



# NON-PERFORMING ASSETS: A STUDY OF DELETERIOUS DOUBTFUL ASSETS AND ITS EFFECTS ON ECONOMIC PERFORMANCE ON INDIAN BANKS

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## ABSTRACT

The aim of this study is to conduct an analytical investigation into the correlation between non-performing assets (NPAs) and the Economic performance of selected public and private sector banks, as measured by the return on assets (ROA) in India. The data was collected from the official websites of the banks, based on their market capitalization. A panel data regression model was employed between 2017 and 2022 to evaluate the impact of NPAs on the Economic performance of both public and private sector banks. The findings indicate that there is a significant and positive association between gross non-performing assets (GNPA) and the Economic performance of the Indian banking sector. Similarly, net non-performing assets (NNPA) have an equivalent impact on the Economic performance of the Indian banking sector. Overall, the study highlights a positive and substantial effect of NPAs on the Economic performance of banks. This research expands upon previous studies on non-performing assets and recommends that both public and private sector banks focus on the NNPA and GNPA of banks to improve the Economic performance of the banking sector. This study enhances the existing literature by comprehensively examining the overall impact of NPAs on the Economic performance of banks.

Keywords: Financial performance, non-performing assets (NPA), banking sector, return on assets (ROA).

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## INTRODUCTION

The increasing frequency of non-performing loans can have a detrimental impact on a bank's performance by reducing its earnings and profitability [32,40]. When a borrower is unable to repay either the principal or interest of a loan, it becomes categorized as a non-performing asset (NPA). This not only renders the asset unproductive, but it also makes it difficult for the bank to recover the principal capital [35,42]. The bank's interest earnings decrease, directly affecting its profitability, while the risk of not recovering the principal amount erodes the bank's capital base. If these issues persist beyond a certain level, they have the potential to destabilize a bank [51,53].

The Reserve Bank of India (RBI) has defined NPAs as assets for which the principal or interest payment remains overdue for 90 days or more [36,39,45]. The RBI has further categorized NPAs into three types: substandard assets, doubtful assets, and loss assets [24]. Substandard assets refer to those assets that remain as NPAs for a period of 12 months or less, while doubtful assets have remained as NPAs for more than 12 months. Loss assets, on the other hand, are those assets for which the loss has already been identified but the amount has not been written off [46,49,52]. The combination of these three types of assets constitutes the total NPAs of a bank. The presence of NPAs leads to a reduction in the profitability of banks due to an increase in operating costs and a decline in interest margins [7, 19]. Studies have shown that banks with high levels of NPAs generally incur carrying costs on non-performing assets, which reduce their profitability [4]. A rise in NPAs also has adverse effects on bank profitability due to the huge provisioning requirements that act as a drain on the operating profits [37,49,50]. Therefore, provisioning and carrying costs of NPAs act as a drain on the profitability of banks. Berger and Young [7] examined the relationship between bad loans and bank efficiency and found that an increasing incidence of loan failures leads to higher recovery procedures, rather than the expansion of their business. The higher the operating costs of a bank, the lower its cost efficiency and profits. Operating costs include employee wages and salaries and the costs of running branch offices, both of which have an adverse impact on the profitability of banks [30].

There are numerous factors that can have an impact on the profitability of banks, including non-performing loans. These factors can be broadly classified as either bank-specific or macroeconomic. Bank-specific factors include non-performing advances [7, 19], deposits [20, 25], non-interest income [30] (Harbi 2019), interest income [5], operational efficiency [1, 17], and capital adequacy [6, 11]. On the other hand, macroeconomic factors include GDP growth [11, 30], rate of inflation [9], and interest rate [8, 11, 29]. Several studies have examined the impact of these factors on bank profitability. For instance, research has shown that high levels of non-performing loans can reduce the profitability of banks due to increased operating costs and declining interest margins [43, 53]. Additionally, macroeconomic factors such as GDP growth and inflation rates can also have an impact on bank profitability.

