



## Article

### Impact of Non-Performing Assets on the Profitability of Select Public Sector and Private Sector Banks

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#### ABSTRACT

Nationalized (government-owned) banks, commercial banks, and specialized banking institutions are the three basic categories of Indian banking. Banking industry plays a vital role for the development of the economy of any country Non-performing assets are a challenge that all banks are confronting today, whether they are public or private sector banks. Non-performing assets have been the single biggest source of annoyance for India's banking sector. The lender will lose money if the borrowers stop paying interest or principal on their loans. Such a loan is known as non-performing assets (NPA).Non-performing assets have a major impact on the Indian banking industry. The aim of the present research is to study the impact of Nonperforming Assets on Profitability of public sector banks and private sector banks for the ten years 2011 to 2020. On the basis of secondary data, the research paper seeks to assess various non-performing asset ratios.This research examines the significance of non-performing assets and its impact on Profitability using Regression. The finding reveals that there is no significant impact of Nonperforming Assets on profitability of select private sector banks during the period. The banking sector should focus on effective management of nonperforming assets (NPAs) in order to increase their profitability and so supply as much funding to the industry as possible.

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## 1. Introduction

The banking sector plays a critical role in the financial system of a country since it performs a wide range of activities in terms of liquidity and risk management. It is extremely vital for the progress of all areas of our economy. The banking system reflects the economic health of the country. A major threat of banking sector is prevalence of Non-Performing Assets (NPAs). NPA refers to loans that are in peril of default. The asset has been categorized as non-performing asset when the borrower failed to make principle or interest payment within 90 days. The level of nonperforming loans is recognized as a critical indicator for assessing banks' credit risk, asset quality and efficiency in allocation of resources to productive sectors. The most calamitous problem facing commercial banks all over the world in recent times is spiralling non-performing assets which are affecting their viability and solvency and thus posing challenge to their ultimate survival. Many such studies have been taken up so far on the management of NPAs. However, the main focus was laid only on identifying causes of NPA's and extending suggestions in the form of some measures to be taken at micro level, that too specific to some individual banks. The present study focuses on identifying which sector of banks are more defaulters in respect of Non-Performing Assets on Profitability of Selected Banks. This study attempts to examine the impact of NPA of Profitability of Banks.

According to Nachimuthu and Veni (2019), profits, liquidity, or competitive working conditions, the NPA has a significant impact on bankers' views of the availability of funds for credit supply and expansion.

Priyanka et al (2019) stated in their paper titled credit management and the problem of NPAs in Public Sector Banks that there is a vital need to study the effects of non-performing assets on profitability. Banks should hold regular meetings and meet with borrowers to foster deeper understanding and mutual confidence.

SenthilArasu P. Sredevi and Nageswary R. (2019) examined the effect of NPA on Profitability to understand the level of NPA and its impact. Their

study revealed a negative relation between nonperforming assets (NPA) and return on assets (ROA).

Shanabhogara Raghavendra (2018) investigated the effect of nonperforming assets (NPAs) in commercial banks and their causes, and effects. Their findings were restructuring of the banking and financial institution, improved performance in financial deepening, and modernization of appropriate skills for up gradation of credit wordiness, as well as staff efficiency, are all important factors in solving the current wilful defaulter's system in India and around the world

Raj Kumar Mittal and Deeksha Suneja (2017). Their study found that public sector banks had a higher rate of nonperforming assets (NPAs) than private sector banks. It was proposed that although the government is taking programs and initiatives to address the problem of non-performing assets, banks should also be more aggressive in adopting a structured NPAs policy to prevent non-performing assets and implement stringent recovery measures. Bankers should also assess the return on investment (ROI) on a planned project and lend to customers with better creditworthiness.

Vithessonthi (2016) studied the relationships between bank credit growth and nonperforming assets (NPAs) in a deflationary environment. The study examined data from 82 publicly traded Japanese commercial banks from 1993 to 2003. The findings reveal how the relationship between bank credit growth and nonperforming assets (NPAs) changes over time. Furthermore, the results indicated that increasing the supply of bank loans raises the amount of nonperforming assets (NPAs), but does not increase profitability.

