

**Productivity Trends of Commercial Banks- A Comparative Study of Public  
Sector Banks and Private Sector Banks**

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**Abstract**

*Sound and Strong Financial infrastructure is one of the basic foundation stone for the development of any economy. Banks play a prominent role in financing the economic needs of the country. Productivity leads to efficient utilization of resources. Measurement of Productivity in banking is necessary to improve the financial soundness of banks. The present paper attempts to measure productivity trends of Public sector banks (PSBs) and Private sector banks (PBs). In this paper four types of productivity are analysed that is branch productivity, labour productivity, operational productivity and financial productivity. The time period of the present study is from 2001-02 to 2009-10. The paper concludes that in terms labour and branch productivity PBs performed better than PSBs. On the other hand, in terms of operational and financial productivity PSBs performed better than PBs. In the end paper suggests measures to improve the productivity of the both PSBs and PBs.*

**Keywords:** Financial Soundness, Performance, Economy

**Introduction**

Productivity is pivotal point of economic growth and development, improvement in standard of living and quality of life. Productivity leads to efficient utilization of human, material and technological resources. Measurement of productivity is necessary to give direction to business and control its objectives. Sound and Strong Financial infrastructure is one of the basic foundation stone for the development of any economy. Banks play an important role in financing the economic needs of the country. Banking sector is vital sector of the financial sector and therefore it should look after the efficient utilization of their resources. Academicians and Researchers have recognised that the measurement of productivity in banking is necessary to improve financial soundness of banks.

In simple words, the productivity is often defined as the output per unit of input employed. The concept of productivity is difficult to be applied in those industries where output cannot be measured easily like service industry. Banking is a service industry engaged in providing a wide array of services like acceptance of deposits, extension of credit, remittance of funds, collection of agency, conduct of foreign exchange business, providing a safe custody and so on. It is difficult task to measure productivity in a multi-product industry like banking. The financial institutions can be sound only if they achieve higher levels of productivity.

**Objectives of the study**

- To analyse the productivity of commercial banks in India.
- To study trends of branch productivity, labour productivity, operational productivity and financial productivity of PSBs and PBs.
- To suggest measures to improve productivity of banks.

## Database and Methodology

The present paper deals with the objective to study trends in productivity of commercial banks. For this purpose, the commercial banks were divided into two groups namely Public sector banks (PSBs) and Private Banks (PBs). The data is collected for the period 2001-02 to 2009-10. The various sources of data were: Statistical Tables Relating to Banks in India, Basic Statistical Returns of Scheduled Commercial Banks, Report on Trend and Progress of Banking in India published by RBI and Performance highlights of Public sector banks published by IBA. Four broad parameters are considered for measuring productivity. These were branch productivity, labour productivity, operational productivity and financial productivity.

### Branch Productivity

This parameter indicates how efficiently bank branches generate business and profits. Following were the ratios considered under this parameter.

- Deposits per branch
- Advances per branch
- Business per branch

### Labour Productivity

This parameter indicates how efficient are the bank employee in generating business and profits. Following ratios are used under this parameter.

- Deposits per employee
- Advances per employee
- Business per employee

### Operational Productivity

This refers to how efficiently a bank manages its business. The following ratios are considered under this parameter.

- Operating Expenses/Operating Income
- Cost of Deposits

### Financial Productivity

This ratio indicates the earning capacity of banks that is profitability which is directly linked with productivity. Following ratios are calculated

- Credit Deposit Ratio
- Return on Assets

The following statistical tools are used for the purpose of this study:

- Ratio Analysis
- Simple Growth Rate
- Compound Growth Rate
- Arithmetic Mean
- Standard Deviation
- Coefficient of variation

The SPSS version 10.0 is used for the calculation of the data.

## Hypothesis

The following hypotheses are constructed:

- H<sub>1</sub>:** The branch productivity of PBs is better than the PSBs.
- H<sub>2</sub>:** The labour productivity of PBs is better than the PSBs.
- H<sub>3</sub>:** The operational productivity of PBs is better than PSBs.
- H<sub>4</sub>:** The financial productivity of PBs is better than PSBs.

