



# An Empirical Study of Branch Productivity: A Case Study of Scheduled Commercial Banks

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## Abstract:

The purpose of this research is to assess and compare the performance of the Indian banking sector in order to determine which banks fared better than others. Secondary data was used for this. The ratio analysis approach is used to compare the performance of banks. The study's findings demonstrate that foreign-owned banks are largely efficient. The government sector is not as lucrative as other banks. Our public sector banks continue to lag behind other banks in terms of various financial parameters, and they face numerous internal and external challenges that impede their performance. As a result, the government should take steps to improve the performance of public sector banks so that they can compete in an open environment.

**Key Words:** Productivity, banking sector, finance, profitability, banking, performance.

## I. Introduction:

The banking sector is one of the biggest service sectors in India and these days attract the biggest market of Asia in investment. Banks occupy an important place in the economic development of a nation. Financial system is the most significant institutional and functional vehicle for economic alteration of any country. Banking sector is the pillar of every country, it is reckoned as a hub and barometer of the financial system. Indian Banking system has played an important role in the socio-economic progress of the country. The system is expected to continue to be sensitive to the growing and development requirements of all the segments of the society. As a pillar of the economy, this sector plays a main role in the economic development of the country. Banking as a part of the financial sector, is a blood for the whole industry and it is necessary to survive. It plays a decisive role in accelerating the rate of economic growth in each economy. Banking institutions are critical financial

intermediaries for economic growth. Bank is a financial institution that acts as a payment agent for customers, borrows, and lends money.

Since the process of liberalization and reform of the financial sector was set in motion in 1991, banking has undergone significant changes. In the new policy regime competition is the buzzword. To compete, the system needs to be more productive, efficient and profitable. During the new reforms period, the banking system in India readjusted its capital, labor and organizational setup to improve its performance, productivity and profitability. Productivity is fundamental to progress throughout the world. It is at the heart of economic growth and development, improvements in standards of living and quality of life. Productivity is a vital indicator of economic performance of an economic system. The concept of productivity can be best described in terms of a factor with well-ordered components and that components are labour, capital management, technology management and process management. For most of the banks, the concept of maximizing productivity is maximizing each of the components separately and simultaneously. The concept of productivity analysis in banking sector may give misleading results, if not used carefully. Productivity is defined as number of transactions and the number of loans and deposit accounts per hour and per employee. The productivity means the ratio of output to input for a specific production system. Rising productivity implies either more output is produced for the same amount of input or that less input is required to produce the same amount of output. Productivity is affected by man power, mechanization system and the procedures, cost of operations, customer services and various external aspects. The level of productivity can be improved by the up-gradation of the level of performance and sound planning through implementation. Productivity of a bank can



be improved by reducing the cost of disintermediation and by raising the spread that is deploying capital in the most effective way (Priyanka, 2016). Ratio analysis method is used for compare of productivity. In branch banking system, like the one we have in this country, the success of a bank largely depends on the effective performance of branches (kamal, 1993). Branch is the operating unit of bank. The total number of branches has been calculated individual sector wise i.e. nationalized bank, SBI & its associates, private banks and foreign bank and also all banks. The values for the total banking sector are estimated by summing up the value of different banking groups.

#### OBJECTIVES OF THE STUDY:

- To analyze the comparative branch performance of Nationalized, SBI & its Associates, Private Banks and Foreign Banks.
- To suggest the policy prescription for better working of the system.

#### II. RESEARCH METHODOLOGY:

This study is related to the Indian Banking system. For this all Schedule Commercial Banks have been selected for this study. Secondary data was used and the required secondary data had been obtained from financial statements of various banks, the reports of RBI, banking journals, Indian Banks Association publications, Centre for Monitoring Indian Economy database and other web portals. For analysis of the above data, tabular analysis has been supported. To compare the performance of selected sector banks, ratios analysis method was used

- a) Deposit per branch
- b) Advances per branch
- c) Investment per branch
- d) Total Business per branch

#### Banking Group-wise Deposit per Branch in India

The deposit per branch of a bank is one of the parameters of measuring the productivity performance of a bank. This ratio has been computed from by dividing the amount of total deposits by the number of branches in the bank. A high ratio indicates better productivity and low ratio indicates lower productivity.

