

An empirical analysis of financial performance of selected public sectors banks in India

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Abstract

The banking sector, as a vital component of the financial system, serves as the lifeblood of the economy, playing a pivotal role in accelerating economic growth. The significance of commercial banks in fostering economic development has been consistently emphasized by economists and banking professionals. This study examines the financial performance of public sector banks (PSBs) in India over the past decade, focusing on key indicators such as profitability, asset quality, liquidity, and capital adequacy. PSBs are fundamental to India's banking landscape, contributing to economic growth and financial stability. The analysis reveals diverse performance trends among PSBs, shaped by management practices, economic dynamics, and regulatory interventions. Despite maintaining a substantial market share, PSBs face persistent challenges, including high levels of Non-Performing Assets (NPAs) and provisioning requirements. Government initiatives like recapitalization and the implementation of prudential norms have significantly influenced PSB performance, underscoring the need for improved risk management and operational efficiency. This research offers valuable insights for policymakers, regulators, and banking stakeholders, presenting a comprehensive evaluation of the challenges and opportunities within the PSB sector.

Keywords: Public sector banks, financial performance, net profit, advances

Introduction

Banks play a pivotal role in this process, and a robust banking infrastructure is essential for balanced and rapid national development. The impact of the banking system on economic growth is evident through increased resources in sectors that generate employment and contribute significantly to the gross domestic product (GDP). To ensure the availability of financial resources in India, the Government, through the Reserve Bank of India (RBI), mandates lending to sectors that may be neglected by banks and face challenges in accessing loans due to their weaker financial positions. In India's dynamic financial sector, the performance of Public Sector Banks (PSBs) is a key indicator of the country's economic health and stability. The banking system is critical to a country's economic development, so the availability of banking infrastructure is a prerequisite for rapid and sustainable growth. This system promotes economic growth by directing resources toward sectors that create significant employment and contribute significantly to the nation's GDP. In India, the government, through the Reserve Bank of India (RBI), mandates specific types of lending from banks to specific that are underserved by traditional banking due to their inability to pay high interest rates.

Public sector banks, which are an essential component of India's banking system, play an important role in promoting economic growth, financial inclusion, and stability. In India, banks' performance is objectively measured and compared using the Eagles model. In terms of ROA, gross NPA, and PCR, Yes Bank stood out among ten public and private sector banks in research that used data spanning ten years. When it came to capital adequacy ratio and investment-to-deposit ratio, Kotak Mahindra Bank and State Bank of India did well. Significant performance disparities between banks in the public and private sectors are found in the study (Santhoshi and Prasad, 2017) [8]. As government-owned institutions, these banks are responsible for not only

protecting public deposits but also fostering economic growth by channelling funds to critical sectors. Given this context, evaluating their financial success becomes critical for politicians, investors, and the general public alike. PSBs' financial landscape has undergone significant dramatic changes in recent years, including regulatory reforms and technology developments.

In light of evolving global and domestic economic scenarios, the purpose of this study is to give a complete examination of the financial performance of selected public sector banks, encompassing important criteria such as profitability, asset quality, liquidity, and capital adequacy. By exploring these factors, we hope to gain a better understanding of the trends, difficulties, and opportunities that shape these banks' contributions to India's economic resilience and financial strength. As we embark on this exploration, we unravel the complex fabric of financial performance within India's public sector banking landscape, providing insights that resonate with the broader story of the country's economic journey. Dongre and Gupta (2023), explores the role of PSBs in India's economic development from 2018 to 2022, focusing on four major PSBs: State Bank of India (SBI), Punjab National Bank (PNB), Bank of Baroda (BoB), and Canara Bank. The paper examines the financial performance, credit growth, and economic impact of these banks during the specified period. Additionally, the paper evaluates the impact of government policies on the functioning of PSBs and their role in economic development and finally suggested that PSBs have played a significant role in India's economic development, particularly in terms of providing financial access to underserved sectors and promoting financial inclusion. However, PSBs face challenges related to asset quality, profitability, and efficiency. The paper concludes by emphasizing the need for continued reforms to strengthen PSBs and enhance their contribution to India's economic development.

