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# **Impact of Non-Performing Assets (NPA) on the Profitability of Public and Private Sector Banks in India**

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# ABSTRACT-

This in-depth research explores the ever-changing world of non-performing assets (NPAs) and how they affect the profitability of prestigious Indian public and private sector banks, particularly State Bank of India (SBI), Canara Bank, Axis Bank, and Kotak Mahindra Bank, between 2019 and 2023. Through a rigorous examination of financial data, the study seeks to clarify how non-performing assets (NPAs) and these banks' profitability measures have changed over time, taking into account the different operational frameworks and risk management strategies that are specific to the public and private sectors. This study aims to identify patterns, obstacles, and potential mitigating variables that have influenced the financial performance of SBI, Canara Bank, Axis Bank, and other banks by analysing the trajectory of nonperforming assets (NPAs) and regulators, assisting them in making well-informed decisions and developing strategic plans in the intricate world of the Indian banking industry.

**Key words:** Non-performing assets (NPAs), Profitability analysis, Indian banking sector, financial performance, Risk management, Banking regulations, Sectoral impact, Comparative study.

# Introduction:

Non-Performing Asset: Non-Performing Assets (NPAs) are loans or advances granted by financial institutions that no longer generate income for the lender. In other words, they are assets on which the borrower has failed to repay interest or principle for a specific length of time, usually 90 days or more. Non-performing assets (NPAs) are a major issue for banks because they suggest possible financial instability and credit risk.

Non-performing assets can be classified as such due to economic downturns, borrower insolvency, or mismanagement. Banks classify NPAs as substandard, questionable, or loss assets based on the severity of the default. A high NPA ratio reduces a bank's profitability, liquidity, and overall financial soundness.

Financial institutions use a variety of measures to handle nonperforming assets (NPAs), including loan modification, asset sale, and legal action. Regulators frequently enforce tight standards to ensure banks maintain a healthy loan portfolio, therefore reducing the negative consequences of nonperforming assets on the overall stability of the financial system.

The banking industry is the backbone of any country's economy, contributing significantly to both growth and stability. The success of banks is closely linked to the general well-being of the financial system in India, a country with a diverse and fast changing economy. The rise in non-performing assets (NPAs) and their influence on the profitability of banks in the public and private sectors is one important aspect that has attracted a lot of attention recently.

Non-performing assets, sometimes referred to as bad loans, are financial assets that stop making money for the lender because borrowers don't make their payments as agreed. The banking industry is facing serious difficulties to the stability and efficiency of financial institutions due to the persistent and increasing non-performing assets (NPAs). With a particular focus on contrasting the experiences of private and public sector banks in India, this study intends to explore the complex effects of non-performing assets (NPAs) on bank profitability.

Public sector banks, which are frequently viewed as the cornerstones of financial inclusion and social welfare, coexist with private sector banks in the Indian banking scene. Private sector banks are distinguished by their agile operations and customer-centric approaches. Both groups have been impacted by the predominance of non-performing assets (NPAs), but to differing degrees. Comprehending the unique influence on banks operating in the private and public sectors is imperative in devising efficacious policies and tactics to alleviate the unfavourable consequences on the banking sector and,

consequently, the wider economy. This study will investigate the institutional, regulatory, and economic aspects of the factors behind the increase in nonperforming assets (NPAs) as it conducts a thorough analysis of them. In order to pinpoint potential weaknesses and strengths, it will also evaluate how private and public sector banks differ in their approaches to risk management and how their loan portfolios are structured. The research will utilize quantitative techniques, such as statistical modelling and financial ratio analysis, to measure the effect of non-performing assets (NPAs) on profitability indicators like return on equity (ROE) and return on assets (ROA).

In addition, the study will take into account the policy implications and regulatory actions implemented by the Reserve Bank of India (RBI) to mitigate the non-performing assets (NPA) issue and strengthen the banking industry's resilience. This study aims to provide significant insights for policymakers, banking professionals, and stakeholders by offering an in-depth analysis of the impact of non-performing assets (NPAs) on private and public sector banks in India. This will facilitate a deeper understanding of the opportunities and challenges associated with managing NPAs within the distinctive parameters of the Indian financial landscape.

