

Comparative Study of Trends in Non-Performing Assets of Public and Private Sector Banks in India

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ABSTRACT

Non-Performing Assets (NPAs) continue to be an important measure of the banking industry's operational effectiveness and financial stability in India. The changes in non-performing assets (NPAs) of public and private sector banks over a certain time period are compared in this study. Examining NPA trends, growth, and fluctuations as well as determining the fundamental causes of the disparities between the two industries are the goals. The study's foundation is secondary data gathered from trustworthy sources, including publications from the Reserve Bank of India and the annual reports of certain banks. The movement and intensity of NPAs in both sectors have been assessed using analytical tools such trend analysis, percentage analysis, and ratio analysis.

The analysis is based on secondary data acquired from trusted sources such as the annual reports of selected banks and publications of the Reserve Bank of India. The movement and intensity of non-performing assets (NPAs) in both sectors have been assessed using analytical techniques such trend analysis, percentage analysis, and ratio analysis. The results show that public sector banks have continuously reported greater levels of non-performing assets (NPAs) than private sector banks, notwithstanding a recent downward trend brought on by regulatory actions, more stringent asset quality standards, and enhanced recovery methods. Private sector banks, on the other hand, have comparatively stable and decreased non-performing assets (NPA) ratios, which are indicative of improved credit risk assessment and effective management techniques. The report states that while both sectors have demonstrated advances, public sector banks require further strengthening of governance frameworks and credit monitoring mechanisms. Policymakers and banking institutions can use the research's insightful findings to develop policies that will reduce non-performing assets (NPAs) and improve the overall stability of the Indian banking sector.

Keywords: Non-Performing Assets, Public Sector Banks, Private Sector Banks, Trend Analysis, Indian Banking Sector, Comparative Analysis.

INTRODUCTION

(Zehra, 2025)The banking sector is essential to fostering credit creation, economic expansion, and financial stability. According to this concept, a bank's performance and resilience are significantly influenced by the quality of the assets on its balance sheet. The problem of non-performing assets (NPAs) is one of the biggest issues facing banks worldwide, and especially in India. According to Reserve Bank of India (RBI) criteria, non-performing assets (NPAs) are loans or advances for which the borrower has

not made payments for more than ninety days. It is a crucial topic of financial research since the growing number of non-performing assets (NPAs) has long been linked to decreased profitability, deteriorated capital adequacy, liquidity issues, and higher provisioning requirements..(Roy & Kumar Samanta Associate Professor, n.d.) One of the main factors that can jeopardize the survival, expansion, and advancement of all three economic sectors as well as the overall development of the economy in a developing nation like India is a lack of capital. The banking sector's job is to eliminate these shortcomings by directing savings toward methodical investments.(Sneha et al., n.d.) We can see that India's economic expansion has coincided with a sharp increase in bank branches and deposits. Therefore, banks play an important and advantageous role in promoting economic growth by mobilizing community financial resources and guiding them in the proper directions. India's banks are currently actively promoting the country's economic expansion. The primary element influencing the banking industry's survival and profitability is non-performing assets (NPA).. (Kandpal, 2020)By encouraging savings and investment, banks play a crucial role in economic development by eliminating the capital shortage. The community's tiny, dispersed funds are mobilized by a strong banking system and made available for investment in profitable businesses. Capital plays a crucial strategic role in any economic growth plan.

CLASSIFICATION OF NON-PERFORMING ASSET

Rules governing the classification of assets Standard, substandard, doubtful, and loss assets are the four categories into which assets are divided. Sub-standard, questionable, and loss assets make up non-performing assets (NPA). RBI should develop precise, standardized, and consistent definitions for these asset groups. The banks should divide their assets into four groups according to their vulnerabilities and reliance on collateral securities:

- **Standard Assets:** It is not an NPA and carries only the typical risk associated with the business. Standard assets are those in which the consumer routinely pays the bank both the principal and interest on the loan. In this instance, it is also crucial that the loan principle and interest arrears do not surpass ninety days at the conclusion of the fiscal year. An asset is considered non-performing (NPA) if it does not fall under the conventional asset category and the amount owed is more than ninety days. NPAs must then be further classified into subcategories.
- **Sub-standard Asset:** An asset is considered sub-standard if it has been non-performing for less than or equal to 12 months since March 31, 2005. In this situation, the current market value of the security charged or the borrower's/guarantor's net worth are insufficient to guarantee full payment to the banks. To put it another way, such an asset will have clearly defined credit problems that put the debt's liquidation at risk and are distinguished by the clear probability that the banks would suffer some loss if inadequacies are not fixed.
- **Doubtful Assets:** As of March 31, 2005, an asset is considered questionable if it has been non-performing for more than a year. All of the flaws present in assets that were deemed sub-standard are present in a loan that is categorized as doubtful, along with the additional feature that the flaws render full collection or liquidation extremely dubious and unlikely based on the facts, conditions, and valuations that are now known. There are three phases in this category: D-I Uncertain for up to a year
- **Loss Assets:** An asset that has been classified as a loss asset by the bank, internal/external auditors, or RBI inspection but has not yet been fully or partially written off. The substantial market inefficiencies in the banking sector are brought on by the substantial amounts of Non-Performing Assets (NPA) that

