(in MiMillion)	18	17	20	19	21	25	**5.59**
Total Number of Debitt Cards(in MiMillion)	228	278	331	394	553	662	**19.44**
Number of ATMs	74,505	95,686	114014	161750	189279	212061	**19.05**

Source: Collected and compiled from year wise RBI data base

According to above table analysis the contribution of debit card and ATMs is high as compared to credit card contribution in the technological development

Table-22. Share of the cards in the total cards issued during 2011 to 2016

Technological Development	2011	2012	2013	2014	2015	2016
Total Number of Credit Cards(in MiMillion)	18(7)	17(6)	20(6)	19(5)	21(4)	25(4)
Total Number of Debitt Cards(in MiMillion)	228(93)	278((94)	331(94)	394(95)	553(96)	662(96)
Total Number of Cards(in MiMillion)	246(100)	295(100)	351(100)	413(100)	574(100)	687(100)

Source: Collected and compiled from year wise RBI data base

The above table reveals the facts and figures regarding debit cards and credit cards. Issuance of debit cards is much higher as compared to credit cards and they remain a preferred mode of transactions during the study period that is from 2011 to 2016

Table-23. Variation Rate in customer service during 2011 to 2016

Customer Service*	2011	2012	Variation (%)	2012	2013	Variation (%)	2013	2014	Variation (%)	2014	2015	Variation (%)	2015	2016
Total Number of complaints received during the year	76,638	72,889	-5	77,507	70541	-3	70541	76573	9	76573	85131	11	85131	10289 4
Total Number of complaints adressed	72,021	72,885	1.2	72,885	69704	-4	69704	78745	13	78745	84660	8	84660	10114 8
Percentage of complaints adresed	94	94	0	94	93	-2	93	96	3	96	96	0.00%	96	95

Source: Collected and compiled from year wise RBI data base

According to the results of above table the total complaints received decreased from 2011 to 2013 but later on it is noticed that there was a continuous increase in complaints .when it comes to addressing the complaints it showed a mixed trend of increasing and decreasing variation rate through tout the period of the study

Table-24. Trends in customer service of Banks During 2011 to 2016

Customer Service*	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Total Number of complaints received during the year	76,638	77,507	70541	76573	85131	102894	100	101	92	99	111	134
Total Number of complaints adressed	72,021	72,885	69704	78745	84660	101148	100	101	97	109	118	140
Percentage of complaints adresed	94	94	93	96	96	95	100	100	99	102	102	101

Source: Collected and compiled from year wise RBI data base

Results presented in the above table show about the complaints received and addressed by the banks which is a part of the customer service. As compared to the base year 2011 there was a slight increasing trend in the year 2012 but later on it decreased in next year i.e., 2013.in the year 2013 it witnessed the decreasing trend and later on in the financial year 2015 and 2016 it has resulted in increasing trend

Table-25. Growth rate in customer service of Bank Credit During 2011 to 2016

Customer Service*	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**CAGR(%)**
Total Number of complaints received during the year	76,638	72,889	70541	76573	85131	102894	**5.03**
Total Number of complaints adressed	72,021	72,885	69704	78745	84660	101148	**5.82**
Percentage of complaints adresed	94	94	93	96	96	95	**0.18**

Source: Collected and compiled from year wise RBI data base

The above table discloses the CAGR related to total number of complaints received and total complaints addressed and it is observed that the CAGR of total Complaints received is higher than the total complaints addressed

Table-26. Variation Rate in Financial inclusion during 2011 to 2016

Financial Inclusion	2011	2012	**Variation (%)**	2012	2013	**Variation (%)**	2013	2014	**Variation (%)**	2014	2015	**Variation (%)**	2015	2016	**Variation (%)**
Credit Deposit Ratio (%)	76.5	78.6	3	78.6	79.1	1	79.1	78.9	**-0.25**	78.9	78.3	**-0.76**	78.3	78.2	**-0.12**
Number of New Bank Branches oened	5,314	6,918	30	5,918	7757	12	7757	11315	**46**	11315	8598	**-24**	8598	6693	**-22**
Number of Banking Outlets in Villages	1,16,208	1,81,373	56	1,81,373	268454	48	268454	383804	**43**	383804	553713	**44**	553713	586307	**6**

Source: Collected and compiled from year wise RBI data base

From the above table it is clear that Credit-Deposit (C-D) ratio of the SCBs stood at around 78 per cent, same as that of all the years of study. The number of new branches opened resulted in deccreasing trend when it compared to 2011-12 and 2012-2013 but witnessed an increasing trend in the year 2013 -14 but lateron in the next two years it has declined.In case of number banking outlets in villages it has shown a decreasing variation rate from the year 2011-12 to 2013 to 2014 but there was as increase in the variation rate in the year 2014 -15 and sin the year 2015-2016 .

