



## IMPACT OF COVID -19: An Empirical Study on Public Sector Banks

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### **Abstract**

The outbreak of the COVID-19 pandemic in 2020 had a profound impact on various sectors worldwide, including the banking industry. This empirical study aims to investigate the specific effects of the COVID-19 crisis on public sector banks and assess their resilience and adaptive strategies in mitigating the challenges posed by the pandemic. The study utilizes a mixed-methods approach, combining both quantitative and qualitative data collection and analysis techniques.

In the quantitative phase, financial data from a sample of public sector banks are analyzed to identify the key financial indicators affected by the COVID-19 crisis. Variables such as loan delinquencies, non-performing assets (NPAs), provisioning requirements, profitability ratios, and capital adequacy ratios are examined to assess the financial health of public sector banks during the pandemic. Comparative analysis is conducted to understand the differences in performance across banks, as well as the impact on various bank size categories.

Complementing the quantitative analysis, qualitative data is collected through interviews and surveys with bank executives, employees, and customers. These qualitative insights provide a deeper understanding of the challenges faced by public sector banks during the pandemic and the strategies employed to mitigate the impact. Factors such as changes in customer behavior, digital transformation initiatives, remote work practices, and risk management measures are explored to gain insights into the adaptability and resilience of public sector banks.

The study findings contribute to the existing literature by providing empirical evidence of the impact of COVID-19 on public sector banks and the effectiveness of their responses. The research outcomes will enable policymakers, bank management, and other stakeholders to better understand the vulnerabilities of public sector banks during crises and formulate appropriate measures to ensure their resilience and stability. Furthermore, the study may offer insights into potential avenues for improving the overall performance and efficiency of public sector banks in a post-pandemic era.

**Keywords:** *COVID-19, public sector banks, financial indicators, resilience, adaptive strategies, mixed-methods approach, qualitative analysis, quantitative analysis.*

## **Introduction**

In January 2020, our neighborhood country China who created a deadly and highly infectious virus named as Corona virus broke out in the city Wohan. Within a short span of a month WHO declared it as pandemic. The virus has spread over the entire globe and causing million of death tolls in most of the western advanced nation like U.S.A, Italy, Spain, Britain, and also the nations of the developing world. To cope up with the crisis the only formula was to complete lockdown bring all the economic activities to a halt. Although lockdown helped us to cope up with the crisis in the short term but we have not imagine its adverse impact on the different sectors of the economy, paralyzing GDP growth rate.

The Banking Sector was badly struck and this Covid-19 completely disrupted the smooth functioning of the bank causing our academicians to take cognizance of this sad happening and delve deep into the issue with their research tools and technique to prescribe a panacea and also booster dose to overcome this crisis.

Our Public Sector Banks which is supposed to be the foundation for infrastructural development and a major source of term lending institution for corporate became inefficient and prove to be defunct machinery of govt. The Modi government took initiative to privatize some of the Public Sector Banks.

### **The following are the performance parameters of any banks:**

- a) Total credit off take and advances
- b) Loans and advances
- c) Recovery of loan with interest within the stipulated time frame given
- d) Minimizing Non-Performing Assets
- e) Reduced deposit and investment of people
- f) Transactions

During this century we have faced a pandemic termed as Covid-19 and it is having disastrous impact on the different sectors of Economy.

The banking sector consisting of blending of PSB, Private Sector Banks and Foreign Banks are undergoing a trauma of negative impact on the above mentioned performance parameter which

is natural outcome of global crisis like Covid-19. The pandemic has broken the backbone of the economy and banks are no exception to that. If we glance at the financial statement of any bank it is quite apparent in terms of eroding profitability of most of them. The Covid-19 has paced an unprecedented challenge for the banks and the banks are making smart moves to turnaround the process of downturn and recession.

### **Literature Review**

This literature review aims to examine existing empirical studies that have investigated the impact of COVID-19 on public sector banks, focusing on their financial performance, asset quality, liquidity, customer behavior, and policy implications.