## **LITERATURE REVIEW**

Several previous studies have examined the relationship between the non-performance of loans and the profitability of banks, and have overwhelmingly concluded that non-performing assets (NPAs) have a negative impact on bank profitability. These studies have also identified several other factors that can affect profitability, which have been discussed in the literature.

For instance, Martin [18] conducted a study of the banking sector in the US for the period between 1970 and 1976, and found that an increase in NPAs had a detrimental effect on bank earnings, thereby reducing profitability. Similarly, Masood and Ashraf [19] studied 25 Islamic banks from 12 countries in the Middle East, East Asia, Africa, and South Asia regions, for the period from 2006 to 2010, and found that non-performing loans had a negative impact on bank performance and profitability.

Ongore and Kusa [21] conducted a study on commercial banks in Kenya for the period between 2001 and 2010, and found a negative relationship between bank profitability and non-performing loans. Al-Jafari and Alchami [2] examined 17 Syrian banks for the period from 2004 to 2011, and found a negative relationship between credit risk, as represented by loan loss provision, and bank profitability.

Cucinelli [10] analyzed a sample of 488 listed and unlisted Italian banks over a period from 2007 to 2017, and found that an increase in credit risk, indicated by either a rise in the non-performing loans ratio or a fall in credit portfolio quality as represented by a rise in loan loss provision ratio, leads to a decrease in lending activity, which in turn can negatively impact bank profitability. Duraj and Moci [12] studied 16 Albanian banks between 1999 and 2014, and found a negative relationship between higher NPAs and lower bank profitability, as higher NPAs require increased provisioning which reduces bank profits.

Islam and Nishiyama [15] conducted a study using data for 259 commercial banks in South Asian countries, including India, for the period from 1997 to 2012, and found a negative relationship between non-performing loans and bank profitability. Hashem [14] analyzed Egyptian banks for the period from 2004 to 2014, and reported that higher loan loss provisions represent higher credit risk, which lowers the asset quality of banks and negatively impacts bank profitability.

Bace [3] used data for 13,000 deposit-taking institutions around the world for the period from 2014 to 2015, and found a negative relationship between NPAs and bank profitability. Similarly, a study by Etale et al. [13] investigated the relationship between non-performing loans and bank profitability for the period between 1994 and 2014, and found a negative relationship between the two. Ozurumba [23] studied Nigerian commercial banks and concluded that non-performing loans had an adverse impact on bank profitability for the period between 2000 and 2017. Ozgur and Gorus [22] used data for Turkish banks for the period from 2006 to 2016, and reported a negative relationship between non-performing loans and bank profitability.

In these studies, the dependent variable analyzed was bank profitability, while the explanatory variables included non-performing loans, loan loss provisions, credit risk, and other factors that can affect bank profitability.

## **OBJECTIVES OF THE RESEARCH STUDY**

The objectives of the research study are as follows:

- 1) To examine the relationship between GNPA and Economic performance (ROA) of selected public and private sector banks.
- 2) To examine the relationship between NNPA and Economic performance (ROA) of selected public and private sector banks.
- 3) To examine the relationship between Age and Economic performance (ROA) of selected public and private sector banks.

## **RESEARCH QUESTIONS**

There are following research questions to support the null hypothesis:

- 1) Is there any significant relationship between GNPA and the Economic performance (ROA) of private sector bank?
- 2) Is there any significant relationship between NNPA and the Economic performance (ROA) of private sector bank?
- 3) Is there any significant relationship between Age and the Economic performance (ROA) of private sector bank?
- 4) Is there any significant relationship between GNPA and the Economic performance (ROA) of public sector bank?
- 5) Is there any significant relationship between NNPA and the Economic performance (ROA) of public sector bank?
- 6) Is there any significant relationship between Age and the Economic performance (ROA) of public sector bank?

