

Non-Performing Assets (NPAs) in Selected Public Sector Banks and Private Sector Banks in India: A Comparative Study

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Abstract: *Non-Performing assets (NPAs) are those assets of the banks that have stopped generating income or have ceased to earn revenue for the bank. It has been well defined by Securitization and Reconstruction of Financial Assets as also Enforcement of Security Interest (SARFAESI) Act 2002 as " An Asset or account of borrower, which has been classified by a bank or financial institution as sub-standard, doubtful or loss assets in accordance with the direction issued by the Reserve Bank of India".*

Basically, the assets of the banks are classified as performing and Non-Performing Assets which generate income to the bank. A non-performing asset is an asset which fails to generate income to the bank.

I. Introduction

1.1 Introduction of Non-Performing Assets:

The banking industry plays a vital role as a financial pillar in the financial sector. It reflects the economic condition and financial Health of the country. The most important or the Primary function of bank is to accept deposits from the public as well as from the business community and to provide loans to various sectors including industries, agriculture, housing, personal among others. No risk is involved in receiving deposit as it is the responsibility of the bank to repay the deposited amount to the depositor upon request. High risk is involved in lending funds because there is uncertainty of repayment of loan. Thus, due to the concerns regarding increase in Non-Performing Assets the banks are becoming very cautious in lending loans. NPA is a situation where a financial asset stops to earn or perform.

A loan or advance is classified as a Non-Performing Asset (NPA) when certain conditions are met. These conditions include:

- i. For term loans, when the interest and principal instalment remains unpaid for a period exceeding 90 days.
- ii. For Cash Credit and overdraft accounts, when the account remains "out of order.
- iii. For bill purchase and discounted, when it remains overdue for a period exceeding 90 days.
- iv. For short duration crops, when the instalment of principal or interest remains overdue for two crop seasons.
- v. For long duration crops, when the instalment of principal or interest remains overdue for one crop season.

Non-performing assets can exert a substantial influence on the overall economy, as they affect the financial health of Banks and other financial institutions, which in turn can impact economic growth, employment, and investment.

Some of the ways in which NPAs can impact the economy are as follows:

- i. Reduces availability of Credit:
When Banks have a high proportion of NPAs, they become more cautious in lending, which can reduce the availability of credit in the economy. This in turn can slow down investment and economic growth.
- ii. Increases the Cost of Borrowing:
Banks with a high proportion of NPAs may have to raise the interest rates on their loans to compensate for the higher risk of default. This can make borrowing more expensive for businesses and individuals, leading to a decrease in investment and consumption.
- iii. Reduces Bank Profitability:
NPAs can impact the profitability of banks and other financial institutions, as they have to set aside provisions for bad loans. This can reduce their ability to lend and invest, which can slow down economic growth.

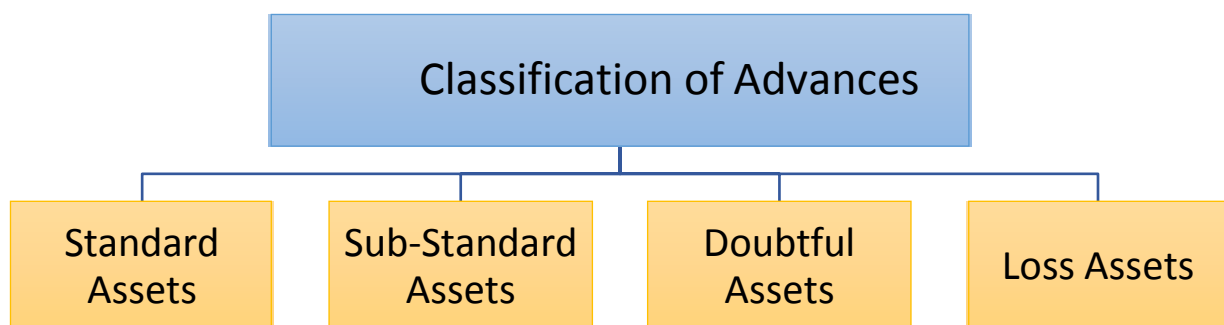
Overall, NPAs can have a significant impact on the economy, leading to reduced credit availability, higher borrowing costs, reduced bank profitability and increase government expenditure.