have accumulated over a number of years in bank portfolios. Non-performing asset discussions have been ongoing for a number of years.

REVIEW OF LITERATURE

(Rao & Reddy, 2025) Non-Performing Assets (NPAs) continue to pose a significant threat to the financial stability and efficiency of the Indian banking sector, particularly among Public Sector Banks (PSBs). This study examines the trends and status of NPAs in six selected public and private sector banks viz., State Bank of India, Punjab National Bank, Bank of Baroda, HDFC Bank, ICICI Bank, and Axis Bank over the period 2014-15 to 2023-24.

(V Rajkumar & Paul, 2025) This study presents a comparative analysis of Non-Performing Assets (NPAs) in Indian public and private sector banks from 2013 to 2023, examining trends, policy impacts, and sectoral resilience. Using RBI data, the study evaluates how asset quality evolved through economic shocks, regulatory reforms, and the COVID-19 pandemic. Findings reveal that private banks consistently maintained lower NPA ratios (peaking at 5.5% gross NPA vs. public banks 14.6%), attributed to superior risk management, diversified portfolios, and agile governance. Public sector banks, despite significant post-2018 recovery due to the Insolvency and Bankruptcy Code (IBC) and recapitalisation, still lag in asset quality (5.0% gross NPA in 2022-23 vs. private banks 2.3%). The study highlights structural inefficiencies in public banks and underscores the role of governance, technology, and policy interventions in shaping NPA outcomes. Key lessons include the need for institutional reforms in public banks and adaptive risk frameworks to sustain financial stability.

(M P & Dr. Mahesha M, 2024) The purpose of this paper is to empirically examine the effect of macroeconomic determinants on non-performing assets (NPAs) in the India's commercial banks using a panel regression model. This study considers all public, private, and foreign sector scheduled commercial banks during a period of seventeen years from 2004-05 to 2021-22, and uses four macroeconomic variables GDP growth rate, inflation rate, interest rate and global volatility index- to assess the impact of these variables on NPAs. The findings show that NPAs have a negative relationship with GDP growth rate, confirming a increase in economic growth would rise the incomes of people and businesses and improve the ability of repayment of loans to the banks.

(Achakala Sai Koteswara Rao et al., 2025) The study explores the root causes of NPAs, including wilful defaults, industrial sickness, fraudulent practices, and coordination failures among lenders. The growing burden of NPAs hampers credit growth, raises interest rates, undermines public confidence, and weakens capital adequacy, ultimately slowing down the overall economy. This analysis offers valuable insights to aid policymakers, regulators, and banking institutions in devising targeted strategies for effective NPA management and sustainable financial development.

(Shagufta Sahin, 2022) The study shows that there is a positive relationship between the Gross and Net NPA and a negative relationship between the NPA and ROA of Public and Private Banks. There is a significant negative impact of Gross NPA on ROA whereas a positive impact of Net NPA on ROA of both Public and Private sector banks. The study recommends that the bank should improve their credit, repayment structure and follow all the credit policy of the government and take quick actions against NPA.

Research Gap

- Existing studies compare NPA levels and profitability between public and private banks, often for limited periods or specific banks, and mostly at an aggregate level.

- They also study macro determinants and broad causes of NPAs, and confirm a strong negative link between NPAs and profitability.
- However, there is still scope for more integrated, bank-level, long-period analysis combining trends, determinants, and performance for specific leading PSBs and private banks.

Objective of the Study

1. To examine the trend and status of Gross and Net NPAs in selected public and private sector banks.
2. To compare the NPA ratios of public sector banks and private sector banks.
3. To suggest policy and managerial measures for effective NPA management and improvement of asset quality.
4. To examine ROA of these banks.
5. To examine the overall Asset Quality of the public and private sector banks.

METHODOLOGY

1. Research Design

A descriptive and analytical research design is used in the study. It examines the patterns and effects of non-performing assets (NPAs) in a few public and private Indian banks from 2021 to 2025.

