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Comparison of Non-Performing Assets: A Study of Selected Public Sector Banks of India

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Abstract: *The Banking sector is vital for growth in any country. The bank provides loans to the different sectors of the country. This loan, due to some reasons may be unpaid up to certain time, gets converted into non-performing asset. The banks need to classify the assets into standard, sub-standard, doubtful and loss assets as per the class of assets. This study attempts to assess the levels of Gross and Net NPA levels in selected banks. Results show the significant difference between Gross NPA Ratio, Net NPA Ratio and Priority Sector Advances of Selected Banks. The accounting ratios and One way analysis of Variance were used for the hypothesis testing for the study. Furthermore, by assessing the Priority Sector Advances with Net NPA levels, the correlation was found significant in Punjab National Bank and insignificant in State Bank of India and Bank of Baroda.*

Key Words: Public Sector Banks, Gross NPA, Net NPA, Priority Sector Advances

INTRODUCTION: Banking sector in any country performs a role of one of the mediators of the organised system of any county. It collects savings from the general public and grant advances to the needy sectors of society. Banks provide interest on deposits and safeguard the idle funds of the depositors. On the other side they grant the money in terms of loan to various types of loans. In India, there are many categories of banks regulated by the Reserve Bank of India. This chain must work in continuous basis for the proper utilisation of funds available for the bank. But in some cases, borrowers may be unable to pay the amount of loan or interest and it becomes non receivable. These are called non-performing assets for the bank. These are the obstacles which reduce the profitability of the company and increase the cost of funds available to them. Proper steps may also need to be taken in order to solve the problem of NPAs as it may adversely result into solvency questions of the banks. This paper attempts to examine the situation of NPA levels in three top public sector banks of India and how priority sector advances may affect the level of NPAs in selected banks.

LITERATURE REVIEW:

(Agarwala & Agarwala, 2019) has conducted a study on critical review of non-performing assets of Indian banking industry. The aims of the study were to check the mean growth rate of different banking groups and draw conclusions thereof. The data was collected of Gross NPAs of various banking groups and mean was used for analysis. The overall findings represented the troublesome situation for different banking groups. The guidelines given by the Central bank RBI, also became hindrance for provisioning norms. The Insolvency and Bankruptcy Code also played an important role in recovery of NPAs upto certain extent.

(Das & Dey) has conducted analysis on non performing assets of various public and private sector banks. The objectives of the study were to analyse the bank wise movement of NPA and find out the relationship of NPA with GDP. Researchers found that priority sector advances as well as non-priority sector advances increase with increase in NPAs. In some of the banks, priority sector NPAs are under control whereas in some banks, the non-priority sector advances are a significant part of total NPAs. Corporate debt restructuring also played an important part in reducing of NPAs. It was also found that NPA has no impact on GDP and inflation.

(Garg, 2016) have analysed the management of non-performing assets in context of Indian Banking System. The objectives of the study were to analyse the role of NPA in Indian Banking System and study preventive mechanism of NPA and compromise settlement scheme. He found that the major impacts were seen in Profitability and Liquidity of NPAs and also lead to credit loss. The banks should follow Internal checks and Credit rating system as a procedural aspect of NPA identification. the researcher also threw light on One time settlement schemes and Negotiated settlement schemes as an option for recovering NPAs.

(Javheri & Gawali, 2022) have written research paper on study of NPA of public and private sector banks of India. The objectives of the study were to assess the level of NPAs in public and private sector banks and to compare the levels of the same. For that purpose, researchers selected three public sector banks and three private sector banks. The findings suggested that the condition of public sector banks is critical compared to private sector banks due to rise in NPA levels. Researchers also suggested implementing various measures such as credit score and continuous evaluation of borrower in order to reduce the rate of default.

(Mohanty, 2021) has written research paper on comparative analysis of NPA in public and private sector banks. The research's objectives were to analyse the relationship between NPA and other key parameters and to find out the impact of NPA on net profit of the selected banks. Two public sector banks and two private sector banks were selected as a part of study. Researcher found the higher levels of NPA in public sector banks compared to private sector banks and there was negative correlation found between Net NPA and Return on assets of the selected banks.