1.2 Types of NPAs

- i. **Gross NPA:**
 - The term "Gross NPA" refers to the total sum of all loan assets that are classified as Non-Performing Assets (NPAs) as per the guidelines of the Reserve Bank of India (RBI) on the balance sheet date.
 - It consists of all Non-Standard Assets such as Substandard, Doubtful and loss assets.
 - It is calculated as follows:
$$\text{Gross NPA} = \frac{\text{Total Gross NPA}}{\text{Total Loans Given}}$$
- ii. **NET NPA**
 - Net NPA refers to the amount remaining after deducting all Doubtful and unpaid debts from the Gross NPA.
 - $$\text{Net NPA} = \text{Gross NPA} - \text{Provision on Gross Advances}$$

1.3 Provisioning & Classification for Non-Performing Assets (NPAs)

The Central Bank of India periodically releases the guidelines for recognition in light of the Narasimhan Committee Recommendations, classification and provisioning norms related to NPAs. The following are the Reserve Bank of India guidelines for the provisions for NPAs.



- I. **Standard Assets:**
Standard assets refer to loans or advances that are performing and have not shown any signs of default or

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repayment issues. In other words, these loans are being repaid on time, and the borrower is not behind on any payments.

Provisioning requirements for various categories of standard assets are outlined below:

The rates at which banks should make a general provision for all the standard assets are as follows:

(a) Direct advances made to agriculture and Small and Micro Enterprises(SMEs) sectors	0.25 percent
(b) Advances in respect of Commercial Real Estate (CRE) sector	1.00 percent
(c) Advances to commercial Real Estate – Residential Housing Sector	0.75 percent
(d) In respect of Housing loans extended at teaser rates	2.00 percent
(e) All other loans and advances	0.40 percent

II. Sub-Standard Assets:

Sub-Standard Assets are those assets that have been classified as Non-Performing Assets (NPAs) for a period of up to 12 months.

Below are the provisioning requirements for different types of loans and advances classified as standard assets:

- (i) Regardless of any guarantee coverage provided by ECGC or the availability of securities, a provision of 15% of the total outstanding amount must be set aside. This provision is mandatory and applies to all loans and advances falling under this category.
- (ii) For unsecured exposures identified as sub-standard, an additional provision of 10% must be made.

Thus, bringing the total provision to 25% of the outstanding balance.

III. Doubtful Assets:

Doubtful assets are loans and advances that have been classified as NPA and have remained in that category for a specific period of time, usually exceeding 12 months.

The provision to be made for the secured portion are as follows:

<u>Doubtful status</u>	<u>Percentage of provisioning</u>
Up to 1 year	25%
>1 ≤ 3 years	40%
> 3 years	100%

IV. LOSS ASSETS:

Loss assets refer to those loans or advances where the bank has identified that the borrower has no capacity or intention to repay the outstanding amount. Such assets are considered irrecoverable and are written off from the bank's books. Once an asset is classified as a loss asset, the entire outstanding amount is treated as

a loss and is written off against the bank's reserves. The identification and classification of loss assets are an important part of managing the NPA portfolio of banks.

II. Review Of Literature

- Sharma S Rathore D.S. and Prasad. J. (2019):
According to their research, the primary cause of the rise in NPA in both Public Sector and Private Sector banks is the improper use of bank loans and inadequate recovery management. The sectors of agriculture and industries have experienced a significant increase in NPAs. To address this issue, they proposed that banks enhance their corporate governance practices to make better credit and operational decisions.
- Kumar, S. Singh, R. Pratibha, B.T. and Pandurang, A. K. (2019):
Their study titled "Priority sector lending and NPA status, impact, and issues" revealed that there was a surge in NPA in the priority sector during 2005-2008 and 2012-2016. In contrast, the NPA in the non-priority sector remained stable from 2009 to 2011 but rose from 2011 to 2016 in public sector banks. As a result, both priority and non-priority sector NPAs constitute a significant portion of the total NPA in public sector banks.
- Girnara MonaRameshbhai (July 2020):
The research study analyzed the NPAs of five public and five private banks over the past five years. The paper provided an overview of the meaning of NPAs, ratios related to NPAs, and a comparison of NPAs in Private Sector and Public Sector banks. According to the study, it was observed that the levels of NPAs in Public Sector banks were higher when compared to their Private Sector counterparts, with both gross and net NPAs being significantly higher in public sector banks. This increase in NPA levels is adversely affecting the profitability of these banks.

