

## Impact of Employee Productivity on Financial Performance of Commercial Banks in India

**Dr. Madhur Ojha,**

Assistant Professor in Economics,  
Amity University Punjab, Mohali,  
[mojha@pb.amity.edu](mailto:mojha@pb.amity.edu)

**Dr. Sumeet Kaur,**

Assistant Professor in Economics,  
Amity University Punjab, Mohali,  
[sumeetkaur81@yahoo.co.in](mailto:sumeetkaur81@yahoo.co.in)

**Dr. Sumanpreet Kaur,**

Assistant Professor in Economics,  
Amity University Punjab, Mohali,  
[preet.suman912@gmail.com](mailto:preet.suman912@gmail.com)

Abstract:

The study proposes to examine the impact of employee productivity on financial performance of commercial banks in India for the time period 2014-15 to 2023-24 by using linear regression model where employee productivity is taken as dependent variable and financial performance as independent variable. The data was collected from secondary sources like RBI and Reports on Trends and progress of Banking in India, RBI. Results reveal that there is a positive and significant relationship between employee productivity and financial performance of Banks.

**Keywords:** Employee productivity, Financial Performance, ROA, Human Capital, Indian Banking Industry.

### INTRODUCTION

The banking industry in India is an integral pillar of the nation's economic growth, playing an important role in allowing investment, enabling financial inclusion, and mobilizing savings. Commercial banks in particular, serve as financial intermediaries that promote institutional and individual economic growth in addition to managing the efficient movement of capital and credit throughout the economy (RBI, 2020). Macroeconomic stability hinges on their efficient operation, particularly in a nation like India where the banking system affects almost every segment of population. Employee productivity is an important factor amongst various factors that affects the financial performance of commercial banks in India. In a broader context, productivity is the efficient utilization of resources to produce maximum output. Employee productivity in the banking industry is determined by comparing inputs like working hours, skills, and technology support to output indicators like business per employee, profit per employee, and services rendered per employee (Sumanth, 1984; Lawlor, 1985; Render & Russell, 1990). This measure highlights the bank's capacity to use its human resources to sustain financial performance in addition to operational efficiency.

Deregulation, digital banking, technical innovation, and changing consumer preferences- all have imposed an enormous amount of pressure on Indian commercial banks in recent years. Increase in employee productivity has become crucial for attaining financial stability in such a turbulent and competitive environment (Chakrabarty, 2013; Mohan, 2005). In the Indian context, several studies have confirmed the positive correlation between financial performance and employee productivity. Singh and Kamlesh (2013) discovered that between 2004 and 2012, employee productivity in private sector banks increased, especially for new private banks in comparison with old private sector banks. Das and Patra (2016) examined the post-2008 financial crisis scenario and found notable changes in productivity, especially in public sector banks, due to globalization, IT integration, and structural reforms. In a similar vein, Satish and Jyothi (2022) studied the productivity and profitability of 20 public and private sector banks in India from 2011-12 to 2020-21 using regression models and found that value added per employee and profit before tax per employee amongst other factors had a strong and positive correlation with Return on Assets (ROA) and Return on Equity (ROE).

Nevertheless, despite these efforts, there is a dearth of research that examines the direct relationship between ROA and employee productivity measures like income, expenses, and profit per employee over a long time period, including the recent years following the COVID recovery. This gap serves as the foundation for the current study, which builds on earlier research by utilizing regression analysis to examine the impact of employee productivity on financial performance of commercial banks in India.

### DATA BASE AND METHODOLOGY

The primary aim of the paper is to study the impact of employee productivity on financial performance of commercial banks in India.

The study is primarily based on secondary data for the time period spanning from 2014-15 to 2023-24 including all scheduled commercial banks of India. The data has been extracted from Statistical Tables related to Banks in India, RBI and Reports on Trends and progress of Banking in India, RBI. To examine the impact of employee productivity on financial performance of commercial banks in India, the paper proposes to employ Regression analysis through SPSS software where employee productivity is taken as dependent variable while, financial performance as independent variable. Employee productivity is measured using selected parameters such as Income per employee, Expenditure per employee and Profit per employee. Income per employee is the ratio of total income and Number of employees, Expenditure per employee is the ratio of Total Expenditure per employee and Profit per employee is the ratio of Net Profits and Number of employees. On the other hand, Financial performance is measured as using ROA.