Rao, Yue, and Zhu (2015) investigated the impact of credit borrower concentration and controlling shareholder/s on nonperforming assets (NPAs) and bank financial performance. The research revealed that I controlling shareholders' voting power is positively related to borrower concentration, (ii) controlling shareholders divert resources away from banks by extending large amounts of loans to a few



related parties, resulting in borrower concentration, (iii) a few apparently irrelevant large borrowers are actually connected to controlling shareholders, and (iv) borrower concentration is positively related to NPAs and negatively related to financial performance.

Caporale, Di Colli, and Lopez (2014) analyzed the macroeconomic and financial determinants of bad loans to see if the excess loan sanctioned during expansionary periods explains the higher-than-proportional growth in nonperforming assets (NPAs) during contractionary periods. NPAs on excess loans are considerable and persistent for corporate bad loans, but not for household bad loans, according to the findings.

Samir and Deepa Kamra's (2013) in their study found the problem of nonperforming assets is worse in public sector banks in India than in private and international banks. Similarly, the problem of nonperforming assets (NPAs) is more prevalent in the non priority sector than in the priority and public sectors. Furthermore, the SSI sector accounts for the majority of the overall NPA in the priority sector. The financial health of banks has been negatively impacted as a result of this. According to the study, suggested that Indian banks should use fundamental financial management concepts to handle challenges such as rising NPAs and strengthening recovery management, corporate governance, and technological upgrades etc.

Berge and Boye (2007) investigated the macroeconomic elements that contribute to bank 'nonperforming loans.' The percentage of problem loans is very cyclical, rising during economic downturns. According to the findings the reduction in relative share is attributed to changes in real interest rates and unemployment, after identifying the challenges of Chinese banks.

Ataullah, Cockerill, and Le (2004) compared the impact of changes on the performance of Indian and Pakistani banking organisations. To quantify technical efficiency, the authors applied Data Envelopment Analysis (DEA) to two alternative input-output requirements, which were divided into pure technical efficiency and scale efficiency. The findings show that (i) overall technical efficiency of banking

companies in both countries has improved gradually over time, (ii) unlike PSBs in India, PSBs in Pakistan have only improved in scale efficiency, (iii) banks are more efficient in generating earning assets than in generating income, and (iv) the gap between pure technical efficiency of different size groups has narrowed over time. The purpose of the present study is to determine the Impact of Non-Performing Assets on the Profitability of Select Public Sector and Private Sector Banks of India during 2011 to 2020. In this study performance of the banks and their non performing assets is studied and the effects of on profitability. The modern banks perform their business in a highly multifaceted and competitive business environment.

## 2. Objectives of The Study

The present study has the following objectives

1. To study the Non-Performing Assets of select public and private sector banks
2. To examine the impact of Non-Performing Assets on profitability of select public and private sector banks
3. To offer the recommendations to the regulators and policymakers

## 3. Research Hypothesis

In order to study the Impact of Non-Performing Assets on the Profitability of Select Public Sector and Private Sector Banks the following hypothesis are framed.

$H_{01}$  = Nonperforming Assets has no significant impact on profitability select Public Sector Banks

$H_{02}$  = Nonperforming Assets has no significant impact on profitability select Private Sector Bank

## 4. Research Methodology

The present study employed simple random sampling techniques to select 10 sample banks. Data is collected from five public sector banks and five private sector banks which are listed in NSE based on their market capitalization for a period of ten years



between 2011- 2020. Secondary data were gathered from Annual financial statements.

it reflects as to how well a bank's management is using the banks real investment resources to generate profits.

