# An Analytical Study on the Financial Performance of Selected Public Banks in India

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**Abstract:**
*The banking sector is a cornerstone of economic growth in India, and public sector banks (PSBs) play a vital role in mobilizing savings, providing credit, and supporting government initiatives. This study aims to analyse and compare the financial performance of three prominent public banks: Bank of Baroda, Punjab National Bank, and State Bank of India. The study focuses on key financial indicators such as CASA ratio, Net Profit Margin, and Return on Capital Employed (ROCE) over a five-year period from 2020-21 to 2024-25. Quantitative techniques including ANOVA are employed to assess statistical differences among the banks. Findings indicate that while all three banks maintain comparable profitability levels, significant differences exist in capital utilization efficiency, with Bank of Baroda exhibiting the highest ROCE. CASA ratios show a gradual decline across all banks, reflecting challenges in mobilizing low-cost deposits. Net Profit Margins improved steadily for Bank of Baroda and SBI, whereas PNB demonstrated fluctuations before recent recovery. The study highlights the need for enhanced operational efficiency, strategic capital management, and effective deposit mobilization to strengthen financial performance. Overall, the research provides valuable insights for policymakers, investors, and banking professionals regarding the performance dynamics of India's public sector banks.*

**Keywords**: *Financial Performance, Public Sector Banks, CASA Ratio, Net Profit Margin, ROCE, Bank of Baroda, Punjab National Bank, State Bank of India.*

## 1. Introduction

Public sector banks (PSBs) in India are financial institutions where the majority stake is held by the Government of India or state governments. They form a crucial part of the Indian banking system and play a significant role in the country's economic development by mobilizing savings, providing credit, and supporting government initiatives aimed at inclusive growth. The public banking sector in India has a long history, with institutions such as the State Bank of India tracing their origins back to the 19th century.

After the nationalization of 14 major commercial banks in 1969, followed by six more in 1980, public sector banks became the backbone of India's financial system. These banks are mandated not only to operate on commercial lines but also to fulfill social objectives, such as providing banking services to rural areas, promoting financial inclusion, and supporting small-scale industries. Today, PSBs dominate the banking landscape, accounting for a significant share of total bank deposits, advances, and branch networks across the country.

Public banks in India are regulated by the Reserve Bank of India (RBI), which oversees their operations, ensures financial stability, and implements regulatory reforms. In recent decades, public banks have undergone significant transformations, including technological modernization, merger and consolidation exercises, and stricter governance norms to improve operational efficiency and competitiveness.

Despite challenges such as non-performing assets (NPAs), increased competition from private and foreign banks, and evolving financial technologies, public banks continue to serve as vital instruments of economic policy. They play a key role in implementing government schemes, providing affordable credit, and fostering financial literacy among the masses. The performance and stability of these banks are therefore critical not only for the banking sector but also for the overall growth and stability of the Indian economy.

**2. Need of the Study**

The banking sector in India plays a pivotal role in the economic development of the country. Public sector banks, in particular, have a significant presence in the Indian financial system and are responsible for mobilizing savings, providing credit, and supporting government initiatives aimed at inclusive growth. Over the years, the banking environment has witnessed rapid changes due to technological advancements, regulatory reforms, economic fluctuations, and increasing competition from private and foreign banks. These changes have made it essential to continuously monitor and evaluate the financial performance of banks to ensure stability, efficiency, and sustainable growth.

Analysing the financial performance of selected public banks is crucial for multiple reasons. First, it provides insights into their profitability, liquidity, asset quality, and operational efficiency, which are key indicators of their overall health. Second, such an analysis helps policymakers, regulators, and bank management identify strengths, weaknesses, and areas requiring improvement, enabling better decision-making. Third, investors, stakeholders, and customers can benefit from understanding the financial stability and performance of banks, which can guide investment and banking choices.

Moreover, in the context of recent economic challenges, including non-performing assets (NPAs), changing interest rates, and evolving financial technologies, evaluating the financial performance of public sector banks becomes even more significant. This study is expected to contribute to a deeper understanding of how selected public banks are performing, compare their financial health, and provide recommendations to enhance efficiency and competitiveness in the Indian banking sector. In essence, this study addresses the growing need for empirical research on public bank performance, ensuring that the banks remain robust and capable of supporting India's economic growth objectives.