The proposed hypothesis for the study is as follows:

H0: There is no significant relationship between Employee productivity and Financial Performance of commercial banks in India:

H1: There is a significant relationship between Employee productivity and Financial Performance of commercial banks in India:

The hypothesis will be tested using F value from the ANOVA table.

The study is divided into four sections. Section I is introductory in nature. Section II deals with the database and methodology. The impact of employee productivity on financial performance of Commercial Banks in India is discussed in section III. Conclusions and recommendations follow in section IV.

### Impact of employee productivity on financial performance of commercial banks in India

This section analyses the impact of employee productivity on financial performance of commercial banks in India for the time period spanning from 2014-15 to 2023-24 using multiple linear regression analysis where, ROA is observed to be dependent on Income per employee (IE), Expenditure per employee (EE) and Profit per employee (PE).

Table 1 depicts that there is positive relationship between financial performance and employee productivity of commercial banks in India as indicated by value of R which is 0.870. The coefficient of determination ( $R^2 = 0.757$ ) shows that 75.7% of variation in ROA exists due to three parameters- Income per employee, Expenditure per employee and Profit per employee used in the study.

The results from Table 2 explains that model is statistically significant as p value 0.028 is less than 0.05 implying that there is a significant relationship between ROA and Income per employee, Expenditure per employee and Profit per employee. In other words, employee productivity significantly impacts financial performance of commercial banks of India as the results rejects null hypothesis H0.

The regression equation observed from Table 3 is given as:

$$ROA = -0.720 + 0.356 (\text{Income per employee}) - 0.335 (\text{Expenditure per employee}) + 0.664 (\text{Profit per employee})$$

It is observed that out of three individual parameters, profit per employee positively and significantly impacts ROA as  $0.034 < 0.05$ . This means higher the profit per employee, higher is the ROA and vice versa. On the contrary, income per employee has a positive relationship with ROA and expenditure per employee negatively impacts ROA. However, these two parameters are not statistically significant as p values are higher than 0.05 indicating that there are other factors like Capital Adequacy, NPA, external macroeconomic factors etc. that affects the financial performance of commercial banks in India.

Thus, it is observed that employee productivity impacts financial performance of banks in India from 2014-15 to 2023-24. However, there are other factors like capital adequacy, NPA, macroeconomic factors etc. which can also enhance the productivity and hence the financial performance of commercial banks in India.

**Table 1: Multiple Liner Regression analysis**

Model Summary <sup>b</sup>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.870 <sup>a</sup>	.757	.636	.30691	.757	6.236	3	6	.028

a. Predictors: (Constant), PE, EE, IE  
 b. Dependent Variable: ROA

Source: Authors Calculation

**Table 2: ANOVA**

ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.762	3	.587	6.236	.028 <sup>b</sup>
	Residual	.565	6	.094		
	Total	2.327	9			

a. Dependent Variable: ROA  
 b. Predictors: (Constant), PE, EE, IE

Source: Authors Calculation

**Table 3: Coefficients**

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.720	2.357		-.306	.770	-6.487	5.047
	IE	.356	.394	.412	.902	.402	-.609	1.320
	EE	-.335	.708	-.213	-.473	.653	-2.067	1.397
	PE	.664	.244	.714	2.727	.034	.068	1.261

a. Dependent Variable: ROA

Source: Authors Calculation

**CONCLUSION AND POLICY RECOMMENDATIONS**

The study empirically analysed the relationship between employee productivity and the financial performance of commercial banks in India for the period 2014–15 to 2023–24 using multiple linear regression. The findings suggest a strong positive correlation ( $R = 0.870$ ) between employee productivity and Return on Assets (ROA), with 75.7% of the variation in ROA explained by income per employee, expenditure per employee, and profit per employee. Notably, profit per employee emerged as a statistically significant predictor of financial performance, reinforcing the importance of optimizing employee output.

Although income and expenditure per employee also exhibited expected directional relationships—positive and negative respectively—they were statistically insignificant, indicating the influence of other unmeasured variables such as capital adequacy, non-performing assets (NPAs), and macroeconomic conditions. Thus, the results confirm that higher employee productivity directly contributes to improved financial performance.

