



A STUDY ON NON-PERFORMING ASSETS IN SELECTED PUBLIC SECTOR BANKS IN INDIA

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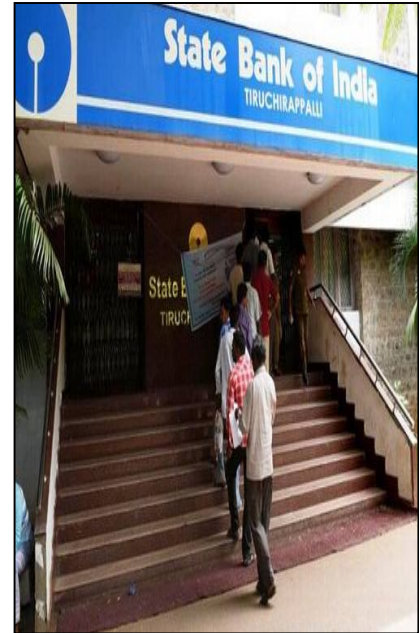
ABSTRACT:

The NPA is one of the biggest problems that the Banks are facing today. If the proper management of the NPAs is not undertaken it would hamper the business of the banks. If the concept of NPAs is taken very lightly it would be dangerous for the whole banking sector. The NPAs would destroy the current profit, interest income and would affect the smooth functioning of the recycling of the funds. The main objectives of this study are to analyse the trend of NPAs in selected public sector banks and to know its impacts on profitability of selected public sector banks in India. In this research paper five public sector banks namely Corporation bank, Punjab National Bank (PNB), Bank of India (BOI), Indian Overseas Bank (IOB), and Andhra Bank are selected for the purpose of the study. The time period of the present study is 10 year i.e. from 2007 to 2016. The present study is based on secondary data and has been analysed through descriptive statistics such as Mean, Standard deviation CAGR etc. and simple linear regression using SPSS software. The present study reveals that there is increasing trends of NPAs in selected public sector banks in India. And the result of regression analysis indicates that there is significant impacts of NPAs on ROA and ROE of selected public sector banks in India.

KEYWORDS : *Non-Performing Assets, Public Sector Banks, Profitability, Descriptive Statistics Simple Linear Regression etc.*

➤ INTRODUCTION:

It has been argued by a number of economists that a well-developed financial system enables smooth flow of savings and investments and hence, supports economic growth (see King and Levine, 1993, Goldsmith, 1969). Banking industry is a major sector of the economy that has achieved renewed focus after financial sector reforms and the entry of private sector banks. This sector is the foundation of modern economic development. The primary function of banks is to lend funds as loans to various sectors such as agriculture, industry, personal and housing etc. and to receive deposits. Receiving deposit involves no risk, since it is the banker who owes a



duty to repay the deposit, whenever it is demanded. On the other hand lending always involves much risk because there is no certainty of repayment. In recent times the banks have become very careful in extending loans, the reason being rising non-performing assets. Non-performing assets had been the single largest cause of frustration of the banking sector of India. Amongst the various desirable characteristics of a well-functioning financial system, the maintenance of a few non-performing assets (NPA) is an important one.

➤ **CONCEPT OF NPA:**

A Non-Performing Asset (NPA) is defined as a credit facility in respect of which the interest and/or instalment of principal has remained „past due□ for a specified period of time. In India, the definition of NPAs has changed over time. According to the Narasimham Committee Report (1991), those assets (advances, bills discounted, overdrafts, cash credit etc.) for which the interest and/or instalment of principal remains due for a period of four quarters (180 days) should be considered as NPAs. With an aim of moving towards the international best practices and ensuring greater transparency, a standard criterion of ‘90 days’ overdue norm was fixed for identification of NPA from the FY ending March, 2004 in the Indian financial system. Thus, as per present convention, a non-performing asset refers to a loan or an advance where:

- Interest and/or instalment of principal remain overdue for a period of more than 90 days in respect of a term loan,
- The account remains ‘out of order’ for a period of more than 90 days, in respect of an overdraft/cash credit (od/cc),
- The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted,
- Interest and/or instalment of principal remains overdue for two harvest seasons but for a period not exceeding two half years in the case of an advance granted for agricultural purposes, and
- Any amount to be received remains overdue for a period of more than 90 days in respect of other account.

