

# An Analytical Study on Trends and Progress of Indian banking Industry

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Financial sector plays a pivotal role in the economic development. It is generally agreed that a strong and healthy banking system is a prerequisite for sustainable economic growth. Banks in India have been undergoing major challenges in the dynamic environment over the past few years as it is evident from several parameters, including No. of offices, No. of employees, Business per employee, Profit per employee, Net Worth, Deposits, Investments, Advances, Interest income, Other income, Interest expended, Operating expenses, Cost of Funds (CoF), Return on advances adjusted to CoF, Wages as % to total expenses, Return on Assets, CRAR and Net NPA ratio. In order to resist negative shocks and maintain financial stability, it is important to identify the profile of the banks. The current study is mainly concerned with the analysis of comparative profiles of Public Banks, Private Banks and Foreign Banks in India during the period of 2006-13 that reflects the impact of new competitive environment on the bank's performance in terms of various selected parameters. The Data was collected through secondary sources from Trend and Progress Report of RBI and the tool used for data analysis of the profile of bank group wise is Compound Annual Growth Rate (CAGR) which is expressed in percentages. The results have found strong evidence that the Private Sector Banks surpasses the other bank groups and topped the position in all the parameters, while Public Sector Banks and Foreign Banks are just competing for the 2<sup>nd</sup> and the 3<sup>rd</sup> position.

**Keywords:** Commercial banks; Public sector banks; Private sector banks and foreign banks; NPA**Introduction**

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 profile of bank group wise in Indian banking industry. Banks that employ IT solutions are perceived to be 'futuristic' and proactive players capable of meeting the multifarious requirements of the large customer's base. Private Banks have been fast on the uptake and are reorienting their strategies using the internet as a medium. The Indian banking has finally worked up to the competitive dynamics of the 'new' Indian market and is addressing the relevant issues to take on the multifarious challenges of globalization.

**Need for the Study**

Banking business has done wonders for the world economy. The intensifying competitive environment in the banking sector forcing the banks to focus in their operations. The profile of the banks plays an important role in the performance of the banks and measuring the relative profile of bank group wise has gained academic attentions over the years. Various parameters have been used to determine the profile of the banks. Evaluating the profile of the commercial banks is important to depositors, owners, potential investors, managers and of course, regulators.

**Objective**

1. To explore the concentration of profile of Public sector banks, private sector banks; and Foreign banks
2. To analyse the comparison of performance of Nationalized Banks, State Bank Group, old Private sector Banks, New Private Sector Banks and Foreign Banks.

**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:

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Dipasha Sharma, Anil K Sharma, Mukesh K Barua in their study discussed that both the frontier approaches, parametric and non-parametric, are gaining an edge over the traditional financial performance measures. In the non-parametric approach, data envelopment analysis (DEA) is widely applied to measure a bank's efficiency and productivity [1].

Siraj and Sudarsanan Pillai, in their paper determined that asset quality and efficiency of bank is highly correlated. Against this backdrop, this paper investigates the growth of selected NPA variables and compares it with banking performance indicators [2]. Variables that impact NPA of banks is assessed and based on its growth rate, inference is generated. The analysis focused on identifying relative efficiency of different bank groups in managing their NPA.

Singh analysed the profitability management of banks under the deregulated environment with some financial parameters of the major four bank groups i.e. public sector banks, old private sector banks, new private sector banks and foreign banks, He emphasized to make the banking sector competitive in deregulated environment and prefer non-interest income sources [3].

Souza, in his study evaluated the performance of public sector banks, private sector banks and foreign banks during the period 1990-1991 to 1999-2000. The efficiency of the banking system was measured in terms of spread/working fund ratio and turnover/employees ratio [4].

Kannan and Aditya Narain made an attempt to identify the factors influencing spreads of scheduled commercial banks in India and concluded that nonperforming asset effect bank spread.

Centric to the ratio analysis, these studies have customized and blended financial ratios in a model form to examine and predict the financial health. Similarly, comparative performance, recovery performance, cost reduction, productivity and efficiency are vital areas which have been considered by various analysts. With inquisitiveness the present study has been undertaken with specific objectives as envisaged in the objectives of the study [5].