# **Review of Literature:**

**Poonam Sharma, Dr. Neha Mathur, (2020),** This essay explains a comparison of public and private sector banks' NPAs, financial results, and staff morale. Public and private sector banks have been compared using the camel model, t test, chi-square test, and correlation approach. Compared to public sector banks, the NPA of private sector banks is lower. Due to public sector banks' NPAs having lower CAR, it was discovered that private sector banks are more profitable than public sector banks. Banks in both the public and commercial sectors show the NPA's financial performance. The issue of non-performing assets (NPAs) is not limited to banks; it is gradually impacting the entire economy. It has been investigated why NPAs in public sector banks are increasing by ten points. After mergers, the effect on staff morale in public sector banks was determined by questionnaires. Our research attempts to enhance financial performance and lower the public sector banks' increasing nonperforming assets (NPAs).

**Dr. Preeti Sharma, Dr. Atul Bansal, (2019),** One of the most crucial determinants of banks' financial stability is the quality of their assets. It also shows how well banks are managing credit risk and how the recovery is going. Early detection of indicators of distress in all stressed accounts is crucial, and protracted restructuring should be implemented for those that remain viable. facilities quickly in order to protect their financial worth. The rise of non-performing assets (NPAs) has been a major issue for the Indian banking industry. The increase in NPAs has a direct impact on banks' profitability. The economy as a whole is impacted by the NPA issue in addition to the banks. Actually, the high percentage of non-performing assets in Indian banks is just a reflection of business and commerce. While the bank must make provisions for these assets, non-performing assets (NPAs) do not produce any revenue. NPAs have a negative effect on the economy's ability to function in addition to reflecting poorly in a bank's account books.

Harish Kumar, Anchal Bansal, (2022), Growing non-performing assets (NPAs) at a concerning rate has emerged as a major problem, particularly for public sector banks. The public and clients lose faith in banks as a result of rising NPA. Due to shortcomings in credit sanctions, disbursements, liberal credit policies, etc., public sector banks have higher non-performing assets (NPAs) than private sector banks. This indicates that public sector banks' asset quality is lower than that of private sector banks. Based on the research findings, non-performing assets (NPAs) in public and private sector banks, regardless of their priority status, significantly affect the overall NPAs. Nonetheless, it has been discovered that non-priority sector non-performing assets (NPAs) in both public and private sector banks are more than priority sector NPAs. Based on its findings, the report recommends that banks keep an eye on how their clients are using their bank credit and employ appropriate credit appraisal tools to monitor their credit usage. Early detection of the issue and adherence to appropriate recovery techniques can lower NPA levels.

NITESH S VIBHUTE, DR. CHANDRAKANT B. JEWARGI, DR. BHADRAPPA HARALAYYA, (2021), Intermediation, or accepting deposits and directing them toward lending activities, is the core of the banking industry. Banks' "Liabilities" are the deposits that depositors make; on the other hand, "Assets" are the loans that the banks provide to borrowers, which have to be returned by the borrowers. Thus, assets are the loans and advances made by the banks1. Commercial Banks bear the risk of a borrower's default on principal or interest payments in the conventional banking industry of lending backed by client deposits. This risk is known as "Credit Risk" in the banking industry, and accounts that do not receive principal repayment or interest payments are considered non-performing assets. According to the Reserve Bank of India, an asset—including one that is leased—becomes non-performing when the bank is no longer able to make money from it. Every bank has some non-performing assets in its advance portfolio, and their existence is a necessary component of banking. However, any financial institution should be concerned about the high level of non-performing assets.

Manoj Kumar Sahoo, Muralidhar Majhi, The Indian commercial banks are facing issues and difficulties because of non-performing assets (NPAs), since they influence the sound budgetary position and execution of the banks. Further, banks should make arrangements in following Basel standards for keeping up high liquidity. Thus, the issues of NPAs must be dealt with in such a way that they ought not ruin money-related execution, and influence the image of the banks. The RBI and the Government of India have found a way to diminish the volume of NPAs of the commercial banks. The investigators have reviewed various pieces of literature available from different parts of the world in general, and India in particular. Researchers have tried to find gaps in literary analysis and proposed future research directions to find a new way to analyse the management of NPAs in commercial banks in India.