## Analysis & Interpretation

**Branch Productivity:** This parameter measures per branch productivity of both PSBs and PBs. Under this three ratios are considered that is deposits per branch, advances per branch and business per branch. Higher ratio indicates more productivity and profitability of branch.

Table 1 show the branch productivity of PSBs. Deposits per branch had constantly increased from Rs. 20.89 Cr in 2001-02 to Rs. 51.86 Cr. in 2009-10. Advances per branch had also increased from Rs 10.36 Cr in 2001-02 to Rs. 45.10 Cr in 2009-10 except in the year 2008-09 in which it showed negative growth rate. Business per branch has also shown an increasing trend and has increased from Rs. 41.04 Cr in 2001-02 to Rs. 116.96 Cr in 2009-10.

Table 2 indicates branch productivity of PBs. In case of PBs also deposits per branch has also increased from Rs 31.52 Cr in 2001-02 to Rs. 84.41 Cr in 2007-08 and then it declined to Rs. 82.06 Cr. in 2009-10. It showed negative growth rate. Advances per branch also increased from Rs. 21.66 Cr in 2001-02 to Rs. 64.82 Cr in 2007-08 but it declined to Rs. 63.08 Cr in 2009-10. Business per branch also increased from Rs. 71.58 Cr in 2001-02 to Rs. 184.05 Cr in 2007-08 and then showed negative growth rate.

Comparison of table 1 and 2 reveals that deposits per branch, advances per branch and business branch in average terms is lower in case of PSBs than that of PBs. CAGR shows positive growth rate in case of both PSBs and PBs.

# INTERNATIONAL JOURNAL OF BUSINESS MANAGEMENT & RESEARCH (ISSN 2249-2143)

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**Table 1: Branch Productivity of PSBs (Amt. in Rs Cr.)**

Year/Bank	Deposits /Branch	GR	Advances /Branch	GR	Business /Branch	GR
2001-02	20.89	-	10.36	-	41.07	-
2002-03	23.11	10.63	11.76	13.51	35.97	12.35
2003-04	26.11	12.98	13.47	14.54	52.89	47.04
2004-05	30.02	14.98	17.86	32.59	62.20	17.60
2005-06	33.34	11.06	22.74	27.32	69.09	11.08
2006-07	39.52	18.54	28.54	25.51	81.24	17.59
2007-08	46.10	16.65	42.45	48.74	103.57	27.49
2008-09	45.95	-0.33	40.19	-5.32	104.16	0.57
2009-10	51.86	12.86	45.01	11.99	116.96	12.29
Mean	35.21		25.82		74.12	
SD	11.15		13.79		29.21	
CV	31.66		53.40		39.40	
CAGR	12.58		22.81		16.16	

**Source: Calculated**

**Table 2: Branch Productivity of PBs (Amt. in Rs. Cr.)**

Year/Bank	Deposits /Branch	GR	Advances /Branch	GR	Business /Branch	GR
2001-02	31.52	-	21.66	-	71.58	-
2002-03	37.02	17.45	24.64	13.76	80.74	12.80
2003-04	45.19	22.07	28.67	16.36	96.66	19.72
2004-05	48.76	7.90	34.17	19.18	104.52	8.13
2005-06	62.86	28.92	45.94	34.45	135.29	29.44
2006-07	74.58	18.64	56.04	21.99	159.53	17.99
2007-08	84.41	13.18	64.82	15.67	184.05	15.30
2008-09	82.80	-1.91	64.69	-0.20	181.96	-1.14
2009-10	82.06	-0.89	63.08	-2.49	180.45	-0.83
Mean	61.02		44.86		132.76	
SD	20.91		17.93		45.56	
CV	34.27		39.98		34.31	
CAGR	14.10		16.76		13.97	

**Source: Calculated**

**Labour Productivity:** This ratio measures per employee deposits, advances and business of banks. These ratios help in checking whether the bank is overstaffed or understaffed. It indicates efficiency of employees. The higher the ratios, the better it is. Table 3 indicates labour productivity of PSBs. In this case also three ratios are considered. Deposits per employee are showing rising trend. It increased from Rs. 128 Cr in 2001-02 to Rs. 4.24 Cr in 2009-10. Advances per employee are also showing increasing trend that is it increased from Rs. 0.64 Cr in 2001-02 to Rs. 3.68 Cr in 2009-10. Business per employee has also increased from Rs 2.52 Cr in 2001-02 to Rs. 9.56 Cr in 2009-10.