## Research Methodology

### Data collection and sources of data

The study is based on secondary data collected from the select bank records 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) Method and Ranking method to analyse the profile of banks. The study covers for the period of 8 years data from 2005-06 to 2012-13.

### Data analysis and interpretation

Customer deposit is a major part of total liabilities of any bank and it is a major source of fund for banks. Since deposit is the main concern for any bank therefore it becomes important to examine the deposit of each bank groups in India. Customer deposits provide funds for investment and financing. Growth in customer deposits is a positive indicator of banking growth. Bank group-wise, public sector banks accounted for the largest CAGR (56.19 per cent) in total deposits followed by private sector banks (54.57 per cent). Foreign banks showed the lowest CAGR (49.77 Percent). High levels of public deposit ensured that most of the banks had a comfortable liquidity profile.

It is observed from the Table 1 that the scheduled commercial bank offices in the country showed CAGR of 6.12%, over a period of eight years and for this growth the major contribution is observed from the growth in the new private sector banks. It is also observed from the Table 2 that there is a continuous increase in number of offices in scheduled commercial banks and this is as a result of continuous increase in number of offices of all bank group wise that is in case of public sector banks, private sector banks and foreign banks.

Capital adequacy ratio is a measure of a bank's financial health and it measures the performance of a bank's capital. It reflects the soundness of a financial institution. It is expressed as a percentage of a bank's risk weighted credit exposures. This ratio is used to protect depositors and promote the stability and efficiency of financial systems around the world. A Bank shall maintain a minimum ratio between its total regulatory capital (the numerator) and the aggregate of its risk weighted on balance sheet assets and risk weighted off-balance sheet assets less approved deduction. The Ratio is provided by equity plus reserves over total assets. It is shown in the Table 3 that the CAGR of foreign banks is 4.04% as compared to public sector banks and private sector banks where it is 0.21 and 3.88 respectively. The Capital to Risk weighted Assets Ratio (CRAR) profile of SCBs remains comfortable and much above the minimum regulatory requirements of 9%. The decline in the capitalization level of the nationalized banks, is attributable largely to strong credit growth.

Total operating expenses includes staff costs, general and administrative Expenses. A lower Operating Expense (OE) shows better control and highlights higher earnings. Operating Expense (OE) differentiates between low efficiency and high efficiency bank. Table 4 shows, Bank Group wise operating expenses. In case of private sectors banks the operating expenses increased significantly over the period of eight years i.e. from 2006-2013 and overall there was an increase by 50.29%.

It is observed from Table 5 that the rate of distribution of employees in new private sector banks is high as compared to any other bank group. The trend of number of employees during the study period is highly volatile. In case of Nationalized banks it is observed that there was a

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	1080072	1360724	1679993	21057056	25839338	31265862	35969893	41272523	57.68
SBI and Associates	542409	633476	773875	10070415	11080856	12458624	14050241	16184449	52.88
Public Sector Banks	1622481	1994200	2453868	31127471	36920194	43724487	50020134	57456972	<b>56.19</b>
Old Private Sector Banks	130456	138249	165589	1992735	2298969	2641571	3158914	3738964	52.11
New Private Sector Banks	298000	413738	509444	5371041	5929038	7386018	8586960	10219391	55.56
Private Sector Banks	428456	551987	675033	7363776	8228007	10027588	11745874	13958355	<b>54.57</b>
Foreign banks	113745	150750	191161	2140764	2320995	2406668	2769477	2879997	<b>49.77</b>
Scheduled Commercial Banks	2164682	2696937	3320062	40632011	47469196	56158743	64535485	74295324	<b>55.58</b>

