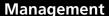
# **Original Research Paper**





# An Analytical Study on Non-Performing Assets in Indian Commercial Banks Using Cramel Model

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In the light of increasing NPAs, banks tend to lower the interest rates on deposits on one hand and likely to higher interest rates on loans to sustain NIM. This may become hurdle in smooth financial flow and hampers banks' business as well as economic growth. Performance of a bank receives a big blow, image get shattered because of NPA ratio above standard which leads to adverse comments by investors, auditors and inspectors. It de-motivates the staff and creates investor apathy and shakes the customer's loyalty. As a result, productivity and other strategic banking variables also receive serious setback. This study uses the CRAMEL model to evaluate the performance of Indian Public and private sector banks in context of NPA. Sample include 26 Public and 21 Private sector banks and covers a period of five years from 2010 - 2011 to 2014-2015. Results reveals that the private sector banks have a good position compared to the public sector banks.

# **KEYWORDS**

NPA, CRAMEL Model, Public and private sector banks

#### Introduction

In India due to the objective of social banking, the problem of bad loans did not receive priority from policy makers initially. However, with the financial reforms and the adoption of international banking practices the issue of NPAs received due focus. NPAs have dampening effect on banking system since long, though they were not in the public domain till early 90s. Thus, in India, the concept of NPA came into the computation after reforms in the financial sector were introduced since the recommendations of the Report of the Committee on the Financial System (Narasimham, 1991).

A Non-Performing Asset is an advance where payment of interest or repayment of installment on principal or both remains unpaid for a period of two quarters or more and if they have become "past due". (RBI Bulletin, 2006). An amount under any of the credit facilities is to be treated as past due when it remains unpaid for 30 days beyond due date. A loan is an asset for a bank as the interest payments and the repayment of the principal create a stream of cash flows. It is from the interest payments that a bank makes its profits. Banks usually treat assets as Non-Performing if they are not serviced for some time.

## **Literature Review**

Bodla and Verma (2006) analyzed the impact of a few banking variables including NPA on profitability in PSBs in India and brought out that the explanatory power of some variables Sharma (2005) made an attempt to suggests different preventive and curative measures to control NPAs in PSBs and urged that efficient legal framework, improvement in credit appraisal and monitoring skills of banks backed by strong political will can enable the Indian banks to tackle the burning issue. Gopalakrishnan (2006) examined the impact of NPAs on various micro and macro-economic variables. Manish Kapoor (2014) analyzed the impact of NPAs on the operations of the Banks and to evaluate the comparative ratios of the banks. Ashis Satpathy, Samir Ranjan Behera and Sabat Kumar Digal (2015) attempted to study the current problem that Indian banking system is facing—Non-Performing Assets (NPAs) and found the significant impact on the bad assets levels of public sector banks, while private sector banks are immune to some of these factors.

#### Objectives of the study

- To study and compare the Indian public and Private sector banks in the context of NPA management.
- To suggest the measures to manage NPA's in the bank effectively.

# Research methodology

The banks chosen for the study are 26 Public and 21 Private sector banks and covers a period of five years from 2010 -2011 to 2014-2015. In order to analyze the impact of NPAs following tools are used

- Measure of central tendency
- Regression
- Factor analysis

# Findings and suggestions Capital Adequacy position

Capital adequacy position of both public and private sector banks were moderate. The Debt equity ratio of private sector is low compared to the public sector bank which indicates that the creditors have more protection in private sector banks. The compounded annual growth rate (CAGR) of all the ratios was fluctuating. The ratios namely advances to assets, government securities to assets, government to investment assets showed a positive growth rate and return on equity, capital adequacy ratio and debt equity ratio shown a negative growth rate for the public sector banks. The return on equity is high in the private sector banks, which implies that the private banks have earning through equity than the public sector banks. The private sector banks did shown a positive growth rate, but it is not satisfactory. The private sector banks have a better capital adequacy position compared to the public sector banks.

## Resources deployed

The analysis states that the investment that are locked up as assets are more in private sector. The private sector banks have higher return on other assets and they utilize the other assets more efficiently compared to the public sector banks. The cost of deposit does not show much difference in the public and private sector banks. The ratios that are analyzed to study the resource deployed shows a negative growth rate.

#### Asset quality management

From the analysis it is found that the return on the advances that are locked up in assets are higher in the private sector banks compared to the public sector banks. The net NPA to advances is low in case of private sector compared to the public sector banks, which implies the percentage of NPA to advances is low in private sector banks. And the analysis shows that the private sector has more interest income compared to the public sector.