Review of Literature

Demetriades & Luintel, (1996) ^[1] examine that the Reserve Bank of India to assess the impact of different forms of regulatory measures in the banking sector on the phenomenon of financial deepening. It has been observed that, apart from a limitation on lending rates, these regulatory measures tend to offend financial deepening. Irrespective of the well-established impact of the real interest rate. One study try to assess whether advancements in the banking sector's intermediation process, such as an expansion in the number of branches, increased credit to the private sector, improved intermediation efficiency. The research methodology involves the utilization of the Johansen cointegration test, dynamic ordinary least squares regression, and an error correction model to examine and establish the relationships among the variables under consideration. One researcher focuses on delving into intricate financial dynamics, it scrutinizes select PSBs, revealing insights into their fiscal resilience, adaptability to market trends, and contribution to economic well-being. The research analyzes transformative changes in the financial landscape, encompassing regulatory reforms and technological advancements. The findings suggest a need for holistic and longitudinal analyses to comprehend the evolving dynamics of public sector banks in response to market changes and regulatory reforms, providing enduring insights into their financial health.

Jothi & Mathiraj (2013) ^[5] study particular emphasis on the State Bank of India, the paper investigates the relationship between CSR and CFP in Indian public sector banks. Also examined the performance of public sector banks in India, with an emphasis on the relationships that exist between bank-specific characteristics and performance. The results show that inflation and liquidity are inversely related; capital adequacy and interest margin are positively and inversely related; GDP growth is positively and inversely related to interest income; inflation rate is inversely related. Kaur, J., Kaur, M., & Singh, S. (2015) ^[6] finds that its challenging to compare bank rankings because of the yearly fluctuations in their performance. In this study, the financial performance of five banks—Bank of Baroda, State Bank of India, Punjab National Bank, Bank of India, and Canara Bank—was compared in the study between 2009 and 2014. In every CAMEL category, the Bank of Baroda came in first.

Joshi (2020) ^[4] using Altman's Z-Score methodology, the study assesses the financial performance of a subset of public sector banks that have large gross non-performing assets. Every bank has an average Z-Score over the recommended threshold, placing them in the safe zone. Values during the first five years were statistically different, presumably as a result of a rise in non-performing assets. The Z-Score falls by 3.1% for every 1% increase in gross non-performing assets. Nonetheless, it rises by 15.31% for every 1% increase in net income. Gupta & Jaiswal (2020) ^[2] evaluate the financial performance of Indian public and private sector banks, looks at several financial factors, including profitability, liquidity, and stability. Three public sector banks and three private sector banks were analyzed in the study using secondary data from 2015 to 2019 and findings indicates that although public sector banks have made great strides, they still lag behind private sector banks' performance standards. In comparison to public sector

banks, private sector banks were judged to be more successful in controlling non-performing assets.

Jeet & Aspal (2020) ^[3], study investigates the correlation between the profitability of Indian Public Sector Banks and particular characteristics. To examine the impact of variables such as capital adequacy, human capital, liquidity, management efficiency, asset quality, and earning quality, the study uses secondary data from 2015 to 2019 using panel data regression. The findings indicate that bank profitability and these variables are significantly positively correlated, although capital adequacy and earning quality are not significantly impacted. This aids banks in assessing their financial health and putting in place the safeguards required to ensure their sustainability. Nandi (2013) ^[7] study examines the financial results of Indian banking institutions operating in the public and private sectors between 2001–2002 and 2011–2012. The study examined profitability, interest spread, customer service, cost control, management, and non-performing assets (NPA) using the CAMEL approach and statistical tools. Bank of Baroda, ICICI Bank, HDFC Bank, Central Bank of India, Karnataka Bank, and UCO Bank were the top ten banks. In terms of consistency and financial performance, public sector banks fared better.