Deposit per branch is calculated as total deposits/total number of branches. The reason to apply this ratio is that as we know that bank is an intermediary between who have extra money and those who are in need of money. So, higher the deposit per branch, higher will be the productivity. It measures the efficiency of the banks. The simple banking business is that bank is intermediary between those who have extra fund to those who are in need of it. The borrower is charged higher rate of interest than the lender and the traditional banking business moves on. If rising deposit is difficult, then it may serious implications. Even after the IT revolution and introduction of ATMs and call centres and net banking and phone banking, there has an increase in the number of branches. Physical retail branches are costly affair, but on the other hand if increased branches lead to increase in deposits, it enhanced efficiency. Hence deposit per branch ratio has been estimated.

Table 1.1 shows the banking group-wise deposit per branch ratio for banks in India. Analysis of deposits per branch ratio for the aggregate Indian Industry comes to be 50.38. Against the aggregate Indian industry (50.30), the banking depicts a differential behaviour pattern. It is highest in the foreign banks (629.27), followed by private banks (62.27), SBI & Associates (49.38) and nationalized banks (44.65), in order. It is observed that the deposits per branch have increased by nearly six times within a period of 1998-99 to 2015-16. Further, low coefficient of variation shown by private banks indicates consistency in its performance. Nationalized banks and foreign banks have shown high coefficient of variation indicating large variation in their performance. It is observed from the table that overall banking in terms of growth rate of deposit per branch has been 11.86 percent per annum. It has been highest in nationalized banks (13.01 percent per annum), followed by foreign banks (11.84 percent per annum), SBI & Associates (10.42 percent per annum) and private banks (10.04 percent per annum). *Overall analysis shows that deposits per branch have grown at the highest rate in foreign banks and lowest in the nationalized banks.*



**Table 1.1: Banking Group-wise Deposit per Branch in India (Rs. Crore)**

Deposit per Branch										
Year	Nationalized Bank		SBI & Associates Banks		Private Banks		Foreign Banks		All Banks	
	Ratio	GR	Ratio	GR	Ratio	GR	Ratio	GR	Ratio	GR
1998-1999	12.40		16.28		16.80		245.87		14.68	
1999-2000	14.19	14.45	18.86	15.85	20.91	24.44	208.12	-15.35	16.93	15.32
2000-2001	16.18	14.07	22.82	21.00	25.37	21.35	238.67	14.68	19.86	17.30
2001-2002	18.26	12.82	25.60	12.20	30.26	19.26	256.00	7.26	22.53	13.41
2002-2003	20.14	10.30	28.46	11.16	37.03	22.38	326.94	27.71	25.24	12.03
2003-2004	23.04	14.40	31.41	10.36	45.18	22.01	356.06	8.91	28.95	14.72
2004-2005	26.54	15.19	36.39	15.85	49.78	10.17	364.86	2.47	33.14	14.48
2005-2006	30.11	13.47	37.90	4.14	62.66	25.90	439.17	20.37	37.79	14.04
2006-2007	36.35	20.70	43.12	13.78	74.20	18.41	554.23	26.20	45.07	19.25
2007-2008	42.76	17.65	48.76	13.09	80.72	8.79	685.00	23.59	52.04	15.46
2008-2009	51.32	20.02	59.45	21.91	79.26	-1.81	725.68	5.94	60.15	15.58
2009-2010	59.16	15.27	60.25	1.35	78.22	-1.31	748.71	3.17	65.12	8.26
2010-2011	67.31	13.76	64.42	6.92	82.86	5.93	756.88	1.09	71.80	10.26
2011-2012	70.91	5.35	69.35	7.66	84.04	1.43	857.42	13.28	75.67	5.39
2012-2013	75.69	6.75	75.93	9.49	87.20	3.75	862.28	0.57	80.59	6.51
2013-2014	79.87	5.52	77.63	2.24	85.34	-2.13	1094.59	26.94	83.55	3.67
2014-2015	80.48	0.77	83.31	7.31	89.20	4.53	1231.54	12.51	86.21	3.19
2015-2016	79.08	-1.74	88.95	6.77	91.86	2.98	1381.93	12.21	87.59	1.59
MEAN	44.65		49.38		62.27		629.66		50.38	
SD	25.77		23.59		26.49		358.84		26.31	
CV	57.70		47.78		42.54		56.99		52.23	
CAGR	13.01		10.42		10.04		11.84		11.86	

Source: Computed Statistical Table Relating to Banks in India, RBI

### Banking Group wise Advances per Branch in India

The loan made by bank to the third party, with the agreement of repayment along with interest is called an advance. It is a credit generated for a pre- specified duration. The advance may be collateral and non-collateral. Credit is a continuous process. Banks makes money through loans by charging a higher rate of interest as compared to deposits. Nowadays, banks are using new marketing strategies to increase the advances as higher

advances will lead to higher profit to banks. The interest earned on advances is the primary source of income to banking sector. This ratio has been computed from by dividing the amount of total advances by the number of branches in the bank. A higher ratio indicates better productivity and low ratio indicates lower productivity.