# **Objectives**

- 1. Identify the nonperforming assets (NPAs) in the specified institutions.
- 2. Compare the quantity of non-performing assets (NPAs) in the public and private sectors with respect to the selected banks.

3. Determine the reasons behind the rise in NPAs.

# Methodology

The data of four banks-two from the public and two from the private sectors-is selected, and the NPA and associated factors are analysed in this study.

# samples:

Two public sector banks are Canara Bank and State Bank of India.

Two private sector banks are Kotak Mahindra Bank and Axis Bank.

The data gathered from these banks' financial statements for the five years 2019–2023 will be the subject of the analysis.

**Data source:** Information was taken from the webpage for money control. Additionally, information on definitions and meanings is gathered from the official websites of the banks and the RBI.

Statistical methods: To examine the data, this study took into account Return on Assets (ROA)%, Gross NPA%, Net NPA%, and Net profit. In order to compare the amount of non-performing assets (NPAs) in public and private sector banks, as well as to illustrate how NPAs affect bank profitability, mean and correlation coefficients are utilized.

# **Data Analysis**

# State Bank of India

Particulars	2023	2022	2021	2020	2019
Gross NPA	90,927.78	112,023.37	126,389.02	149,091.85	172,750.36
Net NPA	21,466.64	27,965.71	36,809.72	51,871.30	65,894.74
% of Gross NPA	2.78	3.97	4.98	6.15	7.53
% of Net NPA	0.67	1.02	1.5	2.23	3.01
Return on Assets %	0.96	0.74	0.48	0.38	0.02
Net Profit/(Loss) For the Period	50,232.45	31,675.98	20,410.47	14,488.11	862.23

# Canara Bank

Particulars	2023	2022	2021	2020	2019
Gross NPA	46,159.51	55,651.58	60,287.84	37,041.15	39,224.12
Net NPA	14,349.33	18,668.02	24,442.07	18,250.95	22,955.11
% of Gross NPA	5.35	7.51	8.93	8.21	8.83
% of Net NPA	1.73	2.65	3.82	4.22	5.37
Return on Assets %	0.51	0.48	0.23	-0.32	0.06
Net Profit/(Loss) For the Period	10,603.76	5,678.42	2,557.58	-2,235.72	347.02

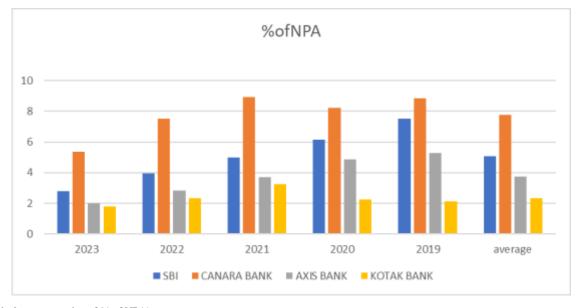
#### **Axis Bank**

Particulars	2023	2022	2021	2020	2019
Gross NPA	18,604.23	21,822.32	25,314.84	30,233.82	29,789.44
Net NPA	3,558.92	5,512.16	6,993.52	9,360.41	11,275.60
% of Gross NPA	2.02	2.82	3.7	4.86	5.26
% of Net NPA	0.39	0.73	1.05	1.56	2.06
Return on Assets %	0.8	1.21	1.11	0.2	0.63
Net Profit/(Loss) For the Period	9,579.68	13,025.48	6,588.50	1,627.22	4,676.61

### Kotak Mahindra Bank

Particulars	2023	2022	2021	2020	2019
Gross NPA	5,768.32	6,469.74	7,425.51	5,026.89	4,467.94
Net NPA	1,193.30	1,736.71	2,705.17	1,557.89	1,544.37
% of Gross NPA	1.78	2.34	3.25	2.25	2.14
% of Net NPA	0.37	0.64	1.21	0.71	0.75
Return on Assets %	2.47	2.13	0.43	1.87	1.69
Net Profit/(Loss) For the Period	10,939.30	8,572.69	6,964.84	5,947.18	4,865.33