Objective of the Study

The research objective is to comprehensively analyze and evaluate the financial performance of the top five public sector banks in India. This includes assessing profitability, total advances, net profit, Return on Assets (ROA), Yield on Advances (YOA), Return on Equity (ROE), Net Non-Performing Assets (NNPA), Net Interest Margin (NIM), and Cost to Income Ratio (CIR), challenges, and opportunities for enhancing their financial sustainability and value creation. Therefore the following few more objective of the present study are as:

- To evaluate the overall performance of public sector banks in India
- To assess the financial performance of public sector banks in India.
- Try to find challenges and also try find opportunities for enhancing the financial performance of banks

Research Methodology and Data

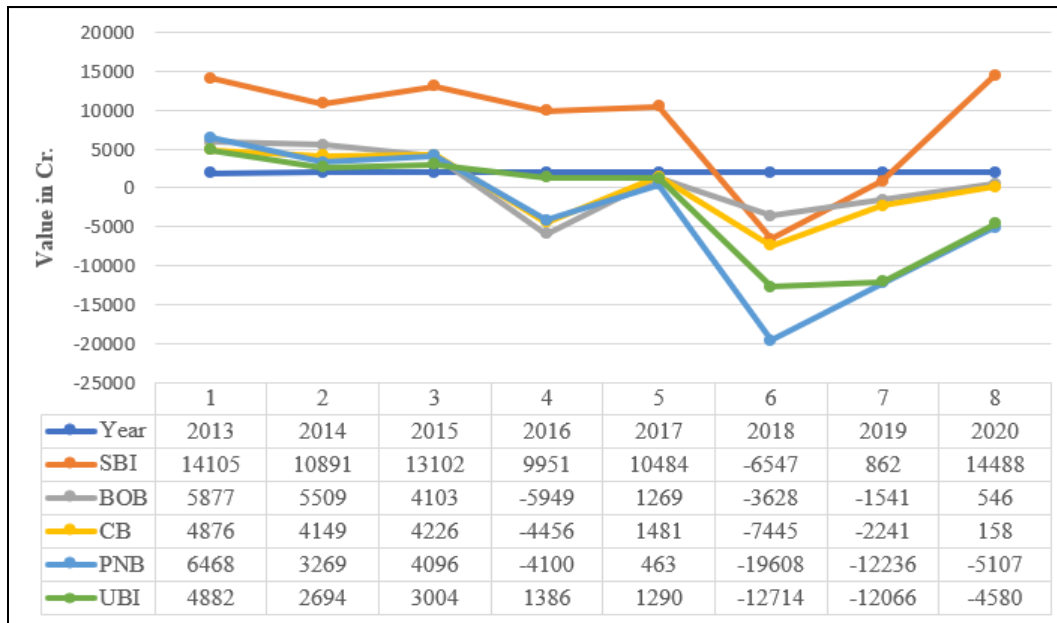
This research study focuses on the performance of public sector banks over a period of 8 years, i.e., from 2013 to 2020 ^[3, 7]. The main reason behind taking this time period for the study is that many major events have happened in the last decade like advent of Covid-19, implementation of GST, Demonetization, etc. In this study we take only five top public sector banks on the basis of total deposits and total advances. This research work is analytical in nature and entirely based on secondary data. The data is extracted from the annual reports of the selected public sector banks and Reserve Bank of India. Thus, the research design uses a simple and straightforward method of analysis as it is appropriate and sufficient for the purpose of the study. Microsoft Excel was used for both data analysis and graphic presentation of its results for the study.

Data Analysis and Explanation

As we know that today it plays an important and direct role in almost all the activities in the economy, whether it is related to banking, monetary transactions, income and expenditure of the government or the daily routine of the

common people. It is also true that all the above activities also impact the performance of the banking sector. Especially those which are related to bank deposits or bank loans, have a direct impact on the performance of banks. To a large extent, all these are connected in a multidimensional way.