# INTERNATIONAL JOURNAL OF BUSINESS MANAGEMENT & RESEARCH (ISSN 2249-2143)

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**Table 3: Labour Productivity of PSBs (Amt. in Rs Cr.)**

Year/Bank	Deposits /Employee	GR	Advances /Employee	GR	Business /Employee	GR
2001-02	1.28	-	0.64	-	2.52	-
2002-03	1.43	11.72	0.73	14.06	2.22	-11.90
2003-04	1.63	13.99	0.84	15.07	3.330	48.65
2004-05	1.92	17.79	1.14	35.71	3.97	20.30
2005-06	2.19	14.06	1.49	30.70	4.55	14.61
2006-07	2.74	25.11	1.98	32.89	5.62	23.52
2007-08	3.43	25.18	3.16	59.60	7.71	37.19
2008-09	3.53	2.92	3.09	-2.22	8.01	3.89
2009-10	4.24	20.11	3.68	19.09	9.56	19.35
Mean	2.49		1.86		5.27	
SD	1.05		1.17		2.62	
CV	42.24		62.98		49.70	
CAGR	16.85		27.40		20.58	

**Source: Calculated**

**Table 4: Labour Productivity of PBs (Amt. in Rs Cr.)**

Year/Bank	Deposits /Employee	GR	Advances /Employee	GR	Business /Employee	GR
2001-02	2.46	-	1.69	-	5.59	-
2002-03	2.91	18.29	1.94	14.79	6.35	13.60
2003-04	3.48	19.59	2.21	13.92	7.45	17.32
2004-05	3.65	4.89	2.55	15.38	7.81	4.83
2005-06	4.52	23.84	3.31	29.80	9.74	24.71
2006-07	5.47	21.02	4.11	24.17	11.70	20.12
2007-08	7.34	34.19	5.64	37.23	16.00	36.75
2008-09	7.18	-2.18	5.61	-0.53	15.80	-1.25
2009-10	4.51	-37.19	3.46	-38.32	9.93	-37.15
Mean	4.61		3.39		10.04	
SD	1.75		1.48		3.82	
CV	37.95		43.75		38.03	
CAGR	12.43		15.03		12.31	

**Source: Calculated**

Table 4 indicates labour productivity of PBs. Deposits per employee has increased from Rs. 2.46 Cr in 2001-02 to Rs 7.34 Cr in 2007-08 and then declined to Rs. 4.51 Cr in 2009-10. Advances per employee has also increased from Rs. 1.69 Cr in 2001-02 to Rs. 5.64 Cr in 2007-08 and then declined to Rs. 3.46 Cr in 2009-10. Business per employee also increased from Rs. 5.59 Cr in 2001-02 to Rs. 16.00 Cr in 2007-08 and then declined to Rs. 9.93 Cr in 2009-10.

Comparison of table 3 and 4 shows that average ratios of deposit per employee, advances per employee and business per employee are lower in case of PSBs as compared to PBs. CAGR for all the three ratios in case of both PSBs and PBs indicate positive growth rate.

**Operational Productivity:** Under operational productivity, two ratios are calculated that is Operating Expenses/Operating Income and cost of deposits. The first ratio denotes how much a bank spends on operating expenses for every rupee earned. The lesser the ratio, the better. Cost of deposits ratio of interest expended on deposits/total deposits. It indicates the cost of funds to a bank. Bank that can obtain funds at a lower cost is in position to earn profits in the future.

