



“A COMPARATIVE STUDY ON NON-PERFORMING ASSETS OF SELECTED PUBLIC AND PRIVATE SECTOR BANKS IN INDIA”

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Abstract: Neither liquidity nor profitability pose a danger to the overall resilience and quality of the assets held by Indian banks. The sufficiency and quality of the financial infrastructure are largely determined by the standard of assets held by the banking sector. NPAs are a key factor in evaluating a bank's ability to manage its budget. A significant problem for the Indian banking industry is the rise in non-performing assets (NPAs). The rise of nonperforming assets (NPAs) is one of the biggest concerns facing India's banking industry. The study's objective is to assess and contrast SBI and HDFC Bank's GNPA and NNPA. The same relevant data have been gathered and examined for a five-year period, spanning from 2020 to 2024. The findings indicate that although the GNPA and NNPA of SBI Bank have declined, the HDFC Banks have climbed dramatically.

Index Terms - Non-performing Assets (NPA), Gross non-performing assets, (GNPA), Net non-performing Assets (NNPA).

1. Introduction:

Given its extensive maturity, liquidity, and risk management capabilities, the banking industry serves as the foundation of any country's financial system. An individual's country's banking system type can be a direct indicator of the financial outcome of their economy. For this reason, a nation's banking industry is essential to its overall development. Commercial banks and cooperative banks are the two categories of banks in the Indian banking system. For this reason, a nation's banking industry is essential to its overall development. Commercial banks and cooperative banks are the two categories of banks in the Indian banking system. Since the banker is required to reimburse the deposit upon demand, accepting deposits is typically risk-free. However, because there is never a guarantee that a loan will be returned, there is always a significant risk associated with taking one out. Recently, banks have tightened their lending policies due to concern over the rise of nonperforming assets. In the context of financial functions, public sector banks have performed exceptionally well compared to private sector banks. Good financial performance is demonstrated by public

sector banks. Public sector banks and the rising amount of non-performing assets they have are the only issues at the moment.

2. NPA: A Conceptual Framework:

Around the world, banks and other financial institutions are very concerned about non-performing assets, or NPA. Policymakers and other stakeholders are very concerned about the persistent problem of non-performing assets (NPAs) in India's banking system.

In order to address the problem of non-performing assets (NPAs), the Reserve Bank of India (RBI) has implemented a number of initiatives. One such initiative is the Insolvency and Bankruptcy Code, 2016, which establishes a framework for the prompt resolution of stressed assets. The slowdown in the economy, inadequate credit monitoring and assessment, deliberate default by borrowers, fraud, and diversion of funds are the primary causes of India's significant non-performing assets (NPAs). Political meddling, a lack of accountability, and inadequate credit assessment and monitoring procedures are the main causes of the high percentage of non-performing assets (NPAs) in public sector banks. Loans and advances that the borrower is not servicing - that is, not repaying the principal or interest amount in accordance with the terms of the loan agreement - are referred to as non-performing assets. It is a significant cause of risk and financial instability for financial organizations like banks. Both public and private banks and financial institutions in India are very concerned about non-performing assets, or NPAs. The number of non-performing assets (NPAs) in India has increased recently, raising serious concerns among stakeholders and policymakers. The NPA problem has had a greater impact on India's public sector banks than on their private sector peers. Furthermore, the economic downturn has affected public sector banks as well, which has resulted in a notable rise in non-performing assets (NPAs).

To sum up, the non-performing assets (NPAs) represent a significant problem for Indian banks in the public and private sectors. The banking industry, the economy, and society at large are all negatively impacted by the growing number of non-performing assets (NPAs). In order to address the NPA problem and maintain the stability and expansion of the banking industry, it is imperative that banks and other financial institutions take proactive steps. To creep into detail the attempt has been made the present research paper.

3. Classification and Calculation of NPA:

3.1 Classification of NPAs:

3.1.1 Sub-standard Assets: A sub-standard asset of NPA for a period less than or equal to 12 months.

3.1.2 Doubtful Assets: A Doubtful asset is asset of NPA for more than 12 months.

3.1.3 Loss Assets: A loss asset is type of asset of NPA which losses has been identified by the bank authority, auditors, or the RBI but the loss amount has not been written off fully.