➤ **Classification of NPAs:**

a) Substandard Assets:

With effect from 31 March 2005, a sub-standard asset would be one, which has remained NPA for a period less than or equal to 12 months. In such cases, the current net worth of the borrower/ guarantor or the current market value of the security charged is not enough to ensure recovery of the dues to the banks in full. In other words, such an asset will have well defined credit weaknesses that jeopardise the liquidation of the debt and are characterised by the distinct possibility that the banks will sustain some loss, if deficiencies are not corrected.

b) Doubtful Assets:

With effect from March 31, 2005, an asset would be classified as doubtful if it has remained in the sub-standard category for a period of 12 months. A loan classified as doubtful has all the weaknesses inherent in assets that were classified as sub-standard, with the added characteristic that the weaknesses make collection or liquidation in full, – on the basis of currently known facts, conditions and values – highly questionable and improbable.

c) Loss Assets:

A loss asset is one where loss has been identified by the bank or internal or external auditors or the RBI inspection but the amount has not been written off wholly. In other words, such an asset is considered

uncollectible and of such little value that its continuance as a bankable asset is not warranted although there may be some salvage or recovery value.

➤ LITERATURE REVIEWS:

- **Narula and Singla (2014)** evaluate the non – performing assets of Punjab National Bank and its impact on profitability & to see the relation between total advances, Net Profits, Gross & Net NPA. The study uses the annual reports of Punjab National Bank for the period of six years from 2006-07 to 2011-12. These papers conclude that there is a positive relation between Net Profits and NPA of PNB. It is because of the mismanagement on the side of bank.
- **Srinivas K T (2013)** emphasis on identify the Non-performing assets at Commercial banks in India. This paper highlights the various general reasons which convert advances/ assets into NPA and also give suitable suggestion on findings to overcome the mentioned problem.
- **Olekar and Talawar (2012)** studied NPA management with reference to Karnatak central cooperative bank ltd., where they described conceptual data about NPA and on the other hand, they calculated few NPA related ratios and used trend projection method to predict next year advances for the bank. Their finding includes the considerable reduction of NPA for the bank and some suggestions for recovery of NPA.
- **Kaur and Saddy (2011)** in the research paper entitled “A Comparative Study of Non-Performing Assets of Public and Private Sector Banks” an attempt is made to clarify the concept of NPA, the factors contributing to NPAs, the magnitude of NPAs, reasons for high NPAs and their impact on Indian banking operations. Besides capital to risk weight age assets ratio of Public and Private sector banks, management of credit risk and measures to control the threat of NPAs are also discussed.
- **Suresh Kumar (2014)** the present study mainly aims at examining the impact of NPAs on profitability of banks and to find out trend of NPAs of banks in India. Trend analysis has been conducted to find out the trends of NPAs of banks in India. The study indicates that The NPAs have adverse impact over Return on Assets (ROA) and Capital Adequacy Ratio (CAR) of banks; therefore NPAs have always been a big worry for the banks in India. To improve the efficiency and profitability, the NPAs have to be controlled. It also indicates that the extent of NPAs is comparatively higher in Public Sector Banks than in Private sector banks.

➤ RESEARCH METHODOLOGY:

❖ Objectives:

- To understand the concept and types of NPAs.
- To analyse the trends of NPAs in selected public sector banks in India.
- To analyse the impacts of NPAs on profitability i.e. ROA and ROE of selected public sector banks in India.
- To make appropriate suggestions to avoid future NPAs.

❖ Universe and Sample:

The universe consists of public sector banks in India. Following five leading public sector banks has been selected for the purpose of the study.

Corporation Bank, Punjab National Bank, Bank of India, Indian Overseas Bank, Andhra Bank.

❖ Time Period:

The present study is based on time series for all selected banks in India for a period of 10 years from the year March ended 2007 to March ended 2016.

❖ Tools and Technique:

The data has been analysed through statistical techniques like descriptive statistics and Simple linear Regression.

