

# Impact of Nonperforming Assets On Selected Public Sector Banks in India

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**Abstract:** Banks are the backbone of the Indian economy. Mainly the public sector banks have more popular for deposits and providing loans to the people of the country. But now a day's public sector banks facing the biggest problem from Non-performing assets and it decreases the profitability of the banks. Deposits done by the customers termed as liabilities and it should be repaid to the customers and loans taken by the customers termed as Assets and it should be repaid by the customers to the banks within the time period. A nonperforming asset (NPA) refers to a classification for loans or advances that are in default or in arrears. A loan is in arrears when principal or interest payments are late or missed. A loan is in default when the lender considers the loan agreement to be broken and the debtor is unable to meet his obligations. Non-performing assets becoming the burden to the banks and adversely affecting the liquidity and profitability of the banks. By this nonperforming assets of the banks will questions the solvency position. Increase in nonperforming assets of the banks may affect agricultural, industrial growth also. In this paper we are going analyze the non-performing assets of the selected public sector banks and its impact on banks profitability. Here we evaluate the gross nonperforming assets and net performing assets to know the present situations of public sector banks.

**Keywords:** gross non-performing assets, net non-performing assets, solvency.

## 1. Introduction

The gross nonperforming assets of public sector banks doubled in these 7 years. In 2014 it amounts 2.24 lakh Crores and in 2021 it amounts 5.44 lakh Crores. Among all PSB's in India SBI is top listed in GNPA's. There are many public sector banks are there in India suffering with nonperforming assets. Banks are suffering with mainly nonperforming assets from loans and advances. The Gross NPA (GNPA) ratio of PSBs has improved to 3.94 per cent as at September-end 2021 against 4.16 per cent as at June-end 2021 and 3.82 per cent as at September-end 2020. RBI taking this as a serious problem and it works on it to reduce this problem. but the public sector banks are struggling with NPA's.

## 2. Scope of the Study

As far as the scope of the study concerned, the study covers gross nonperforming assets and net non-performing assets of the public sector banks.

## 3. Objectives of the Study

1. To know the status of the gross nonperforming assets of the PSB's.
2. To know the performance of the public sector banks.
3. To give recommendations about nonperforming assets of the public sector banks.

## 4. Hypothesis

*Null Hypothesis (H<sub>0</sub>):* There is no significant difference between the Non-Performing assets of Selected Public Sector banks.

*Alternative Hypothesis (H<sub>A</sub>):* There is a significant difference between the Non-Performing assets of Selected Public Sector banks.

## 5. Research Methodology

Methodology describes the research route to be followed, the tools to be used, sample of the study for the data to be collected and the tools of analysis.

*Tools for data collection:*

This study is completely based on secondary data. The data required for the study has been collected from annual reports of respective banks, Journals, Magazines, Previous research works and Reserve bank of India website.

*Tools for data analysis:*

Data gathered from financial statement is analyzed by using the statistical techniques of Mean, Standard Deviation and Two-way Analysis of Variance (ANOVA).

*Period of the study:*

This study covers a period of three years i.e. 2019, 2020 and 2021 financial years.

## 6. Limitations of the Study

1. This study of nonperforming assets in selected public sector banks is based on secondary data.
2. The study is confined only to the selected financial indicators and the study is confined for the period of three years.
3. In the present study only the selected public sector banks have been considered.

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Table 1  
Gross non-performing assets, net non-performing assets and return on assets of selected public sector banks

YEAR	PARTICULAR	STATE BANK OF INDIA	PUNJAB NATIONAL BANK	CANARA BANK	BANK OF BARODA
2019	GROSS NONPERFORMING ASSETS (%)	7.53	16.00	9.00	10.00
2020		6.15	14.00	8.00	9.00
2021		4.98	14.00	9.00	9.00
2019	NET NONPERFORMING ASSETS (%)	3.01	6.56	5.00	3.33
2020		2.23	5.78	4.23	3.13
2021		1.50	5.73	3.82	3.09
2019	RETURN ON ASSETS (%)	0.02	-1.28	0.04	0.05
2020		0.38	0.04	-0.30	0.04
2021		0.48	0.16	0.22	0.07

Source: <https://www.moneycontrol.com/>

Table 2  
Two-Way ANOVA  
Gross non-performing assets in selected public sector banks

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F-ratio	Critical Value
Between banks	113.94	3	37.98	100.06	4.76
Between years	4.98	2	2.49	6.56	5.14
Error	2.28	6	0.38		
Total	121.19	11			

Table 3  
Two-Way ANOVA  
Net non-performing assets in selected public sector banks

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F-ratio	Critical Value
Between banks	23.84	3	7.95	97.92	4.76
Between years	1.83	2	0.92	11.32	5.14
Error	0.486983	6	0.081164		
Total	26.16809	11			

*Hypothesis:*

*Null Hypotheses:*

$H_{0A} = \mu_1 = \mu_2 = \mu_3$  i.e. Gross Non-Performing assets do not differ significantly between the banks.