Table 1: Trends in Deposits Relating to Bank Group Wise During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	35858	37431	39234	41041	43690	46462	50713	54478	5.37
SBI and Associates	14130	14673	15846	16938	18390	19338	20256	21301	5.26
Public Sector Banks	50168	52104	55080	57979	62080	65800	70969	75779	<b>5.29</b>
Old Private Sector Banks	4819	4826	4690	4952	5273	5090	5673	6283	3.37
New Private Sector Banks	2016	2598	3632	4336	5243	7007	8297	9718	21.73
Private Sector Banks	6835	7424	8322	9288	10516	12097	13970	16001	<b>11.22</b>
Foreign banks	259	272	279	295	310	318	323	334	<b>3.23</b>
Scheduled Commercial Banks	57262	59800	63681	67562	72906	78215	85262	92114	<b>6.12</b>

Table 2: Trends in Bank Group Wise Number of Offices During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	12.27	12.37	12.13	13.24	13.18	13.47	13.03	12.26	-0.01
SBI and Associates	11.95	12.30	13.21	13.96	13.46	12.25	13.70	12.67	0.73
Public Sector Banks	12.17	12.36	12.51	13.49	13.27	13.08	13.23	12.38	<b>0.21</b>
Old Private Sector Banks	11.69	12.08	14.08	14.74	14.85	14.55	14.12	13.73	2.03
New Private Sector Banks	12.60	11.99	14.39	15.33	18.03	16.87	16.66	17.52	4.21
Private Sector Banks	12.42	12.10	14.34	15.23	17.43	16.46	16.21	16.84	<b>3.88</b>
Foreign banks	13.02	12.39	13.08	14.19	17.26	16.97	16.75	17.88	<b>4.04</b>
Scheduled Commercial Banks	12.32	12.28	13.01	13.97	14.54	14.19	14.24	13.88	<b>1.50</b>

Table 3: Trends in Bank Group Wise CRAR During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	25548	27268	29670	354160	407922	538193	574753	647182	49.78
SBI and Associates	15760	15987	16993	200877	252828	291459	327299	370940	48.41
Public Sector Banks	41308	43255	46663	555037	660749	829652	902052	1018122	<b>49.27</b>
Old Private Sector Banks	3089	2967	3235	39392	47153	56000	65404	77459	49.59
New Private Sector Banks	8949	12353	17032	178401	181357	220064	274898	327392	56.82
Private Sector Banks	12038	15320	20267	217794	228510	276064	340301	404851	<b>55.18</b>
Foreign banks	5854	7745	10353	122984	111019	125686	133367	142882	<b>49.09</b>
Scheduled Commercial Banks	59201	66319	77283	895814	1000279	1231403	1375720	1565855	<b>50.59</b>

Table 4: Trends in Bank Group Wise Operating Expenses During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	473725	473179	466400	462926	473041	471727	494520	507694	0.87
SBI and Associates	270608	255699	242029	268598	266605	283375	279809	293965	1.04
Public Sector Banks	744333	728878	708429	731524	739646	755102	774329	801659	<b>0.93</b>
Old Private Sector Banks	51138	48667	48700	51341	55052	55380	62589	66208	3.28
New Private Sector Banks	59367	88617	110123	142237	133280	162573	185695	203733	16.66
Private Sector Banks	110505	137284	158823	193578	188332	217953	248284	269941	<b>11.81</b>
Foreign banks	22117	28426	33969	29582	28012	28041	25907	25384	<b>1.74</b>
Scheduled Commercial Banks	876955	894588	901221	954684	955990	1001096	1048520	1096984	<b>2.84</b>

Table 5: Trends in Bank Group Wise Number of Employees 2006 to 2013.

decrease in number of employees in the year 2007 when it is compared to 2006 then again there was increase in number of employees in 2008 as compared to 2007 then again there was a slight decrease in 2009 as compare to 2008. From the year 2010 to 2013 there was continuous increasing trend. In case of SBI and Associates there was a continuous decrease in the year 2007 and 2008 as compared to the base year then there was a marginal increase in the year 2009 but again in 2010 it decreased. In the year 2011 the number of employees increased but again in the year 2012 the analysis showed a decreasing trend and it again picked up in the year 2013. Public sector banks also showed the same trend as SBI and Associates till 2009. In case of old private sector banks only in the initial year of the study that is from 2006 to 2007 the number of employees decreased otherwise till 2012 it showed increasing trend then later on in the year 2013 there was a decrease in

number of employees. In case of New Private Sector banks there was a drastic increasing trend and as result the private sector banks CAGR was at 11.81. In case of Foreign Banks from the year 2006 to 2008 there was increase in the number of employees but it has decreased in 2009 and 2010, later on 2011 to 2013 it was continuously increasing, and the scheduled commercial banks continuously increased during the study period.