2. Source of Data

All of the data used in this study came from secondary sources. The Reserve Bank of India's official publications, statistical databases, and several reports and statistics releases have been the primary sources of the necessary data. The published annual reports of a few banks, including SBI, PNB, CANARA, HDFC, ICICI, and YES Bank, which offer thorough disclosures on their financial performance and asset quality, have been used to gather additional data. In order to gather supporting data, analyze trends, and reinforce the study's analytical framework, relevant Ministry of Finance reports, Indian Banks' Association (IBA) publications, and relevant academic articles and research papers have all been consulted.

3. Sample Selection

Six banks, three in the public and three in the private sectors, make up the study's sample. These institutions were chosen based on objective standards. Banks with comparatively bigger asset sizes and a sizable market share in the Indian banking sector were selected to ensure that the results are representative and significant. This ensures that the sample represents systemically important institutions rather than tiny, specialized firms. The continuous availability of trustworthy secondary data for the duration of the study was another criterion; the sample was ultimately limited to banks whose annual reports and regulatory publications consistently provided information on profitability, asset quality, and other pertinent indicators.

4. Variables and Measures

Three important financial metrics are used in this study to compare banks in the public and private sectors: Return on Assets (ROA), Net NPA ratio, and Gross NPA ratio. To evaluate variations in asset quality, the efficiency of credit risk management, and the amount of stressed loans that continue to burden each bank's balance sheet, gross and net nonperforming assets (NPA) ratios are compared between banks. In order to determine whether banks with lower NPAs are regularly able to produce greater returns on assets, ROA is then utilized in conjunction with these NPA metrics to assess how effectively public and private sector banks turn their asset base into profits. By looking at these factors collectively during the course of the study, the analysis shows which group of banks performs better in terms of profitability and asset quality

as well as the relationship between changes in NPAs and changes in ROA for banks in the public versus private sectors.

5. Tools of Analysis

Comparative and trend analyses are used in this study to determine the best outcome.

6. Period of Study

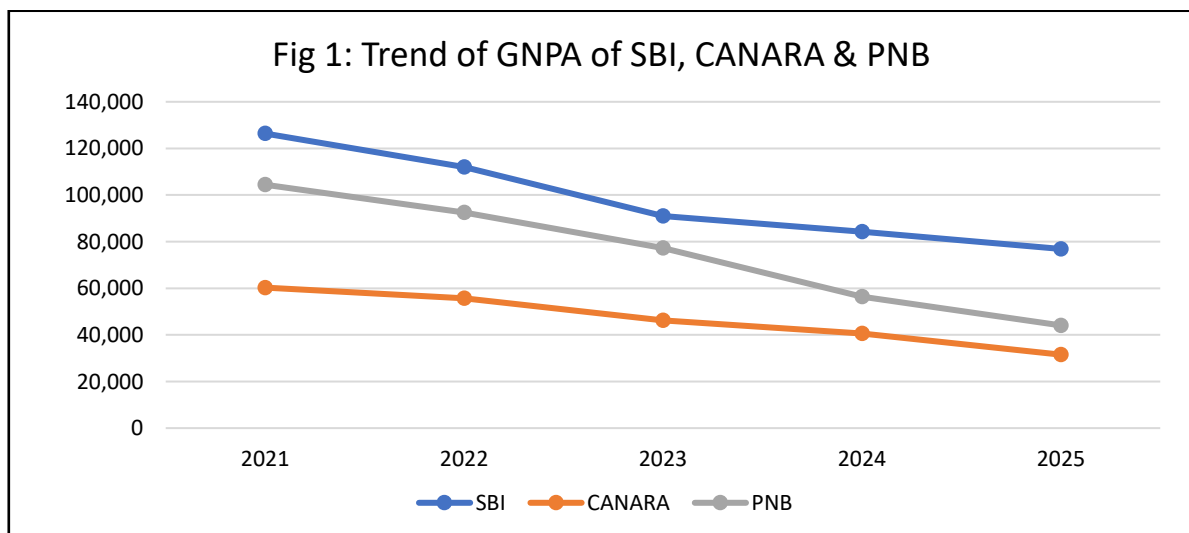
This study examines several public and private sector banks between 2021 and 2025.

