

An Empirical Investigation into The Profitability and Operational Efficiency of State Bank of India

Ms. Boppana Kusuma¹, Ms. Kodithyala Keerthana², Dr. K. Naveen Kumar³

¹Student, B. Com (Finance) II-year, Department of Commerce, Villa Marie Degree College for Women, Somajiguda, Hyderabad

²Student, B. Com (Business Analytics), II Year, Department of Commerce, Villa Marie Degree College for Women, Somajiguda, Hyderabad

³Assistant Professor, Department of Commerce, Villa Marie Degree College for Women, Somajiguda, Hyderabad

doi.org/10.64643/IJIRTV12I10-196137-459

Abstract—This study examines the financial performance of State Bank of India over a period of ten years, divided into two phases for comparative analysis. The objective of the study is to evaluate changes in profitability, efficiency, and overall financial stability using selected financial ratios. Key indicators such as Earnings Per Share (EPS), Return on Equity (ROE), Net Profit Margin (NPM), Return on Assets (ROA), and Net Interest Margin (NIM) were analyzed. Statistical tools including descriptive statistics and independent sample t-tests were applied to determine whether significant differences exist between the two time periods. The results indicate a marked improvement in profitability and asset utilization in the later five-year period, while core interest margins remained relatively stable. The findings suggest that the bank has strengthened its financial structure through improved operational management and better utilization of resources. The study provides useful insights for investors, policymakers, and banking professionals in understanding performance trends and strategic financial management in public sector banking.

Index Terms—Financial Performance, Earnings Per Share, Return on Equity, Profitability Analysis, Public Sector Banking.

I. INTRODUCTION

The banking sector plays a central role in the economic development of a country by mobilizing savings and channeling them into productive investments. A strong and stable banking system not only supports business growth but also contributes to financial inclusion and overall economic stability. Among public sector banks in India, the State Bank of India holds a significant

position due to its wide network, diverse customer base, and extensive financial services.

Financial performance analysis is essential for assessing the operational strength and long-term sustainability of any banking institution. It helps in understanding how efficiently a bank utilizes its resources, manages risks, controls costs, and generates returns for shareholders. In a competitive and regulated environment, continuous monitoring of financial indicators becomes crucial for maintaining stability and improving profitability.

Over the past decade, the banking industry has experienced structural changes influenced by regulatory reforms, technological advancements, and economic fluctuations. These changes have directly impacted profitability, asset quality, and capital management. Therefore, evaluating the financial performance of State Bank of India over a defined period provides meaningful insights into how the bank has adapted to these developments.

The present study focuses on analyzing selected financial ratios over ten years, divided into two five-year periods, to identify performance trends and measure statistical differences. By applying quantitative tools such as ratio analysis and hypothesis testing, the research aims to provide a clear understanding of the bank's financial progress and operational efficiency. The study contributes to the existing literature by offering a structured and period-based comparative evaluation of financial performance.

II. LITERATURE REVIEW

Kumpati Divya and Dr. N. Ramanjaneyulu (2025) conducted a comprehensive ratio-based analysis of SBI for the period 2021–2025. Their study evaluated liquidity ratios, solvency ratios, profitability indicators, Earnings per Share (EPS), and Capital Adequacy Ratio. The findings revealed that SBI maintained strong financial stability and improved profitability during the study period. However, the authors emphasized the need for better management of non-performing assets (NPAs) and operational costs to sustain long-term growth.

Priyanka Jha and Dr. Monu Bhargav (2019) compared the financial status of SBI and ICICI Bank from 2011–2018. Using ratio analysis, the study found that SBI exhibited better financial soundness in terms of loans and advances, while ICICI showed higher growth in certain performance indicators like credit-deposit ratio and dividend payout ratio. The study concluded that SBI was perceived as more stable and reliable in its operations during the selected period.

Mohd Kamran (2024) focused specifically on cash flow statement analysis of SBI for 2018–2023. The study emphasized the importance of operating, investing, and financing cash flows in evaluating financial health. The findings suggested that SBI demonstrated stable cash generation capacity, enabling it to meet short-term obligations and support long-term financial planning. The research highlighted cash flow analysis as an essential complement to traditional ratio analysis.

Earlier research by T. Christy Cresida and T. Christy Chanchu (2015) analyzed SBI's financial performance from 2003–2012. Their results indicated a consistent increase in net profits and overall growth performance. The study recommended diversification of financial products and expansion strategies to meet the evolving needs of customers in a competitive banking environment.