(Thakur & Verma, 2019) have analysed the impact of NPA on Profitability of Axis Bank. The aims of the study were to check the impact of NPA on Profitability of Axis Bank. By applying correlation analysis, there was positive correlation found between Net Profit margin and Gross NPA, Return on Assets and Gross NPA, Net Interest Margin and Gross NPA.

RESEARCH METHODOLOGY: The present study is analytical in nature and based on secondary data. Considering the nature of the study, total of five years ending 2022 were selected as a period. The samples selected as top three banks as per market capitalisation namely State Bank of India, Bank of Baroda and Punjab National Bank. The data was collected from the annual reports of these banks.

RESEARCH GAP: The studies done earlier were limited to aspect of comparison of Gross NPA and Net NPA levels of the banks. This study focuses on the basic aspects of NPA and also covers Priority Sector Advances as a part of study.

OBJECTIVES OF THE STUDY:

- To assess the situation of non-performing assets for selected Banks.
- To conduct comparative analysis of NPA of for selected Banks.
- To conduct the comparative analysis of Priority Sector Advances Granted by selected Banks.

LIMITATIONS OF THE STUDY:

- The study is based on secondary data and the standalone data is considered as an area of study.

- The study is limited for the aspect of non-performing assets only.
- The data is secondary in nature which has its own limitations.

ANALYSIS:

Gross NPA Ratio

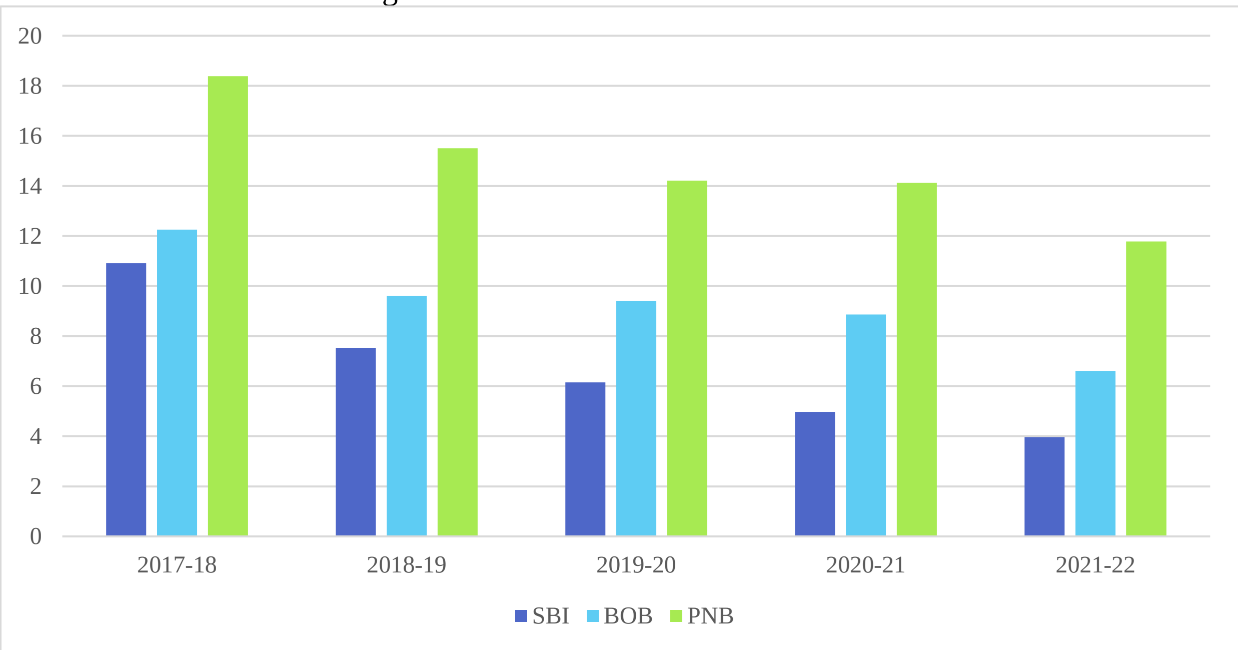
Gross NPA refers to total amount of NPAs in the bank. The ratio is found by dividing Gross NPA with Gross Advances. It depicts the levels of Gross NPA in the Bank. Higher ratio indicates negative outcome for the bank.