DATA ANALYSIS AND INTERPRETATION

Table-1: Comparative Analysis on Gross NPA, Net NPA and Net NPA Advances Between Public Sector Banks in India. (Amount in Crores)

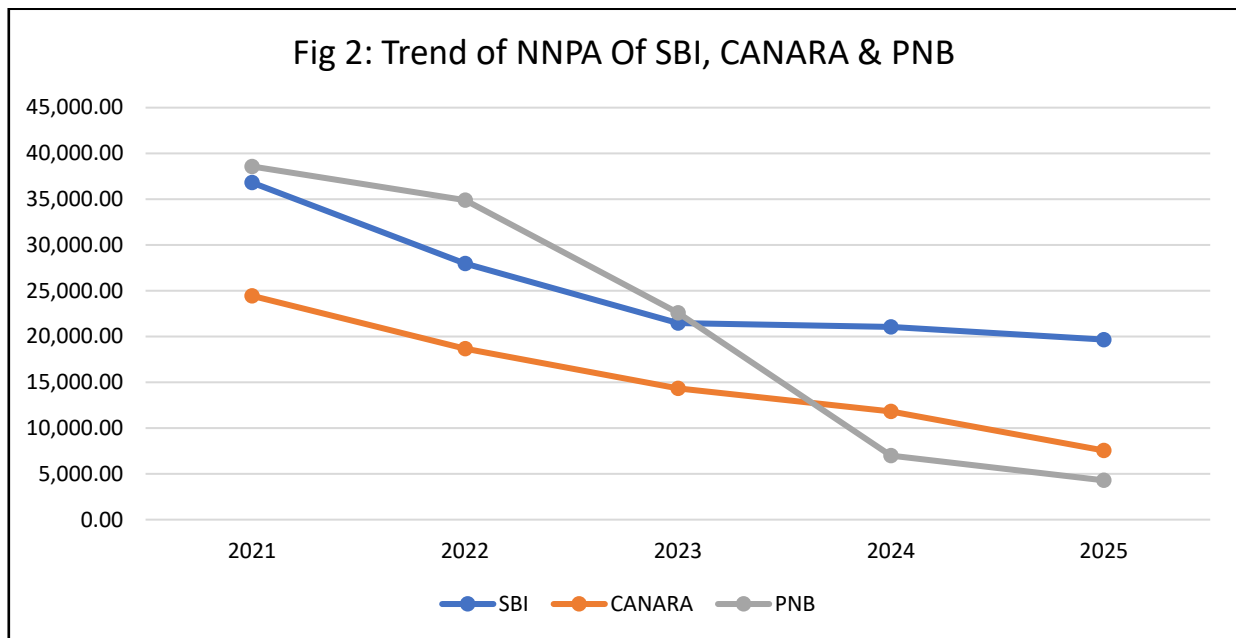
YEAR BANK		2021	2022	2023	2024	2025
SBI	GNPA	1,26,389	1,12,023	90,927.78	84,276.33	76,880.20
	%GNPA	5	3.97	2.78	2.24	1.82
	NNPA	36,809.72	27,965.71	21,466.64	21,051.08	19,666.92
	%NNPA	1.50	1.02	0.67	0.57	0.47
	%NNPAA	2	1.02	0.67	0.57	0.47
CANARA	GNPA	60,288	55,652	46,160	40,605	31,530
	%GNPA	9	8	5.35	4.23	2.94
	NNPA	24,442	18,668	14,349	11,823	7,553
	%NNPA	3.82	2.65	1.73	1.27	0.70
	%NNPAA	4	3	1.73	1.27	0.70
PNB	GNPA	1,04,423	92,448.04	77,328	56,343.05	44,081.60
	%GNPA	14.71	12	8.74	5.73	3.95
	NNPA	38,576	34,908.73	22,585	6,978.77	4,290.55
	%NNPA	5.65	4.80	2.72	0.73	0.40
	%NNPAA	5.23	5.00	2.72	0.73	0.40

(Source: Annual reports of these public sector banks)



(Source: Compiled by author using MS Excel)

In the above figure 1, it is observed that the trend of Gross Non-Performing Assets (GNPA) of SBI, Canara Bank, and PNB from 2021 to 2025. It can be clearly observed that all three banks have shown a continuous decline in GNPA during the study period, which reflects an improvement in their financial performance and asset quality. Among the three banks, SBI recorded the highest GNPA throughout the period, decreasing gradually from 1,26,389 crore in 2021 to 76,880.20 crore in 2025. PNB also showed a significant reduction in GNPA, falling from 1,04,423 crore to 44,081.60 crore during the same period. Similarly, Canara Bank maintained the lowest GNPA level among the selected banks and reduced it steadily from 60,288 crores in 2021 to 31,530 crores in 2025. The declining trend in GNPA indicates that these banks have adopted better credit management practices, strengthened recovery mechanisms, and improved monitoring of loans and advances. Overall, the figure highlights a positive development in the banking sector, showing that public sector banks are gradually succeeding in controlling and reducing their non-performing assets over time.