$H_{0B} = \mu_1 = \mu_2 = \mu_3$  i.e. Gross Non-Performing assets do not differ significantly between the years.

*Alternative Hypotheses:*

$H_{AA}$  at least two of the means are different i.e. Gross Non-Performing assets differ significantly between the banks.

$H_{BB}$  at least two of the means are different i.e. Gross Non-Performing assets differ significantly between the years.

Critical value  $\mu_1 = 3$  and  $\mu_2 = 6 = 4.57$  at 5% level of significance. Critical value of  $\mu_1 = 2$  and  $\mu_2 = 6 = 5.14$  at 5% level of significance.

*Inference:*

From the output we know that the calculated value of test statistic  $F_A = 100.06$  is greater than the critical value of 4.76. Hence we reject null hypothesis at 5% level of significance and alternative hypothesis is accepted. We concluded that gross non-performing assets differ significantly between the banks.

The calculated value of the test statistic  $F_B = 6.56$  is greater than critical value 5.14. Hence we accept alternative hypothesis at 5% level of significance and reject null hypothesis. We conclude that the gross non-performing assets differ significantly between the years.

*Hypotheses:*

*Null Hypothesis:*

$H_{0A} = \mu_1 = \mu_2 = \mu_3$  i.e. Net Non-Performing assets do not differ significantly between the banks.

$H_{0B} = \mu_1 = \mu_2 = \mu_3$  i.e. Net Non-Performing assets do not differ significantly between the years.

*Alternative Hypothesis:*

$H_{AA}$  at least two of the means are different i.e. Net Non-Performing assets differ significantly between the banks.

$H_{BB}$  at least two of the means are different i.e. Net Non-Performing assets differ significantly between the years.

Critical value  $\mu_1 = 3$  and  $\mu_2 = 6 = 4.76$  at 5% level of significance. Critical value of  $\mu_1 = 2$  and  $\mu_2 = 6 = 5.14$  at 5% level of significance.

*Inference:*

From the output we know that the calculated value of test statistic  $F_A = 97.92$  is greater than the critical value of 4.76. Hence we reject null hypothesis at 5% level of significance and alternative hypothesis is accepted. We concluded that net non-performing assets differ significantly between the public sector banks.

The calculated value of the test statistic  $F_B = 11.32$  is greater than critical value 5.14. Hence we accept alternative hypothesis at 5% level of significance and reject null hypothesis. We conclude that the net non-performing assets differ significantly between the years.

*Hypothesis:*

*Null Hypotheses:*

$H_{0A} = \mu_1 = \mu_2 = \mu_3$  i.e. return on assets do not differ significantly between the banks.

$H_{0B} = \mu_1 = \mu_2 = \mu_3$  i.e. return on assets do not differ significantly between the years.

*Alternative Hypotheses:*

$H_{AA}$  at least two of the means are different i.e. return on assets differ significantly between the banks.

$H_{BB}$  at least two of the means are different i.e. return on assets differ significantly between the years.

Table 4  
Two-Way ANOVA  
Return on assets in selected public sector banks

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F-ratio	Critical Value
Between banks	0.66	3	0.22	1.35	4.76
Between years	0.56	2	0.28	1.75	5.14
Error	0.97	6	0.16		
Total	2.20	11			

Critical value  $\mu_1 = 2$  and  $\mu_2 = 6 = 4.76$  at 5% level of significance. Critical value of  $\mu_1 = 3$  and  $\mu_2 = 6 = 5.14$  at 5% level of significance.

*Inference:*

From the output we know that the calculated value of test statistic  $F_A = 1.35$  is less than the critical value of 4.76. Hence we accept null hypothesis and reject the alternative hypothesis. We concluded that return on assets do not differ significantly between the banks.

The calculated value of the test statistic  $F_B = 1.75$  is less than critical value 5.14. Hence we accept null hypothesis and reject the alternative hypothesis. We conclude that return on assets do not significantly differ between years.

### 7. Suggestions

1. Public sector banks should concentrate on Nonperforming assets and reduce as early as possible.
2. Public sector banks and government should take appropriate actions on gross nonperforming assets.
3. Public sector banks should recruit the efficient financial officials to demolish nonperforming assets.
4. Banks should adopt artificial intelligence to track the correct status of net and gross nonperforming assets.
5. Government and RBI should provide strict rules and regulations to reduce the nonperforming assets.

### 8. Conclusion

Nonperforming assets are the biggest and dangerous problem to the banks and as well as the Indian economy. It will question the loyalty of the customers towards the banks. The public sector banks, government and RBI should introduce the strict guidelines and rules in financial sector to reduce the nonperforming assets problem. For that banks should have to reduce the loans and advances to the customers.

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