### Model Specification

Regression models are used to find out the association between profitability and Nonperforming assets in the context of India. Independent variables are GNPA and NNPA while dependent variable Return on Assets (ROA) is used in the study. Return on Assets (ROA) is taken as the dependent variable as

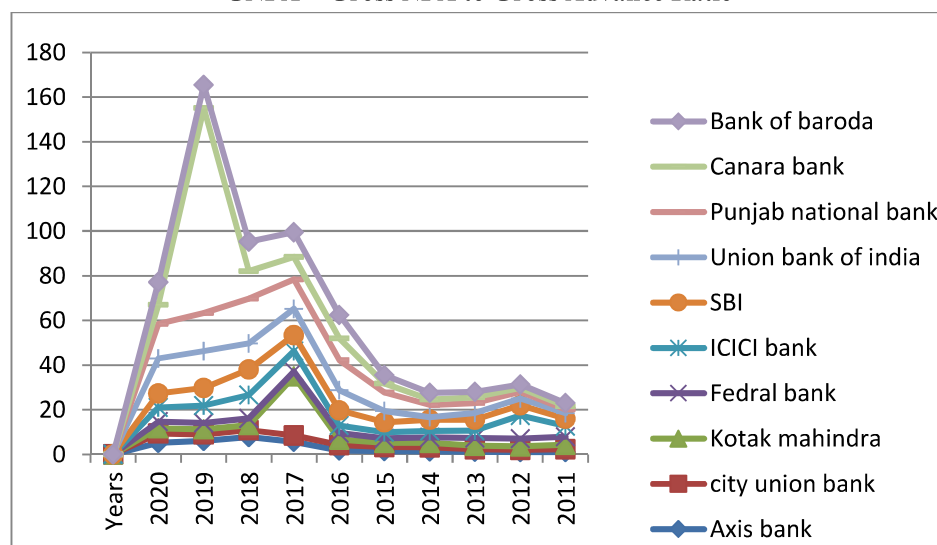
$$ROA_i, t = \beta_0 + \beta_1 GNPA_{it} + \beta_2 NNPA_{it} + \epsilon_{it}$$

## 5. Results and Discussions

**Table: 4.1 Results of Gross NPA of Public and Private Sector Banks**

Years	Axis bank	city union bank	Kotak Mahindra	Federal bank	ICICI bank	SBI	Union bank of India	Punjab national bank	Canara bank	Bank of baroda
2020	5.29	2.29	2.89	4.17	6.33	6.41	15.58	15.57	8.57	10.05
2019	6.02	2.17	2.96	2.99	7.79	7.90	16.41	17.12	91.80	10.29
2018	7.79	2.25	3.04	3.08	10.39	11.55	11.67	19.97	12.44	13.21
2017	5.70	26.30	2.35	2.86	9.08	7.15	11.77	13.20	10.00	11.15
2016	1.80	2.39	2.87	2.43	3.47	6.71	9.04	13.54	9.74	10.56
2015	1.46	1.87	2.06	1.87	2.71	4.36	5.10	8.33	3.95	3.80
2014	1.37	2.00	2.50	1.82	2.84	5.09	1.12	5.41	2.51	2.99
2013	1.22	1.56	3.52	1.14	3.26	4.90	3.03	4.36	2.58	2.43
2012	1.06	1.57	3.45	1.02	10.33	4.57	3.06	2.97	1.73	1.55
2011	1.12	2.06	3.59	1.22	4.64	3.35	2.40	1.81	1.46	1.38

**GNPA = Gross NPA to Gross Advance Ratio**



**Figure: GNPA of Public sector and Private sector Banks**



The above table 4.1 shows GNPA of Public and Private sector Banks during the 2011 and 2020. In the year 2020 GNPA of Union Bank of India and Punjab national bank is high. In 2019 Canara bank was having highest GNPA. In the year 2018 Punjab

national bank was having Highest GNPA. In the year 2017, 2016, 2015, 2014 and 2013 Punjab national bank was having highest GNPA. In the year 2012 and 2011 GNPA of ICICI bank was high