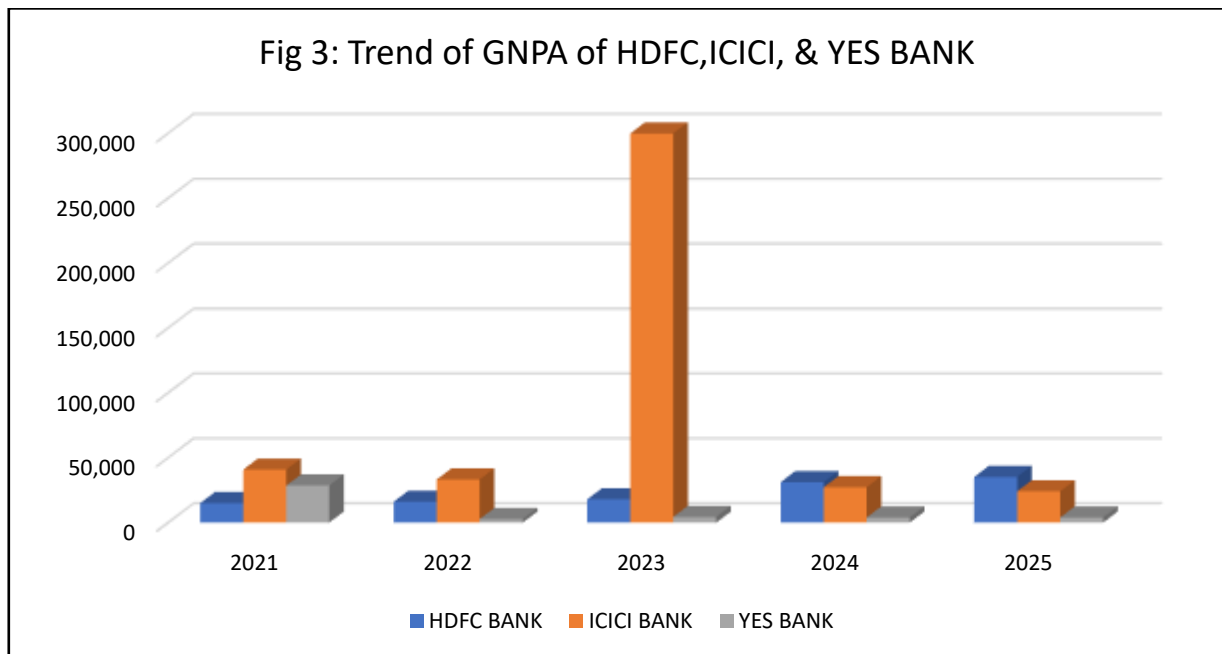
(Source: Compiled by author using MS Excel)

In the above figure 2, it is observed that the trend of Net Non-Performing Assets (NNPA) of SBI, Canara Bank, and PNB from 2021 to 2025. It is evident from the figure that all three banks experienced a continuous decline in NNPA during the study period, indicating an improvement in their overall financial health and recovery performance. Among the selected banks, PNB recorded the highest NNPA in 2021 at around 38,576 crores, but it showed a sharp decline after 2023 and reached nearly 4,291 crores by 2025. SBI also showed a gradual reduction in NNPA from 36,809.72 crore in 2021 to 19,666.92 crore in 2025, reflecting steady improvement in managing stressed assets. Similarly, Canara Bank maintained comparatively lower NNPA levels throughout the period and reduced its NNPA consistently from 24,442 crore in 2021 to 7,553 crore in 2025. The declining trend of NNPA among these banks suggests better recovery of bad loans, stronger provisioning policies, and improved credit risk management practices. Overall, the figure highlights that the selected public sector banks have made significant progress in reducing their net non-performing assets, thereby strengthening their financial stability and operational efficiency over the years.

Table-2: Comparative Analysis on Gross NPA, Net NPA and Net NPA Advances Between Private Sector Banks In India.
(Amount in Crores)

YEAR BANK		2021	2022	2023	2024	2025
HDFC BANK	GNPA	15,086	16,140.96	18,019.03	31,173.32	35,222.64
	%GNPA	1.00	1.00	1.12	1.24	1.33
	NNPA	4,554.82	4,407.68	4,368.43	8,091.74	11,320.43
	%NNPA	0.40	0.32	0.27	0.33	0.43
	%NNPAA	0	0	0.27	0.33	0.43
ICICI BANK	GNPA	40,841.42	33,294.92	2,99,860.70	27,313.87	24,166
	%GNPA	8	4	2.87	2.26	1.73
	NNPA	9,117.66	6,931.04	51,500.70	5,377.79	5589
	%NNPA	2.10	0.81	0.51	0.45	0.42
	%NNPAA	2.00	1.00	0.51	0.45	0.42
YES BANK	GNPA	28,609.53	2,797.60	4,394.57	3,982.56	3,935.61
	%GNPA	15	3.93	2.17	1.73	1.60
	NNPA	9,813.36	1,720.84	1,658.09	1,329.73	800.14
	%NNPA	5.88	4.53	0.83	0.58	0.30
	%NNPAA	6.00	4.53	0.80	0.58	0.40

