

# A Comparative Study of the Financial Performance and Growth of State Bank of India (SBI) and Punjab National Bank (PNB) During FY 2021–22 to FY 2024–25

Gaurav Omprakash Walde, Prof. Ketaki Kukde

Department of Management Studies, Wainganga College of Engineering and Management, Nagpur

Email: waldegaurav1234@gmail.com, kukde.k@wcem.edu.in

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## Abstract:

The commercial banking system is crucial to India's economy as it helps in mobilizing deposits and allocating the monetary resources to the most useful economic sectors [1], [2]. In light of extensive asset quality reviews, the introduction of the Insolvency and Bankruptcy Code, and the restructuring of public sector banks, the assessment of the performance of banks offers the practical evidence of stability and recovery after the pandemic [2]. The current research compares the two largest public sector banks in India – State Bank of India and Punjab National Bank during the four-year period ranging from FY 2021/22 to FY 2024/25 [10], [11]. The study evaluates 16 financial indicators from banks' annual audited financial statements and has evaluated their operating models, annual growth trends, profitability, solvency, and efficiency [1]. The results show that the State Bank of India functions like a consistent compounder, achieving steady capital accumulation, significant operating margins, and relatively low debt-to-equity ratio [6], [8]. At the same time, Punjab National Bank has demonstrated the recovery trend that can be characterized with low initial profitability, fast growth of profits due to better provision policy, large debt-to-equity ratio, and rapid operating efficiency improvements [3], [7].

**Keywords — Credit-Deposit Ratio, Debt-Equity Ratio, Earnings Per Share, Net Profit Margin, Punjab National Bank, Return on Net Worth, State Bank of India.**

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## I. INTRODUCTION

Commercial banks act as essential financial intermediaries in contemporary macro economies because they convert liquid deposits into investments that produce profits and help the central bank implement monetary policy [1], [2]. In the Indian context, scheduled commercial banks are classified into public and private sector banks [1]. In a nutshell, since they have government majority ownership, public sector banks earn a great deal of public confidence, engage in mobilizing a majority of the deposits, and adhere to national objectives of socio-economic development including priority sector lending and financial inclusion of rural areas [1], [4].

As far as the state-run banks are concerned, the State Bank of India (SBI) stands out as the most

prominent Domestic Systemically Important Bank (D-SIB) with one-fifth of total aggregate deposits and domestic credit [12], [13]. The Punjab National Bank (PNB) is the second-largest public sector lender, following its merger with Oriental Bank of Commerce and the United Bank of India in April 2020 [7], [9]. The period FY 2022-2025 is significant regarding the progress of Indian public sector banking, with the first-year operations beginning with the recovery of balance sheets post-COVID and decent credit demand and the last phase being marked by the increase in interest rates close to the end of the year [2]. The paper utilizes the empirical indicator framework developed by Jha [1] to address the operations, growth patterns, and other financial ratios of SBI and PNB during the FY21-25 period [3], [5].

## II. RESEARCH METHODOLOGY AND PERFORMANCE INDICATORS

### A. Data Collection and Scope

This research uses a descriptive and empirical comparative methodology [1]. Secondary data has been collected from the separate audited financial statements, published balance sheets, income statements, and statutory information of both State Bank of India and Punjab National Bank [6], [7]. The analysis studies four successive years of business, namely, 2021–22, 2022–23, 2023–24, and 2024–25 [10], [11]. Standalone financial statements are used to assess essential banking intermediation without involvement of other non-banking business activities and insurance companies [8], [9].

### B. Selection of Performance Indicators

In line with the known comparative banking literature, the study investigates a total of 16 standardized metrics which fall under three functional dimensions: **Operational and Income Structure Metrics** (the CD ratio, interest expenses to total expenses, interest income to total income, and other income to total income), **Growth Performance Parameters** (annual percentage changes in the net profit, total income, total expenditure, total advances, and total deposits), and **Profitability, Solvency, and Efficiency Ratios** (net profit margin, return on net worth, earnings per share, total assets turnover ratio, dividend payout ratio, debt-equity ratio, and interest paid to interest received) [1], [3], [4].