For example, the effect of Covid-19 was seen in a multidimensional way in all the sectors of the economy. Almost, a similar kind of effect was seen at the time of demonetization. The impact of these major events on banks' loans, deposits and mainly net profit can be easily seen in the explanation of the following Figures and tables.

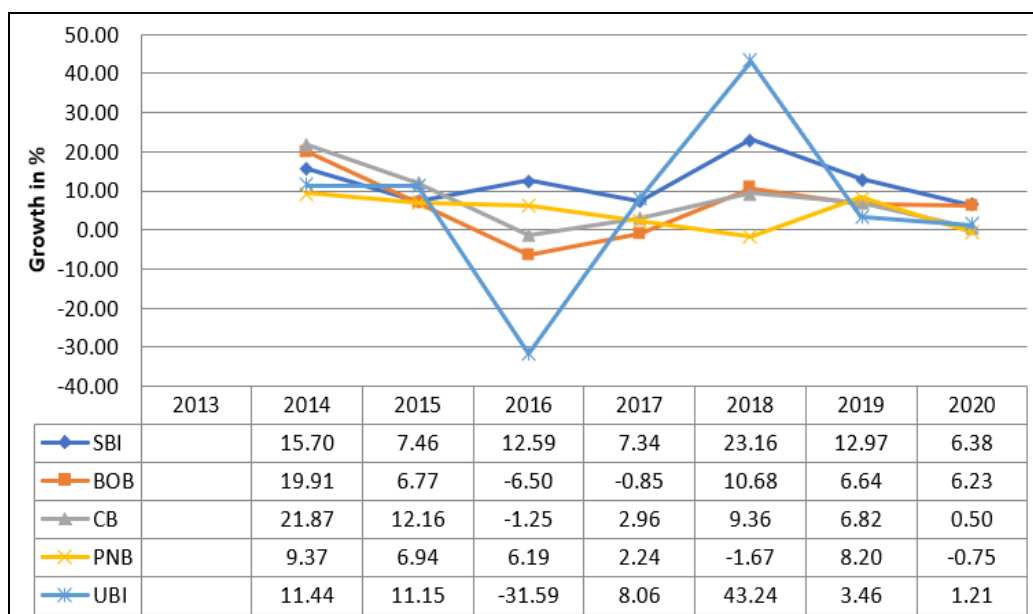


Source: Author's calculation

Fig 1: Performance of Net Profit of Selected Public Sector Bank's (Value in Cr.)

The figure 1 shows the net profit performance of five selected public sector banks in India from 2013 to 2020 [3, 7], highlighting significant fluctuations. Initially, SBI Bank maintained strong profitability, but it declined significantly in 2018 with a loss of Rs. 6547 crores, likely caused by high non-performing assets (NPAs) and provisioning requirements. Recovery efforts are evident as profits rose. BOB Bank also exhibited a similar pattern, posting significant losses in 2016, 2018 and 2019 and gradual

recovery, reflecting successful restructuring and improved asset quality. Canara Bank incurred huge losses in 2016 and 2018. PNB Bank's profitability was badly affected from 2018 to 2020 due to one famous fraud case, but efforts to improve operational efficiency and asset quality led to a profit. Union Bank also faced challenges and incurred huge losses in and 2019, but due to mergers and better NPA management, showing recovery. If we evaluate the impact of demonetization and the COVID-19 pandemic, all selected banks either negatively affected or showing low net profit.