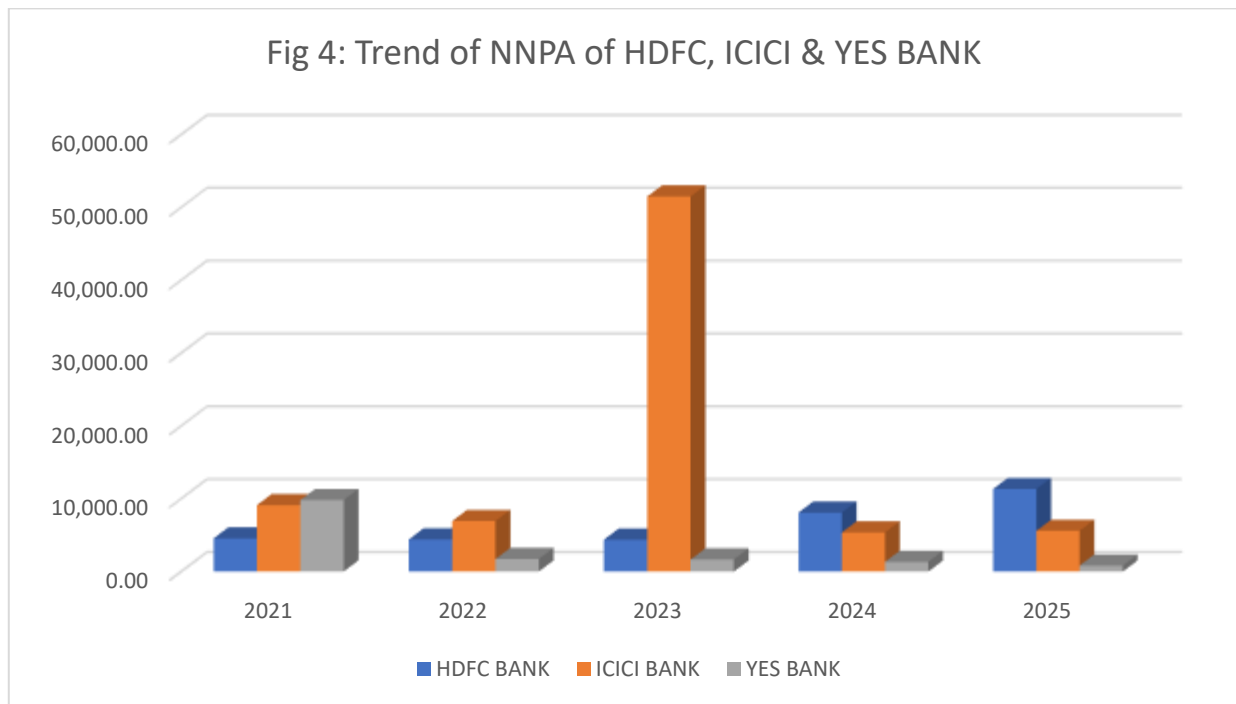
(Source: Annual reports of these public sector banks)



(Source: Compiled by author using MS Excel)

In figure 3 it displays the Gross Non-Performing Assets (GNPA) trend for YES BANK, ICICI Bank, and HDFC Bank between 2021 and 2025. It is evident that ICICI Bank had the highest GNPA levels over the course of the study, particularly in 2023 when its GNPA spiked to 2,99,860.70, signifying an abrupt

increase in bad loans. However, ICICI Bank's GNPA began to decline after 2023, which was indicative of better asset quality and recovery management. Throughout the period, HDFC Bank's GNPA figures remained relatively consistent; however, starting in 2023, there was a modest increase that peaked in 2025. This shows that non-performing assets are growing moderately yet still under control. Yes Bank's GNP was lower. A comparison of the other two banks' numbers during the entire period. Its GNPA showed fluctuations, with a slight decline after 2021 and relatively stable performance in the later years. Overall, the chart highlights that ICICI Bank experienced the most significant volatility in GNPA, while HDFC Bank and YES BANK showed comparatively more stable trends during the five-year period.