**HYPOTHESIS OF THE STUDY**

For find out the effective outcomes of the research study, following null hypothesis are as given below:

- H1:** There is no significant relationship between GNPA's and the Economic performance (ROA) of private sector bank.
- H2:** There is no significant relationship between NNPA's and the Economic performance (ROA) of private sector bank.
- H3:** There is no significant relationship between Age and the Economic performance (ROA) of private sector bank.
- H4:** There is no significant relationship between GNPA's and the Economic performance (ROA) of public sector bank.
- H5:** There is no significant relationship between NNPA's and the Economic performance (ROA) of public sector bank.
- H6:** There is no significant relationship between Age and the Economic performance (ROA) of public sector bank.

**RESEARCH METHODOLOGY**

The research methodology for this study is empirical, and data is gathered from various sources such as official bank websites, annual reports, journals, magazines, and newspapers. A judgmental sampling method was utilized to select five public and five private sector banks for analysis, based on their market capitalization.

**Sample Size**

The sample size for this study consists of the top 10 Indian public and private sector banks. The public sector banks included are State Bank of India, Punjab National Bank, Bank of Baroda, IDBI Bank, and Central Bank of India. The private sector banks included are HDFC Bank, ICICI Bank, Axis Bank, Kotak Mahindra Bank, and IndusInd Bank.

**Period of Study**

The period of the study covers five years, from 2017 to 2022, and is based on secondary data analysis. The study aims to examine the impact of banks' Economic performance in the context of NPA for the selected public and private sector banks.

**Statistical Techniques**

The collected data analyze have been applied by the appropriate statistical techniques Panel Regression Model.

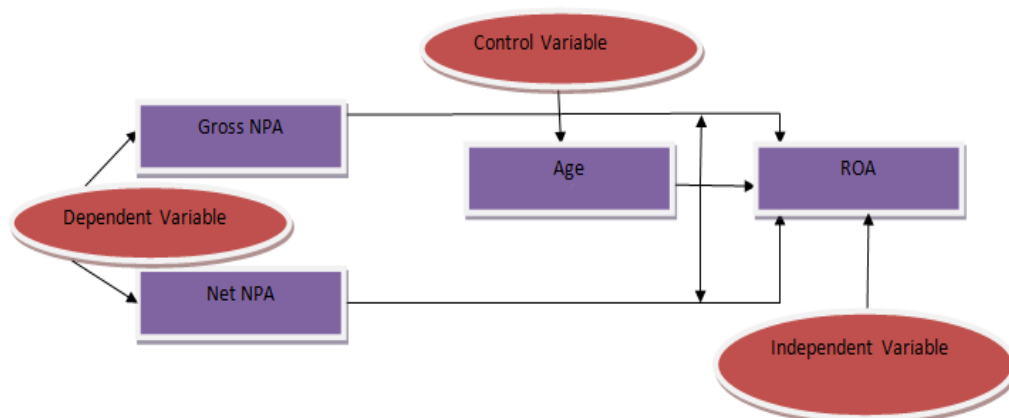
Mathematically the equation of panel regression model is as follows:  $Y = a + b_1x_1 + b_2x_2 + b_3x_3 + i$

{  $Y = a + b_1x_1 + \mu$ .....(i)

$Y = a + b_2x_2 + \mu$ .....(ii)

$Y = a + b_3x_3 + \mu$ .....(iii)

Where,  $Y = ROA$  (Return on Assets)  $a =$  constant term;  $b_1, b_2$  &  $b_3 =$  Regression coefficients for the respective variables,  $X_1 =$  GNPA Ratio,  $x_2 =$  NNPA Ratio, &  $x_3 =$  AGE;  $i =$  Error Term Here,  $Y$  (i.e. ROA) is the dependent variable, while  $x_1, x_2$  &  $x_3$  are independent variables.



**Figure1:** Conceptual framework of the study

Shows in the table 1 financial ratios that can impact the ROA (depended variable) are identified as independent variable.

