



## SECTOR-WISE COMPARATIVE ANALYSIS OF NON-PERFORMING ASSETS OF SELECTED PRIVATE SECTOR AND PUBLIC SECTOR BANKS OF INDIA

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### Abstract

Banking industry plays a vital role for the development of economy of any country. Non-performing assets have become a terrible factor for Indian banking industry. The present research carries out to compare the Non-performing assets of selected Public sector banks and Private sector banks for the period of 2015 to 2019. This study aims to perform analysis of private sector banks and public sector banks of India by the mean of Non-performing assets. It is found in the study that efficiency to cover debt of private sector banks is better than Public sector banks. Public sector banks face problem of heavy NPAs hence, Government and Regulatory authority should take corrective steps to control the NPAs of the banks.

**Keywords:** Non-performing Assets, Public sector banks, Private sector banks,

### Introduction

Banking sector is essential field for the growth of economy of any country. Banking sector may be considered as imperative role player for Expansion of economic sector as well as development of it. Banks play a role of intermediary between savers and seekers of finance. Now days, Banking sector is facing a problem of Non-Performing Assets and NPA increases gradually. This situation of banking sector is terrible for the whole economy of India. In India banks are mainly divided into two sectors namely Private sector banks and Public sector banks. Both types of banks provide advances to different classes of customers as per the rules of Reserve Bank of India.

As per the rule of RBI sectors for lending are mainly divided into two parts:

- 1) Priority sector
- 2) Non priority sector

Both sectors have sub categories i.e. Agriculture, Industry, Service and Personal loan. Priority sector lending means provides lending to those institution which face difficulties to get credit. As per the direction of RBI scheduled commercial banks have to lend 40% of their loan to Priority sectors (measured regarding Adjusted Net Bank Credit or ANBC).

### Meaning of NPA in the eyes of RBI

Lending features of the following are considered as Non-performing Asset

- 1) Interest and / or instalment of principal remain overdue for a period of more than 90 days in respect of a Term Loan.
- 2) The account remains 'Out of order' for a period of more than 90 days, in respect of an Overdraft / Cash Credit (OD/CC).
- 3) The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted,
- 4) In the case of direct agricultural advances as listed in [Annex 1](#), the overdue norm specified at Para 2.1.5 would be applicable. In respect of agricultural loans, other than those specified in [Annex 1](#), identification of NPAs would be done on the same basis as non-agricultural advances.
- 5) Any amount to be received remains overdue for a period of more than 90 days in respect of other accounts.

## Review of Literature

It is observed in the study that during the period of the study, NPAs of private sector banks and Public sector banks have cut down even though advances increased. It is positive sign for banking sector as quality of assets of banks is improved. It is concluded in the study that above mentioned results have been achieved because of the strict norms and initiative of regulatory bodies. (Malyadri, 2011)

Study was conducted to measure the NPAs of State Bank of India for the periods of 2010 to 2014 and the results of the study cleared that NPAs of State Bank of India has been increased gradually in terms of Rupee and Percentage too in the period of the study undertaken. It is also identified that bank does not scrutinize properly while granting advances to customers. (Gandhi, 2015)

It is revealed in the study that NPAs was increasing year by year in selected bank for the period of the study. The selected banks for the study were of Public sector banks and it is concluded that there is gradually increment in NPAs of public sector banks in India. (Gupta, 2018)

The study was conducted to measure the relationship between net profit and NPAs of the banks. It is found in the study that private sector banks have higher NPAs in compared to of public sector banks. In addition, there is strong relationship between net profit and NPAs of the bank. (Subhamathi)

Study revealed the truth that in India all banks from any sectors are facing the problem of NPAs. It is also revealed that NPAs of public sector is comparatively higher than private sector banks. (A, 2013)

## Objective of the Study

- To compare the NPAs percentage of selected public sector banks and private sector banks.
- To compare the NPAs of selected private sector banks.
- To compare the NPAs of selected private sector banks.
- To check the growth of NPAs of the banks during the study period.

## Research methodology

For the purpose of comparative study of NPAs of selected banks belonging to private sector and public sector, Researcher has selected Five banks from private sector namely: HDFC, ICICI, Axis bank, Kotak Mahindra bank, Yes bank and five banks from public sector namely: State Bank of India (SBI), Punjab National Bank (PNB), Bank of Baroda (BOB), Canara bank and Bank of India (BOI). Selected banks are the top five banks from each sector as per total assets. Research is purely based on secondary data and for this the financial data of selected banks are collected from year 2015 to 2019. Researcher put different statistical tools into operation like Mean, Standard Deviation, ANOVA single factor and two factors. NPAs percentage is calculated by Gross NPAs to Gross Advances.