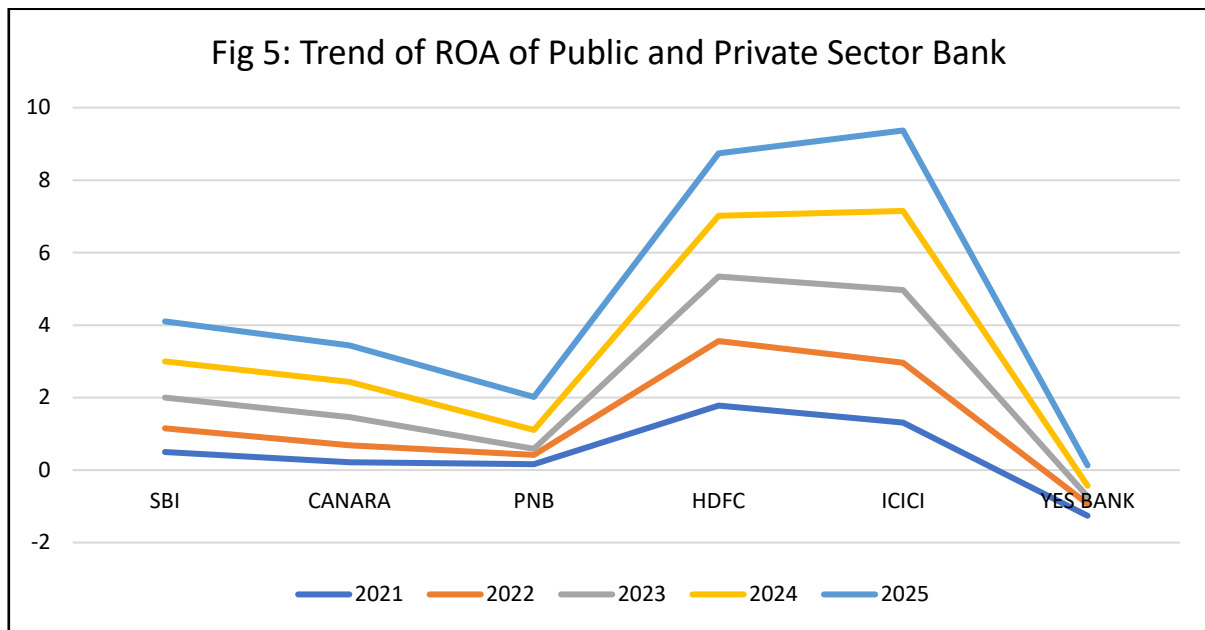
(Source: Compiled by author using MS Excel)

In the above figure 4, it is observed that the trend of Net Non-Performing Assets (NNPA) of HDFC Bank, ICICI Bank, and YES BANK during the period from 2021 to 2025. The chart reveals that ICICI Bank recorded the highest NNPA among the three banks, particularly in 2023 when its NNPA increased drastically to 51,500.70, indicating a sharp rise in stressed assets after provisions. However, after 2023, the NNPA of ICICI Bank declined considerably, showing improvement in recovery measures and asset management practices. HDFC Bank displayed a comparatively steady upward trend throughout the study period. Its NNPA gradually increased from 4,554.82 in 2021 to nearly 11,320.43 in 2025, reflecting moderate growth in non-performing assets but still maintaining stability compared to ICICI Bank. In contrast, YES BANK's NNPA figures fluctuated over time but were generally lower. The bank's NNPA was greater in 2021, but it dramatically decreased in the years that followed and then stayed largely steady. Overall, the graph shows that over the course of the five years, HDFC Bank and YES BANK maintained somewhat more consistent and controllable patterns in NNPA, whereas ICICI Bank saw the greatest volatility.

Table 3: Return on Asset of Public and Private Sector Banks

BANK	SBI	CANARA	PNB	HDFC	ICICI	YES BANK
2021	0.50	0.22	0.16	1.78	1.31	-1.26
2022	0.65	0.46	0.26	1.78	1.65	0.33
2023	0.85	0.78	0.17	1.78	2.01	0.20
2024	1.00	0.97	0.52	1.68	2.18	0.30
2025	1.10	1.01	0.91	1.72	2.22	0.56

(Source: Annual reports of these public sector banks)



(Source: Compiled by author using MS Excel)