vi. RESEARCH GAP

The focus of my research study was to analyze the financials of two Public Sector banks, namely State Bank of India (SBI) and Punjab National Bank (PNB), and two Private Sector banks, namely HDFC Bank and AXIS Bank, covering the financial years from 2018 to 2022. Through a comparative analysis, the study aimed to determine the impact of NPAs on the key parameters of the selected banks and to ascertain which banking sector exhibited better control over NPAs.

vii. OBJECTIVE OF THE STUDY

1. Studying the relationship between NPA and the key parameters of selected banks which will help in understanding the financial health of the selected banks.
2. Finding out the impact of NPA on Return on Assets and Net Profit of selected banks.

viii. SOURCES OF DATA AND METHODOLOGY

This current study relies on secondary data gathered from various sources, including:

- Annual reports of SBI Bank, AXIS Bank, RBI, PNB Bank, HDFC Bank.
- Press Release Reports of SBI Bank, AXIS Bank, PNB Bank, HDFC Bank.
- Pertinent subject matter and relevant websites of Private and Public sector banks in India.

ix. STATISTICAL TOOLS USED

- To assess the stability and average performance of the selected banks, the 'Mean' has been calculated. This facilitates the analysis of the correlation between NPAs and other crucial metrics of the banks.

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- To scrutinize the association between Net NPA, Return on Assets (ROA), and Net Profit of the chosen Public Sector and Private Sector banks, the statistical technique of **Correlation** has been employed.

III. The relationship between NPA and the Key Parameters of Selected banks

The existence of NPAs exerts a substantial influence on the fundamental metrics of banks, including profitability, capital adequacy, and asset quality.

Moreover, NPAs refer to loans that are not being repaid by borrowers, either partially or fully. When Banks have a high level of NPAs, it can impact their profitability as they have to set aside provisions to cover potential losses on these loans. Thus, this can reduce their net interest income, which is a key source of revenue for banks.

Additionally, high level of NPAs can negatively impact the asset quality of Banks, which can impact their ability to attract deposits and maintain investor confidence. Therefore, Banks are required to effectively manage their NPA levels to maintain their Profitability, Capital Adequacy, and Asset Quality and avoid adverse impacts on their Key Parameters.

Comparison of % of Gross NPA of selected Public and Private Sector banks and finding out their mean for determining their performance.

YEAR	PUBLIC SECTOR BANKS		PRIVATE SECTOR BANKS	
	SBI	PNB	HDFC	AXIS
	GROSS NPA (%)	GROSS NPA (%)	GROSS NPA (%)	GROSS NPA (%)
2017-2018	10.91	18.38	1.04	6.77
2018-2019	7.53	15.5	1.28	5.26
2019-2020	6.15	14.21	1.35	4.86
2020-2021	4.98	13.63	1.32	3.70
2021-2022	3.97	10.48	1.17	2.82
MEAN	6.71	14.44	1.23	4.69

INTERPRETATION:

As per the table presented above, it is evident that the selected public sector and private sector banks in India have varying percentages of Gross NPA. Notably, PNB has the highest mean percentage of Gross NPA for the Financial Year 2018 to 2022 which is 14.44% followed by SBI which is 6.71% whereas HDFC Bank has lowest mean of Percentage of Gross NPA for the Financial Year 2018 to 2022 which is 1.23% followed by Axis Bank which is 4.69%. Therefore, the percentage of Gross NPA is higher in Public Sector Banks as compared to Private Sector Banks.

This suggests that Public Sector banks are more exposed to credit risk as compared to Private Sector Banks which can be attributed to factors such as inadequate Due diligence, weaker underwriting standards and lack of risk management practices. Whereas Private sector banks tends to have more robust risk management system as well as lending practices which helps them to manage credit risk more effectively.