%of Gross NPA						
Particulars	2023	2022	2021	2020	2019	average
SBI	2.78	3.97	4.98	6.15	7.53	5.082
Canara Bank	5.35	7.51	8.93	8.21	8.83	7.766
Axis Bank	2.02	2.82	3.7	4.86	5.26	3.732
Kotak Bank	1.78	2.34	3.25	2.25	2.14	2.352



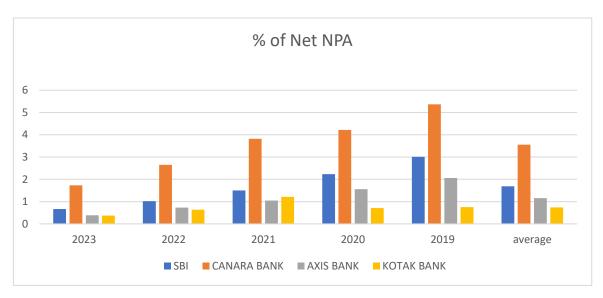
# (Graphical representation of % of NPA)

# Interpretation

The above table reveals the % of Gross NPA among the selected banks over five years of the study starting from 2019 to 2023 including the mean of five years. In all the years the Gross NPA ratio is identified more in the public sector banks namely SBI and Canara bank, with a highest average of 5.082% and 7.766% compared to the private sector banks, Axis Bank and Kotak Mahindra Bank with an average of 3.732% and 2.352% which shows that the share of gross NPA to the gross advances in high in both the public sector banks.

% of Net NPA								
Particulars	2023	2022	2021	2020	2019	Average		
SBI	0.67	1.02	1.5	2.23	3.01	1.686		
Canara Bank	1.73	2.65	3.82	4.22	5.37	3.558		
Axis Bank	0.39	0.73	1.05	1.56	2.06	1.158		
Kotak Bank	0.37	0.64	1.21	0.71	0.75	0.736		

Comparison of % of Net NPA among the banks from 2019 to 2023:



# (Graphical representation of % of Net NPA)

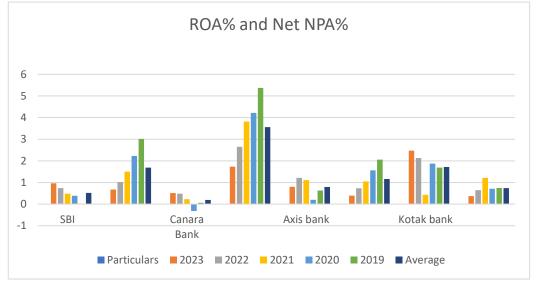
Comparison of ROA % and % of Net NPA among the banks from 2019 to 2023:

# Interpretation

From the above table and graph depicts the % of Net NPA among the selected banks over five years of the study starting from 2019 to 2023 including the mean of five years. Similar to the case of Gross NPAs, in all the years the Net NPA ratio has also been identified more in the public sector banks namely SBI and Canara bank, with a highest average of 1.686% and 3.558% compared to the private sector banks, Axis Bank and Kotak Mahindra Bank with an average of 1.158% and 0.736%. The highest Net NPA % is noticed in the Canara Bank with 5.37% in the year 2019.

	Particulars	2023	2022	2021	2020	2019	Average
	ROA	0.96	0.74	0.48	0.38	0.02	0.516
SBI	Net NPA	0.67	1.02	1.5	2.23	3.01	1.686
	ROA	0.51	0.48	0.23	-0.32	0.06	0.192
Canara Bank	Net NPA	1.73	2.65	3.82	4.22	5.37	3.558
	ROA	0.8	1.21	1.11	0.2	0.63	0.79
Axis bank	Net NPA	0.39	0.73	1.05	1.56	2.06	1.158
	ROA	2.47	2.13	0.43	1.87	1.69	1.718
Kotak bank	Net NPA	0.37	0.64	1.21	0.71	0.75	0.736