Gross NPA as % of Gross Advances = $\frac{\text{Gross NPA}}{\text{Gross Advances}} \times 100$

Table 1: Table Showing Gross NPA Ratio of Selected Banks

Year	2017-18	2018-19	2019-20	2020-21	2021-22	Min	Max	Average
SBI	10.91	7.53	6.15	4.98	3.97	3.97	10.91	6.71
BOB	12.26	9.61	9.40	8.87	6.61	6.61	12.26	9.35
PNB	18.38	15.5	14.21	14.12	11.78	11.78	18.38	14.80

Figure 1 : Gross NPA Ratio of Selected Banks



(Source: Annual Reports of Respective Banks)

The above chart and table show the Gross NPA levels of State Bank of India, Bank of Baroda and Punjab National Bank. The highest Gross NPA Ratio was in the year 2018 by Punjab National Bank at 18.38%. The lowest Gross NPA Ratio was at State Bank of India at 3.78 percent. The all three banks' Gross NPA ratio was showing decreasing trend during the study period.

Hypothesis Testing

$H_0 1$: There is no significant difference in Gross NPA ratio of selected Banks.

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	170.181613	2	85.09081	14.87602	0.000564	3.885294

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Within Groups	68.63996	12	5.719997			
Total	238.821573	14				

The above table depicts the results of One-Way analysis of Variance of Gross NPA Ratio of the selected banks. The F value is 14.87 which is higher than table value of 3.88, resulting in rejection of Null Hypothesis. There is significant difference found in Gross NPA Ratio of selected Banks.

Net NPA Ratio

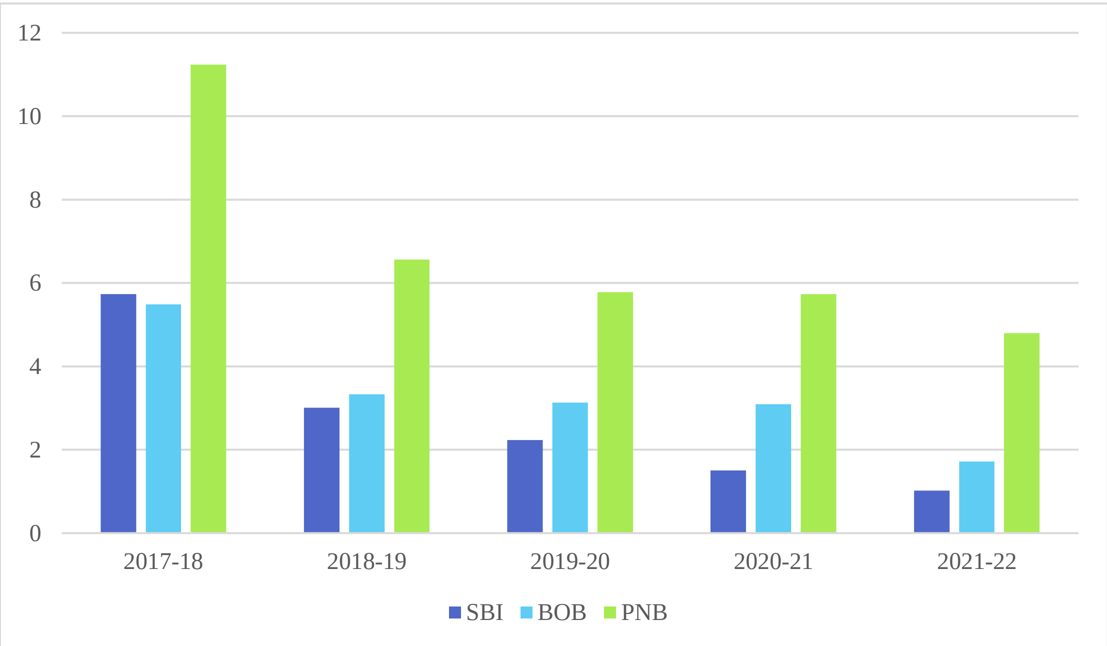
Net NPA Ratio refers to Gross NPA ratio less provisions created prescribed by RBI. As per the rules of RBI, the banks need to classify the assets and create provisions based on the quality of asset such as standard, substandard, doubtful and loss assets and required to create provisions on the same. The formula of Net NPA Ratio is as under.