Similarly, Maheswari and Shree B (2023) examined SBI's profitability, liquidity, solvency, and efficiency using both primary and secondary data. Their findings confirmed that SBI maintained a stable financial position, though efficiency ratios indicated scope for

operational improvement. Dr. Sahil Mahajan (2025) also reinforced these conclusions, stating that while SBI's profitability and solvency remained strong, competitive pressure and regulatory challenges require continuous performance monitoring.

Dr. V. Mahalakshmi (2024) discussed SBI's broader role in economic development, emphasizing the bank's contribution to resource mobilization and financial discipline. The study linked technological advancements and modernization in banking operations with improvements in financial performance.

Further, Dr. R. Mayilsamy and Mr. Srilakshman (2025) analyzed key indicators such as Current Ratio, Quick Ratio, NPA levels, and Interest Coverage Ratio. Their findings showed steady growth but pointed out that NPAs continue to be a significant concern affecting asset quality. Patel Bhaveshkumar K. (2020) also focused on profitability performance and observed that SBI maintained good financial health, though dividend payout ratios were nil in certain years, reflecting cautious financial management.

III. RESEARCH GAP

Although numerous studies have examined SBI's financial performance across different time periods, most research either focuses on limited financial ratios or compares SBI with other banks over earlier periods. There is a need for updated, post-2020 comprehensive analysis that integrates liquidity, profitability, solvency, capital adequacy, and cash flow perspectives together. Additionally, evolving regulatory norms and digital banking transformations require fresh evaluation to understand SBI's current financial resilience and strategic direction.

IV. OBJECTIVES OF THE STUDY

1. To evaluate the overall financial performance of State Bank of India during the selected period.
2. To analyze the profitability, liquidity, and solvency position of the bank using relevant financial ratios.
3. To examine the trend in financial performance and suggest measures for improving efficiency and long-term stability.

V. SCOPE OF THE STUDY

The study focuses exclusively on the financial performance of State Bank of India. It covers a period of ten years and evaluates key financial indicators such as profitability, liquidity, solvency, and efficiency. The analysis is restricted to financial statement data and does not include customer satisfaction, service quality, or comparative analysis with other banks. The findings are limited to the selected time frame and are based on published financial information.

VI. DATA COLLECTION

The study is based entirely on secondary data collected from reliable sources. The required financial information has been gathered from the published annual reports of State Bank of India, including the Balance Sheets, Profit and Loss Accounts, and Cash Flow Statements. Additional reference data have been obtained from RBI reports, financial journals, and the official website of SBI.

Sample Size

The sample size of the study consists of ten years of published Balance Sheets of State Bank of India, selected for detailed financial analysis.

VII. DATA ANALYSIS AND INTERPRETATION

1. EPS

Levene's Test Sig.	t	df	Sig. (2-tailed)	Mean Difference
0.212	3.72	8	0.006	45.32

The independent sample t-test for Earnings Per Share shows that Levene's test is not significant ($p = 0.212 > 0.05$), indicating that the assumption of equal variances is satisfied. The calculated t-value (3.72) with 8 degrees of freedom is statistically significant at the 5% level ($p = 0.006 < 0.05$). This confirms that there is a significant difference in EPS between the two five-year periods. The positive mean difference of 45.32 indicates a substantial improvement in shareholder earnings in the later period. Hence, the null hypothesis is rejected for EPS.

2. ROE

Levene's Sig.	t	df	Sig. (2-tailed)	Mean Difference
0.318	4.08	8	0.003	10.20

For Return on Equity, Levene's test is insignificant ($p = 0.318 > 0.05$), confirming homogeneity of variance. The t-value of 4.08 is statistically significant ($p = 0.003 < 0.05$). This result indicates a meaningful difference in ROE between the two periods. The mean difference of 10.20 suggests that the bank has significantly improved its efficiency in generating returns for shareholders in the recent five years. Therefore, the null hypothesis is rejected for ROE.

3. Net Profit Margin

Levene's Sig.	t	df	Sig. (2-tailed)	Mean Difference
0.271	4.53	8	0.002	9.86

The Levene's test value ($p = 0.271 > 0.05$) indicates equal variance between the two groups. The t-test result ($t = 4.53, p = 0.002 < 0.05$) shows a statistically significant difference in Net Profit Margin between the earlier and later periods. The mean difference of 9.86 reflects a considerable improvement in profitability performance. This suggests better cost management and income generation in the recent period. Thus, the null hypothesis is rejected for Net Profit Margin.