	Particulars	2023	2022	2021	2020	2019	Average
	ROA	0.96	0.74	0.48	0.38	0.02	0.516
SBI	Net NPA	0.67	1.02	1.5	2.23	3.01	1.686
Canara Bank	ROA	0.51	0.48	0.23	-0.32	0.06	0.192
	Net NPA	1.73	2.65	3.82	4.22	5.37	3.558
	ROA	0.8	1.21	1.11	0.2	0.63	0.79
Axis bank	Net NPA	0.39	0.73	1.05	1.56	2.06	1.158
	ROA	2.47	2.13	0.43	1.87	1.69	1.718
Kotak bank	Net NPA	0.37	0.64	1.21	0.71	0.75	0.736



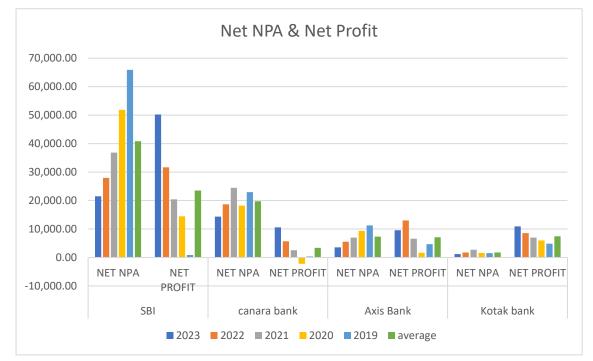
(Graphical representation of ROA% and Net NPA%)

# Interpretation

The data show that Return on Asset and Net Non-Performing Asset percentages vary among banks from 2019 to 2023. State Bank of India (SBI) demonstrates consistent improvement in both ROA and Net NPA, showing good risk management and control. Canara Bank confronts hurdles, including a negative ROA in 2020, but has managed to minimize Net NPA over time. Axis Bank consistently improves ROA while maintaining a low Net NPA ratio. Kotak Mahindra Bank stands out for its continuously high ROA, solid financial performance, and low and well-controlled Net NPA. Overall, the data emphasizes the need of evaluating both ROA and Net NPA to determine a bank's financial health and risk management strategy.

Comparison of Net Profit and Net NPA	A among the banks from 2019 to 2023:

	Particulars	2023	2022	2021	2020	2019	Average
SBI	Net NPA	21,466.64	27,965.71	36,809.72	51,871.30	65,894.74	40,801.62
	Net Profit	50,232.45	31,675.98	20,410.47	14,488.11	862.23	23,533.85
Canara bank	Net NPA	14,349.33	18,668.02	24,442.07	18,250.95	22,955.11	19,733.10
	Net Profit	10,603.76	5,678.42	2,557.58	-2,235.72	347.02	3,390.21
Axis Bank	Net NPA	3,558.92	5,512.16	6,993.52	9,360.41	11,275.60	7,340.12
	Net Profit	9,579.68	13,025.48	6,588.50	1,627.22	4,676.61	7,099.50
Kotak bank	Net NPA	1,193.30	1,736.71	2,705.17	1,557.89	1,544.37	1,747.49
	Net Profit	10,939.30	8,572.69	6,964.84	5,947.18	4,865.33	7,457.87



#### (Graphical representation of Net NPA and Net Profit)

### Interpretation

The data show the link between Net Profit and Net Non-Performing Assets among banks. State Bank of India has a significant decline in Net NPA and a continuous growth in Net Profit, indicating good risk management and financial success. Canara Bank confronts issues due to changing Net Profit and Net NPA data, emphasizing the need for greater financial stability. Axis Bank has a significant drop in Net NPAs, as well as a favourable trend in Net Profit, indicating good risk mitigation techniques. Kotak Mahindra Bank maintains a low and steady Net NPA while continually rising Net Profit, demonstrating solid financial health and effective asset management. Overall, the comparison underlines the necessity of considering both profitability and asset quality when determining a bank's overall financial resilience.