Net NPA as % of Net Advances = $\frac{\text{Net NPA}}{\text{Net Advances}} \times 100$

Table 2: Net NPA Ratio of Selected Banks

Year	2017-18	2018-19	2019-20	2020-21	2021-22	Min	Max	Average
SBI	5.73	3.01	2.23	1.50	1.02	1.02	5.73	2.70
BOB	5.49	3.33	3.13	3.09	1.72	1.72	5.49	3.35
PNB	11.24	6.56	5.78	5.73	4.80	4.80	11.24	6.82

Table 2: Net NPA Ratio of Selected Banks



(Source: Annual Reports of Respective Banks)

The above table and chart depict the levels of Net NPA ratios of State Bank of India, Bank of Baroda and Punjab National Bank. The levels of NPA of Punjab National Bank are at highest levels. The highest NPA Ratio was by Punjab National Bank at 11.24%. the lowest Net NPA ratio was in the year 2022 by State Bank of India at 1.72%.

Hypothesis Testing

$H_0 2$: There is no significant difference in Net NPA ratio of selected Banks.

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	49.126653	2	24.5633	6.26253	0.01372	3.88529
Within Groups	47.06724	12	3.92227			
Total	96.193893	14				

The above table depicts the results of One-Way analysis of Variance of Gross NPA Ratio of the selected banks. The F value is 6.26 which is higher than table value of 3.88, resulting in rejection of Null Hypothesis. There is significant difference found in Net NPA Ratio of selected Banks.

Priority Sector Advances as a percentage of Gross Advances

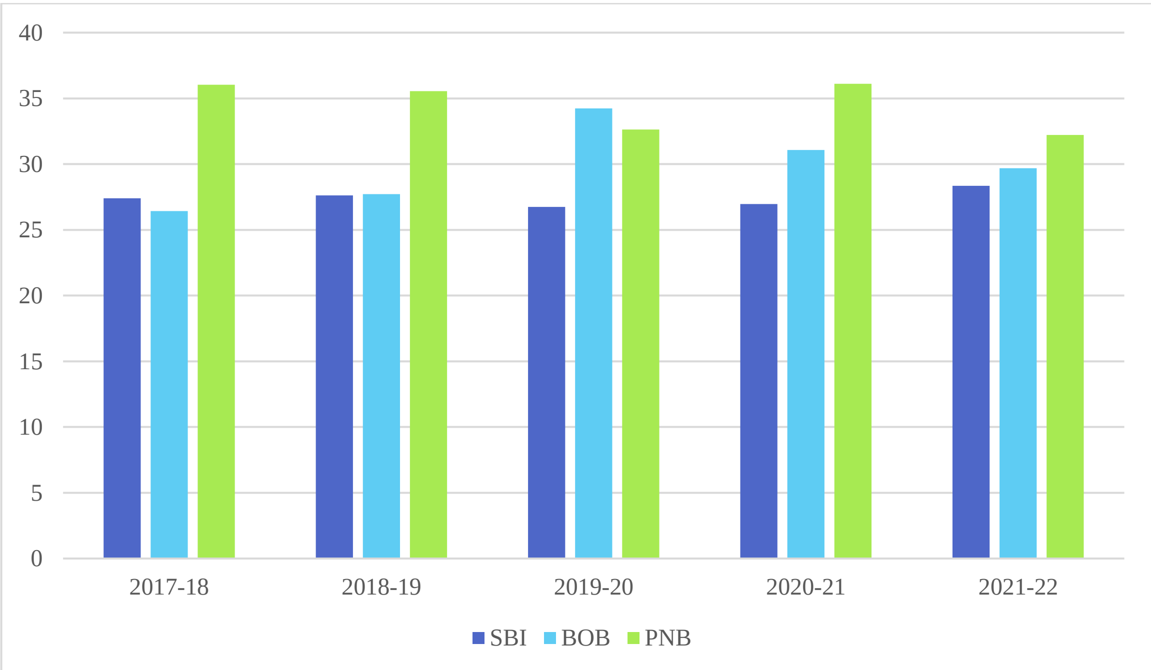
Priority sector advances refers to providing advances to the prescribed sections of the country as prescribed by Reserve Bank of India. In order to boost the development of the country, some mandatory limit of advances is granted by the banks as prescribed by Reserve Bank of India. The priority sector advances can be found as follows.