4. ROA

Levene's Sig.	t	df	Sig. (2-tailed)	Mean Difference
0.394	3.79	8	0.005	0.61

In the case of Return on Assets, Levene's test is not significant ($p = 0.394 > 0.05$), meaning the equal variance assumption holds. The t-value of 3.79 with a significance level of 0.005 confirms a statistically significant difference between the two periods. The mean difference of 0.61 indicates improved asset utilization efficiency in the later five-year period. Therefore, the null hypothesis is rejected for ROA.

5. Net Interest Margin

Levene's Sig.	t	df	Sig. (2-tailed)	Mean Difference
0.447	2.28	8	0.052	0.16

For Net Interest Margin, Levene's test is insignificant ($p = 0.447 > 0.05$), satisfying the homogeneity assumption. However, the t-test result shows a p-value of 0.052, which is slightly higher than the 5% level of significance. This indicates that the difference in Net Interest Margin between the two periods is not statistically significant at the conventional level. Although the mean difference is 0.16, it is not strong

enough to conclude a significant change. Hence, the null hypothesis is accepted for Net Interest Margin.

t-Test Results (Before vs After Period)

S. No	Variable	t-value	p-value (2-tailed)	Decision (5% Level)	Result
1	EPS	3.72	0.006	$p < 0.05$	Reject H_0
2	ROE	4.08	0.003	$p < 0.05$	Reject H_0
3	Net Profit Margin	4.53	0.002	$p < 0.05$	Reject H_0
4	ROA	3.79	0.005	$p < 0.05$	Reject H_0
5	Net Interest Margin	2.28	0.052	$p > 0.05$	Accept H_0

The t-test results reveal that there is a statistically significant difference in Earnings Per Share, Return on Equity, Net Profit Margin, and Return on Assets between the two five-year periods. Since the p-values are less than 0.05, the null hypothesis is rejected for these variables, indicating improved financial performance in the later period.

Net Interest Margin does not show a statistically significant difference ($p > 0.05$), suggesting that the bank's core interest spread remained relatively stable across the two periods. Overall, the analysis confirms that SBI has strengthened its profitability and asset utilization efficiency in recent years.

VIII. FINDINGS OF THE STUDY

1. The study found a significant improvement in Earnings Per Share during the later five-year period, indicating enhanced shareholder value creation.
2. Return on Equity increased significantly, showing better utilization of shareholders' funds and improved capital efficiency.
3. Net Profit Margin demonstrated substantial growth, reflecting effective cost control and income management strategies.
4. Return on Assets improved significantly, indicating better asset management and operational performance.
5. Net Interest Margin remained relatively stable, suggesting consistency in core banking operations despite changes in overall profitability.

IX. SUGGESTIONS

1. SBI should continue strengthening its profitability strategies by focusing on high-yield assets and diversified income sources.
2. The bank needs to maintain strict control over operating expenses to sustain higher profit margins in the long run.
3. Continuous monitoring and reduction of non-performing assets (NPAs) will further enhance asset quality and return on assets.
4. Investment in digital banking and technology-driven services can improve operational efficiency and customer outreach.
5. Strategic capital planning should be adopted to maintain strong return on equity while ensuring financial stability.

X. CONCLUSION

The statistical analysis of State Bank of India over the selected ten-year period clearly indicates a significant improvement in profitability and operational efficiency during the recent five years. The independent sample t-test confirms that key performance indicators such as EPS, ROE, Net Profit Margin, and ROA have improved considerably, reflecting stronger financial discipline and effective management practices. Although Net Interest Margin remained stable, the overall results demonstrate that SBI has achieved enhanced financial sustainability and shareholder value. Therefore, the bank appears to be moving towards a more stable and growth-oriented financial structure in the recent period.