# Statistical analysis of ROA % and % of Net NPA using Correlation Coefficient:

ROA 9	% and % of Net NPA using	,					
	Particulars	2023	2022	2021	2020	2019	correlation
	Return on Assets %	0.96	0.74	0.48	0.38	0.02	
SBI	% of Net NPA	0.67	1.02	1.5	2.23	3.01	- 0.9799114479
	Return on Assets %	0.51	0.48	0.23	-0.32	0.06	
Canara	% of Net NPA	1.73	2.65	3.82	4.22	5.37	0.7335031727
	Return on Assets %	0.8	1.21	1.11	0.2	0.63	
Axis	% of Net NPA	0.39	0.73	1.05	1.56	2.06	0.5631345997
	Return on Assets %	2.47	2.13	0.43	1.87	1.69	
Kotak	% of Net NPA	0.37	0.64	1.21	0.71	0.75	0.9845349142

Statistical analysis of Net Profit and Net NPA using Correlation Coefficient:

Statistical analysis of Net Profit and Net NPA using Correlation Coefficient:							
Statisti	Details	2023	2022	2021	2020	2019	correlation
	Net Profit/(Loss)	50,232.45	31,675.98	20,410.47	14,488.11	862.23	
SBI	Net NPA	21,466.64	27,965.71	36,809.72	51,871.30	65,894.74	-0.9495549297
	Net Profit/(Loss)	10,603.76	5,678.42	2,557.58	-2,235.72	347.02	
Canara	Net NPA	14,349.33	18,668.02	24,442.07	18,250.95	22,955.11	-0.582608597
	Net Profit/(Loss)	9,579.68	13,025.48	6,588.50	1,627.22	4,676.61	
Axis	Net NPA	3,558.92	5,512.16	6,993.52	9,360.41	11,275.60	-0.7560412799
	Net Profit/(Loss)	10,939.30	8,572.69	6,964.84	5,947.18	4,865.33	
Kotak	Net NPA	1,193.30	1,736.71	2,705.17	1,557.89	1,544.37	-0.2950383295

#### Interpretation

The correlation coefficients show the intensity and direction of the linear link between Return on Assets% and Net Non-Performing Assets%, as well as Net Profit and Net NPA for the banks chosen. For State Bank of India and Kotak Mahindra Bank, there is a significant negative association between ROA% and % of Net NPA, meaning that as ROA% grows, % of Net NPA declines. Canara Bank and Axis Bank also exhibit negative associations, but with less severity. The examination of Net Profit and Net NPA reveals negative correlations for SBI, Canara Bank, and Axis Bank, indicating that as Net Profit grows, Net NPA tends to drop. However, Kotak Mahindra Bank has a weaker negative correlation in this scenario. Overall, the correlation study sheds light on the potential linkages between financial performance measures for each bank. Overall, the correlation study sheds light on the potential linkages between financial performance measures for each bank.

# Conclusion

Finally, the study of NPA and related variables for the selected banks from 2019 to 2023 gives useful information about their financial performance and risk management techniques. Public sector banks, particularly State Bank of India (SBI) and Canara Bank, regularly have larger percentages of Gross NPA and Net NPA than private sector banks such as Axis Bank and Kotak Mahindra Bank. SBI has shown noteworthy improvements in both Return on Assets (ROA) and Net NPA, showing good risk management and financial success. Canara Bank has problems but has successfully reduced Net NPA throughout the years. Axis Bank constantly improves ROA while keeping a low Net NPA, but Kotak Mahindra Bank stands out for its high ROA and well-managed net NPA. The correlation study for SBI and Kotak Mahindra Bank shows substantial negative relationships between ROA and Net NPA, implying that as profitability increases, the percentage of Net NPAs tends to drop. Similarly, negative correlations between Net Profit and Net NPA for SBI, Canara Bank, and Axis Bank show that as Net Profit rises, Net NPA falls.

# **Scope For Further Research**

Future study should look into the influence of macroeconomic issues, regulatory changes, and technology improvements on NPA trends. Furthermore, a comparison investigation of banks from other areas or nations might give a more comprehensive view of NPA management practices. Exploring the influence of risk management policies and practices in reducing NPAs and improving overall financial stability might also be a worthwhile research topic. Furthermore, a longitudinal analysis over a longer period of time may provide insights into the long-term success of banks' NPA management policies.

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