#### *Financial Performance and Stability:*

Several empirical studies have analyzed the financial performance and stability of public sector banks during the COVID-19 pandemic. These studies have examined key financial indicators such as profitability, net interest margins, return on assets, and capital adequacy ratios. Findings suggest that public sector banks experienced a decline in profitability and faced challenges in maintaining adequate capital buffers due to increased provisioning requirements, higher loan defaults, and reduced economic activity during the pandemic.

#### *Asset Quality and Loan Portfolios:*

The COVID-19 crisis has significantly affected the asset quality of public sector banks. Empirical studies have focused on the impact of the pandemic on non-performing assets (NPAs), loan delinquencies, and loan restructuring measures. Research findings indicate a rise in NPAs and delinquencies, particularly in sectors severely impacted by the pandemic such as tourism, hospitality, and small businesses. Public sector banks have implemented loan restructuring programs to mitigate the adverse effects on their loan portfolios.

#### *Liquidity Management and Funding Challenges:*

The pandemic posed liquidity challenges for public sector banks due to disruptions in economic activities and financial markets. Empirical studies have examined the liquidity position of these banks during the crisis, including their reliance on central bank facilities and access to funding sources. Research findings suggest that public sector banks faced liquidity pressures, prompting central banks and governments to introduce liquidity support measures to ensure their stability and uninterrupted provision of credit to the economy.

*Customer Behavior and Digital Transformation:*

The COVID-19 pandemic has led to a shift in customer behavior and preferences in banking. Empirical studies have investigated the changes in customer demand for banking services, such as the increased usage of digital channels, contactless payments, and online banking transactions. Public sector banks have responded by accelerating their digital transformation efforts, improving digital infrastructure, and enhancing customer experience through digital platforms and services.

*Policy Implications and Government Support:*

The pandemic has necessitated policy interventions to support public sector banks and the overall financial system. Empirical studies have examined the policy measures introduced by governments and central banks, including fiscal stimulus packages, loan guarantee schemes, and regulatory forbearance. Research findings indicate that government support has played a crucial role in stabilizing public sector banks and ensuring their ability to provide credit to the economy during the crisis.

**Ambrish Kumar Mishra, Archana Patel and Sarica Jain (Feb, 2021)** carried out a research study title “Impact of covid-19 outbreak on performance of Indian Banking Sector” demonstrates the repercussions of the Covid-19 in the performance of the Indian banking sector by creating and evaluating the largest comprehensive knowledge based called ontology (Covid-19-IBO) in order to get semantic information, in continuation of the same they address few important research questions with respect to Indian Economy.

**Vikash Kumar and Sanjeev Kumar (Jan, 2021)** carried out a research study titled “Impact of Covid-19 on Indian Economy with special reference to Banking Sector: An Indian perspective” demonstrates overview of the Impact of Covid-19 situation on Indian Economy and its Banking Sector and also analyses the various policy measures taken by RBI and Indian government at Centre and State level to improve the current Economic situation of the country.

**Dr. Jitendra Singh and Dr. B.S Bodla (2020)** carried out a research study titled “Covid-19 Pandemic and lockdown impact on Indian ‘s Banking Sector: A systematic literature Review” exhibits the impact of this pandemic on Banks and NBFCs due to lockdown which has resulted

into closure of all commercial organizations, educational institutions, public and private offices, suspension of means of transportation etc by considering views expressed by several groups including economist, financial institutions like IMF, World Bank and consulting Firms.

**Ashly Lynn Joseph and Dr. M. Prakash (Jul, 2014)** carried out of research study titled “A study on Analyzing the trend of NPA level in Private and Public Sector Banks” exhibits of NPA in banking Industry, the factors that mainly contribute to NPA raising in the banking Industry and also provides some suggestions how to overcome this burden of NPA on banking industry.

**Dr. Nilam Panchal (June 2021)** carried out the research study titled “Impact of Covid -19 on Banking in India: An Empirical Analysis” demonstrates there is much uncertainty on recovery path, so we should focus on systematic measures to revive the profitability and maintain liquidity in the market.