REFERENCES

- [1] Kumar, Dr. K. Naveen. "Evaluating Financial Performance: An Analytical Study of HDFC Bank's Financial Statements." BTHN Journal, vol. 25, no. 1, 2025, pp. 23–32. DOI:10.37326/bthnlv25.1/1883.
- [2] Kumar, K. N., & Upadhyay, M. (2022). Mergers and acquisitions in the pharmaceutical industry: A challenge in an uncertain and unpredictable environment. *Pramana Research Journal*, 12(7), 1–XX. ISSN: 2249-2976.
- [3] Kumar, K. N., & Upadhyay, M. (2022). Mergers and acquisitions in Indian pharmaceutical

- industry: Understanding the strategic trends from existing literature. *International Journal of Multidisciplinary Educational Research (IJMER)*, 11(2[6]), 1–XX. ISSN: 2277-7881.
- [4] Kumar, K. N., & Upadhyay, M. (2022). A study on financial performance of pre- and post-merger and acquisition of selected pharmaceutical companies. *NIU International Journal of Human Rights*, 9(XIX). ISSN: 2394-0298.
- [5] Kumar, K. N., & Upadhyay, M. (2023). An examination of financial performance before and after mergers: A case study of selected Indian pharmaceutical companies. *Journal of Research Administration*, 5(2), 4132–4142. ISSN: 1539-1590, E-ISSN: 2573-7104.
- [6] Kumar, K. N., & Upadhyay, M. (2024). Examining the impact of mergers and acquisitions on financial performance: Empirical evidence from India. *Journal of the Maharaja Sayajirao University of Baroda*, 58(1), 1-XX. ISSN: 0025-0422.
- [7] Kumar, K.N., & Upadhyay, M. (2023) An Examination of Financial Performance Before and After Mergers: A Case Study of Selected Indian Pharmaceutical Companies. (2023). *Journal of Research Administration*, 5(2), 4132-4142.
- [8] Cresida, T. C., & Chanchu, T. C. (2015). A study on financial performance of State Bank of India for the period 2003 to 2012. *International Journal of Management Research*, January 2015.
- [9] Divya, K., & Ramanjaneyulu, N. (2025). A study on financial performance of SBI Bank, Hyderabad. Published on 6 June 2025.
- [10] Jha, P., & Bhargav, M. (2019). Assessing the financial status of SBI and ICICI Bank operative 2011–2018. *International Journal of Accounting and Finance*, February 2019.
- [11] Kamran, M. (2024). A research report on cash flow statement analysis of State Bank of India. *Journal of Financial Studies*, May–June 2024.
- [12] Mahajan, S. (2025). Financial analysis of State Bank of India. *International Journal of Banking and Finance Research*, October 2025.
- [13] Mahalakshmi, V. (2024). Financial performance of State Bank of India. *Journal of Economic and Financial Development*, March 2024.
- [14] Maheswari, D., & Shree, B. (2023). A study on financial performance of State Bank of India. *International Journal of Commerce and Management Studies*, June 2023.
- [15] Mayilsamy, R., & Srilakshman. (2025). A study on financial performance of State Bank of India. Published on 4 April 2025.
- [16] Patel, B. K. (2020). A study on financial performance of SBI Bank. *International Journal of Research in Commerce and Management*, April 2020.
- [17] State Bank of India. (2016–2025). *Annual Reports*. Mumbai: State Bank of India.
- [18] Reserve Bank of India. (Various years). *Statistical Tables Relating to Banks in India*. Mumbai: RBI.
- [19] Kumar, K. N. (2022). A study on mergers and acquisitions in Indian service industry: With reference to banking companies. *International Journal of Multidisciplinary Educational Research*, 11(4(6)), 34–46
- [20] Kumar, K. N. (2022). Mergers and acquisitions in Indian pharmaceutical industry: Understanding the strategic trends from existing literature.
- [21] Kumar, K. N., Upadhyay, M., & Maheshwari, D. (2022). Mergers and acquisitions in the pharmaceutical industry: A challenge in an uncertain and unpredictable environment. *Pramana Research Journal*, 12(7), 19
- [22] Kumar, K. N., & Maheswari, D. (2021). A study on the awareness level among investors towards mutual funds in Hyderabad city. *Shodhaytan Rabindranath Tagore University Journal*.
- [23] Kumar, K. N. (2020). Environmental accounting: A tool to measure green growth. *Juni Khyat*, 10(8), 5
- [24] Kumar, K. N. (2020). Forensic accounting in Indian perspective: Uncover, investigate, analyze, resolve and present financial crimes for justice. *International Research Journal of Management Science and Technology*, 11(7).
- [25] Kumar, K. N., & Maheswari, D. (2021). A study on the Awareness Level Among the Investors Towards Mutual Funds in Hyderabad City.
- [26] K. Naveen Kumar, D. D. M. (2022). Mergers And Acquisitions in Indian Pharmaceutical Industry– Understanding the Strategic Trends from Existing Literature.