**Table 5: Operational Productivity of PSBs (Amt. in Rs Cr.)**

Year/Ratio	Operating Expenses /Operating Income	GR	Cost of Deposits	GR
2001-02	1.23	-	0.07	-
2002-03	0.97	-21.14	0.06	-14.29
2003-04	0.82	-15.46	0.05	-16.67
2004-05	0.96	17.07	0.05	0.00
2005-06	1.06	10.42	0.04	-20.00
2006-07	1.01	-4.72	0.05	25.00
2007-08	0.92	-8.91	0.05	0.00
2008-09	0.83	-9.78	0.07	40.00
2009-10	0.86	3.61	0.06	-14.29
Mean	0.96		0.06	
SD	0.13		0.01	
CV	13.43		18.25	
CAGR	-2.66		-0.26	

**Source: Calculated**

Table 5 shows operational productivity of PSBs. Operating Expenses/Operating Income is showed a declining trend. It decreased from Rs. 1.23 Cr in 2001-02 to Rs. 0.86 Cr in 2009-10. Cost of Deposits has simply fluctuated from 0.07 in 2001-02 to 0.06 in 2009-10.

Table 6 indicates operational productivity of PBs. Operating Expenses/Operating Income has increased from Rs 0.84 Cr in 2001-02 to Rs. 1.13 Cr in 2004-05. It then declined to Rs. 0.78 Cr in 2009-10. Cost of deposits fluctuated from 0.07 to 0.04 over the period 2001-02 to 2009-10.

Comparison of table 5 and 6 shows that in terms of average both ratios operating expenses/operating income and cost of deposits in case of PSBs and PBs is almost same. The operating expenses/operating income of PSBs showed a negative growth rate indicating a good sign of progress. It means that operational expenses as compared to operational income have decreased. Cost of deposits for both banks is showing negative growth rate which is undesirable if analysed from the competitive scenario point of view.

**Financial Productivity:** Under financial productivity two ratios are calculated that is Credit/Deposit ratio and Return on Assets. Credit/deposit ratio indicates the total advances as a proportion of total deposits. It shows ability of banks to improve income by higher lending operations. Return on Assets gives an indication as to how much profit a bank is able to

# INTERNATIONAL JOURNAL OF BUSINESS MANAGEMENT & RESEARCH (ISSN 2249-2143)

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generate per unit of assets. Higher value of this ratio is indicative of higher profitability and hence productivity.

**Table 6: Operational Productivity of PBs (Amt. in Rs Cr.)**

Year/Ratio	Operating Expenses /Operating Income	GR	Cost of Deposits	GR
2001-02	0.84	-	0.07	-
2002-03	0.82	-2.38	0.06	-14.29
2003-04	0.90	9.76	0.05	-16.67
2004-05	1.13	25.56	0.05	0.00
2005-06	1.08	-4.42	0.04	-20.00
2006-07	1.12	3.70	0.05	25.00
2007-08	1.05	-6.25	0.06	20.00
2008-09	0.90	-14.29	0.06	0.00
2009-10	0.78	-13.33	0.05	-16.67
Mean	0.96		0.05	
SD	0.14		0.01	
CV	14.32		16.20	
CAGR	0.47		-1.62	

**Source: Calculated**

**Table 7: Financial Productivity of PSBs**

Year/Ratio	Credit Deposit Ratio	GR	Return on Assets	GR
2001-02	49.60	-	0.77	-
2002-03	50.90	2.62	1.00	29.87
2003-04	51.60	1.38	1.16	16.00
2004-05	59.50	15.31	0.95	-18.10
2005-06	68.20	14.62	0.88	-7.37
2006-07	72.20	5.87	0.90	2.27
2007-08	92.10	27.56	0.99	10.00
2008-09	87.50	-4.99	1.02	3.03
2009-10	86.80	0.80	0.99	-2.94
Mean	68.71		0.96	
SD	16.96		0.11	
CV	24.68		11.21	
CAGR	9.08		1.16	

**Source: Calculated**

Table 7 indicates financial productivity of PSBs. The credit deposit ratio increased from 49.60 percent in 2001-02 to 86.80 percent in 2009-10. Return on Assets also increased from 0.77 in 2001-02 to 1.16 in 2003-04 but then it declined to 0.99 in 2009-10