**3. Literature Review**

Rajarajeswari, Revathy, and Srinivasan (2023) examined the financial performance of selected Indian public and private sector banks using DuPont analysis for the period 2018–2023, decomposing return on equity into profit margin, asset turnover, and leverage to identify performance drivers. They found HDFC Bank consistently outperformed peers on ROE, net interest margin, asset turnover, and net profit margin, reflecting stronger operating efficiency and pricing power, while Axis Bank and ICICI Bank exhibited comparatively stronger leverage ratios. The study underscored that post-2018 improvements in private banks were primarily efficiency-led rather than leverage-driven, and highlighted the strategic importance of stable margins and calibrated risk-taking for sustaining profitability across cycles.

Singh and Sharma (2022) conducted a comparative analysis of financial performance between public sector banks and private sector banks, focusing on profitability and efficiency indicators over recent years. Their results indicated that private banks generally posted superior profitability metrics due to better asset quality, higher fee income, and stronger cost controls, whereas public sector banks showed gradual recovery as resolution of legacy NPAs and capital infusion improved solvency and lending capacity. The authors emphasized the structural gap in management efficiency and product mix, noting that convergence requires continued governance reforms, credit risk management strengthening, and technology-led operating discipline within PSBs.

Deepa and Muragan (2023) analysed selected public sector banks to assess overall health and efficiency using secondary financial data, capturing trends in capital adequacy, asset quality, earnings, and liquidity after 2018. The study reported that PSBs' performance improved modestly, supported by recapitalization and consolidation, but profitability remained sensitive to provisioning cycles and credit growth momentum, particularly in SME and agriculture segments. The authors concluded that sustained improvements depend on granular credit underwriting, diversified income streams, and operational efficiencies through digital channels to mitigate cost-to-income pressures and enhance return profiles.

Lathwal (2024) compared profitability across six Indian banks—three public and three private—during 2019–2023, using ratio analysis to map trends in ROA, ROE, NIM, and cost-to-income. Findings showed private banks maintained higher ROA/ROE and lower cost-to-income ratios, reflecting better scale efficiencies and risk-adjusted pricing, while PSBs demonstrated progressive improvement as asset quality stabilized and interest spreads normalized. The study highlighted that profitability dispersion narrowed post-2020, suggesting sectoral healing, yet structural differences in franchise strength and operational agility continue to shape performance trajectories.

Ashwath and Sachindra (2024) evaluated five major public sector banks using the CAMELS framework (Capital adequacy, Asset quality, Management efficiency, Earnings, Liquidity, and Sensitivity to market risk) over 2019–2024 to assess post-merger resilience. The analysis found capital adequacy benefited from Basel III compliance and state support, asset quality trended better with declining gross NPAs, and earnings improved on reduced credit costs, though management efficiency and fee-based diversification lagged private peers. The study underscored liquidity strength but noted sensitivity to market risk through rate cycles, arguing for continued focus on governance, analytics-driven risk management, and productivity gains to cement profitability improvements.

Jaiswal and Kanujiya (2024) performed a ratio-based financial statement analysis of Indian Bank for 2018–2022 to examine solvency, liquidity, and profitability dynamics through trend analysis. They reported pressures in current assets and liabilities management and uneven net profit trajectory, indicating the need to strengthen solvency positioning and operational cash flows. The authors suggested targeted measures—tightened cost controls, improved asset-liability management, and enhanced credit screening—to stabilize performance and support sustainable earnings growth in a competitive and digitally transforming environment.

Vijaya Raj Yadav, Venkateswarlu, Kalesha, and Kumar (2023) analyzed NIFTY-50 listed banks' financial ratios from 2018–2022 to compare commercial banking performance across key metrics. Their findings indicated that leading private banks achieved superior profitability and efficiency through robust NIMs and fee income, while several PSBs made gains in asset quality and capital adequacy. The study emphasized the importance of consistent operating performance, effective risk governance, and diversified revenue engines to withstand shocks and maintain competitive advantage within the benchmarked cohort.

**4. Research Objectives**
1.To analyse the financial performance of selected public banks in India.
2.To compare the financial performance of selected public banks in India.