### C. Mathematical Formulation of Indicators

The mathematical specifications for the analytical indicators are formulated as follows:

$$\text{Credit-Deposit (CD) Ratio} = \left( \frac{\text{Total Net Advances}}{\text{Total Deposits}} \right) \times 100 \quad (1)$$

$$\text{Interest Expenses to Total Expenses} = \left( \frac{\text{Interest Expended}}{\text{Total Expenses}} \right) \times 100 \quad (2)$$

$$\text{Interest Income to Total Income} = \left( \frac{\text{Interest Earned}}{\text{Total Income}} \right) \times 100 \quad (3)$$

$$\text{Other Income to Total Income} = \left( \frac{\text{Other Income}}{\text{Total Income}} \right) \times 100 \quad (4)$$

$$\text{Net Profit Margin} = \left( \frac{\text{Net Profit}}{\text{Total Income}} \right) \times 100 \quad (5)$$

$$\text{Return on Net Worth (RoNW)} = \left( \frac{\text{Net Profit}}{\text{Shareholders' Funds}} \right) \times 100 \quad (6)$$

$$\text{EPS} = \frac{\text{Net Profit After Tax}}{\text{Total Number of Equity Shares Outstanding}} \quad (7)$$

$$\text{Total Assets Turnover Ratio} = \left( \frac{\text{Total Income}}{\text{Total Assets}} \right) \times 100 \quad (8)$$

$$\text{Dividend Payout Ratio} = \left( \frac{\text{Dividend Per Share}}{\text{Earnings Per Share}} \right) \times 100 \quad (9)$$

$$\text{Debt-Equity Ratio} = \frac{\text{Total Assets} - \text{Shareholder's Funds}}{\text{Shareholder's Funds}} \quad (10)$$

$$\text{Interest Expended to Interest Earned} = \left( \frac{\text{Interest Expended}}{\text{Interest Earned}} \right) \times 100 \quad (11)$$

### D. Statistical Tools

The mean and standard deviation (Mean  $\pm$  SD) are used to summarize four years of data for each of the financial indicators considered in the analysis. Year-on-year growth rate is computed based on the percentage change between the years of observation.

## III. FINDINGS AND COMPARATIVE ANALYSIS

### A. Operational and Income Structure Dimensions

Table I summarizes the empirical findings for operational deployment and revenue compositions of SBI and PNB between FY 2021–22 and FY 2024–25 [6], [7].

TABLE I.

Comparative Operational and Income Structure Indicators (2021–22 to 2024–25)

| Financial Year                                 | State Bank of India (SBI) | Punjab National Bank (PNB) |
|------------------------------------------------|---------------------------|----------------------------|
| <b>Credit-Deposit Ratio (%)</b>                |                           |                            |
| 2021–22                                        | 67.48                     | 63.53                      |
| 2022–23                                        | 72.32                     | 64.85                      |
| 2023–24                                        | 75.34                     | 70.06                      |
| 2024–25                                        | 77.35                     | 73.37                      |
| Mean $\pm$ SD                                  | 73.12 $\pm$ 4.29          | 67.95 $\pm$ 4.58           |
| <b>Interest Expenses to Total Expenses (%)</b> |                           |                            |
| 2021–22                                        | 62.36                     | 69.47                      |
| 2022–23                                        | 65.71                     | 67.76                      |
| 2023–24                                        | 67.15                     | 70.40                      |

|                                            |                  |                  |
|--------------------------------------------|------------------|------------------|
| 2024–25                                    | 71.45            | 71.26            |
| Mean $\pm$ SD                              | 66.67 $\pm$ 3.77 | 69.72 $\pm$ 1.50 |
| <b>Interest Income to Total Income (%)</b> |                  |                  |
| 2021–22                                    | 87.16            | 85.88            |
| 2022–23                                    | 90.07            | 87.52            |
| 2023–24                                    | 88.93            | 90.67            |
| 2024–25                                    | 88.11            | 88.52            |
| Mean $\pm$ SD                              | 88.57 $\pm$ 1.24 | 88.15 $\pm$ 2.00 |
| <b>Other Income to Total Income (%)</b>    |                  |                  |
| 2021–22                                    | 12.84            | 14.12            |
| 2022–23                                    | 09.93            | 12.48            |
| 2023–24                                    | 11.07            | 09.33            |
| 2024–25                                    | 11.89            | 11.48            |
| Mean $\pm$ SD                              | 11.43 $\pm$ 1.24 | 11.85 $\pm$ 2.00 |