**Table 8: Financial Productivity of PBs**

Year/Ratio	Credit Ratio	Deposit	GR	Return on Assets	GR
2001-02	68.70		-	0.83	-
2002-03	66.60		-3.06	1.04	25.30
2003-04	63.40		-4.80	1.16	11.54
2004-05	70.00		10.41	1.06	-8.62
2005—06	73.10		4.43	1.07	0.94
2006-07	75.20		2.87	1.02	-4.67
2007-08	76.80		2.13	1.13	10.78
2008-09	78.10		1.69	1.13	0.00
2009-10	76.90		-1.54	1.28	1.26
Mean	72.09			1.08	
SD	5.17			0.12	
CV	7.17			11.32	
CAGR	2.33			3.20	

**Source: Calculated**

Table 8 shows financial productivity of PBs. In case of PBs Credit deposit ratio increased from 68.70 percent in 2001-02 to 76.90 percent in 2009-10. Return on Assets increased from 0.83 in 2001-02 to 1.16 in 2003-04 and then declined to 1.02 in 2006-07 and increased to 1.28 in 2009-10. Both ratios in case of PSBs and PBs indicate positive growth rate.

Comparison of table 7 and 8 depicts that in average terms credit deposit ratio and return on assets is higher in case of PBs as compared to PSBs.

### **Conclusions**

From the foregoing analysis, the following conclusions can be drawn:

- The overall branch productivity indicates that on average the performance of PBs is better than PSBs. Both the groups of banks showed positive growth rates. Thus hypothesis H<sub>1</sub> should be accepted.
- The overall labour productivity indicates that on average PBs fared better than PSBs. Both PSBs and PBs showed positive growth rates. Thus hypothesis H<sub>2</sub> should also be accepted.
- The overall operational productivity of PSBs is better than PBs. The growth rate of operational expenses/operational income is negative in case of PSBs which is a good sign. Cost of deposits in case of both PSBs and PBs is negative. The hypothesis H<sub>3</sub> should be rejected.
- The overall Financial productivity is better for PBs than PSBs having on average higher Credit deposit ratio and Return on Assets. Therefore, the hypothesis H<sub>4</sub> should be accepted.



It can be concluded that PBs outperforms PSBs on all fronts of productivity except operational productivity. PSBs need to be restructured and revamped so that they can come up to the level of PBs.

## **Recommendations**

Following suggestions can be made to improve the productivity of both PSBs and PBs:

- Branch productivity and labour productivity of PSBs is low in comparison to its counterparts. Proper training and development programmes should be devised to enhance both these ratios. Attention should be paid to human resource development.
- Lending to farmers and small and medium enterprises should be focus of attention of PSBs.
- Banks should grow in size and should introduce diversified and sophisticated products to meet the needs of modern society.
- Scheme of VRS should be implemented effectively and skilled and efficient manpower should be recruited.
- Retail banking should be the key mantra of success in present competitive scenario.
- Awareness should be created among the people regarding functioning of banks and their benefits.

## **References**

- Uppal RK "Indian Banking in the Globalised World", New Century Publications, New Delhi, 2008, pages.87-98.
- Aggarwal Monika "Productivity of Commercial Banks in India- Trends and Analysis", Gyan Publishing House, New Delhi, 2007, pages. 1-133.
- Shastri Falguni C "Restructuring of Indian Banks", Book Enclave, Jaipur, India, 2007, pages. 204-229.
- Singh Jagwant "Indian Banking Industry- Growth and Trends in Productivity", Deep & Deep Publications, New Delhi, 1993, pages. 1-37.
- IBA, Performance Highlights of Public Sector Banks, Indian Bank's Association, Mumbai various issues.
- RBI, Report on Trend and Progress of Banking in India, Reserve Bank of India, Mumbai, Various Issues.
- RBI, Statistical Tables Relating to Banks in India, Reserve Bank of India, Mumbai, Various issues.
- RBI, Basic Statistical Returns of Scheduled Commercial Banks, Reserve Bank of India, Mumbai, various issues.