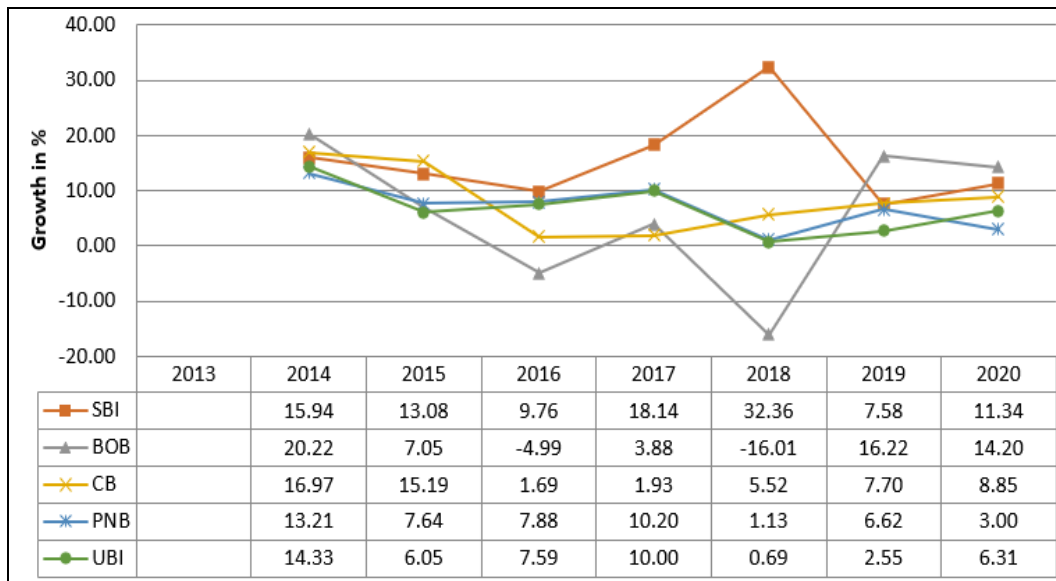


Source: Author's calculation

Fig 2: Performance of Advances of Selected Public Sector Bank's (Growth in %)

Fig 2 shows the advanced growth rates of selected public sector banks in India. SBI Bank showed strong growth in 2014 and 2018, reflecting its robust expansion strategies during those periods. The slight decline in 2017 and subsequent improvement in 2020 [3] indicate a successful adjustment to economic challenges. BOB Bank experienced fluctuating growth, with significant declines in 2016 and 2017, possibly due to the economic slowdown and asset quality issues. Canara Bank had a high growth rate in 2013 [5] but faced negative growth in 2016 and very minimal growth in 2019, pointing to challenges in sustaining loan growth amid regulatory pressures and NPAs. PNB Bank's growth was relatively stable initially but saw contraction in 2018 and then in 2020 [3].

Union Bank showed significant variability, with a severe drop in 2016 but a substantial jump in 2018, reflecting aggressive lending strategies following corrective measures. Consistent growth rates indicate effective stabilization and growth strategies. These fluctuations in advance growth rate are primarily driven by internal challenges, regulatory changes, economic conditions and strategic responses by banks to grow their loan portfolio. If we evaluate the impact of demonetization and the COVID-19 pandemic on banks' advanced performance, the selected banks have shown negative or low growth rates in 2017 and 2020 [3, 8]. This indicates that due to demonetization and the COVID-19 pandemic, banks extended fewer loans to customers.



Source: Author's calculation

Fig 3: Performance of Deposit of Selected Public Sector Bank's (Growth in %)

SBI Bank recorded consistent growth, reaching a high of 32.36% in 2018, likely driven by initiatives such as demonetization and digital banking adoption. BOB Bank's deposits witnessed volatility with a significant decline in 2018 due to asset quality issues and restructuring efforts (Figure 3). Canara Bank's deposit growth remained moderate, peaking in 2014 and remaining stable till 2020, reflecting steady customer base expansion and effective banking practices. PNB Bank experienced fluctuating growth, with a significant drop in 2018. Union Bank's deposit growth saw a sharp drop in 2018, possibly due to integration challenges from the merger. However, it some improved in 2020 [3], reflecting successful consolidation and regaining depositor confidence. When we evaluate the impact of demonetization and the COVID-19 pandemic on bank deposits, selected banks have shown an increase in deposit growth rate in 2017 [8] due to demonetization, and most the banks also have shown an increase in deposit growth rate after 2020 [3] due to the COVID-19 pandemic (Figure 3). Table 1 and Figure 4 evaluates the Compound Annual Growth Rate (CAGR) of five banks over the last decade, focusing on the number of branches, number of employees, deposits, total advances, and net profit. SBI Bank demonstrates exceptional performance across all metrics, with the highest growth rates in branches (4.13%), deposits (12.91%), total advances (10.09%), and net profit (8.43%).

