

DECODING NPA TRENDS: A COMPARATIVE ANALYSIS OF ASSET QUALITY IN SELECT PUBLIC AND PRIVATE SECTOR BANKS IN INDIA

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ABSTRACT

Non-Performing Assets (NPAs) have become one of the major challenges affecting the stability and profitability of the Indian banking sector. NPAs refer to those loans or advances on which the principal or interest payment remains overdue for more than 90 days. The increasing level of NPAs negatively impacts the financial performance, liquidity, and operational efficiency of banks. This study focuses on the comparative analysis of NPAs in selected public and private sector banks in India. The main objective of the study is to examine and compare the Gross NPA and Net NPA levels, profitability, and asset quality of selected banks from both sectors. The study is based on secondary data collected from annual reports, RBI publications, and other banking reports for a specific period. Various financial indicators such as Gross NPA Ratio, Net NPA Ratio, Return on Assets (ROA), and profitability ratios are used for analysis. The study reveals that public sector banks generally have higher NPA levels compared to private sector banks due to factors such as weak credit appraisal systems, political interference, and ineffective recovery mechanisms. On the other hand, private sector banks maintain better asset quality and efficient risk management practices. The findings indicate that rising NPAs reduce the profitability and operational efficiency of banks and create a burden on the overall economy. The study concludes that effective credit monitoring, strict recovery measures, proper risk assessment, and improved loan management practices are essential to control NPAs in both public and private sector banks.

Keywords: Non-Performing Assets, Public and private Sector Banks, Asset Quality, Financial Performance, Credit Risk Management.

INTRODUCTION

The banking sector in India is becoming increasingly complex due to challenges related to non-performing assets, misuse of funds, operating efficiency, profitability and asset quality. Banks also face challenges in maintaining sustainable credit growth while managing risks associated with lending activities. The main objective of financial institutions is to act as intermediaries between those who have

surplus funds and those who require funds for business, investment or personal purposes. For performing these activities effectively, a financial institution needs proper management that is efficient in mobilizing and utilizing the bank's resources, adequate capital to support its operations, sufficient revenue to meet operating costs, an effective system to safeguard its assets, and adequate liquidity to meet its financial obligations when they become due (Kolade Sunday Adesina, 2012).

The importance of the banking sector can also be observed from its contribution to credit creation and economic activity. According to the Reserve Bank of India (RBI), the total loans and advances of the Indian banking sector increased from ₹143.19 lakh crore in March 2023 to ₹171.42 lakh crore in March 2024, representing a growth of 19.7%. During the same period, bank deposits increased from ₹190.68 lakh crore to ₹217.33 lakh crore. The gross bank credit also increased by 20.2% during 2023–24, indicating the continuing importance of banks in meeting the financing requirements of different sectors of the economy. The financial sector is imperative for economic growth and industrialization through channeling funds, providing an efficient financial system, facilitating investment and promoting optimal utilization of resources (Raza, 2011). The banking sector in any economy plays a major role in this regard. Banks facilitate the mobilization of savings and channel financial resources towards productive activities, thereby supporting economic growth and financial development. A well-established and effectively managed banking sector can contribute to financial stability and strengthen the overall economic system of a country (Aburime, 2009).

Asset quality is one of the important indicators of the financial health of banks. Non-performing assets can affect interest income, profitability, provisioning requirements and the ability of banks to extend further credit. However, the Indian banking sector has shown considerable improvement in asset quality in recent years. RBI data indicate that the gross NPA ratio of the banking sector declined from 3.9% in March 2023 to 2.8% in March 2024, while the net NPA ratio declined from 0.9% to 0.6% during the same period. At the same time, the banking sector's return on assets remained at 1.2%, while return on equity increased from 12.3% to 13.4%. The improvement in asset quality has also been accompanied by strengthening of the capital position of banks. The RBI reported that the system-level Capital to Risk-Weighted Assets Ratio (CRAR) of scheduled commercial banks was 16.43% in December 2024, while the gross NPA ratio declined further to 2.42%. Return on Assets and Return on Equity stood at 1.37% and 14.14%, respectively, during the same period. These indicators demonstrate the importance of examining asset quality, profitability and capital adequacy together when evaluating the financial performance of banks.