Table 6 Reflects that the new private sectors are maintaining high net worth CAGR as compared to other banks which has been followed by the Foreign banks CAGR. The public sector banks showed the lowest CAGR i.e. 56.24. The analyses shows that during the period of eight years study the bank group wise has resulted in a continuous increase in net worth.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	77384	92689	113079	1359202	1572758	2059079	2483255	2832832	56.84
SBI and Associates	37660	42941	61706	724216	837256	843942	1072494	1253189	54.98
Public Sector Banks	115044	135630	174785	2083419	2410014	2903020	3555749	4086022	<b>56.24</b>
Old Private Sector Banks	9684	10736	15315	174765	201706	237982	278963	330127	55.45
New Private Sector Banks	34140	39736	76056	996686	1199839	1385664	1592952	1929461	65.59
Private Sector Banks	43823	50473	91371	996686	1199839	1385664	1592952	1929461	<b>60.5</b>
Foreign banks	24314	33075	49332	599368	691760	810507	936917	1073817	<b>60.56</b>
Scheduled Commercial Banks	183181	219179	315488	3679473	4301613	5099192	6085618	7089300	<b>57.93</b>

Table 6: Trends in Bank Group Wise Net worth During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	0.89	0.94	1.01	1.03	1.00	1.03	0.88	0.74	-2.28
SBI and Associates	0.87	0.86	0.97	1.02	0.91	0.79	0.89	0.88	0.14
Public Sector Banks	0.88	0.92	1.00	1.03	0.97	0.96	0.88	0.78	<b>-1.50</b>
Old Private Sector Banks	0.64	0.78	1.14	1.15	0.95	1.12	1.20	1.26	8.84
New Private Sector Banks	1.22	1.09	1.13	1.12	1.38	1.51	1.63	1.74	4.54
Private Sector Banks	1.07	1.02	1.13	1.13	1.28	1.43	1.53	1.63	<b>5.40</b>
Foreign banks	2.08	2.28	2.09	1.99	1.26	1.75	1.76	1.94	<b>-0.87</b>
Scheduled Commercial Banks	1.01	1.05	1.12	1.13	1.05	1.10	1.08	1.03	<b>0.25</b>

Table 7: Trends in Bank Group Wise Return on Asset (ROA) During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	408796	452981	536018	6550419	8281248	9503797	10899479	12861079	53.89
SBI and Associates	224761	211875	263823	3576239	3874734	3856967	4173221	4729979	46.35
Public Sector Banks	633557	664856	799841	10126658	12155981	13360764	15072700	17591058	<b>51.51</b>
Old Private Sector Banks	45254	43647	54080	723926	834993	926545	1093333	1344993	52.80
New Private Sector Banks	135314	171008	224498	2341385	2706176	3294031	4166489	4916070	56.69
Private Sector Banks	180568	214655	278578	3065312	3541169	4220576	5259822	6261063	<b>55.78</b>
Foreign banks	52384	71471	98910	1303537	1592909	1654993	2006511	2280631	<b>60.27</b>
Scheduled Commercial Banks	866508	950982	1177330	14495506	17290059	19236333	22339033	26132752	<b>53.08</b>

Table 8: Trends in Bank Group Wise Investments During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	734608	957877	1203678	15197619	18430819	23102793	27253162	30935500	59.61
SBI and Associates	371679	482270	593722	7394499	8579368	9941536	11519913	13792240	57.10
Public Sector Banks	1106288	1440146	1797401	22592117	27010187	33044329	38773075	44727740	<b>58.80</b>
Old Private Sector Banks	82957	92887	111670	1285039	1540853	1846473	2300795	2699373	54.54
New Private Sector Banks	230005	321865	406733	4468237	4783556	6128967	7363235	8733113	57.55
Private Sector Banks	312962	414751	518402	5753276	6324409	7975440	9664030	11432486	<b>56.79</b>
Foreign banks	97562	126339	161133	1653846	1632604	1955106	2298488	2636799	<b>51.00</b>
Scheduled Commercial Banks	1516811	1981236	2476936	29999239	34967200	42974875	50735592	58797025	<b>57.96</b>

Table 9: Trends in Bank Group Wise Advances During 2006 to 2013.

