



IJMRRS

**International Journal for Multidisciplinary
Research, Review and Studies**

ISSN: 3049-124X (Online)

Volume 1 - Issue 3

2024

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“AN EMPIRICAL ANALYSIS OF TOXIC ASSETS, SHRINKING PROFITS IN VIEW OF NPA’S IMPACT ON BANK PROFITABILITY IN REFERENCE TO ICICI BANK”

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ABSTRACT

*The economy of any country is dependent upon the financial institutions to render different kind of services such as accepting deposits, providing loans, insurance to the businesses and consumers. No business can survive without financial institutions. It is important to maintain well-being of financial institutions for upliftment of economy. The major part of income of financial institutions or banks is generated from lending or providing credit to individuals or businesses. When the default in loan is made from consumers of bank and they are not able to pay it back they are termed Non-Performing Assets (NPA). The purpose of this study revolves around the functioning of the India’s largest private bank i.e., Industrial Credit and Investment Corporation of India (ICICI) by ascertaining its relationship between profitability and NPA. The private bank is taken for the study due to increasing privatisation in the Indian economy. The type of research is **Analytical Research**, and this research is purely based on secondary data derived from the ICICI bank’s official website or RBI reports. To study the impact of NPA on profitability, the data of 10 years of ICICI bank is considered i.e., from FY2013- FY2023. The borrowers are asset for bank, but when they are unable to pay interest amount, they are considered as default and profit of banks suffers. Although banks make provisions against NPA, but still due to high asset size, it suffers higher loss which cannot be covered through provisions, therefore to measure this loss against profitability this research study is conducted.*

Keywords: Non- Performing Assets, Net NPA, Bank Profitability, ICICI Bank

I. INTRODUCTION

The banks which act as a backbone in the economy, facilitating various business transactions, providing business convenience in their activities by providing credit, providing cheque books, credit cards, debit cards, maintaining their deposits, insurance cover, and many such functions performed by them for businesses. Not only businesses but also provide different services to individuals as per their needs by advancing them loans, accepting deposits, implementation of various schemes made by government, and maintaining different types

of accounts like fixed deposits or recurring deposits. The study focuses on the ICICI bank profitability and what is the impact of Non-Performing Assets (NPA) on it. This research suggests the measures which can be taken to control NPAs in banks and what is the value of NPA and profitability of ICICI banks and observe that whether the value of NPA is declining or rising and what are the other factors which affect profitability of banks. The data which will be measured will help us study cause and effect relationship of NPA on ICICI banks.

There are numerous study which measure the impact of NPAs on banks profitability, but this study focuses on the impact of NPA on profitability of ICICI bank. The ICICI bank was the first Indian company or financial institution from non-Japan Asia to be listed on New York Stock Exchange in 1999. Industrial Credit and Investment Corporation of India (ICICI) bank is a publicly listed company on Indian stock exchanges having Assets Under Management (AUM) worth ₹ 18,715.15 billion Standalone Total Assets as on March 31, 2024. This bank is taken under study to measure the impact of Non-Performing Assets (NPA) on the profitability. NPA refers to assets (borrowers) of bank who are unable to repay principal amount along with interest amount.

As per RBI norms, any bank or financial institution can consider an asset as NPA when the borrower has failed to repay the principal or interest amount for 90 days on more, because asset is ceased to be revenue for bank. To evaluate the impact or cause and effect relationship of NPA on profitability net NPA will be considered against Profit After Tax (PAT). This study will further help in suggesting measures towards controlling NPA. There are certain measures which have been implemented in banks like ascertaining credit score, Know Your Customer (KYC) and many such measures.

NPAs have considerable impact on growth of financial institutions which further impact the growth of economy. There are various studies which provide comparative analysis between banks to measure impact of NPA, but this research study focuses solely on ICICI bank profitability and growth, because ICICI is considered to be among largest private bank listed on stock exchange. As defaulters in business are treated as bad debts, in banks defaulters are treated as Non-Performing Assets.

II. LITERATURE REVIEW

Agarwal, R., & Talluri, V. (2022) focused on the comparative analysis between Indian Overseas Bank and ICICI Bank observing the data of last 5 years from 2016-2021 by analysing financial performance of both the banks considering economic shifts, technological advancements, regulatory changes and performing ratio analysis on the data.