**Table 1:** List of Dependent and Independent Variables

Symbols	Name of Variables	Method of Calculation
ROA	Return on Assets	Net Profit/ Total Assets
GNPA	Gross Non-Performing Assets	Gross NPA/ Gross Advance
NNPA	Net Non-Performing Assets	Gross NPA - Provision/ Gross Advance - Provision
ABE	Age	Current Year- Established Year

Source: Authors

### DATA ANALYSIS AND INTERPRETATION

**Gross NPAs** are the sum total of all loan assets that are classified as NPAs in accordance with RBI guidelines on the balance sheet date. Gross NPAs are the amount outstanding in the borrower's account in the bank's books, excluding interest that has been recorded but not debited to the borrower's account. The following ratio can be used to calculate Gross NPAs:

Gross NPAs Ratio = Gross NPAs/Gross Advance

**Table 2:** Gross NPA of Public and Private Sector Banks (In Cr.)

Year	Public sector Banks					Private sector Banks				
	SBI	PNB	Canara Bank	IDBI	Central Bank	HDFC	ICICI	AXIS	Kotak M Bank	Indusind Bank
2017	5.21	5.21	3.5	3.75	4.21	0.48	4.15	1.42	1.75	1.08
2018	5.36	5.85	3.12	5.14	7.59	1.25	3.85	1.95	2.89	1.98
2019	5.15	7.12	3.92	6.23	7.05	0.89	4.95	1.75	3.15	1.49
2021	6.98	11.26	9.45	11.18	12.08	0.87	5.81	2.82	4.58	0.57
2022	7.26	12.89	11.24	21.75	18.16	1.08	7.49	4.97	3.16	0.97

Source: Author Calculation from the Annual reports of the banks website

**Gross NPAs** refer to the total amount of loan assets that have been classified as NPAs in accordance with RBI guidelines on the balance sheet date. This amount includes the outstanding balance in the borrower's account, excluding any interest that has been recorded but not debited to the borrower's account. Gross NPA can be calculated using the following ratio:

Table 2 displays the Gross NPA values for selected public and private sector banks during the period 2017-2022. The GNPA value for SBI bank was 5.21 in 2017 and increased to 7.26 in 2022. PNB's GNPA increased from 5.21 in 2017 to 12.89 in 2022, which is three times higher. Canara Bank GNPA was 3.5 in 2017 and increased to 11.24 in 2022, which is five times higher. IDBI's GNPA was 3.75 in 2017 and increased to 21.75 in 2022, which is seven times higher. Central Bank's GNPA was 4.21 in 2017 and increased to 18.16 in 2022, which is four times higher.

Table 2 also shows that HDFC's GNPA increased from 0.48 in 2017 to 1.08 in 2022, which is 2.45 times higher. ICICI's GNPA increased from 4.15 in 2017 to 7.49 in 2022, which is 2.45 times higher. AXIS bank's GNPA was 1.42 in 2017 and increased to 4.97 in 2022, which is five times higher. Kotak Mahindra bank's GNPA was 1.75 in 2017 and increased to 3.16 in 2022. Indusind bank's GNPA was 1.08 in 2017, decreased to 0.97 in 2022, but was very high at 1.12 in 2014.

### Provisions/Gross Advances-Provisions

**Table 3:** Net NPA of Public and Private Sector Banks (In Cr.)

Year	Public sector Banks					Private sector Banks				
	SBI	PNB	Canara Bank	IDBI	Central Bank	HDFC	ICICI	AXIS	Kotak M Bank	Indusind Bank
2017	2.45	2.47	1.85	1.75	2.75	0.57	0.98	1.78	0.79	0.79
2018	2.68	2.56	2.68	2.92	2.85	0.68	0.49	1.69	0.85	0.95
2019	2.75	2.68	1.79	2.75	3.68	0.49	1.68	1.95	0.75	0.75
2021	2.95	1.47	1.95	1.95	3.69	0.85	1.47	2.68	1.95	0.92
2022	3.89	2.95	3.75	3.49	2.49	0.49	3.59	2.49	1.49	0.46

Source: Author Calculation from the Annual reports of the banks website

The term "**Net NPAs**" refers to the outstanding amount of bad loans a bank has after deducting the interest debited to borrowers that have not been recovered and recognized as income. It reflects the actual burden of the bank. This can be calculated by subtracting the Gross NPAs from the interest debited to borrowers that have not been recovered and recognized as income.