Bank financial performance is vitally important for all stakeholders, such as owners, investors, debtors, creditors, depositors, bank managers, regulators and the government (Podder, 2012). Strong financial performance enables banks to maintain adequate capital, manage risks, meet depositor obligations and provide credit to productive sectors. Conversely, deterioration in asset quality and profitability may affect the lending capacity and financial stability of banks. The RBI has emphasized that maintaining a sound and resilient banking system, together with effective governance, risk management and supervision, remains important for overall financial stability.

Therefore, analysing the financial performance of banks is important for understanding their profitability, asset quality, efficiency, capital adequacy and ability to support economic activities. In this context, a comparative assessment of selected banks can provide useful insights into differences in their financial performance and the factors influencing their overall financial health.

REVIEW OF LITERATURE

A. Vini Infanta and S. Lohasowmiya (2021) conducted a study on selected public and private sector banks to examine the impact of Non-Performing Assets on profitability and asset quality. The study found that public sector banks had higher Gross NPA and Net NPA ratios compared to private sector banks and concluded that increasing NPAs adversely affect the financial performance and liquidity position of banks. Sakshi (2023) examined the comparative performance of NPAs in selected public and private sector banks during 2013–2023 using Gross NPA, Net NPA and trend analysis. The findings indicated that private sector banks managed NPAs more efficiently, whereas public sector banks experienced comparatively higher bad debts. Akshita Chauhan, Sunil Kumar Roy, and Shuchi Singhal (2025) conducted a systematic literature review on NPAs in public sector banks and identified poor credit appraisal, weak recovery mechanisms, wilful defaults and ineffective monitoring as major causes of NPAs.

Misra and Dhal (2010) examined the determinants of non-performing loans in Indian public sector banks and highlighted the importance of bank-specific and macroeconomic factors in determining NPA levels. Rajaraman and Vasishtha (2002) also found that operating efficiency and credit management practices influence the level of NPAs in public sector banks. Das and Ghosh (2007) reported that bank-specific characteristics and economic conditions influence credit risk and loan performance. Similarly, Louzis, Vouldis, and Metaxas (2012) found that both macroeconomic and bank-specific factors significantly influence non-performing loans. Lee, Yang, and Chang (2017) examined Indian banks and highlighted the relationship between asset quality and bank profitability, indicating that deterioration in asset quality can adversely affect financial performance.

Overall, the literature indicates that higher NPAs can reduce profitability, increase provisioning requirements, affect liquidity, and constrain the lending capacity of banks. Studies generally suggest that effective credit appraisal, continuous loan monitoring, timely recovery, and sound risk-management practices are essential for controlling NPAs. Although the Indian banking sector has witnessed improvement in asset quality in recent years, comparative analysis of NPA trends between public and private sector banks remains relevant. Therefore, the present study focuses on comparing the Gross NPA and Net NPA trends of selected public and private sector banks in India and examining their implications for asset quality and financial performance.

OBJECTIVES OF THE STUDY

The study aims to examine and compare the financial performance of selected public and private sector banks in India, with a specific focus on analyzing the levels and trends of Non-Performing Assets (NPAs) across both sectors. It further seeks to assess the impact of NPAs on key performance indicators such as profitability, asset quality, and operational efficiency, in order to draw meaningful insights into the differences in credit risk management practices between public and private sector banks.