Table 7 is displaying the data related to return on assets (ROA) of public, private, and foreign banks during the period of 2006-2013. The ROA is a functional indicator of bank's profitability. ROA reflects bank's management ability to utilize the bank's financial and real investment resources to generate profits. This ratio is used to know the earning capacity of profit of a bank by using its assets and can be calculated as the after tax net profit percentage to total assets. Here, private banks have high ROA than public and foreign banks, which means they are using their assets efficiently. It refits the efficiency with which banks deploy their assets.

Table 8 is showing the data related to investment of Scheduled Commercial banks during the period of 2006-2013. This is one of the important segments of total assets which are used for different areas. Here, foreign banks have the high investment than private banks and

public banks which mean foreign banks make more investment than private banks and public banks from their assets in other areas.

Table 9 is depicting the data regarding advances of bank group wise during the period of 2006-2013. Here, Nationalised banks have high Advances which mean that Nationalised banks grant more advances than private and foreign banks. The above analysis reveals that all most all the bank group wise increased their advances every year from 2006 to 2013 except the foreign bank has decreased its advances in the year 2010 as compared to 2009.

Comparison of bank group wise performance in terms of NPA reflects the profitability of loan portfolios of banks since less NPA contributes to higher interest income. Table 10 is demonstrating the data related to NPA to advances during the period of 2006-2013. This

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	1.16	0.94	0.77	0.68	0.91	0.92	1.44	2.00	7.05
SBI and Associates	1.63	1.32	1.43	1.47	1.50	1.49	1.76	2.04	2.84
Public Sector Banks	1.32	1.06	0.99	0.94	1.10	1.09	1.53	2.02	<b>5.46</b>
Old Private Sector Banks	1.66	0.96	0.66	0.90	0.82	0.53	0.58	0.77	-9.16
New Private Sector Banks	0.78	0.97	1.21	1.40	1.09	0.56	0.42	0.45	-6.64
Private Sector Banks	1.01	0.97	1.09	1.29	1.04	0.56	0.46	0.52	<b>-7.96</b>
Foreign banks	0.83	0.73	0.77	1.81	1.82	0.67	0.61	1.01	<b>2.48</b>
Scheduled Commercial Banks	1.22	1.02	1.00	1.05	1.12	0.97	1.28	1.68	<b>4.08</b>

**Table 10:** Trends in Bank Group Wise Non Performing Assets (NPA) During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	88574	110720	142647	1838924	2080289	2563064	3411767	3911088	60.56
SBI and Associates	49301	53465	70428	891958	979537	1098281	1435552	1637677	54.94
Public Sector Banks	137874	164185	213075	2730882	3059826	3661345	4847318	5548765	<b>58.7</b>
Old Private Sector Banks	10372	11474	14614	187898	204975	232989	325802	399275	57.83
New Private Sector Banks	24851	38092	56377	662816	623090	734142	1019752	1265589	63.44
Private Sector Banks	35223	49567	70991	850714	828064	967131	1345555	1664864	<b>61.93</b>
Foreign banks	12291	17924	24417	303220	263897	284931	359966	422486	<b>55.61</b>
Scheduled Commercial Banks	185388	231675	308482	3884816	4151786	4913407	6552839	7636115	<b>59.17</b>