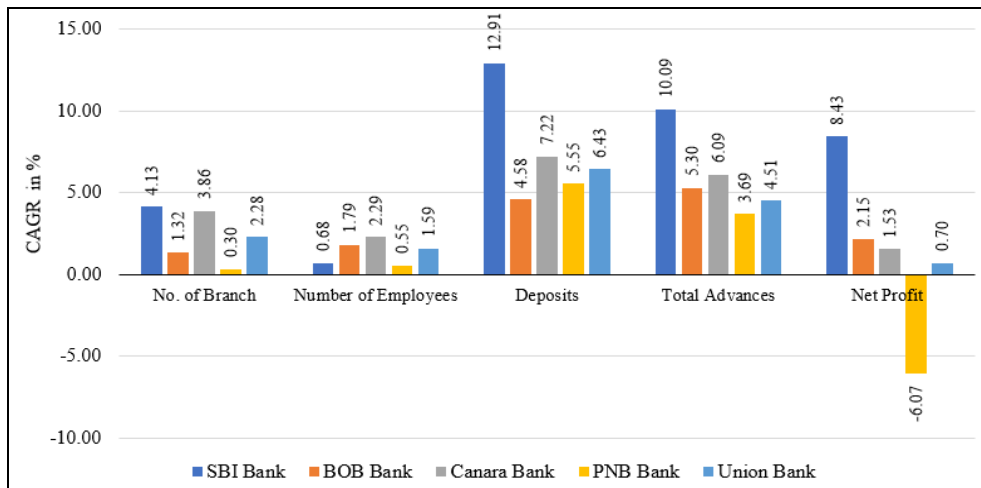
In contrast, PNB Bank struggles significantly, especially in net profit, which shows a negative growth rate of -6.07%. Canara Bank also performs well, particularly in employee growth (2.29%) and deposits (7.22%), indicating robust expansion.

Table 1: Performance on the basis of CAGR

Banks	No. of Branch	Number of Employees	Deposits	Total Advances	Net Profit
SBI Bank	4.13	0.68	12.91	10.09	8.43
BOB Bank	1.32	1.79	4.58	5.30	2.15
Canara Bank	3.86	2.29	7.22	6.09	1.53
PNB Bank	0.30	0.55	5.55	3.69	-6.07
Union Bank	2.28	1.59	6.43	4.51	0.70

Source: Author's calculation

BOB Bank has moderate growth, with notable progress in employee numbers (1.79%) and net profit (2.15%). Union Bank shows steady but less impressive growth compared to SBI, particularly in deposits (6.43%) and total advances (4.51%). Overall, SBI Bank leads in all performance aspects, highlighting its strong expansion and profitability, while PNB Bank faces challenges in maintaining profitability. Canara Bank, BOB Bank, and Union Bank exhibit moderate and steady growth, with Canara Bank excelling in employee and deposit growth.



Source: Author’s construction

Fig 4: Performance of Selected Commercial Banks

The table 2 and figure 5 (a) & (b) evaluates the financial performance of five banks over the last decade using the Compound Annual Growth Rate (CAGR) for several key metrics: Return on Assets (ROA), Yield on Advances (YOA), Return on Equity (ROE), Net Non-Performing Assets (NNPA), Net Interest Margin (NIM), Cost to Income Ratio (CIR), and three profitability measures (BPE, PPE, PPB in crore). SBI Bank shows a moderate decline in ROA (-3.72%), YOA (-3.50%), and ROE (-1.35%), with a significant reduction in NNPA (-6.97%), indicating

improved asset quality, and a slight positive NIM (0.06%). The CIR stands at 0.95, suggesting efficient cost management. PNB Bank presents severe declines across ROA (-10.83%), YOA (-4.50%), and ROE (-7.21%), coupled with a high NNPA (7.22%), indicating asset quality issues. PNB's NIM is negative (-0.89%), and its CIR is high (1.50), reflecting cost inefficiencies. Profitability metrics (BPE: 4.90, PPE: -4.92, PPB: -6.35) are poor, highlighting financial struggles.