**Dr. Asif Perwej (Oct. 2020)** carried out the research study titled “the Impact of Pandemic Covid-19 on the Indian Banking System “ exhibits withdrawals, clearing of cheques and other traditional teller services had to be executed by maintain a safe distance. Public sector banks continue the core banking function by digitalization of all their functions, process and system.

### **Objective of the study**

- 1) To find out the profitability of Public Sector Bank after Covid-19.
- 2) To find out the status of NPA Post Covid-19.
- 3) To find out the relationship between Net NPA and Net Profitability and Advances.

### **Research Methodology**

The present study is based on descriptive study which focuses to create relationship among NPA, Net Profit and Advances. This research will be an excellent exposition of quantitative research which consists of applied statistics, graph and tables. Secondary data was collected. The data regarding Non Performing Assets, Net Profitability and Advances were taken from official web site of selected public sector bank from their Annual Reports. Many websites have also been referred for collecting important information. Various article, journals, literature review and research papers from internet have also been used. Period of study cover five years from 2017-18 to 2021-22. One Way ANOVA and F- test was used to test the hypothesis. Five selected public

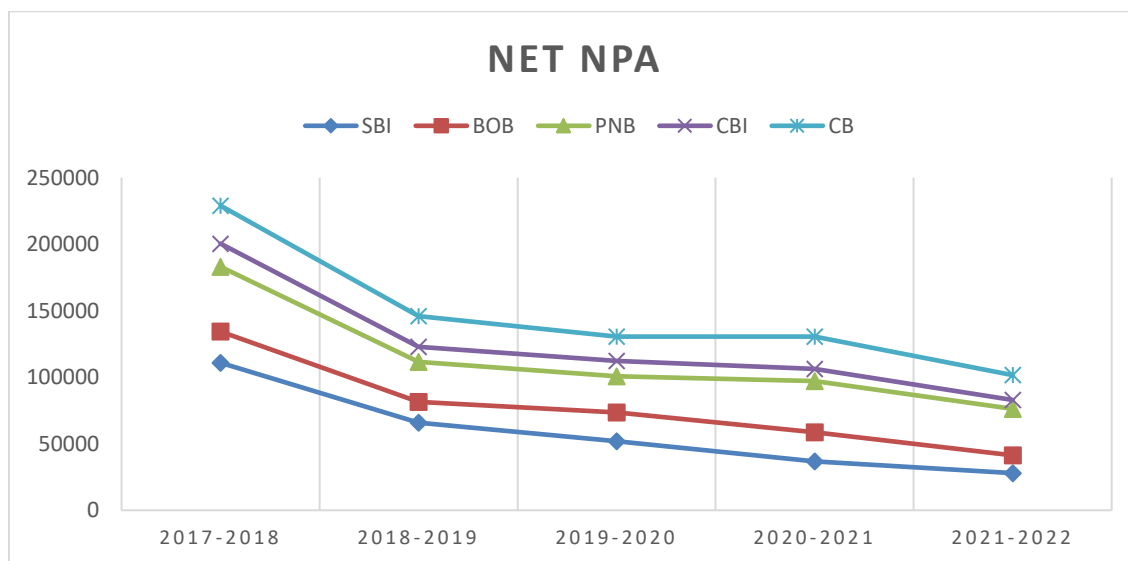
sector banks are State Bank of India (SBI), Bank of Broda (BOB), Punjab National Bank (PNB), Central Bank of India (CBI), Canara Bank CB).

**Net Non-Performing Assets  
(Net NPA)**

**Table-1**

In crore (Rs)					
Years	SBI	BOB	PNB	CBI	C.B
2017-18	110854.70	23482.65	48684.29	17377.87	28542.40
2018-19	65894.74	15609.50	30037.66	11333.24	22955.11
2019-20	51871.30	21576.59	27218.89	11534.46	18250.95
2020-21	36809.72	21799.88	38575.70	9036.46	24442.07
2021-22	27965.71	13364.65	34908.73	6675.17	18668.02

Source- Reserve Bank of India Database



**Graph-1**

**Interpretation**

As shown in table 1 and its graphical representation in Graph 1, it shows details of Net Non-Performing assets of 5 different Public sector banks for consecutive 5 years from 2017-2018 to 2021-2022. It shows shuttle changes in all banks in different point of time.