**Table 11:** Trends in Bank Group Wise Interest Income During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	12379	14264	20979	263936	304996	287249	325766	370370	52.93
SBI and Associates	9526	9420	11818	160727	183937	192400	178231	197442	46.07
Public Sector Banks	21905	23684	32797	424662	488932	479649	503997	567812	<b>50.21</b>
Old Private Sector Banks	1221	1568	2184	27821	31518	30286	33948	41452	55.37
New Private Sector Banks	6870	10745	14822	150781	172713	178447	216532	256475	57.22
Private Sector Banks	8091	12313	17006	178602	204231	208734	250480	297927	<b>56.95</b>
Foreign banks	5371	7044	10588	148940	99513	110118	108959	112127	<b>46.2</b>
Scheduled Commercial Banks	35368	43041	60391	752204	792676	798501	863437	977866	<b>51.433</b>

**Table 12:** Trends in Bank Group Wise Other Income During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	52464	69353	101093	1316762	1457115	1641351	2397280	2813956	64.51
SBI and Associates	28040	32607	47809	617704	662285	670179	888609	1065334	57.57
Public Sector Banks	80504	101960	148902	1934467	2119401	2311530	3285889	3879290	<b>62.32</b>
Old Private Sector Banks	6247	7055	9960	128340	140760	147681	225057	278598	60.75
New Private Sector Banks	15261	25802	38535	441234	371296	423810	642787	792733	63.85
Private Sector Banks	21507	32856	48495	569574	512056	571491	867843	1071332	<b>62.99</b>
Foreign banks	5149	7603	10604	128191	89379	106227	149824	187406	<b>56.72</b>
Scheduled Commercial Banks	107161	142420	208001	2632232	2720836	2989248	4303557	5138027	<b>62.22</b>

**Table 13:** Trends in Bank Group Wise Interest Expended During 2006 to 2013.

ratio is used to know the asset quality, which is based on loan portfolio. Here, public sector banks have high ratio than other banks which means the asset quality of public banks is poor among other scheduled commercial banks. The nationalized banks are more exposed to high potential losses in case of defaults.

The above given Table 11 shows the new private sector banks CAGR is high as compared to other bank group. In the above analysis it is noticed in all bank group wise the interest income during the period of study is gradually increasing, except in the year 2010 the private sector a foreign banks has shown a declining figure. In case of private sector banks the declining figure is due to decrease in case of new private sector.

Table 12 Shows that in case of other income earned by the banks

the new private sector bank has the highest CAGR during the period of study. If we observe, the nationalised banks during the period of study increased continuously except in the year 2011, in case of SBI & Associates there was decrease in the other income in the year 2007 and 2012. In case of old private sector banks there was continuous increase during the study period, except in the year 2011. In case of foreign banks the decreasing trend was in the year 2010 and 2012.

The above given Table 13 reflects that the interest expended in nationalized banks has more CAGR as compared to other bank group wise. From the above analysis it is clear that in all bank group wise during the period of study the interest expenditure has increased, except in the year 2010, where the foreign banks interest expenditure has declined as compared to 2009 and the same in case of private sector banks.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	21.42	17.94	14.05	13.31	13.65	16.41	12.20	11.81	-7.17
SBI and Associates	24.35	21.55	15.89	15.06	17.10	19.97	17.42	16.20	-4.97
Public Sector Banks	22.48	19.15	14.66	13.88	14.79	17.50	13.72	13.09	-6.54
Old Private Sector Banks	18.93	16.89	13.67	13.26	14.57	16.75	13.00	12.28	-5.27
New Private Sector Banks	9.54	9.36	9.56	10.17	12.10	13.83	11.97	11.40	2.25
Private Sector Banks	12.15	10.93	10.35	10.83	12.73	14.53	12.22	11.61	-0.57
Foreign banks	18.22	20.08	19.95	19.44	23.48	23.30	20.35	18.22	0
Scheduled Commercial Banks	20.11	17.32	14.01	13.60	14.85	17.22	13.73	13.02	-5.29