**5. Sample Size**
In this study below mentioned 3 companies selected
1.Bank of Baroda Ltd
2.Punjab National Bank
3.State Bank of India Ltd

## 6. Data Analysis

### *6.1 CASA (Current Account Savings Account) ratio*

| BANK NAME | 2024-25 | 2023-24 | 2022-23 | 2021-22 | 2020-21 |
|---|---|---|---|---|---|
| Bank of Baroda Ltd | 37.81 | 38.76 | 39.47 | 41.45 | 40.15 |
| Punjab National Bank | 36.61 | 40.33 | 41.99 | 46.55 | 44.54 |
| State Bank of India Ltd | 38.71 | 39.89 | 42.66 | 44.51 | 45.39 |

For Bank of Baroda, the CASA ratio has shown a gradual decline over the five-year period. In 2020-21, the CASA ratio stood at 40.15%, which increased slightly in subsequent years to 41.45% in 2021-22. However, since then, the ratio has declined consistently, reaching 37.81% in 2024-25. This downward trend suggests that the bank is either facing challenges in attracting low-cost deposits or has seen a proportionate increase in higher-cost deposits. The declining CASA ratio could indicate rising reliance on term deposits and other costly funds, which may increase the overall cost of funds and impact the bank's net interest margin and profitability.

Punjab National Bank displays a more pronounced decline in CASA over the same period. The CASA ratio was relatively high at 44.54% in 2020-21 and peaked at 46.55% in 2021-22, indicating strong growth in current and savings accounts during that period. However, the ratio fell sharply to 41.99% in 2022-23, then further to 40.33% in 2023-24, and finally to 36.61% in 2024-25. This significant drop indicates that the bank has struggled to maintain its proportion of low-cost deposits, which may affect profitability and operational efficiency. The steep decline could be attributed to increased competition from other banks, changing customer behaviour, or strategic shifts in deposit mobilization policies.

State Bank of India, the largest public sector bank, shows a similar but less volatile trend. The CASA ratio decreased gradually from 45.39% in 2020-21 to 38.71% in 2024-25. While the bank continues to maintain a relatively high proportion of low-cost deposits compared to other banks, the consistent decline over the years indicates a slow erosion in its deposit mix. This may be due to an increased focus on term deposits or changing customer preferences, which can influence the bank's cost of funds and profitability. Despite the decline, SBI's CASA ratio remains competitive, reflecting its widespread branch network, customer trust, and ability to attract savings deposits at scale.

| | | | | | | |
|---|---|---|---|---|---|---|
| Anova: Single Factor | | | | | | |
| SUMMARY | | | | | | |
| *Groups* | *Count* | *Sum* | *Average* | *Variance* | | |
| Bank of Baroda Ltd | 5 | 197.64 | 39.528 | 1.90642 | | |
| Punjab National Bank | 5 | 210.02 | 42.004 | 14.74878 | | |
| State Bank of India Ltd | 5 | 211.16 | 42.232 | 8.30872 | | |
| | | | | | | |
| | | | | | | |
| ANOVA | | | | | | |
| *Source of Variation* | *SS* | *df* | *MS* | *F* | *P-value* | *F crit* |
| Between Groups | 22.49029 | 2 | 11.24515 | 1.351368 | 0.295596 | 3.885294 |
| Within Groups | 99.85568 | 12 | 8.321307 | | | |
| | | | | | | |
| Total | 122.346 | 14 | | | | |

Null Hypothesis ($H_0$): There is no significant difference in the CASA (%) among Bank of Baroda, Punjab National Bank, and State Bank of India.

The ANOVA results for CASA (%) indicate an F-value of 1.351 and a P-value of 0.296. Since the P-value is greater than the significance level of 0.05, we fail to reject the null hypothesis. This suggests that there is no statistically significant difference in the CASA ratios of Bank of Baroda, Punjab National Bank, and State Bank of India over the five-year period. Although the average CASA ratios of the banks show slight variations, these differences are not significant enough to conclude that any one bank has a consistently higher or lower CASA ratio than the others.