3.2 Calculation of NPAs:

3.2.1 Gross Non-Performing Assets:

- Gross NPAs are the sum of all loan assets that are classified as NPAs as RBI guidelines as on balance sheet date.
- It contains of all Non-Standard assets like as sub-standard, doubtful and assets.
- It can be calculated with the help of following ratios:

$$\text{Gross NPAs Ratio} = \text{Gross NPAs/Gross Advance} * 100$$

OR

$$\text{Gross NPA} = (A_1 + A_2 + \dots + A_n) \text{ divided by Gross Advances}$$

Here, A_1 refers to the loans given to the first individual (A_1 and so on)

3.2.2 Net Non-performing Assets:

- Net NPAs are those type of NPAs in which the bank has deducted the provision for uncertain and unpaid debts.
- Net NPAs is obtained by reducing the provision from gross NPAs and show the actual burden of banks.
- It can be calculated by following:

$$\text{Net NPAs} = \text{Gross NPAs-provision on Gross Advances}$$

OR

$$\text{Net NPA} = (\text{the Total Gross NPA}) \text{ minus } (\text{Provision for the Unpaid Debts}) \text{ divided by the Gross Advances}$$

4. Review of Literature:

Research study by **B.R. Reddy (2004)**, who collected 38 research papers that were given at the 2000 National Conference on Non-Proliferation in Tirupathi. These research articles emphasized the advancements in NPA management through the use of primary and secondary data. In conclusion, these studies showed that non-performing assets (NPA) posed a serious threat to the survival and stability of Indian banks, and they called for more proactive and remedial approaches to managing NPA.

In addition to providing an explanation of the NPA's conceptual framework, **Faizanuddin, Md. and Mishra, R.K. (2011)** investigated the NPA's dimensional approach within the Indian banking system, concentrating on the State Bank of India in Patna Circle, Bihar. The analysis's conclusions and findings suggested significant adjustments to the project finance guidelines, recovery policy, legal provisions, and NPA account oversight. In an analytical study, **Klein, N. (2013)** examined the important relationships between macroeconomic circumstances, bank-specific characteristics, and the prevalence of non-performing assets (NPAs) in the years 1998–2011, with an emphasis on Central, Eastern, and South-Eastern Europe. Strong macro-financial links are generally confirmed by the panel VAR analysis. Specifically, the impulse response functions showed that higher inflation causes more NPAs, whereas positive shocks to GDP growth and credit (as a percentage of GDP) contribute to NPA reduction. Moreover, a positive shock (rise in the NPA ratio) causes the credit-to-GDP ratio, real GDP, and unemployment rate to fall, all other things being equal.

Patra and Pothal (2019) examined the trends and patterns of non-performing assets (NPAs) in Indian public and private sector banks. According to the survey, public sector banks had a larger percentage of non-

performing assets (NPAs) than private sector banks. The report blamed political meddling, inadequate credit assessment and monitoring procedures, and a lack of accountability in public sector banks for this discrepancy. The impact of the COVID-19 pandemic on nonperforming assets (NPAs) in Indian public and private sector banks was examined in a study by *Panigrahi and Nanda (2021)*. Both public and private sector banks' nonperforming assets (NPAs) significantly increased as a result of the pandemic, according to the report. The study did discover, however, that private sector banks managed the pandemic's effect on their non-performing assets (NPAs) more successfully.

According to *N.A. Kavitha and M. Muthu Meenakshi's (2016)* investigation, public sector banks have a comparatively high level of non-performing assets (NPA). Even though the government has made a number of actions to lower the NPAs, more work needs to be done to address this issue. The government has implemented a number of measures to lower the NPAs; these initiatives are necessary to increase efficiency and profitability. Additionally, they noted in this report that in order to address the NPA problem and prevent NPAs from continuing to harm bank profitability, which is extremely detrimental to the expanding Indian economy, significant measures must be made.

According to *Dr. Kapil K. Dave's (2016)* comparative analysis of nonperforming assets (NPA) between public and private sector banks, every bank has a separate, independent credit rating agency that should assess the borrower's financial capability prior to approving a credit facility. A committee with extensive experience managing non-performing assets (NPAs) might be constituted by financial specialists. PA is one of the most important rating variables for any bank, and it should be used to continuously assess the client's financial situation.

Das et al.'s study from 2021 examined how technology deployment affected the amount of non-performing assets (NPAs) in Indian banks. According to the study, banks that had incorporated cutting-edge technology like machine learning and artificial intelligence had smaller non-performing assets (NPAs) than banks that had not. According to the report, private sector banks adopted cutting-edge technologies more proactively, which improved their ability to handle non-performing assets (NPAs).