The table 1.2 shows the advances per branch in banking in India. The average benchmark ratio for the aggregate Indian Industry comes to be 36.61. In comparison of different banking sector, the



average is highest in Foreign bank (509.20), followed by private banks (48.02), SBI & Associates (36.58) and Nationalized Banks (31.08). Further, the table shows that the average level of advances per branch of foreign banks is almost thirteen times more than Indian benchmark industry as well as SBI & Associates and sixteen times as compared to nationalized banking. In case of private banks, it is ten times more. On comparison of public banks, private banks and foreign banks, it is examined that the average advances per branch has been the highest in foreign bank and lowest in nationalized banks.

In the year 1998-99, the ratio of advances per branch in all banks is Rs. 7.04 cr. and in year 2015-16 it increases almost nine times. In Indian benchmark industry growth rate was decreasing

after 2007, it was due to global depression in the economy. As it is obvious from the table that the compound annual growth rate of the ratio of deposit per branch in the Indian banking industry has grown at the rate of 15.64 percent per annum. The coefficient of variation is the lowest for private banks indicate consistency in their performance where it is high for nationalized banks indicating huge variation in their performance. *The compound Annual Growth rate is the highest in nationalized banks (16.72 percent per annum), followed by SBI (15.05 percent per annum) and private banks and foreign banks have almost the same growth. Conclusion can be drawn that foreign banks have performed excellently and nationalized banks performed poorly in terms of advances per branch.*

Table 1.2: Banking Group wise Advances per Branch in India (Rs. Crore)

Advances per Branch										
Year	Nationalized Banks		SBI & its Associates Banks		Private Banks		Foreign Banks		All Banks	
	Ratio	GR	Ratio	GR	Ratio	GR	Ratio	GR	Ratio	GR
1998-1999	5.61		8.05		8.30		152.88		7.04	
1999-2000	6.58	17.31	9.50	17.96	10.25	23.59	150.28	-1.70	8.34	18.48
2000-2001	7.81	18.76	11.00	15.80	12.63	23.23	173.38	15.37	9.89	18.63
2001-2002	9.34	19.57	12.00	9.16	20.79	64.57	192.98	11.31	12.09	22.23
2002-2003	10.54	12.77	13.77	14.73	24.64	18.53	246.09	27.52	13.76	13.79
2003-2004	11.96	13.53	16.00	16.19	28.75	16.67	270.12	9.77	15.88	15.41
2004-2005	16.24	35.72	20.49	28.07	35.01	21.77	307.42	13.81	20.72	30.47
2005-2006	20.48	26.16	25.96	26.67	45.78	30.77	376.66	22.52	26.48	27.79
2006-2007	25.59	24.92	32.83	26.47	55.75	21.78	464.48	23.32	33.11	25.04
2007-2008	30.64	19.75	37.41	13.96	61.99	11.18	577.54	24.34	38.83	17.26
2008-2009	37.06	20.96	43.66	16.70	61.92	-0.10	560.73	-2.91	44.42	14.42
2009-2010	42.20	13.86	46.65	6.84	60.12	-2.91	582.14	3.82	48.20	8.51
2010-2011	49.75	17.89	51.40	10.19	65.90	9.61	614.90	5.63	54.96	14.00
2011-2012	53.72	7.98	56.86	10.62	69.15	4.93	711.61	15.73	59.49	8.25
2012-2013	56.73	5.60	64.71	13.80	71.42	3.28	789.46	10.94	63.78	7.22
2013-2014	59.33	4.58	66.43	2.66	72.00	0.82	904.17	14.53	65.94	3.39
2014-2015	59.37	0.06	68.37	2.92	77.04	7.00	995.74	10.13	67.52	2.39
2015-2016	56.45	-4.92	73.41	7.38	82.95	7.67	1095.03	9.97	68.53	1.49
MEAN	31.08		36.58		48.02		509.20		36.61	
SD	20.77		22.97		25.01		300.44		22.93	
CV	66.83		62.78		52.08		59.00		62.64	
CAGR	16.72		15.05		13.70		13.03		15.64	

Source: Computed Statistical Table Relating to Banks in India, RBI



### Banking Group-wise Investment per Branch in India

The table 1.3 presents ratio of Investment per branch in banking in India. As compared to 1998-99, the ratio at aggregate level has touched the level of Rs. 27.54 crore in 2015-16 which is almost four times more than the 1999. The growth of all banking industry is almost positive in all years except two years.