Ahmad, I., & Khan, N. (2019) in their research in comparative analysis of private and public sector banks in reference to SBI and ICICI compared that NPA increases at higher rate in both the banks using independent sample t-test and suggests to follow proper lending practices to control NPA, as this issue can lead to exploitation.

Kharche, N. R., & Gupta, U. (2023) observed in their research study that Bank of Maharashtra and ICICI bank used descriptive analysis including chi-square test represented a declining trend in gross NPA percentage 2018 onwards which show improvement in asset quality of banks, by performing correlation on secondary data of both the banks, further identifying the cause of increasing NPA and suggesting the measures to manage them.

Mohan, M., & Rao, K. S. (2021) stated that the performance of private sector banks is better than public sector banks in terms of gross profit ratio, net return on total assets, interest income to total assets and certain key performance indicators, and suggest that bank should try to improve their operational efficiency and cut down their costs.

Ms. Eshita Sahu et al. (2023) in their study on Analysis of Insurance Sector in India highlighted the importance of financial system in an economy and how the service sector creates a major difference in the growth of economy and concluded why is it important to have an efficient financial system.

Raj, K., et al. (2024, February) explored in their study effective measures to prevent turning of loans into Non-Performing Assets and highlighted the impact of NPA on bank return and its overall impact on banking industry and inferred that NPAs act as an impediment in the smooth activities of banks and the need to control them.

Ramu, M. D., Swathi, M. M., & Prakash, C. (2024) in their comparative study between ICICI bank and HDFC bank on management of NPAs applied Ratio Analysis to the secondary data and concluded that HDFC Bank have low gross and net NPA as compared to ICICI bank, further having efficient management of NPAs compared to ICICI bank, thereby suggesting ICICI bank to work on their asset management and risks associated with them.

Totla, M., Bhojwani, K., & Maurya, S. (2023) addressed certain measures and policies recommended by Government to control NPA and inferred that NPA have negative impact on key financial indicators like Return on Assets (ROA) leading to increased provisions for potential losses, Return on Capital Employed (ROCE) representing the efficiency of banks to provide fruitful returns on capital invested can erode capital base and lead to potential losses due to NPAs.

Valecha, M. (2021) in their comparative study between Bank of Baroda and ICICI bank inferred using ratio analysis that ICICI bank have higher Earning Per Share (EPS) in comparison to Bank of Baroda and further identifying that Bank of Baroda needs to increase its net worth and suggest to take measures to increase their revenue. It was concluded that both the banks are maintaining equitable standards and earning their profits and further observed that performance of ICICI Bank is better than Bank of Baroda.

III. RESEARCH METHODOLOGY

A. Problem Statement

This study is focused on measuring the impact of Non-Performing Assets on profitability of ICICI bank, a largest private bank. By this study, the cause-and-effect relationship will be discovered between NPA and profit after tax. Large amount of NPAs slower the growth in economy as economy is dependent on financial institutions for different services, and restrict the ability of bank to provide credit to different needy entities. NPAs also reduce investor confidence in banks as NPA lead to decline in the value of company's stock thereby reducing capital investments. In case of absence of collateral, the banks are unable to recover the debt amount, which is the reason why banks undergo a strict process while advancing loans to borrowers. When the amount of NPAs is large then central bank i.e., Reserve Bank of India has to interfere to safeguard public sentiments and finance NPAs

B. Scope of the Study

This study studies the data of ICICI, one of the largest private banks in the world having large number of Assets Under Management (AUM) and fostering the growth of economy through its continuous innovation and process improvement. This study will observe the trend of NPA corresponding to the profit in last 10 years and will help the bank to make adjustment in policies and tighten the policies when providing loans. There are very few studies which have been done to study the NPA in ICICI bank, therefore this study will take into consideration the major obstacle in the banking journey i.e., NPA or Non- Performing Assets.