Table 3 provides information on the Net NPA values of several public and private sector banks during the period of 2017-2022. In 2017, the State Bank of India's NNPA value was 2.45, which increased to 3.89 in 2022, but it was significantly higher in 2022. The Punjab National Bank's NNPA value in 2017 was 2.47, which increased to 2.95 in 2022. Canara Bank NNPA value was also high in 2022 at 3.75, but it decreased to 1.28 in 2017 and increased again to 4.72 in 2022. The IDBI Bank's NNPA value in 2017 was 1.58, but it increased to 13.21 in 2022. Similarly, Central Bank's NNPA value was 2.90 in 2017, but it increased significantly to 10.20 in 2022. HDFC's NNPA value was 0.20 in 2017, which increased to 0.33 in 2022. ICICI's NNPA value was 0.77 in 2017, but it increased to 4.89 in 2022. In 2017, AXIS Bank's NNPA value was 0.32, which increased to 2.11 in 2022. Finally, in 2017, Kotak Mahindra's NNPA value was 0.64, which increased to 1.26 in 2022, indicating a continuous increase in NNPA values from 2017 to 2022 across public and private sector banks.

**Table 4:** ROA of Public and Private Sector Banks (In Cr.)

Year	Public Sector Banks					Private Sector Banks				
	SBI	PNB	Canara Bank	IDBI	Central Bank	HDFC	ICICI	AXIS	Kotak M Bank	Indusind Bank
2017	0.89	1.05	0.8	-0.78	0.28	1.78	1.98	1.89	1.75	1.49
2018	0.78	0.087	0.68	-0.46	-0.57	2.47	1.59	1.98	1.49	1.69
2019	0.68	0.45	0.47	-0.38	0.32	2.68	1.69	1.67	1.69	1.72
2021	0.85	-0.81	-0.82	-1.42	-0.59	1.76	1.84	1.98	1.95	1.49
2022	0.35	0.12	0.5	-1.61	-0.95	1.75	1.49	0.47	1.18	1.68

*Source:* Author Calculation from the Annual reports of banks website

**Return on Asset (ROA)** is a metric that reflects the efficiency of asset utilization and measures the amount of net income generated from a bank's assets. It is an indicator of the ability of bank management to generate profits by using the available assets effectively. A higher ROA ratio indicates better performance in generating profits (Jayakkodiand Rengarajan, 2016).

Table 4 displays the ROA values of selected public and private sector banks for the period 2017-2022. The data reveals that in 2017, State Bank of India (SBI) had an ROA value of 0.89, which decreased to 0.35 in 2022, indicating a decline in performance. In 2017, Punjab National Bank (PNB) had an ROA of 1.05, which dropped to 0.12 in 2022. However, in 2021, it had a negative ROA of -0.81, the lowest among all the years. Similarly, Canara Bank had an ROA of 0.80 in 2017, but in 2021, it had a negative ROA of -0.82. The Industrial Development Bank of India (IDBI) had an ROA of -0.78 in 2017, which worsened to -1.61 in 2022. In 2019, it had an ROA of -0.38, the lowest among all the years. Central Bank had an ROA of 0.28 in 2017, which fell to -0.95 in 2022, indicating a decline in performance. HDFC had an ROA of 1.78 in 2017, which decreased to 1.75 in 2022. ICICI had an ROA of 1.98 in 2017, which dropped to 1.49 in 2022. AXIS had an ROA of 1.89 in 2017, which declined to 0.47 in 2022. Kotak Mahindra had an ROA of 1.75 in 2017, which decreased to 1.18 in 2022. Indusind bank had an ROA of 1.49 in 2017, which improved to 1.68 in 2022. The age of a bank, which refers to the total number of years it has been in operation, is a key factor that can influence its performance. Empirical research has shown that the age of a firm has a significant impact on its performance (Paul Kibathi Kagecha, 2014). Beck, Kunt, and Maksimovic (2005) found that older institutions tend to perform worse than new entry institutions. This result was validated by Hsiu-Ling (2007), who found that the older the bank, the worse its ROA.

