

Research Article

**An Analytical Study On The Npa Level In Indian Public Sector Bank**

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**ABSTRACT**

For any country, the banking industry is critical to its development. As a result, whatever occurs in the banking sector has an impact on the economy. The Indian banking system has been grappling with a major problem: rising levels of non-performing assets (NPAs), which might have a negative impact on the economy. Utilizing Anova statistics, the current article attempted to analyze the net non-performing asset data of 20 public sector banks over six years (2015-2020) using secondary data from the RBI website. According to the study, PSBs have adopted liberal and loose lending practices, concentrating loans on a few major corporate borrowers and a few sectors, i.e., massive credit exposures to a few large corporate borrowers and a few sectors. PSB managements are unconcerned about their success and performance because there are no incentives or punishments for their success or failure.

**Keywords:** Asset, Banks, Performing, Public, Economy.

**I. INTRODUCTION**

The banking industry is the driving force behind a country's economic development, particularly in developing market nations (for example, India). The banking sector's most significant components are financial security and stability. Because a bank failure can have devastating economic ramifications across the entire financial system, banking has become all about risk management in modern economies. The number of non-performing assets, or NPAs, that a bank has influences its credit risk, which is a critical measure of its success. Bank loans are treated as assets on their balance sheets and help them generate revenue. There are two types of assets: performing and non-performing assets. Performing assets are assets that create a regular stream of income. Non-performing assets, or NPAs, are assets that do not deliver expected returns. The principal or interest, or both, is not being serviced to the bank or lender in the event of NPAs. The specified period is 90 days in most nations and lending institutions. It may, however, change based on the terms and conditions that both the lender and the borrower have agreed to.

Many countries, particularly India, have recently experienced significant growth in nonperforming assets (NPAs). Furthermore, certain types of banks appear to have higher nonperforming assets (NPAs) than others. While a variety of circumstances may contribute to the same in banks, one significant criterion for determining the difference is the kind of bank ownership. This has a

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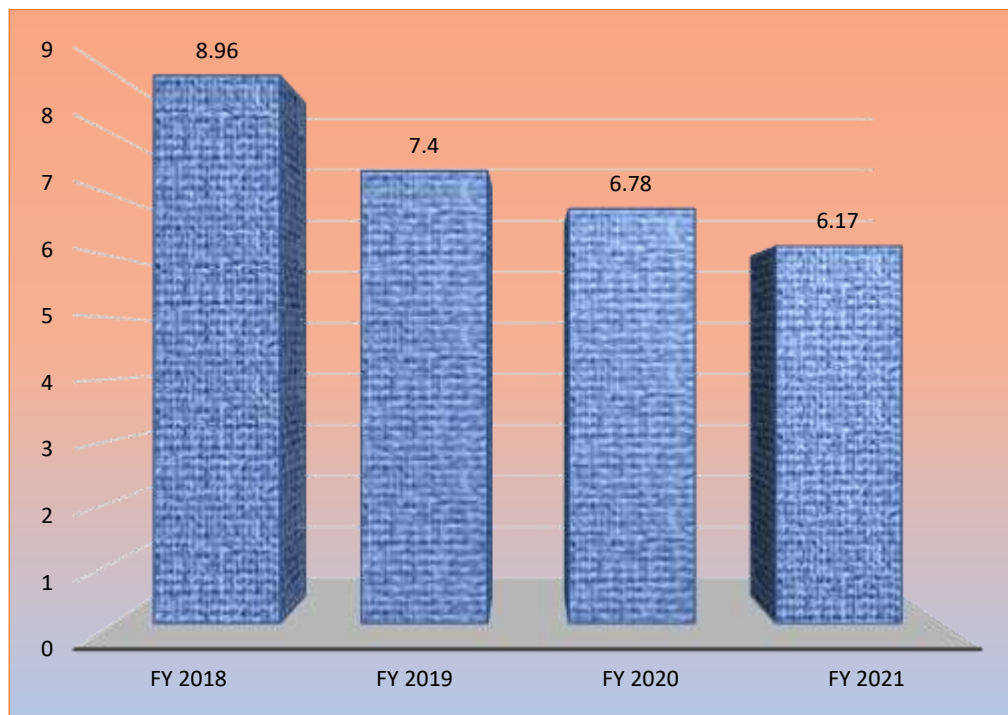
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significant impact on their organizational structure, policies, and working methods, all of which have an impact on their credit risk component.

