Research Paper
Impact Factor: 7.352
Peer Reviewed Monthly Journal
www.ijmdrr.com

IJMDRR
E- ISSN –2395-1885
ISSN -2395-1877

DETERMINANTS OF PRODUCTIVITYOF PUBLIC SECTOR BANKS WITH SPECIAL REFERENCE TO BANK OF BARODA

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Abstract

Bank of Baroda is one of the leading public sector banks in India. It has occupied the second position among the public sector banks in terms of total assets. The performance of a bank could be measured with reference profitability, liquidity, and productivity and operating efficiency. The productivity is one of the yardsticks to determine the efficiency of the employees and branches. The main source of income for banking companies is interest income and the net result of the affairs of a company is determined by the net profit earned by the company during a particular year. The growth of a company could be measured in terms of volume of business made by the company. In this paper, an attempt has been made to examine the productivity of Bank of Baroda in terms of interest income per employee, net profit per employee, business per employee, interest income per branch, net profit per branch and business per branch. The results showed that productivity per employee was better than the productivity per branch. There was a significant relationship between productivity per employee and productivity per branch. However, the bank has proved its efficiency in employee management rather than branch management.

Keywords: Productivity, Per Employee, Per branch, Determinants, Public sector banks.

Introduction

Banking companies in India have been broadly classified as public sector banks and private sector banks. The public sector banks have been rendering various services for their customers. The public sector banks have started to grow through branch expansion in order to compete with the private sector banks. Private sector banks could easily update the technology while the public sector banks have been gradually updating the technology. In the competitive market, it is deemed necessary to manage the employees and branches effectively as the employees and branches are the productivity drivers. Bank of baroda is one of the top five public sector banks in India. The bank has been taking various initiatives for the customers welfare, employee welfare and branch growth. The productivity of a bank could be measured in terms of interest income, net profit and volume of business.

Statement of the Problem

Bank has been involving in the branch expansion by establishing branches in rural areas. The bank has also increased the staff strength in order to provide better services to the customers. Increase in number of employees and number of branches would affect the per employee parameters and per branch parameters. Under these circumstances, the aim of the study is to find answers to the following questions:

1. Is there any growth in the interest income per employee and per branch?
2. Did the bank achieve any growth in the net profit per employee and per branch?
3. Have the business per employee and business per branch grown during the study period?

Objectives of the Study

The objectives of the present study are mentioned hereunder:

1. To assess the growth of interest income per employee and the growth of interest income per branch.
2. To examine the growth of net profit per employee and growth of net profit per branch.
3. To analyze the growth of business per employee and the growth of business per branch.
4. To study the productivity per employee and the productivity per branch.

Hypotheses of the Study

1. **Null Hypothesis H_{01}:** There is no significant relationship between interest income per employee and interest income per branch.
2. **Null Hypothesis H_{02}:** There is no significant relationship between net profit per employee and net profit per branch.
3. **Null Hypothesis H_{03}:** There is no significant relationship between business per employee and business per branch.

Period of Study: The study period consists of ten financial years, i.e., the study period started with 2013-14 and ended with 2022-23.

Research Methodology

The present study is dependent upon the secondary data, i.e., the data required for the study have been collected from the published annual reports of the bank for the study period. The data collected have been grouped, regrouped and tabulated wherever necessary. Growth index and compounded annual growth rate have been computed to analyze the growth of the productivity indicators – interest income, net profit and business of the bank. Descriptive statistics like mean and standard deviation have been computed and the coefficient of variation was also ascertained to understand the consistency of the productivity indicators of the bank. The productivity per employee and the productivity per branch in terms of interest income, net profit and business of the bank have been compared to understand the efficiency of the bank.

Analysis and Interpretation

The productivity of the bank has been assessed in terms of the selected indicators – interest income, net profit and business of the bank. These indicators per employee and per branch have been computed in order to understand the efficiency of the bank towards employee management and branch management.