Table-27. Trends in Financial inclusion of Banks During 2011 to 2016

Financial Inclusion	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Credit Deposit Ratio(%)	76.5	78.6	79.1	78.9	78.3	78.2	**100**	**102**	**103**	**103**	**102**	**102**
Number of New Bank Branches oened	5,314	6,918	7757	11315	8598	6693	**100**	**130**	**146**	**213**	**162**	**126**
Number of Banking Outlets in Villages	1,16,208	1,81,753	268454	383804	553713	586307	**100**	**156**	**231**	**330**	**476**	**505**

Source: Collected and compiled from year wise RBI data base

The Reserve Bank continued its efforts towards universal financial inclusion. Given the boost provided by the Pradhan Mantri Jan Dhan Yojana (PMJDY) during the period, considerable banking penetration has occurred, particularly in rural areas. However, significant numbers of banking outlets operate in branchless mode through business correspondents (Bcs)/facilitators. Dominance of BCs in the rural areas can be gauged from the above facts

Table-28. Growth rate in Financial Inclusion of Bank During 2011 to 2016

Financial Inclusion	2011	2012	2013	2014	2015	2016	CAGR
Credit Deposit Ratio(%)	76.5	78.6	79.1	78.9	78.3	78.2	**0.37%**
Number of New Bank Branches oened	5,314	6,918	7757	11315	8598	6693	**3.92%**
Number of Banking Outlets in Villages	1,16,208	1,81,753	268454	383804	553713	586307	**30.96%**

Source: Collected and compiled from year wise RBI data base

The above table disclosed the information about the financial Inclusion CAGR which reveals that there was a highest CAGR in case of number of banking outlets in villages

3. Findings

Based on analysis and major findings, here is a list of concluding observations.On the analysis of the finacial performance of the banking sector,

The balance sheet operations revealed that the absolute quantum of deposits, borrowings, loans and advances & investments increased significantly during the period under study. But the growth rates are observed during the study period fluctuated but it is observed during the study period that there is no negative growth rates.There is a continuous growth in the deposits, borrowings, loans and advances and investments with a slight variation rates.In total liabilities the share of deposits is more than the borrowings and in total assets the share of loans and advances is more than investments.it has been found that all the selected parameters of balance sheet operations moves in increasing trend as it is compared to its base year value during the year 2011 the value of of CAGR(Compound Annual Growth Rate) in Borrowings was the highest at11.29% and it denotes that the borrowings had a highest growth in its Balance sheet operations and the value of CAGR in investments was the lowest at 8.70% and it denotes that investments had a lesser growth in its balance sheet opearations than all other selected parameters. During the period of the study almost there is a stable share of deposits and borrowings in the total liabilities and the share of loans and advances is more than the double of the share of investments during the study period i.e from 2011 -2016.

On the profitability front, Banks failed to put up consistent performance. Its performance is not that good. Performance of banks on profitability indicator is not good, especially in Return on Equity, Return on Assets and Net interest margin because during the study period , the major indicators of profitability, that is, banks' Net Profit, ROA , ROE and NIM showed a substantial decline, reflecting the impact of a sharp decline in profitability.

With the introduction of Capital to Risk Weighted Asset Ratio norms in 1992, significant improvements were noticed in the capital position of banks. The variation rate in CRAR witnessed a declining trend from 2011-12 to 2013-2014, in the year 2014-2015 it remained constant and in the year 2015-16 there was a moderate increasing trend. The trend of capital adequacy ratio increased slightly in the year 2012 as compared to the base year 2011 but later on it has continuously decreased till 2016. In case of tier 1 capital it witnessed an increasing trend during the study period. The CAGR of CRAR reduced to -1.07% but the contribution of tier 1 capital increased

In case of asset quality, the variation rate of gross NPAs decreased up to 2014-15 and increased thereafter in the year 2015-2016. In case of Net NPAs also the growth rate shows a decreasing trend up to 2014-15 and increased thereafter in the year 2015-2016 No definite trend of slippsage ratio is observed during the study period. From the growth rate of GNPAR and NNPAR as shown in the table, it can be argued that banking industry failed to prove its efficiency in managing its loan assets. The provision coverage ratio had a lowest CAGR and the Net NPAs had the highest CAGR.

