Loan growth and its impact on Non-Performing Loans, and Bank Profitability- Understanding the trade-off: A study of the Indian Banking sector

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EXTENDED ABSTRACT

The last one and a half decade has been tough for the global economy which witnessed the global financial crisis (GFC) during 2008-2009. The aftereffects of the GFC could be seen in the balance sheets of financial institutions globally. Indian Banks are not different either. The Indian Banks suffered the delayed effects of GFC in 2014-15 when the apex bank of India, The Reserve Bank of India (RBI), decided to do a random Asset Quality Review (AQR) of the banks, suspecting that many banks were not strictly following the Income Recognition and Asset Classification (IRAC) norms. The AQR revealed a ton of bad loans hidden in the banks' balance sheets. The NPA ratio rose from 4.5 % to a staggering 7.5 % in 2016,9.3 % in 2017, and 11.2 % in 2018 in three years. The increased burden of bad loans brought a slowdown in loan growth.

The impact of increased NPLs on lending activities can be seen in the loan rate since 2016. The slowdown in lending activities continued for six to seven years; now, after a half-decade of balance sheet clean-up prompted by the RBI's AQR, Indian banks are back on track for increased loan growth. The loan growth has increased from 5.4 % and 6% in 2020-21 and 2019-20, respectively, to almost double in 2021-22 to 11.4 %. Bank loans are a very important and integral part of the income of the banks, and it is also a necessary impetus for economic activities; hence they cannot be put on hold for a long period. But it is also important to understand that bank loans always carry a certain amount of default risk. This default risk depends on economic and market conditions and the due diligence with which a loan is sanctioned. This default risk brings into the picture the trade-offs between loan growth, non-performing loans (NPLs), and bank profitability. Our study highlights the importance of understanding how loan growth can manifest increased interest income, which increases profitability but also carries a risk of increased NPLs, which proves detrimental to the bank's profits. The world economy is once again going towards a slowdown. The events starting in the U.S. banking industry indicate the beginning of a crisis that might have a global impact. Thus, the banks must understand the behaviour of these important variables and formulate a credit policy accordingly to minimize the risk.

We have taken a sample of 12 public sector banks and 17 private sector banks for our study. Financial ratios of these banks for the period 2006-2021 are used to perform the analysis. Growth in advances is used as an indicator of loan growth. Return on assets (ROA) and Ratio of Gross Non-Performing Assets to Gross Advance (GNPAtoGA) are used as indicators for profitability and NPLs, respectively. Also, some bank-specific and macroeconomic variables are added to our model as control variables. To overcome the endogeneity issues in the variables we have used the System Generalized Method of Moment (SYS-GMM) estimation as a first step to establish and understand the nature of the relationship between the variables. Next, we use structured equation modelling to establish a mediating role of the NPLs between the relationship of loan growth and profitability. The study's findings show a significant relationship between loan growth, NPLs, and profitability.

On one side, loan growth increases profitability but also NPLs, eventually decreasing profitability. We use quadratic terms of loan growth to test the nature of the relationship between loan growth and profitability and loan growth and NPLs. We find that loan growth has a U-shaped relationship with the NPLs and an inverse U-shaped relationship with the profit. The study result indicates moderate loan growth as a key to steady and stable growth of the banking industry in India. At the same time, we will study the simultaneous relationship between our variables of interest. We find that NPLs very significantly mediate the relationship between the two variables. The period of boom and recession is a part of the economic cycle. These different phases in the economic cycle affect the financials of all the businesses in the economy, which also affects the banking industry in a country. The major portion of this impact comes from the loans part of the bank. Excessive lending during the boom phase due to increased economic activities converts to bad loans in times of recession when it becomes difficult for the businesses to survive, let alone repay the bank loans. This study will help the bank's management to understand that although loan growth is beneficial for the bank, after a certain point the negatives start outweighing the positive impacts of the lending. The increased NPLs because of excessive lending put pressure on the banks' profits regarding increased provisioning. This research will help the banks formulate credit policy, keeping in mind the impact that it can have on NPLs and profitability. The issue of the simultaneous impact of loan growth on NPLs and profitability has not been studied in the Indian Banking sector. Also, this study adds to the present literature by studying the mediation effect of the NPLs on the loan growth and profitability relationship.

Keywords – Loan Growth, Non-Performing Loans, Profitability, Non – Linear relationships, Generalised Method of Moments, Structural Equation Modelling