Being of 2021, there were 12 nationalized public sector banks, with the Indian government as the largest shareholder in all of them. The public State Bank of India is India's largest bank (SBI). The SBI had net sales of over 2.5 trillion Indian rupees in the fiscal year 2020. Over the recent decade, the SBI has merged with banks that were previously known as SBI associate banks.



**Figure 1: Gross non-performing asset value of public sector banks in India from the financial year 2018 to 2021 (in trillion Indian rupees)**

In the fiscal year 2021, Indian public sector banks owed roughly 6.17 trillion Indian rupees in non-performing assets. This figure was substantially higher in the 2019 fiscal year, around 7.5 trillion rupees, demonstrating a sluggish but steady improvement in India's economy in terms of non-paying assets at public banks.

## II. RECENT DEVELOPMENTS AND STRATEGIES FOR COMBATING NPA

**Insolvency and Bankruptcy Code (IBC)** - IBC is a federal law that governs insolvency and bankruptcy proceedings. The resolution process is projected to speed up as a result of the RBI's push for the IBC while maintaining control over asset quality. The provisioning requirement will change, with the demand for a higher share of provisions helping to improve the books.

**Credit Risk Management** - This entails credit evaluation and monitoring responsibility and credit through various profit and loss studies. Banks should undertake a sensitivity analysis and implement safeguards against external factors while conducting these studies.

**Credit Monitoring Is Being Tightened** - To keep track of warnings, a proper and effective Management Information System (MIS) must be built. In a perfect world, the MIS would detect problems and send timely alerts to management, allowing them to take appropriate action.

**Amendments to Banking Law to Give RBI More Power** – The current situation only permits the RBI to perform a lender inspection but not to set up an oversight committee. The RBI will be empowered to monitor huge accounts and create oversight committees as a result of the legislative change.

**Banks get more “Haircuts”** – PSU lenders have been setting aside a considerable amount of their revenues for provisions and losses due to nonperforming assets (NPAs) for some time. The situation is so dire that the RBI may order them to build a larger reserve and, as a result, declare lesser profits.

**Stricter NPA recovery** — It is also suggested that the government alter the rules to allow banks more power to recover NPAs rather than playing the “wait-and-see” game.

**Corporate Governance Issues** — Banks, particularly those in the public sector, must develop adequate guidelines and frameworks for senior-level hires.

**Accountability** — Today, lower-level executives are frequently held accountable; nonetheless, senior-level executives make key decisions. As a result, if Indian banks are to address the problem of nonperforming assets (NPAs), senior executives must be held accountable.

To solve the problem of nonperforming assets, banks might consider "increasing capital."

**Using unclaimed deposits** — In the same way that the government can set aside funds for unclaimed dividends, it can set aside funds for unclaimed deposits. In exchange, these funds might be used to provide capital to banks.

**Bank Asset Monetization** — In this scenario, rather than running a bank assurance association as an insurance firm, banks with retail franchisees should produce value by auctioning it. The current setup prevents capital inflows and provides little wealth to the owners.

**Make the Cash Reserve Ratio (CRR) more appealing** — At the moment, the RBI requires Indian banks to keep their CRR below a specific level, below which the RBI does not pay interest. As a result, banks lose a significant amount of interest income. It is possible to cut capital requirements by making the CRR more financially attractive for banks.

**Obtaining Central Bank Refinancing** – In 2008-09, the US Federal Reserve invested \$700 billion on stressed assets as part of the "Troubled Asset Relief Program." Indian banks can create a comparable arrangement by directly contacting the RBI or by forming a Special Purpose Vehicle (SPV).