C. Type of Research

The study follows the Analytical type of research as it deals with the secondary data and involves the assessing of data and relevant information regarding NPA and Profit, which are the two key components determining success of the bank. The Analytical Research will help reaching towards a conclusion and supporting a hypothesis and determining the connection between the variables i.e., NPA (independent) and Profitability (dependent)

D. Objectives

1. To study the impact of NPA on profitability of ICICI Bank
2. To observe the trend or pattern of NPA over the years in the journey of ICICI Bank
3. To study the measures taken to control the NPA in the last 10 years

E. Data Collection

The data to ascertain the relationship between NPA and Profitability is collected from the official website of the ICICI Bank i.e., Secondary data is been used. The data is collected for the FY 2013-14 to FY 2023-24. The Net NPA and Profit After Tax (PAT) is taken in to consideration to assess the true value after all the deductions.

F. Hypothesis

HO1: There is no significant impact of NPA on profitability of ICICI bank

HA1: There is significant impact of NPA on profitability of ICICI bank

G. Analysis Technique

The primary objective of the study is to analyse the impact of NPA on the profitability of ICICI Bank. The methods used to study the cause-and-effect relationship of independent variable (NPA) on dependent variable (Profit) are Regression and Correlation.

The equation for regression is:

$$Y = a + bx + e$$

Where,

Y- Profit of ICICI bank, Dependent Variable

x- Independent Variable i.e., Non- Performing Assets (NPA)

b- Slope or coefficient of x

a- Intercept

e- Error term

H. Limitations of the Study

1. There are different elements controlling the profit of banks as Government policies, economic cycle, inefficient cash flow management and many such elements but NPA is only considered
2. The data is totally dependent on secondary sources; hence inaccuracy or unreliability of data may deviate the results and provide biased value.
3. There are different measures to calculate profitability but the profit after tax is only considered.
4. The true value might not be ascertained due to the data inaccuracy.

IV. ANALYSIS AND INTERPRETATION

To test the data collected from bank official website regression analysis and correlation is done to measure the relationship between the two variables i.e., Net NPA (independent) and Profit After Tax (dependent). The data collected is from FY 2013-14 to FY 2023-24.

Below is the table containing the data which was fetched from the bank's official website:

FINANCIAL YEAR	NET NPA (₹ in billion)	PAT (₹ in billion)
2013-14	33.01	83.25
2014-15	63.25	98.1
2015-16	132.97	111.75
2016-17	254.51	97.26
2017-18	278.86	98.01
2018-19	135.77	67.77
2019-20	101.14	33.63
2020-21	91.8	79.31
2021-22	69.61	161.93
2022-23	51.55	233.39
2023-24	53.78	318.96

Table 1 Net NPA and PAT of last 10 years from FY 2013 to FY 2023

The following trend is observed in Net NPA and PAT using the Line Chart

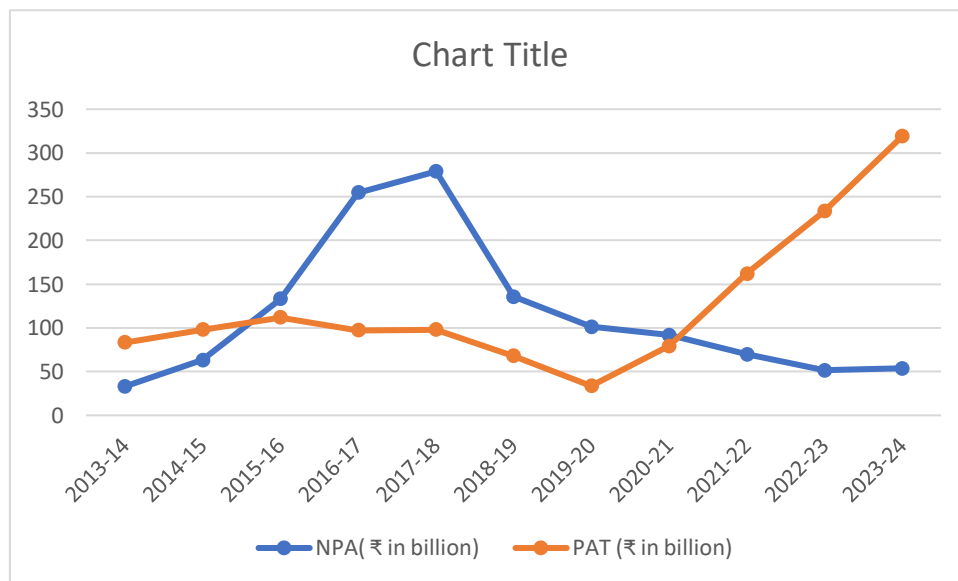


Figure 1 showing trend of Net NPA and PAT over the last 10 years

Figure 1 shows the rising trend of PAT after FY 2020-21 and the declining trend of Net NPA from FY 2017-18, the change in the trend might be due to strict regulations and control over default payments and modifying the lending policies.