#### Management efficiency

Management efficiency of the public sector and private sector banks are analyzed by few ratios, which includes the profit per employee and branch, business per employee and branch, intermediation cost and net worth to assets. The business per employee and profit per employee of both the banks are same. But business per branch shows a greater difference. The private sector banks show a greater profit compared to the public sector. However, the intermediation cost is less in the public sector banks, which is a good sign. The growth rate of the public sector banks are satisfactory compared to the private sector.

#### Earnings / profitability ratio

While analyzing the earnings or profitability position of the banks, both the banks shows positive results. But the performance of the private sector banks is more satisfactory. The interest earned, the return on assets and the operating profit are higher in case of private sectors compared to the public sector banks. Taking the growth rate, the private sector banks have a positive growth and the profitability position is high, whereas the public sector banks show a negative growth rate.

#### Liquidity ratio

The ratios that show the liquidity position are taken for analysis and it is inferred that the term demand deposits of public banks is higher compared to the private sector banks. The total deposits that are available for the bank as liquid assets are more in case of public sector banks. In case of demand deposits the private sector banks have higher amount of demand deposits, which shows the bank's ability to meet the demand of depositors.

# Regression and factor analysis

The multiple regression analysis is done to find the linear relationship between two or more variables. In case of the public sector banks the significance value is 0.05 which is greater than the significance limit 0.01, and it shows that there is a significant relation between the NPA and the total profitability position of the banks whereas in the private sector banks the 'P' value is 0.07 which is also greater than 0.01. Thus there is a significant relation between the NPA and the profitability of the banks.

Further, factor analysis is carried to understand the performance of banks by splitting the available ratios into group knows as factors. The ratios are grouped under four factors. The first factor of the public sector banks have 13 ratios, Ratio of Advances to Assets, Ratio of Government securities to Assets, Capital Adequacy Ratio Tier-I, ratio of NPAs to Advances, Business per Employee to Assets, Business per Branch to Assets, Return on Net Worth to Assets, Ratio of Interest Income to Total Income, Term Deposits to Assets, liquid Assets to Assets, Provision and Contingencies to Assets, Demand Deposits to Assets, and Total Deposits to Assets.

And the second factor have ten ratios namely, Capital Adequacy Ratio, Investment to Assets, other Assets to Assets, Credit to Deposits Ratio, ratio of Fixed assets, Cost of Deposits, Return on Advances to Assets, Return on Investment to Assets, Ratio of Interest income, Ratio of Total Advances to Total assets.

The third factor has five ratios namely Return on Equity, Investment Deposit Ratio, and Profit per Employee to Assets, Operating Profit to Total Assets, and Return on Assets. The

fourth factor have Nine ratios Ratio of Government Securities to Investment Assets, Capital adequacy Ratio –Tier-I, Debt-Equity Ratio, Ratio of Priority advances to Advances, Intermediation Cost to Assets, Net Interest Income to Total Income, Burden to Total assets, Approved securities to Assets, and Cash Deposit to assets.

In private sector banks, the first factor has 15 ratios namely, Return on Equity, Ratio of Advances to Assets, Ratio of Government Securities to Assets, Ratio of Government Securities to investment Assets, Capital Adequacy ratio Tier- I, Credit to Deposit ratio, Investment Deposit Ratio, Cost of Deposits, Return on Advances to assets, Return on Investments to Assets, Ratio of Interest Income, Intermediation Cost to Assets, Ratio of Total advances to total deposits, Net Interest Income to Total Assets, and Return on Assets.

The second factor has seven ratios, Profit per Employee to Assets, return on Net Worth, Net interest Income to Total Income, Operating profit to Total Assets, Ratio of Interest Income to Total Income, Provisions and Contingencies to Assets, and total Deposits to Assets. The third factor has thirteen ratios namely, Capital adequacy ratio, capital Adequacy Ratio Tier- II, Debt- Equity Ratio, Other Assets to Assets, Ratio of Fixed Assets, Ratio of Priority Advances to Advances, Business per Employee to Assets, Business per Employee to Assets, Approved Securities to Assets, Term deposits to Assets, Liquid Assets to Assets, Cash Deposits to Assets, and Demand Deposits to Assets. The last factor has two ratios namely, Investment to Assets and ratio of NPA to advances.

#### Conclusion

Public sector banks have a greater liquidity position, and it has a good management position to manage the assets and liabilities. As the performance of the banks cannot be measured only by taking the liquidity and the management efficiency, it is important to consider the capital position, asset quality, resource deployment and profit earning capacity. Thus, by taking all the aspects, it is found that the private sector banks have a good position compared to the public sector banks.

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