**Table:4.2 Results of Net NPA of Public and Private Sector Banks**

Years	Axis bank	city union bank	Kotak mahindra	Federal bank	ICICI bank	SBI	Union bank of India	Punjab national bank	Canara bank	Bank of baroda
2020	3.64	2.32	0.71	1.31	1.54	2.23	5.49	5.77	4.22	3.13
2019	3.71	1.81	0.76	1.48	2.29	30.15	6.85	6.55	53.72	3.33
2018	3.77	1.70	0.98	1.69	5.43	5.73	8.42	11.22	7.48	5.49
2017	2.31	1.71	12.63	1.28	5.43	3.71	6.57	7.80	6.33	0.47
2016	0.74	1.53	1.06	1.64	2.98	3.81	5.25	8.59	6.42	4.96
2015	0.47	1.30	0.92	0.73	1.61	2.12	2.71	4.99	2.65	1.89
2014	0.45	1.23	1.08	0.74	0.97	2.57	2.33	2.84	1.98	1.52
2013	0.36	0.63	0.64	0.98	0.77	2.10	1.61	2.34	2.18	1.28
2012	0.70	0.45	0.61	0.53	0.73	1.82	1.70	1.52	1.46	0.54

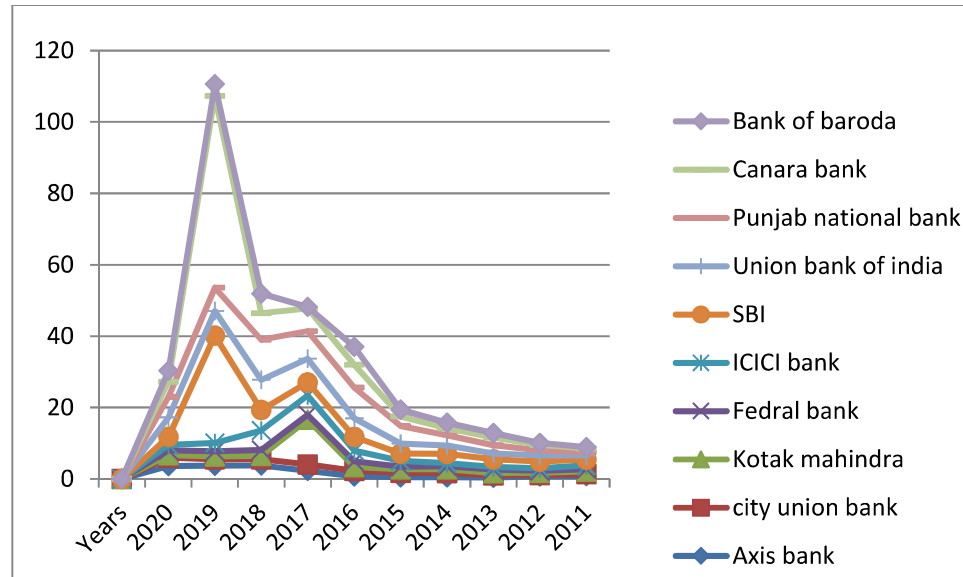


Figure: NNPA of Public sector and Private sector Banks

The above table 4.2 shows NNPA of Public and Private sector Banks during the 2011 and 2020. In the year 2020 NNPA of Punjab national bank and union bank of India is high. In 2019 Canara bank was having highest NNPA. In the year 2018 Punjab national bank was having highest NNPA. In the year 2017 Kotak Mahindra bank has highest NPA. In the year 2016,

2015, 2014 and 2013 Punjab national bank was having highest NNPA. In the year 2012 and 2011 NNPA of State Bank of India was high



**Table: 4.3 Results of Correlation**

		<b>Public Sector Banks NNPA</b>	<b>Private Sector Banks NNPA</b>	<b>Private Sector Banks GNPAA</b>	<b>Public Sector Banks GNPA</b>	<b>Public Sector Banks ROA</b>	<b>Private Sector Banks ROA</b>
Public NNPA	Pearson Correlation	1					
	Sig. (2-tailed)						
Private NNPA	Pearson Correlation	.143	1				
	Sig. (2-tailed)	.323					
Private GNPA	Pearson Correlation	.063	.910**	1			
	Sig. (2-tailed)	.662	.000				
Public GNPA	Pearson Correlation	.880**	.130	.069	1		
	Sig. (2-tailed)	.000	.368	.632			
PUBLIC ROA	Pearson Correlation	-.302*	-.194	-.084	-.337*	1	
	Sig. (2-tailed)	.033	.177	.562	.017		
Private ROA	Pearson Correlation	-.257	-.231	-.220	-.201	.193	1
	Sig. (2-tailed)	.072	.107	.126	.161	.179	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