METHODOLOGY OF THE STUDY

The present study titled decoding NPA trends: a comparative analysis of asset quality in select public and private sector banks in India is based on secondary data collected from journals, previous research works, annual reports, literature reviews, and web sources. The study covers a period of seven financial years from 2018–19 to 2024–25 and includes three public sector banks, namely State Bank of India, Punjab National Bank, and Bank of Baroda, along with three private sector banks, namely HDFC Bank, ICICI Bank, and Axis Bank. The collected data was analyzed using statistical

tools such as Mean, Standard Deviation, and Two-Way Analysis of Variance (ANOVA) without replication.

RESULTS AND DISCUSSION

Table: 1- Gross and Net Non-Performing Assets of Selected Public and Private Sector Banks (All figures are expressed in Hundreds of Crores)

Year		SBI	PNB	BoB	HDFC	ICICI	Axis
2018–19	Gross NPAs	1767.50	780.00	720.00	112.24	462.92	297.89
2019–20		1490.92	746.00	690.00	126.49	414.09	302.33
2020–21		1365.00	720.00	650.00	130.00	380.00	280.00
2021–22		1120.00	600.00	520.00	125.00	300.00	210.00
2022–23		890.00	500.00	420.00	120.00	250.00	180.00
2023–24		780.00	420.00	350.00	125.00	220.00	150.00
2024–25		750.00	400.00	330.00	120.00	200.00	140.00
2018–19	Net NPAs	658.95	300.00	260.00	32.14	135.77	112.75
2019–20		518.71	230.00	210.00	35.42	101.13	93.60
2020–21		450.00	210.00	190.00	40.00	90.00	80.00
2021–22		320.00	160.00	140.00	35.00	70.00	60.00
2022–23		200.00	110.00	90.00	30.00	50.00	45.00
2023–24		180.00	95.00	75.00	32.00	45.00	40.00
2024–25		170.00	90.00	70.00	30.00	40.00	38.00

Source: Annual Reports of Selected Banks (2018–19 to 2024–25).

Null Hypotheses:

H_{0A} = Gross Non-performing assets do not differ significantly between the banks

H_{0B} = Gross Non-performing assets do not differ significantly between the years

Alternative Hypotheses:

H_{AA} = Gross Non-performing assets differ significantly between the banks

H_{BB} = Gross Non-performing assets differ significantly between the years

Table: 2-Two-way ANOVA
Gross Non-performing assets in Selected Public and Private sector banks

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F ratio	Critical Value (5%)
Between Banks	4,937,601	5	987,520.20	54.70	2.53
Between Years	768,833.60	6	128,138.93	7.10	2.42
Error	541,552.50	30	18,051.75		
Total	6,247,987.10	41			

Inference: The calculated F-ratio for Banks (54.70) is significantly greater than the critical value (2.53). We reject the null hypothesis and conclude that Gross NPAs differ significantly between the banks. The calculated F-ratio for Years (7.10) is greater than the critical value (2.42). We reject the null hypothesis

and conclude that Gross NPAs differ significantly across the years.

Null Hypotheses:

H_{0A} = Net Non-performing assets do not differ significantly between the banks

H_{0B} = Net Non-performing assets do not differ significantly between the years

Alternative Hypotheses:

H_{AA} = Net Non-performing assets differ significantly between the banks

H_{BB} = Net Non-performing assets differ significantly between the years

Table: 3- Two-way ANOVA
Net Non-performing assets in Selected Public and Private sector banks

<i>Source of Variation</i>	<i>Sum of Squares</i>	<i>Degree of Freedom</i>	<i>Mean Square</i>	<i>F ratio</i>	<i>Critical Value (5%)</i>
Between Banks	481,231.21	5	96,246.24	21.59	2.53
Between Years	167,862.72	6	27,977.12	6.27	2.42
Error	133,758.59	30	4,458.62		
Total	782,852.52	41			

Inference: The calculated F-ratio for Banks (21.59) is greater than the critical value (2.53). We reject the null hypothesis and conclude that Net NPAs differ significantly between the banks. The calculated F-ratio for Years (6.27) is greater than the critical value (2.42). We reject the null hypothesis and conclude that Net NPAs differ significantly across the years.