Coefficient of variation is quite high in case of foreign banks indicating high variation where as low coefficient of variation is shown by nationalized banks and SBI & its associate's banks. Further this table also depicts that the average benchmark of Indian banking industry is 18.55. The

highest average value is shown by foreign bank (395.87) which is almost twenty one times more than all banking industry as well as SBI & associated. The average value of nationalized banks and private banks is 14.78 and 26.41, respectively. *In terms of compound annual growth rate, the highest growth rate is depicted by foreign banks, i.e., 13.64 percent per annum, followed by nationalized banks (9.39 percent per annum), then private banks (8.53), SBI & associates (5.81). Conclusion can be drawn that top performance is by foreign banks. The average performance by private banks and SBI & its associate banks and nationalized banks have been found poor in terms of investment per branch.*

Table 1.3: Banking Group wise Investment per Branch in India (Rs. Crore)

Investment per Branch										
Year	Nationalized Banks		SBI & its Associates Banks		Private Banks		Foreign Banks		All Banks	
	Ratio	GR	Ratio	GR	Ratio	GR	Ratio	GR	Ratio	GR
1998-1999	5.39		7.07		7.06		136.46		6.47	
1999-2000	6.26	16.12	8.91	26.15	9.34	32.31	125.16	-8.28	7.78	20.37
2000-2001	7.01	11.89	11.49	28.94	11.52	23.27	144.20	15.21	9.26	18.94
2001-2002	7.93	13.25	13.53	17.76	17.67	53.45	139.26	-3.42	11.01	18.95
2002-2003	9.43	18.84	16.26	20.12	19.08	7.98	192.42	38.17	12.90	17.15
2003-2004	10.97	16.30	17.98	10.58	22.68	18.86	185.65	-3.52	14.74	14.25
2004-2005	12.13	10.62	18.76	4.36	22.25	-1.87	174.93	-5.77	15.66	6.24
2005-2006	11.40	-6.05	15.72	-16.23	26.41	18.68	206.80	18.22	15.15	-3.25
2006-2007	12.10	6.16	14.42	-8.23	28.86	9.26	262.76	27.06	15.89	4.89
2007-2008	13.62	12.59	16.62	15.27	33.27	15.29	354.52	34.92	18.44	16.00
2008-2009	15.97	17.20	21.11	26.99	32.98	-0.85	441.88	24.64	21.46	16.39
2009-2010	18.96	18.76	21.07	-0.21	33.66	2.06	513.84	16.29	23.72	10.54
2010-2011	20.29	7.02	19.94	-5.34	34.87	3.59	520.44	1.28	24.50	3.27
2011-2012	21.21	4.50	20.05	0.53	37.63	7.92	621.21	19.36	25.89	5.71
2012-2013	23.30	9.86	21.69	8.20	39.11	3.93	682.82	9.92	28.06	8.37
2013-2014	24.35	4.53	22.19	2.29	34.78	-11.08	808.87	18.46	28.23	0.60
2014-2015	22.63	-7.08	24.82	11.87	32.49	-6.58	767.34	-5.13	27.21	-3.61
2015-2016	23.01	1.67	24.89	0.28	31.64	-2.61	847.07	10.39	27.54	1.22
MEAN	14.78		17.58		26.41		395.87		18.55	
SD	6.52		5.07		9.97		258.52		7.45	
CV	44.11		28.83		37.77		65.30		40.15	
CAGR	9.39		5.81		8.53		13.64		8.75	

Source: Computed Statistical Table Relating to Banks in India, RBI.

### Banking Group-wise Total business per Branch in India

Business per branch has risen steadily for the banking industry and for all bank groups since

the early 1990s. This may be attributed to expansion of new business, rationalization of branch by some banks, evolution of new business strategies like sharing of ATMs so as to economies on cost and



capitalize on technology. Income depend upon two factor, viz., size of business and quantum of credit and investment portfolios and price or leading rates or interest/ dividend/ capital gains on per unit of investment. Thus, after ascertaining banks competence in sub-activities, its efficiency could be seen in terms of overall quantum of business per unit of its inputs, that is business per branch. Due to increase in number of the branches, evolution of new business strategies of ATMs, economies on cost and capitalize on technology impact this ratio, a lot.