***6.2 Net Profit Margin (%)***

| **BANK NAME** | **2024-25** | **2023-24** | **2022-23** | **2021-22** | **2020-21** |
|---|---|---|---|---|---|
| Bank of Baroda Ltd | 16.12 | 15.79 | 15.74 | 10.40 | 1.17 |
| Punjab National Bank | 13.65 | 7.71 | 2.94 | 4.61 | 2.50 |
| State Bank of India Ltd | 15.33 | 14.71 | 15.12 | 11.49 | 7.69 |

Bank of Baroda shows a significant improvement in its net profit margin over the five-year period. In 2020-21, its NPM was very low at 1.17%, which reflects the severe impact of rising non-performing assets, high operating costs, or other economic challenges during that period. However, the bank's profitability improved sharply in 2021-22 to 10.40% and continued a steady upward trend to reach 16.12% in 2024-25. This consistent increase suggests effective cost control, recovery of stressed assets, improved operational efficiency, and enhanced revenue generation from interest and non-interest sources. The upward trajectory indicates a strong recovery and strengthening of financial performance.

Punjab National Bank's net profit margin exhibits more volatility over the same period. Starting at 2.50% in 2020-21, the NPM increased to 4.61% in 2021-22 but fell drastically to 2.94% in 2022-23, followed by a rise to 7.71% in 2023-24 and reaching 13.65% in 2024-25. The fluctuation in NPM reflects challenges in maintaining consistent profitability, possibly due to variations in asset quality, provisioning for NPAs, or interest rate pressures. Despite the initial instability, the bank has shown substantial improvement in recent years, signaling recovery efforts and better financial management.

State Bank of India maintains a relatively high and more stable net profit margin compared to the other two banks. The NPM started at 7.69% in 2020-21 and increased steadily to 11.49% in 2021-22, 15.12% in 2022-23, 14.71% in 2023-24, and 15.33% in 2024-25. The stability and consistent growth in NPM indicate strong operational efficiency, effective cost control, and successful management of lending and investment activities. SBI's ability to maintain a high net profit margin despite economic fluctuations demonstrates its robust financial position and competitive advantage in the public banking sector.

| Anova: Single Factor | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |
| SUMMARY | | | | | | |
| *Groups* | *Count* | *Sum* | *Average* | *Variance* | | |
| Bank of Baroda Ltd | 5 | 59.22 | 11.844 | 41.26333 | | |
| Punjab National Bank | 5 | 31.41 | 6.282 | 21.14867 | | |
| State Bank of India Ltd | 5 | 64.34 | 12.868 | 10.80912 | | |
| | | | | | | |
| | | | | | | |

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| *Source of Variation* | *SS* | *df* | *MS* | *F* | *P-value* | *F crit* |
| Between Groups | 125.5997 | 2 | 62.79985 | 2.573022 | 0.117518 | 3.885294 |
| Within Groups | 292.8845 | 12 | 24.40704 | | | |
| | | | | | | |
| Total | 418.4842 | 14 | | | | |

Null Hypothesis ($H_0$): There is no significant difference in the Net Profit Margin (%) among Bank of Baroda, Punjab National Bank, and State Bank of India.

The ANOVA results for Net Profit Margin (%) show an F-value of 2.573 and a P-value of 0.118. Since the P-value is greater than the 0.05 significance level, we fail to reject the null hypothesis. This indicates that the differences in Net Profit Margin among Bank of Baroda, Punjab National Bank, and State Bank of India are not statistically significant over the five-year period. Although the average Net Profit Margin varies among the banks, with SBI showing the highest average and PNB the lowest, these differences are not significant enough to conclude that one bank consistently outperforms the others in terms of profitability. Overall, the results suggest that the three banks maintain relatively comparable profitability levels despite variations in individual years.

**6.3 Return on Capital Employed**

| **BANK NAME** | **2024-25** | **2023-24** | **2022-23** | **2021-22** | **2020-21** |
|---|---|---|---|---|---|
| Bank of Baroda Ltd | 1.87 | 2.01 | 1.91 | 1.81 | 1.85 |
| Punjab National Bank | 1.50 | 1.63 | 1.57 | 1.61 | 1.85 |
| State Bank of India Ltd | 1.73 | 1.47 | 1.59 | 1.42 | 1.64 |

For Bank of Baroda, the ROCE has remained relatively stable over the five-year period. It started at 1.85% in 2020-21, dipped slightly to 1.81% in 2021-22, and then showed marginal improvements, reaching 1.87% in 2024-25. This stability suggests that the bank has maintained consistent use of its capital in generating returns, although the overall ROCE levels remain modest. The low ROCE indicates that despite improvements in profitability metrics such as net profit margin, the bank's overall efficiency in leveraging its capital to generate returns is still limited.