Table 14: Trends in Bank Group Wise Wages as % of total expenses During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13	CAGR (%)
Nationalised Banks	4.27	4.80	5.82	6.09	5.37	4.93	6.22	6.39	5.17
SBI and Associates	4.84	4.75	5.90	6.00	5.32	4.85	5.66	5.96	2.64
Public Sector Banks	4.46	4.79	5.85	6.06	5.35	4.91	6.06	6.27	4.35
Old Private Sector Banks	4.77	4.98	6.20	6.67	6.13	5.66	7.10	7.27	5.41
New Private Sector Banks	4.14	5.24	6.11	6.15	4.42	4.27	5.45	5.77	4.24
Private Sector Banks	4.35	5.18	6.13	6.27	4.83	4.60	5.84	6.12	4.36
Foreign banks	3.63	4.03	4.33	4.46	2.83	3.11	3.88	4.05	1.38
Scheduled Commercial Banks	4.39	4.82	5.80	5.99	5.10	4.75	5.90	6.12	4.24

Table 15: Trends in Bank Group Wise cost of funds During 2006 to 2013.

Bank Group Wise	2005-06	2006-07	2007-08	2007-09	2009-10	2010-11	2011-12	2012-13
Nationalised Banks	383.07	490.01	618.28	783.16	935.86	1152.54	1278.50	1422.3
SBI and Associates	337.79	436.35	565.06	650.22	737.43	790.48	913.80	1019.7
Public Sector Banks	366.61	471.18	600.10	734.35	864.34	1016.67	1146.80	1274.7
Old Private Sector Banks	417.33	474.93	569.32	638.43	697.49	810.41	872.30	972.4
New Private Sector Banks	889.39	830.09	831.96	691.80	803.80	831.30	858.90	930.3
Private Sector Banks	670.94	704.19	751.42	677.60	772.70	826.00	862.30	940.6
Foreign banks	955.41	974.77	1037.10	1282.74	1411.39	1555.50	1956.20	2173.3
Scheduled Commercial Banks	419.80	522.94	643.24	739.80	862.30	990.30	1099.50	1213.3

Table 16: Trends in Bank Group Wise Business per employees During 2006 to 2013.

It has been observed from the above Table 14 that almost all the banks had shown a declining trend in case of wages as percentage to total expenses, except the New Private Sector banks. There are many fluctuations in the above trend, in case of Nationalised banks, SBI and Associate and old private sector banks there was a continuous declining trend from the year 2007 to 2009 then in the year 2010 and 2011 there was an increasing trend, but again in the year 2012 and 2013 there was a decreasing trend. If we look at new private sector banks the scenario is different, there is a continuous increase from the year 2006 to 2011, except in the year 2007 later on in the year 2012 and 2013 there was a fall in the trend. In case of Foreign banks, the wages as percentage to total expenses has increased in the year 2007 when it compared to 2006 but in the year 2008 an 2009 it has decreased, and again in the year 2010 it has increased but in the year 2011 it has reduced and again there was a raise in the year 2012 and fall in the year 2013.

The above Table 15 gives the details of cost of funds for a period of eight years i.e. from 2005-06 to 2013-14 where, the foreign banks are showing the low cost of funds with a CAGR of 1.38% . There are many ups and downs in the trends of cost of funds during the study period. In case of Nationalised banks and old private sector banks there was a continuous increase in the cost of funds from 2006 to 2009 later on in the year 2010 and 2011 there was a fall in the cost of funds again increased in the year 2012 and 2013. In case of SBI and Associates the cost of funds reduced in the year 2007 as compared to 2006 and increased in the year 2008 and 2009 as compared to 2007 and again

reduced in the year 2010 and 2011 and there on increased in the year 2012 and in the year 2013. In case of new private sector banks the cost of funds increased from 2006 to 2009 and in the year 2010 and 2011 it has been decreased and again increased in the year 2012 and 2013. In case of foreign banks there was a continuous increase in the cost of funds from 2006 to 2009, in the year 2010 it reduced as compared to previous years but again from the year 2011 to 2013 there was a continuous increase in the cost of funds.

If we look at 8 years historical performance of different types of players in the banking industry, foreign banks has grown its business per employee by the highest rate CAGR i.e. 10.82%. There was a continuous increase in the trend of business per employee during the period of study in case of public sector banks and Foreign banks, but when it comes to private sector banks there was a fall in the year 2009 and this is as a result of fall in new private sector bank (Table 16).