## Hypothesis

**H0:** There is no interactive impact of types of bank and sector-wise NPAs over total NPAs

**H1:** There is interactive impact of types of bank and sector-wise NPAs over total NPAs

**H0<sub>1</sub>:** There is no significance difference between average NPAs of selected private sectors banks

**H1<sub>1</sub>:** There is significance difference between average NPAs of selected private sectors banks

**H0<sub>2</sub>:** There is no significance difference between average NPAs of selected private sectors banks

**H1<sub>2</sub>:** There is significance difference between average NPAs of selected private sectors banks

## Data Analysis

Table: 1 – NPA (%) of Private sector banks Public sector banks for the period of 2015 to 2019

Year	Private sector Banks					Public sector Banks				
	HDFC	ICICI	AXIS	KOTAK	YES	SBI	PNB	BOB	Canara	BOI
2019	1.35	7.38	5.31	2.14	3.37	7.53	15.50	9.61	8.83	21.25
2018	1.28	9.90	6.79	2.22	1.33	10.91	18.38	12.26	11.84	23.46
2017	1.04	8.74	5.21	2.59	1.56	6.90	12.53	11.73	9.63	19.32
2016	1.10	5.82	1.71	2.36	0.77	6.50	12.90	11.93	9.40	12.66
2015	0.89	3.78	1.36	1.85	0.42	3.99	6.55	4.64	3.89	6.81
Mean	1.13	7.12	4.08	2.23	1.49	7.17	13.17	10.04	8.72	16.70
SD	0.18	2.41	2.41	0.27	1.14	2.49	4.38	3.19	2.93	6.85

The above table shows NPAs in percentage of total Gross Advances by banks. NPAs in private sector banks are lower than that of public sector banks. Average NPAs from 2015 to 2019 of private sector banks have less than 5% while that of all the public sector banks have more than 5% which shows that assets quality of private sector banks are better than public sector banks. Among private sector banks ICICI bank has maximum average NPAs and HDFC bank has the lowest. While, among the public sector banks BOI has the highest average NPA and SBI has the lowest average NPAs.

Table: 2 – Sector-wise average NPA (%) of Public sector banks for the period of 2015 to 2019

	SBI	PNB	BOB	Canara	BOI
<b>A. Priority Sector</b>					
Agriculture and allied activities	9.06	9.73	9.79	3.86	11.37
Industry	13.47	16.15	11.95	15.70	19.54
Services	7.19	7.81	10.27	1.79	12.64
Personal loans	1.71	5.61	3.80	0.00	5.01
Total of A	7.85	10.30	9.45	5.49	13.24
<b>B. Non Priority Sector</b>					
Agriculture and allied activities	4.99	2.14	9.75	0.00	13.10
Industry	10.67	27.75	17.82	13.61	24.00
Services	3.19	9.27	6.26	0.00	11.17
Personal loans	0.62	3.29	3.30	0.93	7.37
Total of B	6.98	14.73	10.23	11.51	18.49
Total (A+B)	7.17	13.17	10.04	8.72	16.70

The above table shows the sector-wise average NPAs of public sector banks for the period of 2015 to 2019. On an average majority banks in public sector banks have higher NPAs in non-priority sector as compared to priority sector. NPAs of Industry category of both priority and no-priority sector are higher in comparison to all other categories in all banks while personal loan category of both the sectors is at the lowest. Total average NPAs in both the sectors are more than 5%.

Table: 3 – Sector-wise average NPA (%) of Private sector banks for the period of 2015 to 2019

	HDFC	ICICI	AXIS	KOTAK	YES
<b>A. Priority Sector</b>					
Agriculture and allied activities	2.50	3.22	3.48	2.50	1.69
Industry	1.84	2.50	2.69	1.68	0.68
Services	1.58	1.81	2.36	1.37	0.47
Personal loans	0.85	1.19	0.88	1.76	1.69
Total of A	1.86	2.14	2.21	1.83	0.86
<b>B. Non Priority Sector</b>					
Agriculture and allied activities	1.57	0.00	0.00	1.78	1.21
Industry	1.01	16.32	8.93	3.43	2.07
Services	0.89	6.57	3.57	1.67	0.94
Personal loans	0.63	1.16	0.82	1.39	0.35
Total of B	0.84	8.52	4.65	2.44	1.67
Total (A+B)	1.13	7.12	4.08	2.23	1.49

The above table describes the sector-wise average NPAs of private sector banks for the period of 2015 to 2019. In priority sector Agriculture and allied activities category registered higher NPAs in comparison of other categories while in non-priority sector higher NPAs are spotted in industry category. Total average NPAs of priority and non-priority sectors are less than 5% in private sector banks.