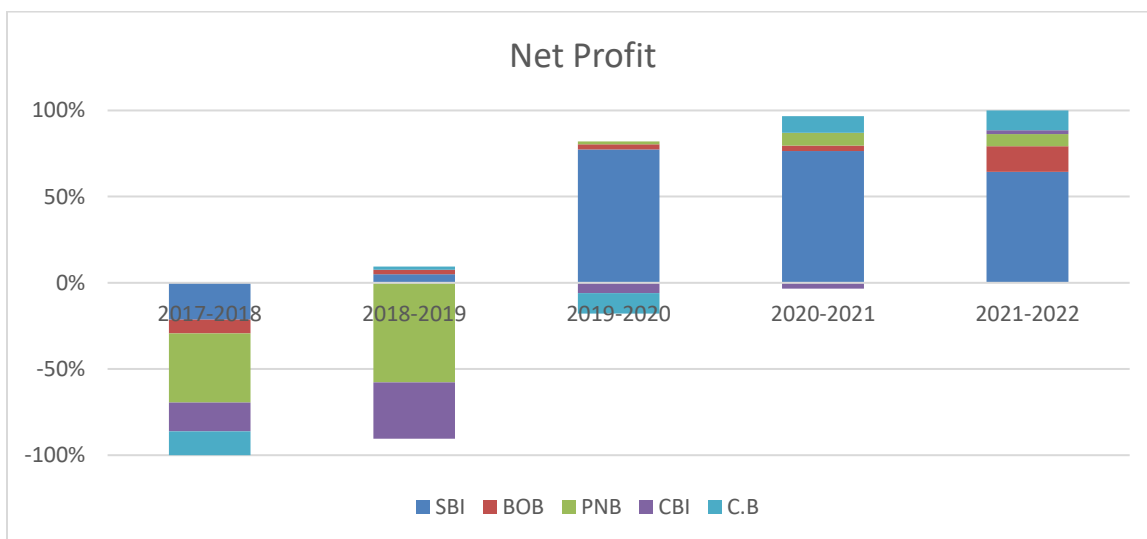
**Net Profit**

**Table-2**

In crore (Rs)

Years	SBI	BOB	PNB	CBI	C.B
2017-18	-6547.45	-2431.81	-12282.82	-5104.91	-4222.24
2018-19	862.23	433.52	-9975.49	-5641.48	347.02
2019-20	14488.11	546.18	336.19	-1121.35	-2235.72
2020-21	20410.47	828.95	2021.62	-887.58	2557.58
2021-22	31676.98	7272.28	3456.96	1044.83	5678.42