$$\text{Priority Sector Advances as \% of Gross Advances} = \frac{\text{Priority Sector Advances}}{\text{Gross Advances}} \times 100$$

Table 3: Percentage of Priority Sector Advances of Selected Banks

Year	2017-18	2018-19	2019-20	2020-21	2021-22	Min	Max	Average
SBI	27.39	27.62	26.74	26.96	28.34	26.74	28.34	27.41
BOB	26.43	27.72	34.24	31.07	29.70	26.43	34.24	29.83
PNB	36.03	35.54	32.63	36.10	32.22	32.22	36.10	34.50

Table 3: Percentage of Priority Sector Advances of Selected Banks



(Source: Annual Reports of Respective Banks)

The above table and chart represent the percent of Priority Sector advances of selected banks. All the banks were showing mixed trend during the study period. The highest priority sector advances granted by Punjab National

Bank in 2021 at 36.10 percent. The lowest priority sector advances were granted by Baroda in the year 2018 at 26.43%.

Hypothesis testing

$H_0$3 : There is no significant difference in Priority Sector Advances of selected Banks.

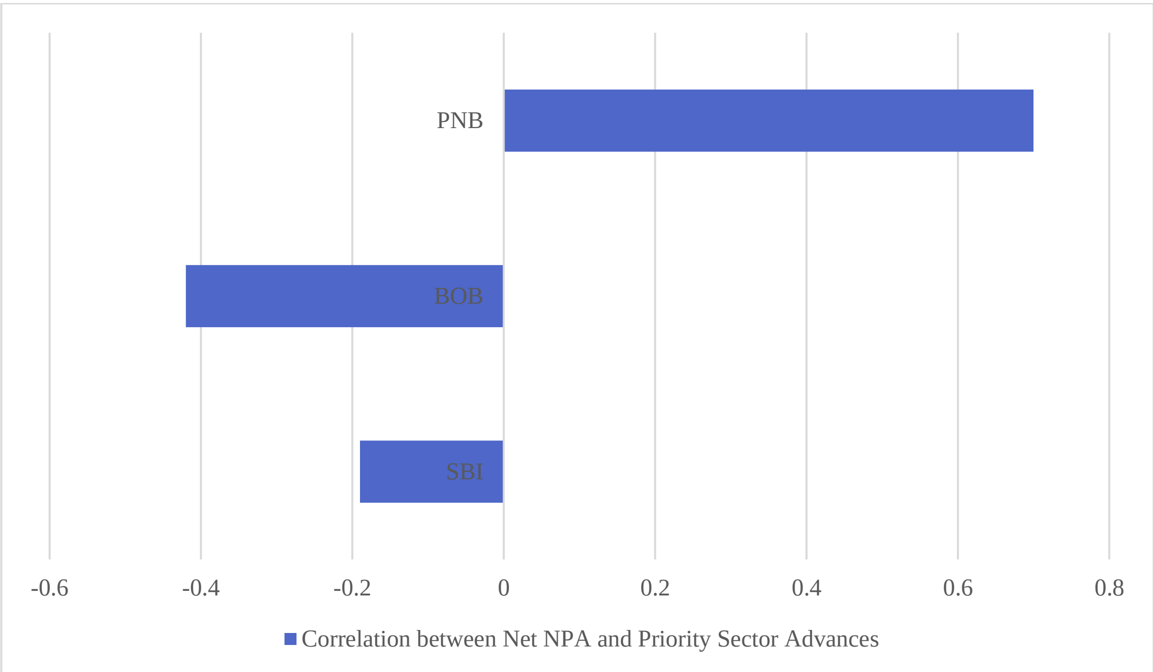
Source of Variation	***SS***	***df***	***MS***	***F***	***P-value***	***F crit***
Between Groups	130.03084	2	65.0154	14.6505	0.0006	3.88529
Within Groups	53.2532	12	4.43777			
Total	183.28404	14				