The results of sectoral deployment of bank credit. In Case of Gross bank credit the variation rate declined upto 2014-15 and remained stable in 2015 -16. Agriculture variation rate decreased in the year 2012-13 as it compared to previous year but incresed in the next two years and remained constant in the year 2015-16. Industry variation rate decreased continuously during the study period. Services variation rate showed an alternative trend of increaing and decreasing.personel loan resulted in the increasing trend except in the year 2013-14. It has been found that all the selected parameters of sectoral Deployment of bank credit shows the increasing trend as it is compared to its base year value during the year 2011.

The value of CAGR in personnel loan was the highest at12.54% and it denotes that personnel banks had a highest growth in its sectoral deployment of bank credit than all sectors. The share of gross bank credit out of the total sectoral deployment of bank credit is 50% through out the study period i.e., from 2011 to 2016. The next highest share belongs to industry, then the service and personel loans sector share is almost same, and the least share is agriculture.

It has witnessed that one of the important factors is that the technological development of banks have positive growth rate. Variation rate in the number of outstanding debit cards decelerated sharply to 20 per cent in 2015-16 from 40 per cent in the previous year. However, credit cards registered increased growth of 19 per cent during the year as against 11 per cent during 2014-15. The contribution of debit card and ATMs is high as compared to credit card contribution in the technological development. Issuance of debit cards is much higher as compared to credit cards and they remain a preferred mode of transactions during the study period that is from 2011 to 2016

The complaints received and addressed by the banks which is a part of the customer service. As compared to the base year 2011 there was a slight increasing trend in the year 2012 but later on it decreased in next year i.e., 2013.in the year 2013 it witnessed the decreasing trend and later on in the financial year 2015 and 2016 it has resulted in increasing trend. In case of customer service, the total complaints received decreased from 2011 to 2013 but later on it is noticed that there was a continuous increase in complaints .when it comes to addressing the complaints it showed a mixed rend of increasing and decreasing variation rate through tout the period of the study. The CAGR related to total number of complaints received and total complaints adressed and it is observed that the CAGR of total Complaints received is higher than the total complaints addressed

The Reserve Bank continued its efforts towards universal financial inclusion. Given the boost provided by the Pradhan Mantri Jan Dhan Yojana (PMJDY) during the period, considerable banking penetration has occurred, particularly in rural areas. However, significant numbers of banking outlets operate in branchless mode through business correspondents (Bcs)/facilitators. Dominance of BCs in the rural areas can be gauged from the analysis. Credit-Deposit (C-D) ratio of the SCBs stood at around 78 per cent, same as that of all the years of study. The number of new branches opened resulted in deccreasing trend when it compared to 2011-12 and 2012-2013 but witnessed an increasing trend in the year 2013 -14 but lateron in the next two years it has declined.In case of number banking outlets in villages it has shown a decreasing variation rate from the year 2011-12 to 2013 to 2014 but there was as increase in the variation rate in the year 2014 -15 and sin the year 2015-2016. there was a highest CAGR in case of number of banking outlets in villages

4. Conclusion

Indian banking needs to focus on the profitability and asset quality aspects and build required capabilities to cope up with the challenges of the dynamic banking environment. The future strategies of banks should be to earn more profits. Based on the findings of study the following are few suggestions to the Indian banking Industry, which helps them to improve their performance and efficiency and make them fit to compete in this competitive global scenario.

1. As the ROA i.e. Return on assets is the parameter that indicates the efficiency of banks management in utilization of its assets, it is advised that the banks should take care regarding this parameter i

2. Having high ratio of Non Performing Asset i.e., NPA is a sign of poor asset quality and in this study it is noticed that there is a high NPA in banks as compared to previous years so there is a need for banks to focus on this parameter as the simple reason is that the asset quality effects the performance of the banks

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