Over the years in the study, both banks have reported an increase in the Credit-Deposit ratio [10] [11]. In the case of SBI, the ratio has increased from 67.48% in FY22 to 77.35% in FY25 and that of PNB has gone up from 63.53% to 73.37%. SBI recorded the average ratio of 73.12%, which was higher than 67.95% of PNB [8], [9]. This indicates that SBI had to use a larger share of deposits for lending compared to PNB.

The average ratio of Interest Expenses to Total Expenses in PNB was recorded at 69.72%, which is higher than SBI's ratio of 66.67% [10], [11]. However, this proportion increased in FY25 to 71.45% in case of SBI and 71.26% for PNB [6], [7]. The data shows that interest expense has a crucial share in the total expenses, underlining the significance of deposit costs in total expenses incurred by the banks [2].

Interest income served as a major revenue stream for both banks studied, as it represented an average proportion of 88.57% of the total income of SBI and 88.15% of the total income of PNB. Other sources of income contributed 11.43% to income of SBI and 11.85% to income of PNB, thus indicating that while both banks depended mainly on earnings from the interest income, only a relatively small portion was made up from income earned through other streams [6], [7].

## B. Annual Growth Dynamics

Table II provides the year-over-year percentage growth rates for net profit, total revenue, aggregate expenditure, loan advances, and deposit mobilization.

TABLE II.  
Comparative Annual Growth Dynamics (2021–22 to 2024–25)

| Year                               | SBI Absolute (₹ Cr) | SBI YoY (%)       | PNB Absolute (₹ Cr) | PNB YoY (%)        |
|------------------------------------|---------------------|-------------------|---------------------|--------------------|
| <b>Growth in Net Profit</b>        |                     |                   |                     |                    |
| 2021–22                            | 31,675.98           | +55.20            | 3,456.96            | +70.97             |
| 2022–23                            | 50,232.45           | +58.58            | 2,507.20            | -27.47             |
| 2023–24                            | 61,076.62           | +21.59            | 8,244.62            | +228.83            |
| 2024–25                            | 70,900.63           | +16.08            | 16,630.00           | +101.71            |
| Mean $\pm$ SD                      | —                   | 37.86 $\pm$ 22.13 | —                   | 93.51 $\pm$ 105.71 |
| <b>Growth in Total Income</b>      |                     |                   |                     |                    |
| 2021–22                            | 3,16,021.20         | +4.18             | 87,199.71           | -6.80              |
| 2022–23                            | 3,68,718.66         | +16.67            | 97,286.72           | +11.57             |
| 2023–24                            | 4,66,812.82         | +26.61            | 1,20,285.33         | +23.64             |
| 2024–25                            | 5,24,172.42         | +12.29            | 1,40,085.30         | +16.46             |
| Mean $\pm$ SD                      | —                   | 14.94 $\pm$ 9.35  | —                   | 11.22 $\pm$ 12.99  |
| <b>Growth in Total Expenditure</b> |                     |                   |                     |                    |
| 2021–22                            | 2,48,147.22         | +8.84             | 66,491.08           | -8.59              |
| 2022–23                            | 2,85,005.70         | +14.85            | 74,750.36           | +12.42             |
| 2023–24                            | 3,80,115.64         | +33.37            | 97,343.14           | +30.22             |
| 2024–25                            | 4,13,593.25         | +8.81             | 1,13,254.30         | +16.35             |
| Mean $\pm$ SD                      | —                   | 16.47 $\pm$ 11.62 | —                   | 12.60 $\pm$ 16.06  |
| <b>Growth in Total Advances</b>    |                     |                   |                     |                    |
| 2021–22                            | 27,33,967.00        | +11.61            | 7,28,186.00         | +8.00              |
| 2022–23                            | 31,99,269.00        | +17.02            | 8,30,834.00         | +14.10             |
| 2023–24                            | 37,03,971.00        | +15.77            | 9,59,687.00         | +15.51             |
| 2024–25                            | 41,63,312.00        | +12.40            | 11,21,438.00        | +16.85             |
| Mean $\pm$ SD                      | —                   | 14.20 $\pm$ 2.61  | —                   | 13.62 $\pm$ 3.91   |
| <b>Growth in Total Deposits</b>    |                     |                   |                     |                    |
| 2021–22                            | 40,51,534.00        | +10.06            | 11,46,218.00        | +3.61              |
| 2022–23                            | 44,23,778.00        | +9.19             | 12,81,163.00        | +11.77             |
| 2023–24                            | 49,16,077.00        | +11.13            | 13,69,852.00        | +6.92              |
| 2024–25                            | 53,82,190.00        | +9.48             | 15,28,452.00        | +11.58             |
| Mean $\pm$ SD                      | —                   | 9.97 $\pm$ 0.86   | —                   | 8.47 $\pm$ 3.94    |