In the above figure 5, it is observed that the Return on Assets (ROA) of selected public and private sector banks from 2021 to 2025, which reflects the efficiency of banks in generating profit from their total assets. Among the public sector banks, State Bank of India improved steadily from 0.50 in 2021 to 1.10 in 2025, while Canara Bank also recorded continuous growth from 0.22 to 1.01 during the same period, indicating better profitability and operational efficiency. Punjab National Bank showed fluctuating performance with ROA rising from 0.16 in 2021 to 0.91 in 2025 after a slight decline in 2023. Among the private sector banks, HDFC Bank maintained a consistently high ROA between 1.68 and 1.78, reflecting stable financial performance, whereas ICICI Bank recorded the highest ROA among all the banks, increasing from 1.31 in 2021 to 2.22 in 2025, which indicates superior profitability and asset utilization. YES BANK initially experienced a negative ROA of -1.26 in 2021, indicating financial difficulties, but gradually improved to 0.56 by 2025. Although public sector banks shown consistent improvement over the study period, the table generally shows that private sector banks outperformed public sector banks in terms of ROA.

LIMITATIONS OF THE STUDY

- Only secondary data forms the basis of the complete data analysis. Any bias in secondary data will result in analysis that is deceptive.

- Three public sector banks and three private sector banks—representative of their respective industries—have had the data gathered.
- Due to time and resource constraints, the study's duration was constrained.

FINDINGS

It is clear from the Return on Assets (ROA) analysis for the years 2021–2025 that all of the chosen public and private sector banks have increased their profitability over time, albeit at varying rates. The return on assets (ROA) of public sector banks (SBI, Canara Bank, and PNB) is steadily increasing; by 2025, SBI and Canara will be approaching 1%, but PNB will be improving more slowly from a far lower base. Private sector banks often report higher ROA than public sector banks; by the conclusion of the period, ICICI Bank's ROA exceeded 2%, indicating greater earning power per unit of assets, while HDFC Bank maintained a ROA of 1.7–1.8%.

In the sample, YES Bank is obviously an anomaly. Although there is a noticeable slow improvement and a change into positive territory by 2022–2025, its ROA is negative in 2021 and is significantly below that of other private banks throughout the research period. In comparison to the top private banks and even certain public banks, this pattern shows that YES Bank began in a precarious position but has been in a recovery phase, with profitability still precarious. The comparison between YES Bank and ICICI/HDFC illustrates how variations in risk management and business strategy can result in significantly divergent profitability paths even within the same ownership category.

The data arrived from ROA is further supported by the gross and net non-performing asset (GNPA and NNPA) ratios. Leaders in the private sector, HDFC Bank and ICICI Bank, maintain comparatively low GNPA and NNPA ratios over the course of the period. ICICI's GNPA percentage clearly declines from higher levels in 2021 to much lower levels by 2025, while HDFC maintains both GNPA and NNPA close to 1% and below 0.5%, respectively. Larger NPAs directly reduce interest income, necessitate larger provisions, and lower net profit and ROA since NPAs are loans that have ceased to generate income. Strong asset quality, efficient credit appraisal, and improved recovery procedures are shown by these banks' combination of low and/or declining NPAs with high ROA.

When combined, the statistics clearly demonstrate a connection between profitability and asset quality throughout the sample. While banks with historically high NPAs—YES Bank and, to some extent, PNB—begin with lower ROA and only gradually increase as asset quality improves, banks with lower and declining GNPA/NNPA ratios—especially HDFC and ICICI—also record higher and more stable ROA. This pattern is in line with theoretical predictions that improving credit quality promotes sustained profitability whereas high NPAs lower income and raise provisions, lowering ROA.

CONCLUSION

According to the study's findings, private sector banks often outperform public sector banks in terms of both profitability and asset quality between 2021 and 2025. The best-performing banks are HDFC Bank and ICICI Bank, which combine high ROA with low and improving GNPA and NNPA ratios, indicating effective asset usage, prudent lending policies, and solid risk management. Although public sector banks, particularly SBI and Canara Bank, have made significant progress in both ROA and NPA rates, they still lag behind the top private banks. As a result, they have more room to improve operational effectiveness and fortify credit appraisal and recovery procedures.

Despite being categorized as a private sector bank, YES Bank performs differently from its competitors.

It's extremely high non-performing assets (NPA) levels and negative return on assets (ROA) at the start of the period demonstrate the impact of prior asset-quality stress on profitability. Even if the bank has not yet attained the performance standards of the top banks in the sample, the steady decline in NPAs and the shift of ROA into positive territory by 2025 indicate that restructuring and corrective actions are gradually restoring financial health. Overall, the data lends credence to the more general conclusion that banks that effectively manage non-performing assets (NPAs) are better positioned to generate higher return on assets (ROA) and long-term shareholder value, and that persistent improvement in asset quality is a requirement for steady profitability in the banking industry.

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