**Table 5:** Age of Public and Private Sector Banks

Year	Public Sector Banks					Private Sector Banks				
	SBI	PNB	Canara Bank	IDBI	Central Bank	HDFC	ICICI	AXIS	Kotak M Bank	Indusind Bank
2017	63	124	110	59	107	24	24	25	33	24
2018	64	125	111	60	108	25	25	26	34	25
2019	65	126	112	61	109	26	26	27	35	26
2021	66	127	113	62	110	27	27	28	36	27
2022	67	128	114	63	111	28	28	29	37	28

*Source:* Author Calculation from the Annual reports of banks website

AGE refers to the total number of years that a bank has been in operation will be used to capture the age of the bank (Paul Kibathi Kagecha, 2014). Ample amount of empirical research has been generated to illustrate the importance of age in firm's performance. (Beck, Kunt and Maksimovic, 2005) found that older institution performance worse than new entry institution. These results were validated by (Hsiu-Ling, 2007) who found that the older the bank, the worse the ROA.

**FINDINGS OF THE STUDY**

**Table 6:** Descriptive Statistics for Bank Variables

Public Banks	Variable	Mean	Minimum	Maximum	Std. Dev.	Skewness	Kurtosis
	ROA	0.0548	-2.4800	2.0000	0.5489	-0.4578	2.4589
	GNPA	8.4598	3.5000	35.3500	5.1249	2.5987	5.2879
	NNPA	5.2147	2.5900	16.4500	4.2698	2.4587	5.2692
	AGE	91.2578	47.000	150.0000	31.2598	-0.4589	1.5895
Private Banks	Variable	Mean	Minimum	Maximum	Std. Dev.	Skewness	Kurtosis
	ROA	2.6987	0.4500	3.0000	1.2359	-3.2658	7.5387
	GNPA	3.2518	0.9200	8.7500	2.1587	2.4892	5.2514
	NNPA	0.8954	0.3000	5.7500	2.1698	3.2598	9.2369
	AGE	28.0000	21.0000	41.0000	4.2158	1.4859	4.2154

Source: Panel Regression Output by Authors.

Table 6 presents the descriptive analysis of public and private sector banks, where the mean value of ROA for public sector banks is 0.0548 with a minimum and maximum value of -2.4800 and 2.0000, respectively, and a standard deviation of 0.5489. On the other hand, private sector banks have a higher mean value of 2.6987, with a standard deviation of 1.2359 and a minimum and maximum value of 0.4500 and 3.000, respectively. The values of ROA, GNPA, NNPA, and AGE are higher in public sector banks than private sector banks, except for ROA (both banks) and AGE (public banks). Additionally, the Z-value of all the bank variables for Skewness and Kurtosis are more than 1.96.

**Table 7:** Model Summary and ANOVA

Measures	R <sup>2</sup>	A	Adjusted R <sup>2</sup>	F value	P value	Durbin Watson
Public banks	0.7848		0.6257	12.2598	0.0000	3.2658
Private banks	0.9625		0.9587	15.1248	0.0000	4.2578

\*Predictors: (constant), GNPA, NNPA, AGE, \*\*Dependent variable: ROA

In Table 7, the adjusted R square value is 0.6257, indicating that 62.57% of the variations of the dependent variable (ROA) are due to the independent variables (GNPA, NNPA, and AGE). The coefficient of determination (R-square) value is 0.7848, indicating that the independent variables explain 78.48% of the differences in ROA. There is a strong relationship between the independent variables and the dependent variable. In private sector banks, the adjusted R square value is 0.9587, meaning that 95.87% of the variations of the dependent variable (ROA) are due to the independent variables (GNPA, NNPA, and AGE). The coefficient of determination (R-square) value is 0.9625, indicating a strong relationship between the independent variables and the dependent variable. The F statistics of public and private sector banks are 12.2598 and 15.1248, respectively, which are significant at the 0.05 level for both banks. The P-value for both banks is 0.000, which is less than 0.05, indicating that the relationship between NPAs and profitability is significant at the 5% level of significance. The value obtained by Durbin-Watson tests for public and private sector banks is 3.2658 and 4.2578, respectively, indicating that the values from both sectors are around 3.