The net profit of SBI rose consistently during the period under study, revealing an average annual growth of 37.86% [11]. The net profit began at ₹31,675.98 crores in FY22 and surged to ₹70,900.63 crores in FY25 without suffering a single dip [6], [8]. PNB, however, experienced more ups and downs with the company recording an average annual growth rate of 93.51% despite its net profit falling by 27.47% in FY23. PNB, however, managed to turn things around for itself with a 228.83% rise in FY24 and 101.71% in FY25 [7], [9].

SBI achieved an average annual growth in revenue on the higher side of the spectrum at 14.94%, whereas PNB achieved a lower growth of 11.22%

[10], [11]. Both banks achieved the highest revenue growth in FY24 at 26.61% for SBI and 23.64% for PNB. Expenditures also experienced a significant increase during the same year, increasing by 33.37% for SBI and 30.22% for PNB. Expenditures increased due to higher deposit and employee-related expenses [15]. This reveals that SBI achieved higher revenue growth overall while both banks witnessed increasing expenditures.

Throughout the time period researched, both SBI and PNB experienced increases in lending [10], [11]. In particular, SBI exhibited an average annual increase in advances of 14.20%, compared to 13.62% for PNB [8], [9]. Nevertheless, while SBI's advances increased by 12.40% in FY25, PNB's advances rose by 16.85%. Thus, it can be seen that PNB had a considerable increase in advances in the last year of the study. SBI also had a higher level of consistency in deposit growth. Its average deposit growth was 9.97%, compared to only 8.47% for PNB. Therefore, we can conclude that while SBI's deposit growth was steadier, PNB had a better performance in terms of advances in FY25 [7].

### **C. Profitability, Solvency, and Asset Utilization Ratios**

Table III details the core financial ratios governing bottom-line margins, shareholder returns, asset turnover, dividend policy, capital structure, and interest absorption.

TABLE III.  
Comparative Financial and Operational Ratios (2021–22 to 2024–25)