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SOME OF THE KEY PARAMETERS WHICH ARE IMPACTED BY NPA ARE:

- **GROSS ADVANCES**
- **TOTAL DEPOSITS**
- **CAPITAL ADEQUACY RATIO**

I. Studying the Relationship between Gross NPA and Gross advances of selected Public Sector banks and Private Sector banks

YEAR	PUBLIC SECTOR BANKS				PRIVATE SECTOR BANKS			
	SBI		PNB		HDFC		AXIS	
	GROSS NPA (Crores)	GROSS ADVANCES (Crores)	GROSS NPA (Crores)	GROSS ADVANCES (Crores)	GROSS NPA (Crores)	GROSS ADVANCES (Crores)	GROSS NPA (Crores)	GROSS ADVANCES (Crores)
2017-2018	2,23,427.46	20,48,206	86,620.05	4,47,636	8,606.97	6,75,086	34,248.64	4,67,083
2018-2019	1,72,750.36	22,90,303	78,472.70	4,73,277	11,224.16	7,80,529	29,789.44	5,39,328
2019-2020	1,49,091.85	24,23,918	73,478.76	5,18,751	12,649.97	9,93,112	30,233.82	5,75,552
2020-2021	1,26,389.02	26,15,853	1,04,423.42	5,72,662	15,086.00	11,32,256	25,314.84	6,05,548
2021-2022	1,12,023.37	27,33,967	92,448.04	7,28,186	16,140.96	13,68,821	21,822.32	707,696
MEAN of %ages of Gross NPA on Gross Advances	6.70%		14.44%		1.23%		4.69%	

- Gross NPA and Gross Advances are two important indicators which are used to measure the health of a Bank's Loan Portfolio.
- Gross advances refer to the total amount of loan outstanding on the banks' balance sheet whereas Gross NPA refers to the total amount of loan on which borrower has defaulted.
- Thus, the increase in Gross NPA leads to a decrease in Gross Advances because as more loans become NPA, Banks are obligated to allocate a more substantial sum of money as provisions for NPAs, ultimately diminishing the funds available for new lending.
- In the table shown above Private sector bank has low mean % of Gross NPA on Gross advances which is 1.23% in HDFC Bank followed by 4.69% in Axis Bank whereas Public Sector Banks has highest mean %

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of Gross NPA on Gross Advances as compared to Private Sector banks which is 14.44% in PNB bank and 6.71% in SBI bank.

Thus, this shows that Private sector banks can effectively maintain their loan portfolio which shows they have effective risk management and credit underwriting Practices.

II. Studying the relationship between Gross NPA and Total Deposits of selected Public and Private sector Banks

YEAR	PUBLIC SECTOR BANKS				PRIVATE SECTOR BANKS			
	SBI		PNB		HDFC		AXIS	
	GROSS NPA (Crores)	TOTAL DEPOSITS (Crores)	GROSS NPA (Crores)	TOTAL DEPOSITS (Crores)	GROSS NPA (Crores)	TOTAL DEPOSITS (Crores)	GROSS NPA (Crores)	TOTAL DEPOSITS (Crores)
2017-2018	2,23,427.46	26,23,256	86,620.05	6,50,642	8,606	8,29,400	34,248.64	3,74,191
2018-2019	1,72,753.60	29,17,046	78,472.70	7,01,242	11,768	9,34,000	29,789.44	4,30,154
2019-2020	1,49,091.85	34,89,479	73,478.76	7,49,256	13773	11,89,500	30,233.82	5,05,726
2020-2021	1,26,389.00	41,07,304	1,04,423.42	8,29,962	10431	13,35,000	25,314.84	6,04,466
2021-2022	1,12,023.00	48,46,224	92,448.04	9,47,699	9668	15,59,217	21,822.32	7,34,898
MEAN % of Gross NPA on Total Deposits	4.80		11		1.08		5.80	
Correlation	-0.927171		0.516279		0.0318586		-0.969578	

- NPA can have a negative impact on total deposits held by bank.
- When bank have high NPA it indicates that a significant portion of loan portfolio is at risk, which can affect the confidence of depositors.
- Depositors may choose to withdraw their deposits from the bank leading to a decrease in total deposits.
- This in turn lead to liquidity crisis in bank making it difficult to meet their financial obligation.

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- In the table shown above HDFC Bank has least mean percentage of Gross NPA on Total Deposits which is 1.08 whereas PNB (Public Sector bank) has highest mean percentage of Gross NPA on Total Deposits which is 11. Thus, this table indicates that the Private sector banks has a lower proportion of Non-Performing Assets in its loan portfolio, and therefore considered to be more financially stable.