Total business per branch is arrived at by dividing the total business with number of branches. Business of a bank includes sum of deposits and advances which is also called a turnover. This ratio is taken into consideration for the purpose of evaluation of efficiency of each bank at the branch level. This ratio is one of the best indicators for the measurement of productivity of bank. It indicates the relationship between business and number of Branches of the Bank. Higher the ratio, more is the business per branch and thereby greater efficiency per branch. Business per branch is also measure of branch productivity.

The table 1.4 shows the ratio of business per branch in banking sector in India. In the year, 2015-16, the ratio 'total business per branch' at aggregate level increased almost seven times from 1998-99. The growth rate of all sector banks decreased after 2007; it was due to slowdown in the economy. The average of all banking industry in India is 86.99. The average of value of business per branch of foreign banks is (1138.86) which is more than thirteen times from the national benchmark as well as that of SBI & associates. The average value of nationalized bank is 75.13 and private banks is 110.23. Further, this table shows that the coefficient of variation is the highest in nationalized bank (61.43 percent) indicating huge variation and the lowest in private banks (46.61 percent) indicating relative consistency in their performance. *The growth rate is the highest in case of nationalized banks (14.39 percent), followed by foreign banks (12.35 percent), SBI & Associates (12.21 percent) and private banks (46.61) percent. It can be concluded from the table that foreign banks are the leader in terms of total business per branch.*

Table 1.4: Banking Group wise Total business per Branch in India (Rs. Crore)

Total Business per Branch										
Year	Nationalized Banks		SBI & its Associates		Private Banks		Foreign Banks		All Banks	
	Ratio	GR	Ratio	GR	Ratio	GR	Ratio	GR	Ratio	GR
1998-1999	18.00		24.33		25.10		398.76		21.72	
1999-2000	20.77	15.34	28.36	16.54	31.16	24.16	358.40	-10.12	25.27	16.35
2000-2001	24.00	15.56	33.82	19.26	38.00	21.97	412.04	14.97	29.76	17.74
2001-2002	27.60	15.02	37.61	11.21	51.05	34.32	448.98	8.96	34.62	16.34
2002-2003	30.68	11.14	42.23	12.30	61.67	20.81	573.03	27.63	39.00	12.65
2003-2004	35.00	14.10	47.41	12.26	73.93	19.88	626.18	9.27	44.83	14.96
2004-2005	42.78	22.21	56.88	19.97	84.79	14.68	672.28	7.36	53.86	20.15
2005-2006	50.60	18.28	63.85	12.26	108.45	27.91	815.83	21.35	64.27	19.33
2006-2007	61.93	22.41	75.95	18.94	129.96	19.83	1018.71	24.87	78.18	21.64
2007-2008	73.40	18.52	86.17	13.47	142.71	9.81	1262.53	23.93	90.86	16.23
2008-2009	88.39	20.41	103.11	19.65	141.18	-1.07	1286.41	1.89	104.57	15.08
2009-2010	101.36	14.68	106.90	3.67	138.34	-2.01	1330.85	3.45	113.32	8.37
2010-2011	117.06	15.48	115.82	8.35	148.76	7.53	1371.79	3.08	126.76	11.85
2011-2012	124.63	6.47	126.21	8.97	153.19	2.98	1569.03	14.38	135.16	6.63
2012-2013	132.42	6.25	140.64	11.43	158.61	3.54	1651.74	5.27	144.38	6.82
2013-2014	139.20	5.12	144.06	2.43	157.34	-0.81	1998.76	21.01	149.49	3.55
2014-2015	139.85	0.47	151.68	5.29	166.24	5.66	2227.28	11.43	153.73	2.84
2015-2016	135.53	-3.09	162.36	7.04	174.81	5.15	2476.96	11.21	156.11	1.55
MEAN	75.73		85.96		110.29		1138.86		86.99	



SD	46.52	46.51	51.41	658.49	49.24
CV	61.43	54.10	46.61	57.82	56.60
CAGR	14.39	12.21	11.50	12.35	13.31

Source: Computed Statistical Table Relating to Banks in India, RBI

### III. Conclusion

To conclude, we can say that the banking industry in India depicts better performance in post reform period. The overall analysis shows that for all indicators, 'deposit per branch', 'advances per branch', 'investment per branch' and 'total business per branch', private banks are ahead from public banks but foreign banks are still the leader. The public sector banks have a large network of branches as compared to other bank groups. Our public sector banks are still lagging behind regarding the various financial parameters in comparison with other banks because they are facing many internal and external challenges, which are hindering their performance. So, government should take some steps to improve the growth rate and performance of the public sector bank so they can exist in open competitive environment.

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