| Financial Year                        | State Bank of India (SBI) | Punjab National Bank (PNB) |
|---------------------------------------|---------------------------|----------------------------|
| <b>Net Profit Margin (%)</b>          |                           |                            |
| 2021–22                               | 10.02                     | 3.96                       |
| 2022–23                               | 13.62                     | 2.58                       |
| 2023–24                               | 13.08                     | 6.85                       |
| 2024–25                               | 13.53                     | 11.87                      |
| Mean $\pm$ SD                         | 12.56 $\pm$ 1.71          | 6.32 $\pm$ 4.11            |
| <b>Return on Net Worth (RoNW) (%)</b> |                           |                            |
| 2021–22                               | 11.31                     | 5.51                       |
| 2022–23                               | 15.33                     | 3.78                       |
| 2023–24                               | 16.19                     | 10.98                      |
| 2024–25                               | 16.07                     | 18.18                      |
| Mean $\pm$ SD                         | 14.73 $\pm$ 2.31          | 9.61 $\pm$ 6.48            |
| <b>Earnings Per Share (EPS) (₹)</b>   |                           |                            |
| 2021–22                               | 35.49                     | 3.14                       |
| 2022–23                               | 56.29                     | 2.28                       |
| 2023–24                               | 68.44                     | 8.27                       |
| 2024–25                               | 79.44                     | 16.42                      |
| Mean $\pm$ SD                         | 59.92 $\pm$ 18.83         | 7.53 $\pm$ 6.49            |

|                                                 |                  |                  |
|-------------------------------------------------|------------------|------------------|
| <b>Total Assets Turnover Ratio (%)</b>          |                  |                  |
| 2021–22                                         | 6.34             | 6.63             |
| 2022–23                                         | 6.68             | 6.65             |
| 2023–24                                         | 7.55             | 7.54             |
| 2024–25                                         | 7.85             | 7.85             |
| Mean $\pm$ SD                                   | 7.11 $\pm$ 0.71  | 7.17 $\pm$ 0.62  |
| <b>Dividend Payout Ratio (%)</b>                |                  |                  |
| 2021–22                                         | 20.01            | 20.38            |
| 2022–23                                         | 20.07            | 28.51            |
| 2023–24                                         | 20.02            | 18.14            |
| 2024–25                                         | 20.01            | 16.44            |
| Mean $\pm$ SD                                   | 20.03 $\pm$ 0.03 | 20.87 $\pm$ 5.34 |
| <b>Debt-Equity Ratio (Times)</b>                |                  |                  |
| 2021–22                                         | 16.81            | 19.95            |
| 2022–23                                         | 15.84            | 21.02            |
| 2023–24                                         | 15.38            | 20.23            |
| 2024–25                                         | 14.13            | 18.53            |
| Mean $\pm$ SD                                   | 15.54 $\pm$ 1.11 | 19.93 $\pm$ 1.04 |
| <b>Interest Expended to Interest Earned (%)</b> |                  |                  |
| 2021–22                                         | 56.18            | 61.68            |
| 2022–23                                         | 56.39            | 59.49            |
| 2023–24                                         | 61.49            | 62.84            |
| 2024–25                                         | 63.98            | 65.08            |
| Mean $\pm$ SD                                   | 59.51 $\pm$ 3.86 | 62.27 $\pm$ 2.33 |

SBI keeps a higher Net Profit Margin average of 12.56% compared to PNB's 6.32% [10]. However, PNB's performance is low in FY22 and FY23, gaining 6.85% in FY24 and 11.87% in FY25. This indicates that PNB has improved its profitability towards the end of the period but still falls short in comparison to SBI [3].

The average Return on Net Worth for SBI was 14.73% [11]. In contrast, PNB had only 9.61% as RoNW. SBI has had RoNW above 15% between FY23 and FY25 [8], [11]. But, it is important to note that PNB's RoNW also rose significantly in FY25 to 18.18%, higher than SBI's 16.07% [6], [7]. This indicates that PNB did better with overall return in the last year.

SBI registered substantially more average earnings per share (EPS) at ₹59.92 than ₹7.53 for PNB [10], [11]. The EPS of SBI was at ₹79.44 in FY25 compared to the EPS of PNB, which grew from ₹3.14 in FY22 to ₹16.42 in FY25. So, while SBI had a greater EPS than PNB, PNB also saw significant growth in the EPS during the duration of the study [3].

The Total Assets Turnover Ratios were the same for both banks, showing that their use of assets was comparable. SBI had an average Total Assets Turnover ratio of 7.11%, whereas PNB had one that was very close at 7.17%. The figures show that both

organisations were equally efficient in using their total assets to produce revenue over the review period [1].