The above table depicts the results of One-Way analysis of Variance of Gross NPA Ratio of the selected banks. The F value is 14.65 which is higher than table value of 3.88, resulting in rejection of Null Hypothesis. There is significant difference found in priority sector advances of selected Banks.

4.4 Correlation between Net NPA and Priority Sector Advances

Particulars	**Value**	**Result**
Correlation between Net NPA and Priority Sector Advances of State Bank of India	-0.19	Partial Negative Correlation
Correlation between Net NPA and Priority Sector Advances of Bank of Baroda	-0.42	Partial Negative Correlation
Correlation between Net NPA and Priority Sector Advances of Punjab National Bank	0.71	Strong Positive Correlation

Figure 4: Correlation between Net NPA and Priority Sector Advances of Selected Banks



The Above-mentioned table and chart depict the correlation between Net NPA levels and percent of Priority Sector advances of the selected banks. In State Bank of India, correlation coefficient is -0.19, depicts partial negative correlation. In Bank of Baroda, correlation coefficient stood at -0.42 which also indicates partial negative correlation. In Punjab National Bank, the correlation coefficient stood at 0.71, indicates strong positive correlation. This represents the increase in priority sector advances also result in increase in Net NPA levels.

RECOMMENDATIONS:

- The NPA levels are under the reduction during the study period, which indicates the levels of NPA were reduced.
- The banks should take steps like assessing borrower's CIBIL score, proper loan appraisal procedure and continuous follow-up of borrower's situation in order to reduce the chances of converting the asset into NPA.

CONCLUSION / SUMMARY:

- There was significant difference found between Gross NPA Ratio between State Bank of India, Bank of Baroda and Punjab National Bank. This represents the Gross NPA levels differ across selected Banks.
- There was significant difference found between Net NPA Ratio between State Bank of India, Bank of Baroda and Punjab National Bank. This represents the Net NPA levels differ across selected Banks.
- There was significant difference found between Priority Sector Advances between State Bank of India, Bank of Baroda and Punjab National Bank. This represents the Priority Sector Advances' levels differ across selected Banks.
- The correlation coefficient is found significant in Punjab National Bank, indicting positive correlation between Net NPA and Priority Sector advances. The correlation coefficient is found insignificant in State Bank of India and Bank of Baroda indicating insignificant correlation.

REFERENCES:

1. Agarwala, V., & Agarwala, N. (2019). A critical Review of Non-performing assets in the Indian Banking Industry. *Rajagiri Management Journal*, *13*(2), 12-23.

2. Das, J. K., & Dey, S. (n.d.). Non-Performing Assets of Public and Private Sector Banks in India: An Empirical Study. 1-19.

3. Garg, A. (2016). A STUDY ON MANAGEMENT OF NON-PERFORMING ASSETS IN CONTEXT OF INDIAN BANKING SYSTEM. *International Journal of Engineering Technologies and Management Research*, *3*(11), 15-25.

4. Javheri, J., & Gawali, R. (2022, February). A STUDY ON NPAS OF SELECTED PRIVATE & PUBLIC SECTOR BANKS IN INDIA. *Indian Journal of Finance and Banking*, *9*(1), 129-139.

5. Mohanty, S. (2021, December). Comparative Study of Non -Performing Assets (NPAs) in selected Public Sector Banks and Private Sector Banks in India. *Parikalpana - KIIT Journal of Management*, *17*(2), 155-174.

6. Thakur, S. K., & Verma, H. (2019, June). Impact of NPA on banking Profitability (special reference with Axis Bank). *Journal of Emerging Technologies and Innovative Research (JETIR)*, *6*(6), 171-173.