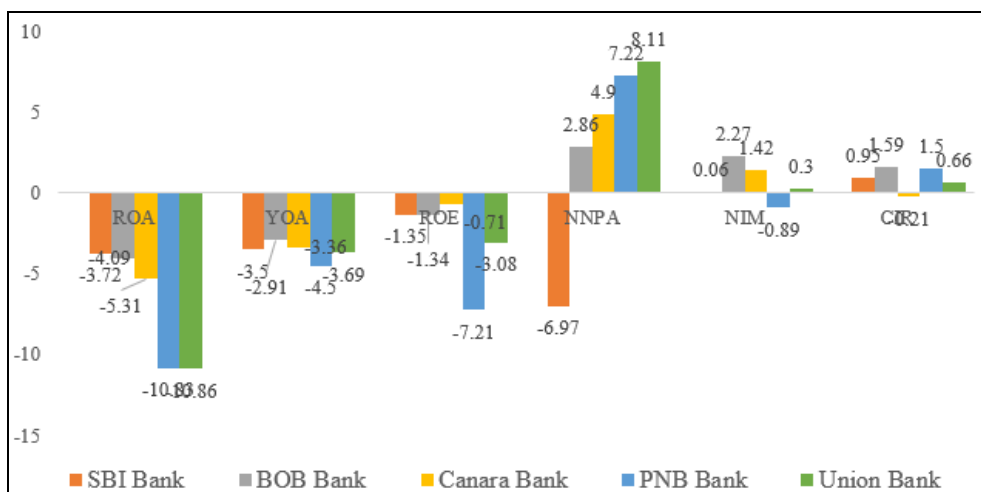
Table 2: Financial Performance on the basis of CAGR

Banks	ROA	YOA	ROE	NNPA	NIM	CIR	BPE (incrore)	PPE (in crore)	PPB (incrore)
SBI Bank	-3.72	-3.50	-1.35	-6.97	0.06	0.95	12.54	7.70	4.12
BOB Bank	-4.09	-2.91	-1.34	2.86	2.27	1.59	2.67	0.35	0.82
Canara Bank	-5.31	-3.36	-0.71	4.90	1.42	-0.21	4.01	-0.05	-2.24
PNB Bank	-10.83	-4.50	-7.21	7.22	-0.89	1.50	4.90	-4.92	-6.35
Union Bank	-10.86	-3.69	-3.08	8.11	0.30	0.66	4.63	-0.82	-1.46

Source: Author’s calculation

BOB Bank shows moderate declines in ROA (-4.09%), YOA (-2.91%), and ROE (-1.34%), with a manageable NNPA (2.86%) and a healthy NIM (2.27%). However, its CIR (1.59) indicates higher costs. Profitability measures (BPE: 2.67, PPE: 0.35, PPB: 0.82) are modest.

Canara Bank has significant declines in ROA (-5.31%), YOA (-3.36%), and ROE (-0.71%), with an NNPA of 4.90% and a positive NIM (1.42%). Its CIR is negative (-0.21), suggesting better cost efficiency.