5. Objectives of the Study:

1. To study the concept of non-performing assets.
2. To study and analyse the Gross and Net NPA of SBI and HDFC bank.
3. To study and analyse the per cent of Gross and Net NPA of SBI and HDFC bank.

6. Hypotheses of the study:

1. The Gross Non-Performing Assets (NPA) growth rates of SBI and HDFC banks have not been significantly differed.
2. The Net Non-Performing Assets (NPA) growth rates of SBI and HDFC banks have not been significantly differed.
3. The percentages of SBI's and HDFC Bank's gross non-performing assets do not differ much.
4. The percentages of SBI's and HDFC Bank's net non-performing assets do not differ much.

7. Research Methodology:

7.1 Research design: Descriptive research is the focus of the current research study.

7.2 Sample Design: Both public and private sector banks were selected for the study in order to guarantee a representative sample. An example process that is simple to follow. A sample population of both public and private sector bank was chosen for the research study based on their respective market capitalizations, with one sample bank chosen for analysis. The public sector bank State Bank of India and the private sector bank Housing Development Finance Corporation served as the study's sample banks from each of the public and private sector banks.

7.3 Time Frame: The timeframe for this project is from 2020 till 2024.

7.4 Sampling Method: Non-probability technique.

7.5 Sampling Frame: Random Convenience Sampling.

7.6 Sample Design: Tabulation and other suitable statistical techniques has been used to present the study data.

7.7 Sample Technique:

Convenience sampling is the method used in this study. A type of nonprobability sampling known as convenience sampling involves selecting a sample from a nearby population segment.

7.8 Sources of Data: The related NPAs data of the sample bank - SBI and HDFC bank for the present study has been collected as follow;

7.8.1 Primary Source:

Since the present research is based on secondary data, the primary data has not been collected.

7.8.2 Secondary Source

The secondary data were gathered through desk research using articles and publications that were posted on different websites.

- SBI and HDFC Bank audited and approved the annual reports.
- Press releases from SBI and HDFC Bank.
- It includes more pertinent data and connections to bank websites from India's governmental and private sectors.

7.9 Analytical and Tools and Techniques:

The collected secondary data have been analysed using descriptive data and statistical inferences. The researcher has used Chi-square statistics to authenticate the study result.

8. Results and Discussions:

For the present research study, the researcher has collected secondary data related from the financial statements of the sample banks i.e. SBI and HDFC banks. The collected data were related to NPAs of sample banks only and the has been analysed as follow.

1. The Gross Non-Performing Assets (NPA) growth rates of SBI and HDFC banks have not been significantly differed.

Table: 1 Gross NPA of SBI and HDFC banks

Year	SBI	HDFC
2020	149091.85	12649.97
2021	126389.02	15086.00
2022	112023.37	16140.96
2023	90927.78	18019.03
2024	84276.33	31173.32

Source: Sample Bank's Annual Report and RBI Archives.

Table 1 above shows the gross non-performing assets of SBI and HDFC banks.

Table: 2 Descriptive statistics of Gross NPA of SBI and HDFC banks

	N	Mean	Std. Deviation	Minimum	Maximum
GROSSNPASBI	5	112541.6700	26429.25974	84276.33	149091.85
GROSSNPAHDFC	5	18613.8560	7283.93562	12649.97	31173.32

Source: Compiled from calculated statistics.

Table 2 above shows the descriptive statistics of gross non-performing assets of the SBI and HDFC banks. The result shows that the mean and standard deviation related to gross non-performing assets is greater in the SBI bank than HDFC bank. The result shows that there is significant difference in growth of gross non-performing assets of the SBI bank and HDFC bank.

To support the result, the researcher has calculated Chi-square as follow.

Table: 3 Chi-square result related to Gross NPA of SBI and HDFC banks

	GROSSNPASBI	GROSSNPAHDFC
Chi-Square	.000 ^a	.000 ^a
df	4	4
Table Value	9.49	9.49
Asymp. Sig.	1.000	1.000

a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.

Source: Compiled from calculated statistics.