In the case of PNB, the average Debt-Equity Ratio stood at 19.93 times, which was higher than the 15.54 times recorded by SBI [10], [11]. As a result, according to the reported data, PNB is seen to have employed its financial resources at a greater level than SBI. Both banks have demonstrated a decline in the amount of leverage used in the years of observation; however, the reasons behind this fact should be verified based on the financial reports of both organizations [6], [7].

SBI's average Interest Expended to Interest Earned Ratio was lower at 59.51% as compared to PNB with 62.27%, showing that SBI has used lesser of its interest earnings for interest payments [10], [11]. Nevertheless, both banks have seen their ratios increase towards the end of the review period showing increased pressure on funding costs [2].

#### IV. DISCUSSION

The data for the years 2021–22 to 2024–25 demonstrate an improvement in the financial performance of both SBI and PNB [10], [11]. Compared to previous times when public banks suffered due to high NPAs and poor asset quality, the banks recorded higher profits and better financial conditions in this research period [1], [5].

SBI has shown steadier growth, with net profit increasing from ₹31,675.98 crore in FY22 to ₹70,900.63 crore in FY25 [6], [11]. Its average net profit margin is 12.56%, which indicates more stable profitability [8]. Moreover, SBI has had stable distribution of dividends [6].

PNB, on the other hand, had more volatility in profitability [10]. Its net profit rose from ₹2,507.20 crore in FY23 to ₹16,630 crore in FY25. This growth is connected with better asset quality and lower requirement for provisions, which helped its profitability [3], [14]. Nevertheless, the average profit growth of PNB is higher than its annual profit variation [10].

During the course of the study, the Credit Deposit Ratio for SBI and PNB saw an upward trend, reaching 77.35% and 73.37%, respectively, in FY25. The ratio of interest expended over interest earned indicated that credit-related expenses contributed to

the banks' financial performance [1]. This implies that maintaining the cost of deposits while lending is a challenge for both banks [2].

The D/E ratio of PNB was 19.93 times, while that of SBI was 15.54 times, indicating a higher leverage ratio for PNB. However, despite its higher leverage, PNB managed to report a Return on Net Worth of 18.18%, compared to SBI's 16.07%. Thus, the results indicate that PNB outperformed in terms of return to shareholders, but such leverage also implies the necessity of having a proper level of equity [12], [13].

Overall, SBI has displayed consistent profitability and financial performance, while PNB registered a remarkable improvement in its earnings and returns to shareholders [3], [4]. The analysis shows different growth trends of the two banks throughout the study.

#### V. LIMITATIONS OF THE STUDY

Before analysing the empirical evidence, it is important to point out several analytical limitations:

1. The analysis is based on the standalone financials that only focus on core banking business and therefore disregarding any contribution from non-banking subsidiaries and associates [6], [7].
2. The analysis covers the four-year period (FY22-FY25) that contains information about particular period of recovery after the pandemic and the monetary policy tightening that cannot give an indication about long-term performance during different economic cycles [2].
3. The period includes several one-time operational adjustments like wage revision provisions under 12th Bipartite Settlement [15] and changing regulatory provisioning guidelines [14].
4. The study is limited to two public-sector commercial banks and does not include smaller public-sector lenders or private-sector banks [1], [4].

#### VI. SUGGESTIONS AND RECOMMENDATIONS

According to empirical evidence, a number of strategic actions are recommended:

1. Management of the relationship between credit and deposit: Both banks should actively mobilize

Current Account and Savings Account (CASA) deposits as the credit-deposit ratio nears its peak [2].

2. Improvement in common equity capital: PNB should take advantage of high profitability by increasing its core sustainable capital and maintain a low debt-equity ratio in preparation for the implementation of the Expected Credit Loss (ECL) concepts [14].
3. Diversification of income from non-interest sources: Both banks receive over 88% of their income from interest and thus should increase their income from other services (such as trade finance, asset management, etc.) to hedge the risk of earning from interest rates [6], [7].
4. Reduction of the overhead costs: SBI should further increase employee productivity and reduce costs using its digital advantages, whereas PNB should further streamline its branch infrastructure [8], [9].
5. Prevention of margin decline: In light of the fact that a large volume of loans is based on floating rates, banks should manage the durations of their assets and liabilities [2].