**Changes in structure to include private money** – The market is harmed by the remuneration structure and accountability of banks. Banks should be administered by a board of directors, to reduce the government's interest and make financial institutions more appealing to private investors.

The problem of NPAs in Indian banks can be efficiently monitored and handled using the potential remedies outlined above, allowing banks to achieve a clean balance sheet.

### III. RESEARCH METHODOLOGY

The present study is done on the public sector banks including Allahabad Bank, Andhra Bank, Bank of Baroda, Bank of India, Bank of Maharashtra, Canara Bank, Central Bank of India, Corporation Bank, Dena Bank, IDBI Bank Limited, Indian Bank, Indian Overseas Bank, Oriental Bank of Commerce, Punjab and Sind Bank, Punjab National Bank, Syndicate Bank, UCO Bank, Union Bank of India, United Bank of India, United Bank of India, United Bank of India, United Bank of India, United Bank of India, United Bank of India,

From 2015 to 2020, the Net Non-Performing Asset was examined for six years. The research is based on secondary data gathered from public RBI reports as well as other articles and journals.

Net Non-Performing Assets = Gross NPA – (Interest Suspense Account Balance + DICGC/ECGC claims received and held pending adjustment + Part-payment received and held in suspense account + Total provisions maintained) (rbi.org.in)

The NNPA figures received from RBI reports were analyzed using SPSS software and the statistical method "analysis of variance" or Annova.

The data-sheet can be seen below:

**Table 1: NNPA values of Other Public Sector Banks:**

	2015	2016	2017	2018	2019	2020
Allahabad Bank	5.46	9.76	13.09	15.96	17.55	17.11
Andhra Bank	5.31	8.39	12.25	17.09	16.21	16.07
Bank of Baroda	3.72	9.99	10.46	12.26	9.61	9.40
Bank of India	5.39	13.07	13.22	16.58	15.84	14.78
Bank of Maharashtra	6.33	9.34	16.93	19.48	16.40	12.81
Canara Bank	3.89	9.40	9.54	11.84	8.83	8.04
Central Bank of India	6.09	11.95	9.63	21.48	19.29	18.92
Corporation Bank	4.81	9.98	17.81	17.35	15.35	13.80
Dena Bank	5.45	9.98	11.70	22.04	21.07	-
IDBI Bank Limited	5.88	10.98	16.27	27.95	-	-
Indian Bank	4.40	6.66	21.25	7.37	7.11	6.87

Indian Overseas Bank	8.33	17.40	7.47	25.28	21.97	14.78
Oriental Bank of Commerce	5.18	9.57	22.39	17.63	12.66	12.67
Punjab and Sindh Bank	4.76	6.48	13.73	11.19	11.83	14.18
Punjab National Bank	6.55	12.90	10.45	18.38	15.50	14.21
Syndicate Bank	3.13	6.70	12.53	10.91	7.53	6.15
UCO Bank	6.76	16.09	8.50	11.53	11.37	12.04
Union Bank of India	4.96	8.70	17.12	24.64	25.00	16.77
United Bank of India	9.49	13.26	11.16	15.73	14.98	14.15
Vijaya bank	2.79	6.64	15.53	24.10	16.48	-

- **Research Design: Statistical Method Employed**

One-way analysis of variance (ANOVA) was employed for the aim of the study. The following linear mathematical model has been utilized.

$$X_{ij} = \mu + \alpha_i + \epsilon_{ij} \dots \dots \dots \text{Equation (1)}$$

Where,

$X_{ij}$  = The yield from the  $j^{\text{th}}$  row, ( $j = 1, 2, \dots, n_i$ ) fed on the  $i^{\text{th}}$  ration ( $I = 1, 2, \dots, k$ )

$\mu$  = General mean effect given by k

$$\mu = \sum_{i=1} n_i \mu / n$$

$i=1$

$\alpha_i$  = The effect of the  $i^{\text{th}}$  ration given by  $\alpha_i = \mu_i - \mu$ , ( $i = 1, 2, \dots, k$ )

$\epsilon_{ij}$  = The error effect due to chance.