**Table 8:** Hausman Test

	Test Summary	Chi-sq	Chi-sq-d.f	Probability
Public banks	Cross-section random	15.2684	3	0.0036
Private banks	Cross-section random	8.2458	3	0.059

Table 8 shows the Hausman test was applied to check which among fixed and random effect is suitable for our data. Hausman test shows that public and private sector banks probability value is (<0.05) significant results which means null hypothesis is rejected and it describes that fixed effect panel is suitable for our data.

**Table 9:** Fixed Effect Panel Estimation

Public Banks	Variable	Coefficient	Std. Error	T- statistic	Probability
	Constant	5.4872	8.4587	0.7458	0.5219
	GNPA	-0.0005	0.2658	-0.0065	0.8957
	NNPA	-0.2157	0.2359	-0.4258	0.4259
	AGE	-0.0369	0.1287	-0.8548	0.5249
Private Banks	Variable	Coefficient	Std. Error	T- statistic	Probability
	Constant	2.2168	0.4259	3.0158	0.000
	GNPA	-0.4259	0.1248	-6.9658	0.0000
	NNPA	0.3269	0.2368	3.5478	0.0049
	AGE	0.0239	0.1249	0.4259	0.5219

\*Dependent variable: ROA

Panel Regression Equation fitted was:

$$\text{ROA} = (5.4872) - 0.0005 (X_{\text{GNPA}}) - 0.2157 (X_{\text{NNPA}}) - 0.0369 (X_{\text{AGE}}) \dots\dots\dots \text{(i)} \text{ROA} = (2.2168) - 0.4259 (X_{\text{GNPA}}) + 0.3269 (X_{\text{NNPA}}) + 0.0239 (X_{\text{AGE}}) \dots\dots\dots \text{(ii)}$$

Equation 1 explains the impact of NPAs on the Economic performance of public sector banks measured by ROA, while Equation 2 explains the impact of NPAs on the Economic performance of private sector banks measured by ROA.

Table 9 shows that the significant value of private sector banks for the three ratios (ROA, GNPA, and NNPA) is less than 0.05, and thus the null hypotheses (H1 & H2) are rejected. In contrast, the significant value of AGE is more than 0.05, and thus the null hypotheses (H3) are accepted. For public sector banks, the significant value of the four ratios (ROA, GNPA, NNPA, and AGE) is more than 0.05, and thus the null hypotheses (H4, H5 & H6) are accepted.

The study found a significant and positive impact of GNPA and NNPA on the Economic performance (ROA) of public sector banks. However, GNPA and NNPA have no significant impact on the Economic performance (ROA) of private sector banks. Age has no significant relation with firm's profitability in both public and private sector banks.

### CONCLUSION

The research investigates how Non-Performing Assets (NPAs) affect the Economic performance of public and private sector banks from 2017 to 2022. The study does not focus on the reasons for the growth of NPAs, but instead examines the validity of existing theories in the literature. It identifies and analyzes variables that affect the Economic performance of banks in relation to the problem of loan losses, using a panel regression model approach. The results show that both public and private sector banks should pay attention to variables that are sensitive to the private sector. GNPA and NNPA have a significant positive impact on the Economic performance of public sector banks, while they have no significant impact on the Economic performance of private sector banks. Age does not have a significant relation to banks' profitability in both public and private sectors. The study is limited to public and private sector banks, but future research may expand the sample to include foreign banks and macro and micro variables. Despite its limitations, the analysis suggests that both public and private sector banks should monitor GNPA and NNPA as they impact the Economic performance of banks dealing with NPAs.

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