• Descriptive Statistics:

In order to examine the trends of NPAs various statistical tools like mean, SD, CAGR etc. has been used. The rank has been assigned as per the mean of 10 years. The bank which has lowest average is given first rank and vice-versa.

• Simple Linear Regression:

In order to know whether there is significant impacts of non-performing assets (NPAs) on profitability of selected banks simple linear regression has been applied using SPSS software. Two models have been adopted to check relationship between non-performing assets and profitability.

○ Model: 1

Model one return on asset as dependent variable while non-performing assets as independent variable.

$$ROA_{it} = NPA_{it} + \epsilon_{it}$$

○ Model: 2

Model two represents return on equity as dependent variable while non-performing assets as independent variable.

$$ROE_{it} = NPA_{it} + \epsilon_{it}$$

Where ϵ_{it} = Errors

❖ Source of Data:

The present study is based on Secondary Data. The data has been collected from the various sources like journals, annual reports of the banks, websites of the banks and reports published by Reserve Bank of India.

❖ Hypothesis of the Study:

a) **H0**: There is no significant impacts of NPAs on ROA i.e. $H_0 = ROA = 0$.

H1: There is significant impacts of NPAs on ROA i.e. $H_1 = ROA \neq 0$.

b) **H0**: There is no significant impacts of NPAs on ROE i.e. $H_0 = ROE = 0$.

H1: There is significant impacts of NPAs on ROE i.e. $H_1 = ROE \neq 0$.

➤ **Data Analysis and Interpretation:**

❖ **Gross NPA Ratio and Descriptive Statistics and Ranks of Selected Public Sector Banks:**

Year Bank	06- 07	07- 08	08- 09	09- 10	10- 11	11- 12	12- 13	13- 14	14- 15	15- 16	Mean	SD	CAGR	Rank
Corpor ation	2.05	1.47	1.14	1.02	0.91	1.26	1.72	3.42	4.81	9.98	2.78	2.82	17.15	1
PNB	3.51	2.74	1.77	1.71	1.79	2.93	4.27	5.25	6.55	12.9	4.34	3.40	13.90	4
IOB	2.34	1.63	2.54	4.47	2.72	2.74	4.02	4.98	8.33	17.4	5.12	4.72	22.22	5
BOI	2.42	1.68	1.71	2.85	2.23	2.34	2.99	3.15	5.4	13.0 7	3.78	3.43	18.37	3
Andhra	1.41	1.08	0.83	0.86	1.38	2.12	3.71	5.29	5.31	8.39	3.04	2.56	19.52	2

The above table shows the gross NPA ratio of selected nationalised banks for last ten years with necessary statistics like Mean, Standard Deviation and growth rate of NPAs via CAGR. From the above table it is seen that gross NPA of selected nationalised bank generally shows upward trend with varying growth. The compound annual growth rate of banks under study is in the range of 13.90 to 22.22. As per the mean which is representative of a group of data, banks are ranked in ascending order. The reason for ranking them in ascending order is from the interpretation of NPA that better the performance, lower the ratio and vice versa. From the above table it is found that the Corporation bank is ranked first as it was able to manage lowest mean GNPA ratio of 2.78 percent followed by Andhra bank at second position with mean GNPA ratio of 3.04 percent and BOI by third rank. PNB and IOB got lowest rank 4th and 5th with a mean ratio of 4.34 and 5.12 respectively.

● **Net NPA Ratio, Descriptive Statistics and CAGR of Selected Public Sector Banks:**

Year Bank	06- 07	07- 08	08- 09	09- 10	10- 11	11- 12	12- 13	13- 14	14- 15	15- 16	Mean	SD	CAGR	Rank
Corpor ation	0.47	0.32	0.29	0.31	0.46	0.87	1.19	2.32	3.08	6.53	1.58	1.98	30.10	2
PNB	0.76	0.64	0.17	0.53	0.85	1.52	2.35	2.85	4.06	8.61	2.23	2.55	27.47	4
IOB	0.55	0.6	1.33	2.52	1.19	1.35	2.5	3.2	5.68	11.8 9	3.08	3.45	35.98	5
BOI	0.75	0.52	0.44	1.31	0.91	1.47	2.06	2	3.36	7.79	2.06	2.20	26.37	3
Andhra	0.17	0.15	0.18	0.17	0.38	0.91	2.45	3.11	2.93	4.61	1.51	1.63	39.10	1