- **Assumption of the model.**

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- i. All the observations  $X_{ij}$  are independent and  $X_{ij} \sim N(\mu_{ij}, \sigma_e^2)$
- ii. Difference effects are additive in nature
- iii.  $\varepsilon_{ij}$  are i.i.d,  $N(0, \sigma_e^2)$

- **Hypothesis:**

H0: There is no significant difference in mean variation between the NPAs of the banks

H1: There is a significant difference in mean variation between the NPAs of the banks

### IV. ANALYSIS AND INTERPRETATION:

The entire study and analysis are focused on these 26 banks, each of which is assigned a number ranging from 1 to 20. The NNPA of Allahabad Bank is written under variable 2 column, and number "1" for Allahabad Bank is written under variable 1, or VAR00001, the NNPA of Andhra Bank for the six years (2015-2020) is written under variable 2, or VAR00002, and number "2" is written for Andhra Bank, a series of 6, twos (2) is written under VAR00001 column, and so on. The first is for Allahabad Bank, and the second is for Vijaya Bank. Each number contains NNPA group statistics for a specific bank during six years. For these 26 banks, a univariate test is used to see if there is any significant mean variance between their NNPA's. For analysis, Variable 1 or VAR00001 is considered a dependent factor, while Variable 2 or VAR00002 is considered a fixed factor.

If F-statistics is more than P, the null hypothesis is rejected and the alternate hypothesis is accepted; whereas, if F-statistics is less than p, the null hypothesis is accepted and the alternate hypothesis is rejected. So, if  $F > P$ , there will be a large difference in mean variation of public sector bank NPAs, yet H0 will be rejected and H1 will be approved; however, if  $F = P$ , there will be no significant difference in mean variation, so H0 will be accepted and H1 will be refused.

The Annova results are listed in the table below, which is labeled testing of between-subject effects.

#### Results after analysis

Dependent Variable: VAR00001

**Table 2: Tests of Between-Subjects Effects**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Squared	Eta Squared
Corrected Model	6159.917a	110	55.999	.964	.573	.702	

<b>Intercept</b>	24084.764	1	24084.764	414.447	.000	<b>.902</b>
<b>VAR00002</b>	6159.917	110	55.999	.964	.573	<b>.702</b>
<b>Error</b>	2615.083	45	58.113			
<b>Total</b>	37206.000	156				
<b>Corrected Total</b>	<b>8775.000</b>	<b>155</b>				

a. R Squared = .702 (Adjusted R Squared = -.026) Source: SPSS Output

## V. CONCLUSION

The current study examines the various categories of nonperforming assets (NPAs), as well as their causes and consequences for the banking industry and the economy as a whole. A study of public sector banks was conducted using secondary data from annual reports over a period of six years, from 2015 to 2020. Using the statistical method ANOVA, an attempt is made to analyze the data. The study's major goal was to see if there was any variation in the prevalence of nonperforming assets (NPAs) between the various banks over time. At a 5% level of significance, the study indicates that there is no significant difference between the banks' NPA means. As a result, one may confidently say that banks, regardless of their operations, have seen similar NPAs in recent years.

Interest received from loans given accounts for the majority of revenue. When loan accounts become non-performing loans (NPAs) and no longer generate revenue, the bank's profitability begins to decline. Furthermore, if the bank is unable to collect any loans granted to borrowers, the bank's liquidity situation will be severely impacted. Customers will lose faith in the bank's credibility as a result of this. NPAs are eroding the strength of our economy by weakening the profitability and liquidity of banks, which are the foundations of a healthy economy. The Government of India, the Reserve Bank of India, and the banks should ensure that such tight procedures are followed not only at the time of loan issuance, but also regularly through follow-up, audits, and forensic audits to avoid assets from becoming non-performing assets.

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