III. Relationship of NPA and Capital Adequacy Ratio of Selected Public Sector and Private Sector banks.

YEAR	PUBLIC SECTOR BANKS				PRIVATE SECTOR BANKS			
	SBI		PNB		HDFC		AXIS	
	GROSS SNPA (%)	Capital Adequacy Ratio (%)	GROSS SNPA (%)	Capital Adequacy Ratio (%)	GROSS NPA (%)	Capital Adequacy Ratio (%)	GROSS SNPA (%)	Capital Adequacy Ratio (%)
2017-2018	10.91	12.77%	18.38	9.21%	1.04	15.6%	6.77	12.14%
2018-2019	7.53	12.89%	15.50	10.65%	1.28	17.1%	5.26	13.77%
2019-2020	6.15	14.14%	14.21	13.24%	1.35	18.5%	4.86	17.53%
2020-2021	4.98	13.73%	13.63	14.13%	1.32	18.8%	3.70	18.10%
2021-2022	3.97	13.45%	10.48	13.08%	1.17	18.9%	2.82	18.54%
CORRELATION	-0.676233		-0.793541		-0.68166		-0.911813	

- NPAs may adversely affect the capital adequacy ratio of banks, which is an indicator of a bank's ability to withstand losses and fulfill financial commitments. The Capital Adequacy Ratio is computed as a percentage of a bank's capital to its risk-weighted assets.
- When a bank has a high level of NPAs, it indicates that a significant portion of its loan are not being repaid on time which can result in lower profits as well as a reduction in its capital base. If bank is unable to recover the loans, then it requires to write them off as bad debts, which further reduces its capital.
- Thus, High NPAs can have negative impact on the Capital Adequacy Ratio as the Banks's capital gets reduced while the Risk Weighted Asset remains the same which can lead to bank falling below the minimum capital adequacy ratio required by the regulatory authorities. Due to this bank may need to raise additional capital through issuance of debt or equity or it may require to reduce its Risk Weighted Assets by selling off some of

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its loans or assets.

- In the table shown above the Capital Adequacy Ratio of HDFC Bank is the highest for the financial years 2018 to 2022 followed by Axis bank. Where as the Capital Adequacy Ratio of SBI and PNB Bank are lower as compared to Private sector banks.
- The above table also depicts negative correlation between Gross NPA and Capital Adequacy Ratio for all the Banks because Gross NPA of all the banks are decreasing leading to an increase in the Capital Adequacy Ratio.

Thus, a negative correlation between Gross NPA and Capital Adequacy Ratio indicates that the banks have a stronger capital base and are better equipped to manage the risks associated with lending, resulting in lower levels of bad loans.

IV. Impact of NPA on Return on Assets (ROA) of selected banks

Non-Performing Assets (NPAs) exert a significant influence on the Return on Assets of banks because high level of NPA has a negative impact on banks financial health and Profitability. Some of the Impacts of NPA on Return on assets are as follows:

a. Reduced Interest Income:

When most of the bank's loan turns into NPA the bank's total interest income reduces as bank's cannot earn interest income from those loans. Due to this reason the bank's ROA will be lower which indicates that bank is generating less profit for each unit of its assets.

b. Provisioning for Bad loans:

Banks have to make provisions for all those loans that turns into NPA. The provisions are set aside which act as a buffer against potential losses on bad loans. Thus, the provisions reduces the bank's net profit and consequently its ROA.

c. Lower Asset Turnover

Banks may find it difficult to recover the amount of Principal and interest from bad loans, which may lead to an increase in the NPA. This can result in lower asset turnover, which is calculated by dividing the Total Asset by the Bank revenue. A lower Asset turnover ratio indicates that the bank is not utilising its assets effectively for generating revenue which in turn results in lower ROA.

Thus, there is a negative correlation between NPA and ROA of banks. High level of NPAs reduces bank's profit and hence it's ROA.