## VII. CONCLUSION

This empirical comparative study illustrates the different trajectories of progression of the State Bank of India and the Punjab National Bank during the period of 2021-22 and 2024-25 [10], [11]. The results show that the SBI registered steady compounding of capital, stable profitability, and solid balance sheet position while the PNB went through an aggressive operational recovery after the merger [3], [7]. PNB's rapid profit growth, declining credit costs, and later spikes in Return on Net Worth show that PNB has made considerable progress in its balance sheet recovery. Nevertheless, high leverage and significant earnings variability indicate the necessity of capital maintenance, deposits mobilization, and disciplined management [12], [13]. In future, effective management of liability funding costs, diversifying sources of fee income, and keeping the quality of assets in check will be crucial for maintaining financial stability of both banks [2].

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## REFERENCES

- [1] P. Jha, "Analysing financial performance (2011-2018) of public sector banks (PNB) and private sector banks (ICICI) in India," *ICTACT J. Manage. Stud.*, vol. 4, no. 3, pp. 793–799, Aug. 2018.
- [2] Reserve Bank of India, "Report on trend and progress of banking in India 2023-24," Reserve Bank of India, Mumbai, India, Tech. Rep., Dec. 2024.
- [3] A. Prasad and S. K. Pradhan, "Comparative financial performance analysis of SBI and PNB," *Int. J. Sci. Dev. Res.*, vol. 8, no. 3, pp. 1146–1150, Mar. 2023.
- [4] M. Taqi and M. S. Mustafa, "Financial analysis of public and private sector banks of India: A comparative study of Punjab National Bank and HDFC Bank," *Int. Acad. J. Bus. Manage.*, vol. 5, no. 1, pp. 26–47, 2018.
- [5] V. K. Gupta, "A comparative study regarding impact of non-performing assets (NPA) on working of the State Bank of India (SBI) and the Punjab National Bank (PNB)," *Abhinav Nat. Mon. Refereed J. Res. Commerce Manage.*, vol. 7, no. 3, pp. 15–22, Mar. 2018.
- [6] State Bank of India, "Annual report FY 2024-25: Strengthening scale and digital frontiers," SBI Corporate Centre, Mumbai, India, Annual Rep., May 2025.
- [7] Punjab National Bank, "Annual report FY 2024-25: Integrated financial statements," PNB Head Office, New Delhi, India, Annual Rep., May 2025.
- [8] State Bank of India, "Standalone audited financial results and annual report 2023-24," SBI Corporate Centre, Mumbai, India, Annual Rep., June 2024.
- [9] Punjab National Bank, "Annual report 2023-24: Performance, resilience, and transformation," PNB Head Office, New Delhi, India, Tech. Rep., June 2024.

- [10] National Stock Exchange of India, "Audited standalone financial filings for Punjab National Bank (FY 2021-22 to FY 2024-25)," NSE Corporate Filings, Mumbai, India, May 2025.
- [11] National Stock Exchange of India, "Audited standalone financial filings for State Bank of India (FY 2021-22 to FY 2024-25)," NSE Corporate Filings, Mumbai, India, May 2025.
- [12] ICRA Limited, "State Bank of India: Rating rationale and banking profile review," ICRA Ratings, Gurugram, India, Rating Rep. 138313, 2024.
- [13] CARE Ratings, "State Bank of India: Comprehensive rating rationale," CARE Ratings, Mumbai, India, Press Release PR-202607060754, 2026.
- [14] Reserve Bank of India, "Discussion paper on introduction of expected credit loss framework for provisioning by banks," RBI Notifications, Mumbai, India, Tech. Rep., 2024.
- [15] Indian Banks' Association, "12th Bipartite settlement on wage revision and service conditions for bank employees," IBA Notifications, Mumbai, India, Tech. Rep., Mar. 2024.