The calculated chi-square value in table 3 of SBI bank and HDFC bank is 0.00 which is lower than the table value 9.49 at a degree of freedom 4 and level of significance @ 5% i.e. 0.05. The result shows that there is a growth in amount of gross non-performing assets of the SBI and HDFC bank. **Hence, the Alternate Hypothesis, "The Gross Non-Performing Assets (NPA) growth rates of SBI and HDFC banks have been significantly differed", is Accepted.**

2. The Net Non-Performing Assets (NPA) growth rates of SBI and HDFC banks have not been significantly differed.

Table: 4 Net NPA of SBI and HDFC banks

Year	SBI	HDFC
2020	51871.30	3542.36
2021	36809.72	4554.82
2022	27965.71	4407.68
2023	21466.64	4368.43
2023	21051.08	8091.74

Source: Sample Bank's Annual Report and RBI Archives.

Table 4 above shows the net non-performing assets of SBI and HDFC banks.

Table: 5 Descriptive statistics of Net NPA of SBI and HDFC banks

	N	Mean	Std. Deviation	Minimum	Maximum
NETNPASBI	5	31832.8900	12893.49021	21051.08	51871.30
NETNPAHDFC	5	4993.0060	1777.02243	3542.36	8091.74

Source: Compiled from calculated statistics.

Table 5 above shows the descriptive statistics of net non-performing assets of SBI and HDFC banks. The result shows that the mean and standard deviation related to net non-performing assets is greater in the SBI bank than the HDFC bank. The result shows that there is significant difference in growth of net non-performing assets of the SBI bank and HDFC bank.

To support the result, the researcher has calculated Chi-square as follow.

Table: 6 Chi-square result related to Net NPA of SBI and HDFC banks

	NETNPASBI	NETNPAHDFC
Chi-Square	.000a	.000a
df	4	4
Table Value	9.49	9.49
Asymp. Sig.	1.000	1.000

a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.

Source: Compiled from calculated statistics.

The calculated chi-square value in table 6 of SBI bank and HDFC bank is 0.00 which is lower than the table value 9.49 at a degree of freedom 4 and level of significance @ 5% i.e. 0.05. The result shows that there is a growth in amount of net non-performing assets of SBI and HDFC bank. **Hence, the Alternate Hypothesis, "The Net Non-Performing Assets (NPA) growth rates of SBI and HDFC banks have been significantly differed", is Accepted.**

3. The percentages of SBI's and HDFC Bank's gross non-performing assets do not differ much.

Table: 7 Per cent of Gross NPA of SBI and HDFC banks

Year	SBI	HDFC
2020	6.15	1.26
2021	4.98	1.32
2022	3.97	1.17
2023	2.78	1.12
2023	2.24	1.24

Source: Sample Bank's Annual Report and RBI Archives.

Table 7 above shows the per cent of gross non-performing assets of SBI and HDFC banks.

Table: 8 Descriptive statistics of Per cent of Gross NPA of SBI and HDFC banks

	N	Mean	Std. Deviation	Minimum	Maximum
PERCENTGNPASBI	5	4.0240	1.59428	2.24	6.15
PERCENTGNPAHDFC	5	1.2220	.07823	1.12	1.32

Source: Compiled from calculated statistics.

Table 8 above shows the descriptive statistics of per cent gross non-performing assets of SBI and HDFC banks. The result shows that the mean and standard deviation related to per cent of gross non-performing assets is greater in the SBI bank than the HDFC bank. The result shows that there is significant difference in per cent of gross non-performing assets of the SBI bank and HDFC bank.

To support the result, the researcher has calculated Chi-square as follow.

Table: 9 Chi-square result related to Per cent of Gross NPA of SBI and HDFC banks

	PERCENTGNPASBI	PERCENTGNPAHDFC
Chi-Square	.000a	.000a
df	4	4
Table Value	9.49	9.49
Asymp. Sig.	1.000	1.000

a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.

Source: Compiled from calculated statistics.

The calculated chi-square value in table 9 of SBI bank and HDFC bank is 0.00 which is lower than the table value 9.49 at a degree of freedom 4 and level of significance @ 5% i.e. 0.05. The result shows that there is a significant difference in per cent of gross non-performing assets of SBI and HDFC bank. **Hence, the Alternate Hypothesis, "The percentages of SBI's and HDFC Bank's gross non-performing assets differs much.", is Accepted.**

4. The percentages of SBI's and HDFC Bank's net non-performing assets do not differ much.

Table: 10 Per cent of Net NPA of SBI and HDFC banks

Year	SBI	HDFC
2020	2.23	0.36
2021	1.50	0.40
2022	1.02	0.32
2023	0.67	0.27
2023	0.57	0.33

Source: Sample Bank's Annual Report and RBI Archives.

Table 10 above shows the per cent of net non-performing assets of SBI and HDFC banks.