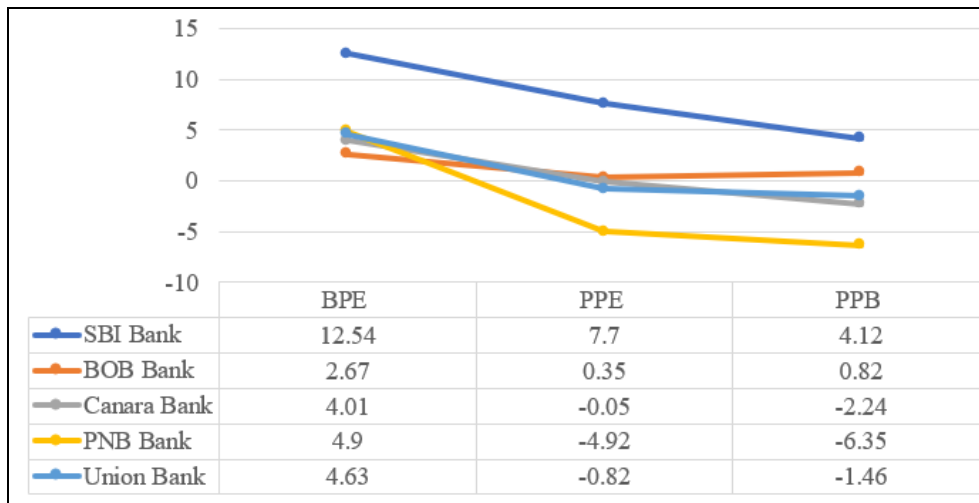


Source: Author’s construction

Fig 5(a): Financial Performance on the basis of CAGR

Union Bank shows the steepest declines in ROA (-10.86%), YOA (-3.69%), and ROE (-3.08%), with the highest NNPA (8.11%) and a low NIM (0.30%). Its CIR (0.66) suggests moderate cost efficiency, but profitability measures (BPE: 4.63, PPE: -0.82, PPB: -1.46) are weak. Overall, SBI Bank remains the strongest performer with effective cost

management and robust profitability, while PNB Bank and Union Bank struggle with significant financial challenges, particularly in profitability and asset quality. BOB Bank and Canara Bank show moderate performance with areas needing improvement, particularly in cost management for BOB and profitability for Canara.



Source: Author’s construction based on table 2

Fig 5 (b): Financial Performance on the basis of CAGR

Conclusion ad suggestions

In all selected public banks, SBI Bank leads in overall metrics with the highest growth rates, showcasing strong expansion and profitability. PNB Bank struggles, particularly with a significant decline in net profit. Canara Bank excels in employee and deposit growth, while BOB and Union Bank show moderate and steady growth. The financial performance of the five banks over the last decade is depicted using CAGR for key metrics. SBI Bank has shown strong performance overall with effective cost management and strong profitability, despite a marginal decline in ROA, YOA and ROE. PNB Bank and Union Bank are facing significant financial challenges, especially in profitability and asset quality, with sharp declines in key metrics. BOB Bank has shown moderate performance but has struggled in cost management, while Canara Bank has demonstrated better cost efficiency yet faces profitability challenges. Overall, SBI is at the forefront of financial stability, while PNB and Union Bank need immediate improvement in asset quality and profitability. Based on the financial performance analysis of the above banks, following few policy recommendations can improve their growth and stability:

- Banks should enhance their risk management frameworks to reduce Non-Performing Assets (NPA). This can involve adopting advanced credit assessment tools, regular monitoring of loan portfolios, and setting up robust recovery mechanisms.
- Investment in digital banking technologies can improve operational efficiency, customer service, and reach. Banks should focus on digital channels for customer acquisition, loan disbursement, and service delivery. This can help in reducing operational costs and improving the Cost to Income Ratio (CIR).
- Banks need to implement strategies to enhance profitability, such as optimizing their product mix, improving fee-based income, and focusing on high-

yielding assets. Regular profitability analysis and cost control measures can drive better financial outcomes.

- Investment in employee training and development can lead to better customer service, operational efficiency, and innovation. Enhancing employee productivity can directly impact profitability and service quality.
- Banks should maintain a strong capital base to support growth and absorb potential losses. Regular stress testing, maintaining adequate capital buffers, and prudent capital allocation are essential. By adopting these policy recommendations, banks can enhance their financial performance, reduce risks, and ensure sustainable growth.

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