Table 1: Growth of Interest Income

Years	Int/Emp (Rs. inlakhs)	Growth Index	Int/Br (Rs. inlakhs)	Growth Index
2014	42.30	100.00	473.18	100.00
2015	48.48	114.59	502.47	106.19
2016	65.12	134.34	624.68	124.32
2017	73.62	113.05	664.08	106.31
2018	78.49	106.61	676.84	101.92
2019	78.12	99.53	657.25	97.11
2020	80.65	103.25	633.29	96.35

2021	76.66	95.04	598.05	94.44
2022	85.29	111.26	606.87	101.47
2023	97.86	114.74	667.30	109.96
CAGR	**9.77**		**3.89**	

According to the Table 1, the interest income per employee at the beginning of the study period was Rs.42.30 lakhs. It increased to Rs.97.86 lakhs at the end of the study period. Interest income per branch at the beginning of the study period was Rs.473.18 lakhs and at the end of the study period it was Rs.667.30 lakhs. The growth index of interest income per employee and interest income per branch revealed that they have witnessed a fluctuating trend during the period of study. The compounded annual growth rate indicated that the growth of interest income per employee was greater than the growth of interest income per employee. It indicates that the employee management was more efficient than the branch management.

Table 2: Growth of Net Profit

Years	NP/Emp (Rs. inlakhs)	Growth Index	NP/ Br (Rs. in lakhs)	Growth Index
2014	7.92	100.00	88.55	100.00
2015	8.88	112.11	92.01	103.90
2016	9.30	104.79	89.22	96.97
2017	8.38	90.09	75.58	84.71
2018	5.97	71.19	51.44	68.06
2019	4.95	83.04	41.67	81.01
2020	3.53	71.31	27.73	66.55
2021	6.72	190.19	52.41	188.98
2022	6.27	93.40	44.65	85.18
2023	1.64	26.17	11.20	25.08
CAGR	**-16.04**		**-20.53**	

Table 2 divulges that there was a decline in the net profit per employee from Rs. 7.92 lakhs to Rs. 1.64 lakhs during the period of study whereas the net profit per branch has observed a deep fall from Rs.88.55 lakhs to Rs.11.20 lakhs during the study period. It indicates that there has been a great fall in the net profit per branch during the study period. The compounded annual growth rate reveals that the net profit per employee and the net profit per branch have witnessed a negative growth. The performance of the bank with reference to net profit per branch was worse than that of net profit per employee.

Table 3: Growth of Business

Years	Bus/Emp (Rs. inlakhs)	Growth Index	Bus/ Br (Rs. in lakhs)	Growth Index
2014	768.00	100.00	8590.13	100.00
2015	937.57	122.08	9718.42	113.13
2016	1124.09	119.89	10782.81	110.95
2017	1312.26	116.74	11836.65	109.77
2018	1464.22	111.58	12626.89	106.68

2019	1454.07	99.31	12234.20	96.89
2020	1525.99	104.95	11981.87	97.94
2021	1482.55	97.15	11566.31	96.53
2022	1818.41	122.65	12938.41	111.86
2023	2159.45	118.75	14724.80	113.81
CAGR	**12.17**		**6.17**	

From the Table 3, it could be understood that the business per employee at the beginning of the study and at the end of the study period were Rs.768.00 lakhs and Rs.2159.45 lakhs respectively.The business per employee has increased to a greater extent as indicated by the compounded annual growth rate of 12.17 per cent. Business per branch has increased from rs.8590.13 lakhs to Rs.14724.80 lakhs during the study period. The compounded annual growth rate was 6.17 per cent. It indicates that the business per employee was better than the business per branch.

Table 4: Descriptive Statistics

Variables	Basis	N	Mean	Std. Deviation	CV
Interest Income	Per Employee	10	72.66	16.67	22.95
	Per Branch	10	610.40	70.00	11.47
Net Profit	Per Employee	10	6.36	2.45	38.56
	Per Branch	10	57.45	27.88	48.53
Business	Per Employee	10	1404.66	405.30	28.85
	Per Branch	10	11700.05	1712.14	14.63

According to the Table 4, the average interest income per employee was Rs.72.66 lakhs with the standard deviation of Rs.16.67 lakhs and the coefficient of variation of 22.95 per cent. The interest income per branch had an average of Rs.610.40 lakhs while the standard deviation was Rs.70.00 lakhs and the coefficient of variation was found to be 11.47 per cent. It implies that the interest income per employee has varied higher than the interest income per branch during the study period.