Source- Reserve Bank of India Database



**Graph-2**

**Interpretation**

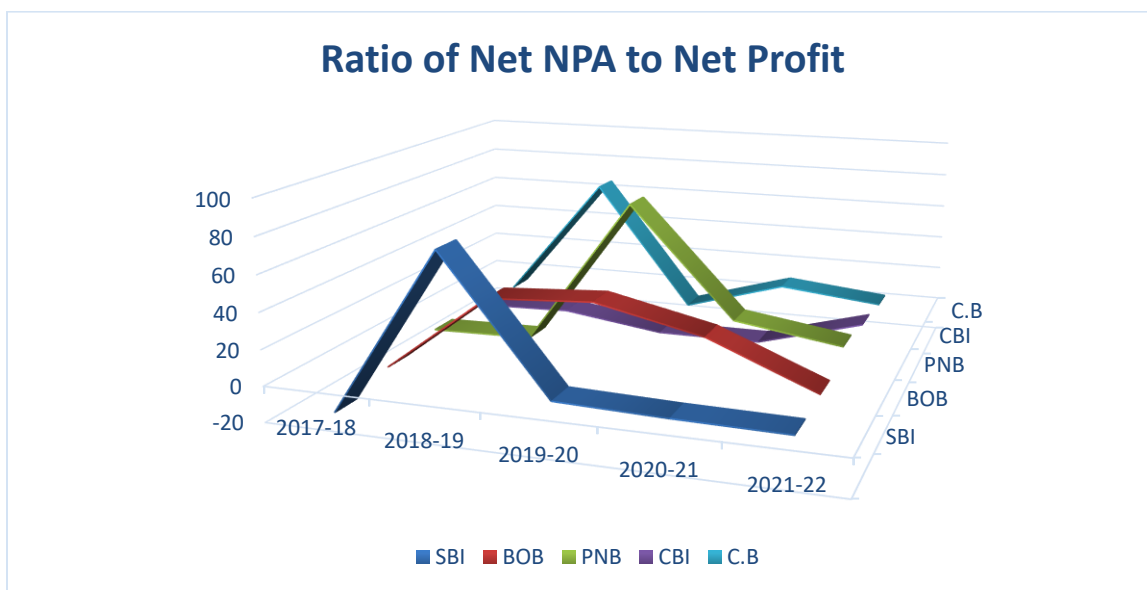
As shown in table 2 and its graphical representation in Graph 2, it shows details of Net Profit of 5 different Public sector banks for consecutive 5 years from 2017-2018 to 2021-2022. It is visible that changes in Net Profit were declined at some point but gradually were regained to some extent.

**Ratio of Net NPA to Net Profit**

**Table-3**

Years	In crore (Rs)				
	SBI	BOB	PNB	CBI	C.B
2017-18	-16.93	-9.65	-3.96	-3.40	-6.76
2018-19	76.42	36.00	-3.01	-2.00	66.14
2019-20	3.58	39.50	80.96	-10.28	-8.16
2020-21	1.80	26.29	19.08	-10.18	9.55
2021-22	0.88	1.83	10.09	6.38	3.28

Source- Reserve Bank of India Database



**Graph-3**

**Statistical Analysis:-**

**H<sub>0</sub>**:- There is no significant different in the norms with respect to Net Non-Performing Asset to Net Profit among all the selected public sector banks.

**H<sub>1</sub>**:- There is significant different in the norms with respect to Net Non-Performing Asset to Net Profit among all the selected public sector banks.



**Table-4**

<b>“F” – Test One Way ANOVA for Ratio Net Non-Performance Asset to Net Profit for Selected Public Sector Banks of India</b>					
<b>Source of Variation</b>	<b>Sum of Square</b>	<b>Degree of Freedom</b>	<b>Mean Sum of Square</b>	<b>F<sub>c</sub></b>	<b>F<sub>t</sub></b>
S.S between	1879.5	k-1 5-1=4	469.87	0.58	F(4,20)=2.87
S.S Within	16032.47	n-k 25-5=20	801.64		
S.S for total variance	17912.47				

Since the calculated value of F is 0.58 which is less than table value of F 2.87 at 5% level with degree of freedom being  $V_1=4$  and  $V_2=20$ .

$$F_c < F_t$$

Hence, null hypothesis is accepted and conclude that there is no significant adverse effect due to Net NPA on Net Profitability of Public Sector Banks during Covid-19.

### **Conclusion:**

In the present research work performance of public sector banks were compared. For this, five banks for public sector were selected randomly. Data related to this work was obtained from published annual reports of respective banks at Reserve Bank of India. These data were taken for the period of 05 years i.e., from 2017 to 2022. During the Pandemic period of COVID-19 the credit off take of bank loans & advances and the recovery of loans seems to be declined due to lack of momentum in the economy. But the Empirical study suggests that the major Public sector Banks have shown resilience and they have been able to recover NPA to prove that their fundamentals are very strong and they need to work hard to face any such Pandemic in future.

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