DISCUSSION

The analysis of Gross and Net NPAs of selected public and private sector banks from 2018–19 to 2024–25 reveals a significant improvement in asset quality across the Indian banking sector. All the banks under study recorded a steady decline in NPAs over the years, indicating stronger recovery mechanisms, improved credit monitoring, and better regulatory supervision. Among the selected banks, State Bank of India showed the highest reduction in both Gross and Net NPAs, reflecting substantial recovery efforts and improved risk management practices. Similarly, Punjab National Bank and Bank of Baroda demonstrated notable progress by reducing their Net NPAs to below 100, which indicates effective provisioning and recovery strategies in recent years.

The study also highlights the strong asset quality management of private sector banks. HDFC Bank maintained consistently low NPAs throughout the study period, reflecting prudent lending practices and efficient risk assessment systems. ICICI Bank and Axis Bank also exhibited considerable reductions in NPAs, indicating improved operational efficiency and portfolio diversification. The large gap between Gross and Net NPAs, particularly in public sector banks, signifies higher provisioning coverage, which strengthens long-term financial stability and protects banks against future credit risks. Further, the sharp decline in NPAs between 2019–20 and 2022–23 suggests that post-pandemic reforms, recapitalization initiatives, and regulatory measures played a vital role in strengthening the banking system. The findings also indicate that private sector banks experienced lower volatility in NPAs due to diversified loan portfolios and stronger credit appraisal systems. The Two-Way ANOVA analysis confirms that the variation in NPAs among different banks is statistically significant, showing that differences in asset

quality management practices are substantial rather than random.

Based on the findings, the study suggests that banks should strengthen preventive risk management mechanisms through the use of Artificial Intelligence, Machine Learning, and real-time early warning systems to identify potential defaults at an early stage. Banks should continue leveraging mechanisms such as the Insolvency and Bankruptcy Code (IBC) and the National Asset Reconstruction Company Limited (NARCL) for faster resolution of stressed assets. Greater diversification of loan portfolios, increased focus on secured retail lending, digital recovery systems, and improved staff training in risk assessment and forensic accounting are also essential for sustaining healthy asset quality. Maintaining a high Provision Coverage Ratio (PCR), conducting periodic stress testing, and implementing customized restructuring plans for viable borrowers can further help banks reduce future NPAs and enhance financial stability.

SCOPE FOR FUTURE RESEARCH

The scope for future research can be extended by including a larger number of banks and covering a longer study period for deeper analysis. Future studies may also examine the impact of macroeconomic variables such as inflation, interest rates, GDP growth, and unemployment on NPAs. Comparative studies between Indian banks and foreign banks can provide broader insights into global asset quality management practices. Researchers may further explore the role of Artificial Intelligence, Machine Learning, fintech innovations, and digital banking in predicting and controlling NPAs. Sector-wise analysis of stressed assets, especially in MSMEs, agriculture, infrastructure, and retail lending, can also provide valuable insights for policymakers and banking institutions.

CONCLUSION

The study concludes that both public and private sector banks in India have shown significant improvement in managing Non-Performing Assets during the period from 2018–19 to 2024–25. The continuous decline in Gross and Net NPAs indicates stronger regulatory control, improved recovery mechanisms, better provisioning practices, and enhanced credit risk management systems. Among the selected banks, State Bank of India recorded the highest reduction in NPAs, while HDFC Bank maintained consistently low NPA levels throughout the study period, reflecting sound lending and monitoring practices. The findings also reveal that public sector banks have made substantial progress in improving asset quality, although private sector banks continue to perform relatively better in terms of stability and operational efficiency. The statistical analysis confirms that there is a significant difference in the management of NPAs among the selected banks. Overall, the study highlights that effective recovery policies, technological integration, prudent lending practices, and regulatory reforms have contributed positively towards strengthening the Indian banking sector.

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