Table: 11 Descriptive statistics of Per cent of Net NPA of SBI and HDFC banks

	N	Mean	Std. Deviation	Minimum	Maximum
PERCENTNNPASBI	5	1.1980	.68211	.57	2.23
PERCENTNNPAHDFC	5	.3360	.04827	.27	.40

Source: Compiled from calculated statistics.

Table 11 above shows the descriptive statistics of per cent net non-performing assets of SBI and HDFC banks. The result shows that the mean and standard deviation related to net non-performing assets greater in the SBI bank than the HDFC bank. The result shows that there is significant difference in per cent of net non-performing assets of the SBI bank and HDFC bank.

To support the result, the researcher has calculated Chi-square as follow.

Table: 12 Chi-square result related to Per cent of Net NPA of SBI and HDFC banks

	PERCENTNNPASBI	PERCENTNNPAHDFC
Chi-Square	.000a	.000a
df	4	4
Table Value	9.49	9.49
Asymp. Sig.	1.000	1.000

a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.

Source: Compiled from calculated statistics.

The calculated chi-square value in table 12 of SBI bank and HDFC bank is 0.00 which is lower than the table value 9.49 at a degree of freedom 4 and level of significance @ 5% i.e. 0.05. The result shows that there is a significant difference in per cent of net non-performing assets of the SBI and HDFC bank. **Hence, the Alternate Hypothesis, "The percentages of SBI's and HDFC Bank's net non-performing assets differs much.", is Accepted.**

9. Findings and Discussions:

➤ *Comparison on the basis of Gross non-performing assets of SBI and HDFC bank:*

The result shows that the mean (*i.e. 112541.67 for SBI bank and 18613.86 for HDFC bank*) and standard deviation (*i.e. 26429.26 for SBI bank and 7283.94 for HDFC bank*) related to gross non-performing assets is greater in the SBI bank than HDFC bank. The result shows that there is significant difference in growth of gross non-performing assets of the SBI bank and HDFC bank.

➤ *Comparison on the basis of Net non-performing assets of SBI and HDFC banks:*

The result shows that the mean (*i.e. 31832.89 for SBI bank and 4993.00 for HDFC bank*) and standard deviation (*i.e. 12893.49 for SBI bank and 1777.02 for HDFC bank*) related to net non-performing assets is greater in the SBI bank than the HDFC bank. The result shows that there is significant difference in growth of net non-performing assets of the SBI bank and HDFC bank.

➤ *Comparison on the basis of per cent of Gross non-performing assets of SBI and HDFC banks:*

The result shows that the mean (*i.e. 4.02 for SBI bank and 1.22 for HDFC bank*) and standard deviation (*i.e. 1.59 for SBI bank and 0.08 for HDFC bank*) related to per cent of gross non-performing assets is greater in the SBI bank than the HDFC bank. The result shows that there is significant difference in per cent of gross non-performing assets of the SBI bank and HDFC bank.

➤ *Comparison on the basis of per cent of Gross non-performing assets of SBI and HDFC banks:*

The result shows that the mean (*i.e. 1.20 for SBI bank and 0.34 for HDFC bank*) and standard deviation (*i.e. 0.68 for SBI bank and 0.05 for HDFC bank*) related to per cent of gross non-performing assets is greater in the SBI bank than the HDFC bank. The result shows that there is significant difference in per cent of gross non-performing assets of the SBI bank and HDFC bank.

10. Limitation and future scope of the study:

The present research study only uses secondary data as its foundation. The researcher arrived at its conclusion after gathering and analysing data throughout the research study of the previous five years, from 2020 to 2024. There was a lack of statistical and analytical procedures employed. By comparing data from more previous years, the researcher can conduct additional research on this topic and further conduct a comparative analysis, the researcher may choose to use additional sample banks or other important financial statement parameters is the scope for the future research.

11. Conclusion:

One important metric for assessing the financial strain on Indian banks is the nonperforming asset (NPA). One of the main problems facing the banking industry is NPA. While it is challenging to totally eradicate bank non-performing assets (NPA), the government, banks and Reserve Bank of India should strive to do away with a sizable amount of them. It is clear from the tabulated and analysed data that, over the course of five years, from 2020 to 2024, the amounts of Gross NPA and Net NPA are rising for HDFC Bank and falling for SBI Bank. The pattern indicates a notable distinction between the growth of GNPA and NNPA for public SBI banks and private HDFC banks.

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