YEAR	PUBLIC SECTOR BANKS				PRIVATE SECTOR BANKS			
	SBI		PNB		HDFC		AXIS	
	GROSS NPA (%)	RETURN ON ASSETS (%)	GROSS NPA (%)	RETURN ON ASSETS (%)	GROSS NPA (%)	RETURN ON ASSETS (%)	GROSS NPA (%)	RETURN ON ASSETS (%)
2017-2018	10.91	-0.19	18.38	-1.60	1.04	1.64	6.77	0.03

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2018-2019	7.53	0.02	15.5	-1.28	1.28	1.69	5.26	0.58
2019-2020	6.15	0.38	14.21	0.04	1.35	1.71	4.86	0.17
2020-2021	4.98	0.48	13.63	0.16	1.32	1.78	3.70	0.66
2021-2022	3.97	0.67	10.48	0.26	1.17	1.78	2.82	1.10
CORRELATION	-0.967973		-0.869371		-0.465345		-0.882453	

- The table above exhibits the percentage of Return on Assets for the selected banks. where HDFC Bank has high ROA (%) in the financial years 2018 to 2022 followed by Axis Bank. Private sector banks have high % of ROA as compared to Public Sector Banks. Thus, this indicates that Private sector banks are able to efficiently generate profits from its banks as compared to Public Sector Banks. It further indicates that Private sector banks have good management, Effective cost control system and Successful investment decisions.
- The above table also shows Correlation between Gross NPA and Return on Assets. The Correlation for all the banks are negative which indicates that as the level of Gross NPA increases, the Return on Assets decreases.

V. Impact of NET NPA on Net Profit of Selected Banks,

The elevated levels of Non-Performing Assets in the banking sector can profoundly affect the net profit of banks. A notable amount of NPAs in the banking system can result in a substantial decrease in the net profit of Banks.

Moreover, NPAs also have an impact on the interest income of Banks as when loans become non- performing banks stop earning interest on these loans. This result in a reduction in the interest income of banks, which also lead to a reduction in their net profit.

YEAR	PUBLIC SECTOR BANKS				PRIVATE SECTOR BANKS			
	SBI		PNB		HDFC		AXIS	
	NET NPA (%)	NET PROFIT (%)	NET NPA (%)	NET PROFIT (%)	NET NPA (%)	NET PROFIT (%)	NET NP A (%)	NET PROFIT (%)
2017-2018	5.73	1.89%	11.24%	-7.16%	0.40%	18.2%	2.56%	4.2%
2018-2019	3.01	-1.97%	7.65%	-10.01%	0.39%	18.4%	2.09%	2.3%
2019-2020	2.23	3.14%	5.39%	-10.16%	0.36%	17.7%	0.98%	3.5%

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2020-2021	1.50	5.50%	3.19%	0.48%	0.40%	18.2%	1.05%	5.5%
2021-2022	1.02	5.29%	2.09%	4.87%	0.32%	19.1%	1.09%	5.3%
CORRELATION	-0.522529		-0.709694		-0.551269		-0.465308	

Based on the table presented, it can be observed that there exists a negative correlation between Net NPA and Net Profit. which signifies that as the level of Non- Performing Assets decreases, the Net Profit of a company tends to increase.

If net NPA decreases and net Profit increases, it can be a positive sign for the financial health of a company. A decrease in net NPA indicates that the company is recovering bad debts and managing its loan portfolio effectively. Thus, in turn can help improve the company's cash flow and reduce the risk of default.

An increase in Net Profit indicates that the company's operations are generating more revenue or reducing costs. Overall, a decrease in net NPA and an increase in net Profit can be seen as an indication of a company's improving financial performance, which can lead to higher investor confidence and better market performance.

VI. CONCLUSION

- After conducting a comparative analysis of NPAs in selected Public Sector and Private Sector banks, it can be concluded that both types of banks have been impacted by the NPA problem, but to different degrees. The study aimed to analyse the differences in the levels of NPA in the selected banks and to identify the reasons behind the differences.
- The As per the findings of the study, Public Sector Banks exhibited a higher NPA level in comparison to Private Sector Banks. This significant difference can be attributed to a number of banks such as weak credit appraisal systems, lack of accountability, and political interference in the functioning of Public Sector banks.

Conversely, Private Sector Banks demonstrated better control over their NPAs due to their strict lending policies, strong credit appraisal systems, and better risk management practices. Private sector banks have been able to maintain a lower level of NPA due to their focus on quality borrowers and better monitoring of loans. The study observed that Private Sector Banks were more proficient in managing their NPAs by using various tools such as restructuring, recovery and write offs.
- As per my study NPAs have a significant or negative impact on various parameters such as Gross Advances, Capital Adequacy Ratio and Total Deposits. NPAs negatively impacted Gross advances of Banks as when loans become Non-Performing, they are moved out of the Gross Advances category, resulting in a reduction in the total outstanding loans. This negatively impacted the profitability of Banks.

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