The above table displays net NPA ratio, Mean, SD and CAGR of selected public sector banks. This is the actual burden on the shoulders of bank and calculated by deducting necessary provisions from the gross nonperforming assets of bank. From the analysis of above table it is inferred that net NPA of nationalised banks is close vigilance and control in most of the banks by maintaining sufficient level and of provisions to counter balance the decrease in the quality of assets. The bank of India is having lowest CAGR of 26.37% and Andhra bank is having highest CAGR of 39.10%. The ranking of banks is done on the basis of mean for last ten years and ranking is done in ascending order i.e. lower the average better the rank. Andhra bank, Corporation bank and Bank of India got first, second and third rank respectively with their lowest mean for ten years and PNB and IOB got 4th and 5th rank respectively.

❖ **Simple Linear Regression:**

Model 1;

Variable	β	Sig.
(Constant)	1.079	0.00
NPA	-6.906E-5*	0.00
R Square	0.649	
F stat	88.767*	
Sig.	0.00	

➤ **Estimated Model:**

$ROA = 1.079 - 0.00006906NPA$

The above table shows the regression analysis of model 1. It is seen that there is negative impact of NPA on ROA. From the estimated model it can be said that there is very less contribution of NPA in ROA. The value of R Square is 0.649 which indicates that 64.9% variation in ROA is explained by the independent variable and hence the model is said to be good model. The significant value is 0.00 which is less than level of significance i.e. $\alpha=0.05$. That means the null hypothesis is rejected which indicates the Non-performing assets have significant impacts on ROA.

Model 2:

Variable	β	Sig.
(Constant)	17.540	0.00
NPA	-0.001*	0.00
R Square	0.378	
F stat	29.139*	
Sig	0.00	

➤ **Estimated Model:**

$ROE = 17.540 - 0.001NPA$

The above table shows the regression analysis of model 2. It is seen that there is negative significant impact of NPA on ROE. The value of R Square is 0.378 that means 37.8% variation in ROE is explained by independent variable and hence the model is to be considered as poor model. In the above table the significant

value is 0.00 which is less than the level of significance i.e. $\alpha=0.05$. That means the null hypothesis is rejected. So it can be said that there is significant impacts of NPAs on ROE.

➤ **FINDINGS:**

- The Gross NPA and Net NPA ratio of selected public banks shows rising trends during the period of study.
- From the result of descriptive statistics it can be seen that the average of gross NPA ratio of Corporation bank is highest so it is ranked first while, IOB has lowest average of gross NPA ratio.
- Similarly, Andhra bank has highest average of net NPA ratio so it is given first rank while, IOB has lowest average of net NPA ratio so it is given last rank.
- The result of regression analysis shows that there is significant impacts of NPAs on ROA and ROE of selected public sector banks.

➤ **SUGGESTIONS:**

- RBI should revise existing credit appraisals and monitoring systems.
- Banks should improve upon and strengthen the loan recovery methods.
- Credit appraisal and post –loan monitoring are crucial steps which need to concentrate by all the public sector banks.
- Personal visits should be made after sanction and disbursal of credit and further close monitoring of the operations of the accounts of borrowed units should be done periodically.
- Frequent discussions with the staff in the branch and taking their suggestions for recovery of dues.

➤ **CONCLUSION:**

The Non-Performing Assets have always created a big problem for the banks in India. It is just not only problem for the banks but for the economy too. This study shows that there is increasing trends of NPAs in public sector banks. The study also reveals that there is significant impacts of NPAs on profitability of selected banks. Although various steps have been taken by government to reduce the NPAs but still a lot needs to be done to curb this problem. The NPAs level of our banks is still high as compared to the foreign banks. It is not at all possible to have zero NPAs. The bank management should speed up the recovery process. The government should also make more provisions for faster settlement of pending cases and also it should reduce the mandatory lending to priority sector as this is the major problem creating area. So the problem of NPA needs lots of serious efforts otherwise NPAs will keep killing the profitability of banks which is not good for the growing Indian economy at all.

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