It is revealed from the above facts that the foreign banks are at number position in case of profit per employee as compared to other two players in the banking industry i.e. public and private sector banks. The profit per employee is not in a similar trend in case of all bank group wise during the study period, in case of Nationalised banks there was a continuous increase in the profit per employee from the year 2006 to 2011, but in the year 2012 and 2013 it has been reduced. In case of SBI and Associates there was a continuous increasing trend in profit per employee till the year 2010, in the year 2011 it has been reduced but again in the year 2012 and 2013 it has shown an increasing trend.

Old private sector banks showed increasing trend till the year 2009 and in the year 2010 it has decreased but again from the year 2011 to 2013 it resulted in increasing trend. In case of New private sector banks the profit per employee decreased in the year 2007 as compared to 2006 and increased in the year 2008 and again decreased in the year 2009, from the year 2010 to 2013 there was a continuous increasing trend. In case of foreign banks there was a continuous increase, except in the year 2010.

It has been observed and derived from the analysis over sample period, that the Changes over the past eight years i.e., from 2005-2006 to 2013-2014 in the banking system have been drastic. The above ranking is done based on the CAGR of each parameter. The results show that public, private and foreign banks has different rankings based on different parameters such as No. of offices, No. of employees, Business per employee, Profit per employee, Net Worth, Deposits, Investments, Advances, Interest income, Other income, Interest expended, Operating expenses, Cost of Funds (CoF), Wages as % to total expenses, Return on Assets, CRAR and NPA ratio. Private sector banks are at first on the base of return on total assets (ROA), Number of offices, Number of Employees, Non Performing Assets (NPA), Interest Income and other income. Based on CRAR, cost of funds, operating expenses, Investments, Net worth, Interest expended, Business per employee, profit per employee and Wages as % of total expenses, Business per employee Foreign Banks are at the first as compared to public bank and private banks Findings.

On the basis of results and analysis, the following are the findings

1. It has been found that the new private sector banks have shown the highest annual expansion in terms of number of branches vis-à-vis old private sector banks.
2. The capitalization profile of private banks continues to be better than that of Public Sector Banks, with the private banks CRAR at around 3.88% and that of PSBs at around 0.21%. However, continuous government support (via capital infusion) to enable PSBs maintain a minimum Tier I capital of 7% is likely to result in these banks being able to maintain a comfortable capitalization profile over short to medium term.
3. Bank group-wise, public sector banks accounted for the largest CAGR (56.19 per cent) in total deposits followed by private sector banks (54.57 per cent). Foreign banks showed the lowest CAGR (49.77 Percent)
4. Private sector banks have very good Return on Assets (ROA) as compared to other bank group during the study period of eight years i.e. from 2005-06 to 2013-14.
5. As far as interest income is concerned, private banks are ahead in the race by reporting 61.93% growth, followed by public banks (58.7%) and then by foreign banks (55.61%).
6. Foreign banks have the highest business per employee as well as profit per employee.
7. The NPA of public sector bank was also significantly higher than that of private and foreign banks, which indicates the asset quality of public banks is comparatively poor.

## Recommendations

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 public sector banks should take care regarding this parameter in general, and in particular it is in the case of nationalized banks where there is a need for improvement.
2. In case of cost of funds there is a need for both public sector banks and private sector banks to work upon this parameter because it shows on the higher side when it is compared to the foreign banks.
3. Having high ratio 11<sup>th</sup> 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 public sector banks as compared to private sector banks and foreign banks, and this high NPA's in public sector banks is due to high NPAs in nationalized bank, so there is a need for nationalized banks to focus on this parameter in particular and public sector banks in general, as the simple reason is that the asset quality effects the performance of the banks
4. In case of business per employee the private sector banks are at the back end when it is compared with the other bank groups in the study, this point out that there is a need for private sector banks to look into this matter.
5. When we take profit per employee into consideration, the foreign banks are at front position so it is an indication to both the bank groups i.e. public sector and private sector to try to with stand with the foreign banks in the global scenario.

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