However, in a technologically driven knowledge economy, improving employee productivity is not a stand-alone solution to improve financial performance of commercial banks in India. In the light of this, a multidimensional strategy should be used with following recommendations:

As human capital is the sine-qua-non factor of production in today's era, so investing in human capital should be the top priority of banking sector. This includes training employees in customer relationship management, digital tools, other operational areas. Additionally, performance-based rewards that are closely tied to important productivity indicators like profit per employee can inspire employees and promote a culture that results-driven. Banks must use cost-benefit analysis to fine-tune budget allocations while also keeping a close eye on staff spending to make sure that human investments provide proportionate returns.

Finally, banks should take a holistic approach that incorporates employee productivity measurements with other financial performance indicators in order to enhance long-term results. By encouraging benchmarking procedures and rewarding organizations that continuously increase efficiency by Reserve Bank of India (RBI) may help the industry even more. Last but not least, maintaining the general stability and competitiveness of the Indian banking system can be achieved by promoting a dynamic, accountable, and innovative workplace culture, particularly within public sector banks. This would help reduce the performance gap between public and private sector banks in India.

## REFERENCES

1. Angadi, V. B., & Devaraj, V. J. (1983). Productivity and profitability of banks in India. *Economic and Political Weekly*, 18(48), M160–M170.
2. Bhattacharyya, A., Lovell, C. A. K., & Sahay, P. (1997). The impact of liberalization on the productive efficiency of Indian commercial banks. *European Journal of Operational Research*, 98(2), 332–345. [https://doi.org/10.1016/S0377-2217\(96\)00351-7](https://doi.org/10.1016/S0377-2217(96)00351-7)
3. Chakrabarty, K. C. (2013, August 13). Productivity trends in Indian banking in the post-reform period – experience, issues and future challenges. Special Address at the FIBAC 2013, organized by FICCI and IBA, Mumbai. [https://www.rbi.org.in/scripts/BS\\_SpeechesView.aspx?Id=832](https://www.rbi.org.in/scripts/BS_SpeechesView.aspx?Id=832)
4. Das, A., & Kumbhakar, S. C. (2012). Productivity and efficiency dynamics in Indian banking: An input distance function approach incorporating quality of inputs and outputs. *Journal of Applied Econometrics*, 27(2), 205–234. <https://doi.org/10.1002/jae.1181>
5. Das, M. K., & Patra, S. (2016). Productivity and efficiency of public sector banks in India after the global financial crisis. *The IUP Journal of Bank Management*, 15(2), 50–62.
6. Satish, D. K. ., & Jyothi, D. B. R. . (2022). Effectiveness of productivity measures on performance and profitability of selected banks in India. *The Journal of Contemporary Issues in Business and Government*, 28(4), 1688–1696.
7. Kumar, S., & Sreeram, M. (2007). Employees’ productivity and cost – A comparative study of banks in India during 1997 to 2008. *Reserve Bank of India Occasional Papers*, 28(3), 35–50.
8. Kumar, S. S. (2013). Total factor productivity of Indian banking sector – Impact of information technology. *Reserve Bank of India Occasional Papers*, 34(1), 66–86.
9. Lawlor, T. M. (1985). *Productivity improvement manual*. McGraw-Hill.
10. Mohan, R. (2005, December 21). Reforms, productivity and efficiency in banking: The Indian experience. Special Address at the 21st Annual General Meeting and Conference of the Pakistan Society of Development Economists, Islamabad. [https://www.rbi.org.in/scripts/BS\\_SpeechesView.aspx?Id=229](https://www.rbi.org.in/scripts/BS_SpeechesView.aspx?Id=229)
11. Reserve Bank of India. (2020). Report on Trends and progress of banking in India 2020–21. Reserve Bank of India.
12. Reserve Bank of India. (2025). Report on Trends and progress of banking in India 2023–24. Reserve Bank of India.
13. Render, B., & Russell, R. S. (1990). *Production and operations management: Strategies and tactics*. Allyn and Bacon.
14. Singh, H., & Kamlesh. (2013). Employee productivity of private sector banks in India. *International Journal of Management and Social Sciences Research (IJMSSR)*, 2(10), 64–79.
15. Sumanth, D. J. (1984). *Productivity engineering and management*. McGraw-Hill.