### Testing of Hypothesis

**H0:** There is no interactive impact of types of bank and sector-wise NPAs over total NPAs

**H1:** There is interactive impact of types of bank and sector-wise NPAs over total NPAs

Table: 4 – sector-wise average NPA (%) of Private sector banks and Public sector banks for the period of 2015 to 2019

	Name of Bank	Priority sector	Non Priority sector
<b>Private sector banks</b>	HDFC	1.86	0.84
	ICICI	2.14	8.52
	AXIS	2.21	4.65
	KOTAK	1.83	2.44
	YES	0.86	1.67
<b>Public sector banks</b>	SBI	7.85	6.98
	PNB	10.3	14.73
	BOB	9.45	10.23
	Canara	5.49	11.51
	BOI	13.24	18.49

Table: 5 – Two way Anova with Replication

Source of Variation	SS	df	MS	F	P-value	F crit
Sample	330.028659	1	330.028659	35.27195	2.08E-05	4.493998
Columns	30.82041642	1	30.82041642	3.293945	0.088327	4.493998
Interaction	2.043156826	1	2.043156826	0.218363	0.646591	4.493998
Within	149.7070282	16	9.356689266			
Total	512.5992605	19				

In the above Anova calculation F value of interaction is 0.21 at 5% significance level and it is less than F critical value hence, null hypothesis is accepted. With the acceptance of null hypothesis it is proved that types of banks and sector-wise advances NPAs do not have combined impact over the total NPAs of the banks.



**H0<sub>1</sub>:** There is no significance difference between average NPAs of selected private sectors banks

**H1<sub>1</sub>:** There is significance difference between average NPAs of selected private sectors banks

Table: 6 – NPA (%) of Private sector banks

	<b>HDFC</b>	<b>ICICI</b>	<b>AXIS</b>	<b>KOTAK</b>	<b>YES</b>
2019	1.35	7.38	5.31	2.14	3.37
2018	1.28	9.90	6.79	2.22	1.33
2017	1.04	8.74	5.21	2.59	1.56
2016	1.10	5.82	1.71	2.36	0.77
2015	0.89	3.78	1.36	1.85	0.42

Table: 7 – One way Anova (private sector banks)

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	121.4799273	4	30.36998184	11.67074329	4.71E-05	2.866081
Within Groups	52.04464031	20	2.602232016			
Total	173.5245677	24				

The above table describes the result of one way Anova at 5% significance level. F calculated value is 11.67 and it is greater than F critical value 2.86 which shows that null hypothesis is rejected and alternative hypothesis is accepted which means that total NPAs of all private sector banks are differ with each other.

**H0<sub>2</sub>:** There is no significance difference between average NPAs of selected private sectors banks

**H1<sub>2</sub>:** There is a significance difference between average NPAs of selected private sectors banks

Table: 8 – NPA (%) of Public sector banks

	<b>SBI</b>	<b>PNB</b>	<b>BOB</b>	<b>Canara</b>	<b>BOI</b>
2019	7.53	15.50	9.61	8.83	21.25
2018	10.91	18.38	12.26	11.84	23.46
2017	6.90	12.53	11.73	9.63	19.32
2016	6.50	12.90	11.93	9.40	12.66
2015	3.99	6.55	4.64	3.89	6.81

Table: 9 – One way Anova (Public sector banks)

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	289.6096952	4	72.40242381	3.976032359	0.015618	2.866081
Within Groups	364.1943389	20	18.20971694			
Total	653.8040341	24				

In the above table F calculated value at 5% significance level is 3.97 and F critical value is 2.86 which is less than calculated value. Hence, null hypothesis is rejected which means that NPAs of public sector banks are also different from each other.

## Finding and Conclusion

- Average NPAs for the study period of all the selected private sectors banks are less than 5%.
- Average NPAs for the study period of major of all the selected Public sectors banks are more than 5%.
- In comparison to private sector banks, public sectors banks registered higher NPAs.
- Study result shows that in public sector banks category of industry of both the priority and non-priority spotted higher NPAs.
- It is found in the present study that assets quality and efficiency of debt coverage of private sector banks are better than that of public sector banks.
- In private sector banks, NPAs of Agriculture and allied activities category of priority sectors is higher while NPAs of Industry category of non-priority sector is higher than other categories.
- Study reveals that types of banks and sector-wise NPAs do not have combine effect over total NPAs of the banks
- Difference among the NPAs of private sector banks is found in the present research.
- There is also difference among the NPAs of public sector banks.
- ICICI bank spotted higher average NPAs among all private sector banks and BOI registered higher average NPAs among all public sector banks.

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