Punjab National Bank shows a declining trend in ROCE over the period. The bank recorded 1.85% in 2020-21, which gradually declined to 1.50% in 2024-25, with minor fluctuations in between. This downward trend may reflect challenges in utilizing capital effectively, possibly due to rising non-performing assets, increased provisions, or slower growth in earnings relative to the capital employed. The declining ROCE highlights the need for the bank to enhance operational efficiency and optimize capital deployment to improve overall financial performance.

State Bank of India exhibits moderate fluctuations in ROCE across the five years. Beginning at 1.64% in 2020-21, it improved to 1.73% in 2024-25, though the trend was not entirely linear. The variations indicate periods of both improvement and minor setbacks in capital utilization. Despite these fluctuations, SBI's ROCE remains higher than PNB in most years, suggesting relatively better efficiency in generating returns from its capital employed. This reflects SBI's stronger operational management, scale advantages, and effective deployment of resources to generate earnings.

| Anova: Single Factor | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |
| SUMMARY | | | | | | |
| *Groups* | *Count* | *Sum* | *Average* | *Variance* | | |
| Bank of Baroda Ltd | 5 | 9.45 | 1.89 | 0.0058 | | |
| Punjab National Bank | 5 | 8.16 | 1.632 | 0.01732 | | |
| State Bank of India Ltd | 5 | 7.85 | 1.57 | 0.01585 | | |
| | | | | | | |
| | | | | | | |
| ANOVA | | | | | | |
| *Source of Variation* | *SS* | *df* | *MS* | *F* | *P-value* | *F crit* |
| Between Groups | 0.288013 | 2 | 0.144007 | 11.08596 | 0.001875 | 3.885294 |
| Within Groups | 0.15588 | 12 | 0.01299 | | | |
| | | | | | | |
| Total | 0.443893 | 14 | | | | |

Null Hypothesis ($H_0$): There is no significant difference in ROCE (%) among Bank of Baroda, Punjab National Bank, and State Bank of India.

The ANOVA results for ROCE (%) show an F-value of 11.086 and a P-value of 0.0019. Since the P-value is less than the significance level of 0.05, we reject the null hypothesis. This indicates that there is a statistically significant difference in the ROCE among Bank of Baroda, Punjab National Bank, and State Bank of India over the five-year period. Bank of Baroda has the highest average ROCE at 1.89%, followed by Punjab National Bank at 1.632% and State Bank of India at 1.57%. The significant difference suggests that Bank of Baroda has been more efficient in utilizing its capital to generate returns compared to the other two banks, while SBI and PNB show relatively lower capital efficiency. This finding highlights the variation in capital utilization strategies and operational efficiency among the selected public sector banks.

**7. Conclusion**

The analysis of financial performance of selected public sector banks in India – Bank of Baroda, Punjab National Bank, and State Bank of India – over the five-year period from 2020-21 to 2024-25 provides meaningful insights into their operational efficiency, profitability, and capital utilization. The CASA ratio analysis indicates a gradual decline in low-cost deposits across all three banks, with Punjab National Bank experiencing the steepest fall. Although the differences in CASA ratios were not statistically significant according to ANOVA results, the trend highlights the challenges public banks face in maintaining a strong proportion of low-cost funding in a competitive environment.

Net Profit Margin analysis shows an overall improvement in profitability for all three banks, with Bank of Baroda and State Bank of India demonstrating consistent growth, while Punjab National Bank experienced fluctuations before recovering in recent years. ANOVA results confirmed that differences in Net Profit Margin among the banks were not statistically significant, indicating that their profitability levels remain relatively comparable despite variations in individual years.

The ROCE analysis, however, revealed significant differences among the banks. Bank of Baroda consistently achieved the highest returns on capital employed, reflecting more effective utilization of capital, while Punjab National Bank and State Bank of India showed lower capital efficiency. This finding underscores the importance of strategic capital management and operational efficiency in enhancing financial performance.

Overall, the study concludes that while all three banks maintain comparable levels of profitability, differences in capital utilization and low-cost deposit mobilization exist. Bank of Baroda demonstrates superior efficiency in generating returns from capital, SBI shows stability in profitability, and PNB is improving but faces challenges in sustaining capital efficiency and deposit growth. The findings highlight the need for continued focus on improving CASA ratios, optimizing operational efficiency, and strategic capital deployment to strengthen the financial performance of public sector banks in India.

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