The average net profit per employee and the average net profit per branch were Rs.6.36 lakhs and Rs.57.45 lakhs respectively. The standard deviation of net profit per employee was Rs.2.45 lakhs and that of net profit per branch was found to be Rs.27.88 lakhs. The coefficient of variation of net profit per employee was ascertained to be 38.56 per cent while the coefficient of variation relating to net profit per branch was found to be 48.53 per cent. It indicates that the net profit per branch was more inconsistent than the net profit per employee.

The mean and the standard deviation of business per employee were observed to be Rs.1404.66 lakhs and Rs.405.30 lakhs respectively resulting thereby the coefficient of variation of 28.85 per cent. On the other hand, the mean of business per branch has been ascertained to be Rs.11700.05 lakhs with the standard deviation of Rs.1712.14 lakhs and coefficient of variation of 14.63 per cent. It reveals that the growth of business per branch was lesser than the growth of business per employee.

IJMDRR
E- ISSN –2395-1885
ISSN -2395-1877

Table 5: Productivity – T Test

Variables	t value	DF	p value	Result
Interest Income	-23.63	10.02	0.00	Rejected
Net Profit	-5.77	9.14	0.00	Rejected
Business	-18.50	10.01	0.00	Rejected

From the Table 5, it is evinced that the t value stating the relationship between interest income per employee and interest income per branch was -23.63 while the p value was 0.00. Since the p value is less than 0.01, the null hypothesis is rejected and it is concluded that the interest income per employee and interest income per branch were significantly associated. The computed value of t measuring the relationship between net profit employee and net profit per branch was found to be -5.77 and the p value was 0.00. The null hypothesis is rejected as the p value was less than 0.01. Therefore, it is inferred that there exists a significant relationship between net profit per employee and net profit per branch. The t value indicating the association between business per employee and business per branch was ascertained to be -18.50 and the p value was found to be 0.00. Since the p value falls below 0.01, it could be concluded that the relationship between business per employee and business per branch is significant.

Findings of the Study

The Results of the Analysis Revealed the Following Findings

It is found that the interest income per employee and interest income per branch have achieved positive growth during the period of study. However, the growth of interest income per employee was found to be greater than the growth of interest income per branch. There was a negative growth in the net profit per employee and the net profit per branch during the study period. The decline in the net profit per branch was higher than the decline in the net profit per employee.

The results revealed that the growth of business per employee and the growth of business per branch were positive during the study period. The higher growth of business was recorded by growth of business per employee.

Interest income per employee and business per employee were found to be less consistent when compared to the interest income per branch and business per branch while net profit per employee was more consistent than net profit per branch.

Productivity per employee and productivity per branch in terms of interest income, net profit and business were found to be significantly related.

Suggestions

On the basis of the above findings, the suggestions under mentioned have been Offered

1. Interest income per branch could be increased by increasing the advances sanctioned per branch.
2. It is suggested that the net profit per branch shall be increased by controlling the branch expenses.
3. The bank is suggested to modify the loan sanction policies and to provide more loans to the customers in order to increase the volume of business.
4. The branch managers shall be empowered to sanction more loans advances to reliable customers with higher limits of loans.

IJMDRR
E- ISSN –2395-1885
ISSN -2395-1877

Conclusion

The productivity of Bank of Baroda has been found to be satisfactory in terms of interest income per employee, net profit per employee and business per employee. However, the productivity of Bank of Baroda with reference to interest income per branch, net profit per branch and business per branch has been lacking behind the productivity per employee. It denotes that the bank has been effectively managing the employees to increase the profitability and the business while the branch management has been not so effective.

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