Following are the results obtained after applying Regression Analysis to the above data

Regression Statistics	
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Multiple R	0.339327195
R Square	0.115142946
Adjusted R Square	0.016825495
Standard Error	82.11212878
Observations	11

Table 2 showing Regression Statistics

R square shows the 11.5% variation in the Profit which is explained by the Net NPA in the above regression mode

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	7896.258	7896.258	1.171134	0.307309771
Residual	9	60681.62	6742.402		
Total	10	68577.87			

Table 3 showing regression and residual value

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	165.2689949	44.11131	3.746635	0.004578	65.4822767	265.0557	65.48228	265.0557
NPA(₹ in billion)	-0.34321733	0.317151	-1.08219	0.30731	-1.060662339	0.374228	-1.06066	0.374228

Table 4 showing p-value and t stat

To test the value of p, the equal variance is derived and the value of p at significance level 5% is ascertained and $p > 0.05$ i.e., 0.31 (Table 4), hence alternate hypothesis i.e., H_A1 is rejected and null hypothesis H_O1 is accepted stating there is no significant impact of NPA on profitability of ICICI bank, which concludes that statistically there is no significant relationship between NPA and profitability. The data is totally dependent on the accuracy of data on the official websites from which it is collected.

Following are the results obtained after applying Correlation Analysis to the data

<i>z</i>	<i>NPA (₹ in billion)</i>	<i>PAT (₹ in billion)</i>
NPA (₹ in billion)	1	
PAT (₹ in billion)	-0.339327195	1

Table 5 showing the correlation between the two variables i.e., NPA and PAT

Table 5 shows negative or inverse relationship between NPA and PAT i.e., -0.339 which concludes that both the variables are inversely proportional to each other i.e., increase in one variable cause decrease in another variable and vice-versa. Increase in NPA will result in decrease in Profit and decrease in NPA will result in increase in Profit.

V. FINDINGS AND SUGGESTIONS

- 1) The above data analysis concluded that NPA and Profit are inversely proportional to each other i.e., decrease in one variable cause increase in other and vice-versa.
- 2) The regression analysis provided that there is no significant impact of NPA on Profit or we can interpret that statistically the two variables, PAT and NPA are not related to each other.
- 3) The rejection of null hypothesis may be due to the reason of inaccuracy of data which was collected from the secondary data.
- 4) It was observed through the line chart that Profit follows increasing trend and NPA follow diminishing trend which may be due to implementation of measures to control the default payments.
- 5) It is important to note that ICICI bank must keep a check on the quality of assets which further governs the revenue and growth of the bank.
- 6) There are certain measures taken by banks to control the quality of assets such as checking of credit score, effective credit monitoring, high emphasis on past behaviour of borrowers and many such measures.

VI. CONCLUSION

Financial Services play a key role in an economy and the major part of it is constituted by the banks, as banks perform all the necessary functions required to an individual, professionals or businessmen. The growth of bank is majorly affected due to NPA which shows the default in payment made by borrowers. ICICI Bank is taken for the purpose to study the relationship between NPA and Profit as ICICI bank have huge amount of assets which facilitate the study to ensure quality assets.

The study used regression analysis and correlation method to study the dependence of profit on NPA and to identify the significant relationship between NPA and Profitability. The research showed the trend of last 10 years and it was observed that profit showed the increasing trend in the recent years which is a good sign of well-being of the bank determining the good financial health and better policies implemented in the recent years. Therefore, bank must always consider credit profile of a customer before offering any type of loan and banks must keep modifying their regulatory policies to control NPA.

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