From the above table 4.3 It is evident NNPA and GNPA of public and Private sector banks has positive correlation and ROA has negative correlation with NNPA and GNPA of Public and private sector banks

**Table: 4.4 Regression Results of Public sector banks**

	<b>B</b>	<b>Std. Error</b>	<b>t</b>	<b>P level</b>
(Constant)	.385	.103	3.750	.000
Public sector Banks NNPA	-.002	.021	-.082	.935
Public sector Banks GNPA	-.015	.014	-1.092	.280
Multiple R		.337 <sup>a</sup>		
R Square		.114		
Adjusted R Square		.076		
Std. Error of the Estimate		.59174		
F		3.011		
Sig.		.059 <sup>a</sup>		

a. Predictors: (Constant), Public Banks GNPA NNPA

b. Dependent Variable: ROA of Public Banks

The above table 4.2 shows NNPA of Public and Private sector Banks during the 2011 and 2020. In the year 2020 NNPA of Punjab national bank and union bank of India is high. In 2019 Canara bank was having highest NNPA. In the year 2018 Punjab national bank

was having highest NNPA. In the year 2017 Kotak Mahindra bank has highest NPA. In the year 2016, 2015, 2014 and 2013 Punjab national bank was having highest NNPA. In the year 2012 and 2011 NNPA of State Bank of India was high



**Table: 4.5 Regression Results of Private sector Banks**

	B	Std. Error	t	P level
(Constant)	1.308	.085	15.481	.000
Private sector Banks NNPA	-.040	.075	-.530	.599
Private sector Banks GNPA	-.006	.037	-.161	.873
Multiple R		.232 <sup>a</sup>		
R Square		.054		
Adjusted R Square		.014		
Std. Error of the Estimate		.43082		
F		1.338		
Sig.		.272 <sup>a</sup>		

a. Predictors: (Constant), Private GNPA, NNPA

b. Dependent Variable: ROA of Private Banks

From the above Table: 4.4 ROA of private sector banks was regressed against NNPA and GNPA of Private sector banks. The regression model explains 54 % of the fluctuations in the dependent variable in the sample. The adjusted  $R^2 = .014$ . The standard error amounts to .43082. F statistic is 1.338. NNPA and GNPA of private sector banks have a negative relationship on Profitability (ROA). P value is .272 which is greater than (0.05) indicates weak evidence against the null hypothesis, so fail to reject the null hypothesis. There is no significant impact of Nonperforming Assets on profitability of select private sector banks during the period.

## 5. Conclusion

The present paper studied the impact of Nonperforming Assets on Profitability of select public and private sector banks in order to understand the relationship between increasing non-performing advances and the rate of profit. From the study of ten

banks during the period between 2011 and 2020 found that increase in non-performing advances has negative impact on the rate of profit. Findings of the present study indicate that GNPA of public sector banks are high when compared to private sector banks. NNPA of Public sectors banks are also high when compared to private sector banks during 2011-2020. NNPA and GNPA of public and Private sector banks have positive correlation and ROA has negative correlation with NNPA and GNPA of Public and private sector banks. The result of the study reveals that there is no significant impact of Nonperforming Assets on profitability of select private sector banks during the period. The banks and government should take proactive measures in recovery process. The strict policies should be implemented for the large borrowers for solving this problem. Banks should identify and monitor the accounts of the loans continuously that have the possibility in becoming Nonperforming. This problem of NPA must be taken



seriously or else this problem will badly affect the profitability of banks. This will decrease in the growth of economy in the country. The financial institutions and banks must adopt structured and real world policies in prevention of Nonperforming assets. The banking sector should now primarily focus on effective management of nonperforming assets (NPAs) in order to increase their profitability and so supply as much funding to the industry as possible. New strategies for loan recovery should be implemented by the banking sector.

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