

A STUDY OF SECTORIAL CREDIT GROWTH AND ITS IMPACT ON NON- PERFORMING ASSESTS IN THE BANKING SECTOR

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ABSTRACT

The banking sector is a key driver of economic growth by providing credit to various sectors of the economy, including agriculture, industry, services, and retail. Sectoral credit growth facilitates investment, employment generation, and overall economic development. However, excessive or inadequately monitored credit expansion may lead to an increase in loan defaults, resulting in the accumulation of Non-Performing Assets (NPAs), which adversely affect banks' profitability, liquidity, and financial stability. In recent years, the Indian banking sector has experienced fluctuations in both credit growth and asset quality, making it important to examine the relationship between sector-wise lending and NPAs. Examining how various sectors contribute to non-performing assets (NPA) is crucial because not every priority sector and sub-sector carries the same level of risk. This study focuses on the impact of sector-specific lending on non-performing assets (NPAs) in the priority sector. The researcher had examined the BANKEX constituents for four years (2020-2024). Statistical techniques such as descriptive statistics, correlation analysis, and multiple regression is used in data analysis. In the study it was found that agricultural lending, industrial lending, and personal lending all have a positive correlation to non-performing assets (NPA) in priority sectors, but service sector lending has a negative correlation to NPA. Industrial and service sector lending results are statistically significant. The study will provide useful insights for banks and policymakers in formulating prudent credit allocation strategies and improving the overall stability of the banking sector.

“Keywords: Sectoral credit growth, industrial non-performing assets, service non-performing assets, Bankex, financial stability.

1. INTRODUCTION

The banking sector plays a vital role in the economic development of a country by mobilizing savings and channelizing them into productive investments through credit. In India, banks provide financial assistance to various sectors of the economy, including agriculture, industry, services, and retail, thereby promoting economic growth, employment generation, infrastructure development, and entrepreneurship. Sectoral credit allocation is an important indicator of the banking system's contribution to national development, as it ensures that financial resources are directed towards priority and growth-oriented sectors. Over the years, the Indian banking sector has witnessed significant changes in credit growth due to financial sector reforms, technological advancements, changing regulatory frameworks, and government initiatives aimed at enhancing financial inclusion and economic development. Programmes such as priority sector lending, infrastructure financing, support for Micro, Small and Medium Enterprises (MSMEs), and retail credit expansion have contributed to substantial growth in bank lending across different sectors. While increased credit availability stimulates economic activity, rapid or imprudent credit expansion may also increase the risk of loan defaults if borrowers are unable to repay their obligations.

One of the major challenges confronting the banking sector is the rise in Non-Performing Assets (NPAs). An NPA is a loan or advance on which the borrower has failed to make interest or principal repayments for the period prescribed by the Reserve Bank of India (RBI). A high level of NPAs reduces banks' profitability, weakens liquidity, increases provisioning requirements, affects capital adequacy, and restricts the capacity of banks to extend fresh credit. Persistent growth in NPAs can also undermine public confidence and adversely affect the overall stability of the financial system. The relationship between sectoral credit growth and NPAs has become an important area of research because different sectors exhibit varying levels of credit risk. For instance, sectors such as industry and infrastructure have historically accounted for a significant share of stressed assets due to project delays, economic slowdowns, and financial mismanagement, whereas retail and personal loans have generally recorded comparatively lower default rates. Similarly, agriculture and MSME lending are influenced by factors such as climatic conditions, market fluctuations, and policy interventions. Understanding sector-wise credit performance is therefore essential for identifying risk-prone sectors and improving lending decisions.

In recent years, the Indian banking system has implemented several reforms to improve asset quality, including the enactment of the Insolvency and Bankruptcy Code (IBC), strengthening of prudential norms, the Asset Quality Review (AQR), recapitalisation of public sector banks, and enhanced credit monitoring mechanisms. These initiatives have contributed to a gradual improvement in asset quality; however, maintaining a balance between credit growth and credit quality remains a critical challenge for banks. Against this backdrop, the present study seeks to analyse the trend of sectoral credit growth and examine its impact on Non-Performing Assets in the Indian banking sector. The study is based on secondary data collected from reliable sources such as the Reserve Bank of India, government reports, bank annual reports, and published literature. By examining sector-wise credit trends and their association with NPAs, the study aims to provide valuable insights for bankers, policymakers, researchers, and regulators in designing effective credit policies, strengthening risk management practices, and ensuring sustainable growth of the banking sector.

2. REVIEW OF LITERATURE

Shabbir (2013) conducted a comparative examination of the small-scale industrial and agricultural advances given by the scheduled commercial banks and public sector banks. The study concentrated on the sectoral goals of banks for priority sector lending between 1996 and 2011. It was observed that the percentage of public sector banks in lending to small size industries was higher when compared to private banks. Private bank were lending less to direct credit than to indirect credit, throughout the research period indirect advances to the agriculture sector grew while direct advances fell. **Selvi (2014)** showed how scheduled commercial banks are increasingly financing to India's most important industries. According to the findings, scheduled commercial banks in India have performed well in lending to key sectors. The study was based on secondary data, and the researcher analysed and interpreted the data using various statistical methods including percentages, correlations, trend analyses, and growth rates exponential. **Arora (2015)** investigated between 2001 and 2013 the performance of public and private banks with relation to lending in the priority sectors. When comparing private and public sector banks, the percentage of NPAs in sector advances was higher in the former. These results were based on variables such the share of priority sector advances in total loans, sector-wise growth of priority sector advances, and sector-specific performance. **Goyal and Aggarwal (2016)** investigated the impact of priority sector lending on commercial banks' non-performing assets in India from 2001 to 2013. The study's primary goal was to determine the two-way impact of PSL on commercial banks' overall non-

performing assets. “The second goal was to determine the two-way impact on total NPA of the PSL of three sectors, namely agriculture, SSIs, and others. It was possible to meet the goals using a pooled regression model, panel regression model, and two-way fixed effect models. **Tamboli and Sharma (2018)** examined the lead bank's performance in Maharashtra's Ahmednagar district. The research focused on the role of the lead bank, which is to assess the available resources and possibilities for banking growth, look at the service for selling industrial and agricultural goods, and educate personnel to provide guidance to entrepreneurs and farmers in the key sectors. The study found that the district's lead bank serves as a link between banking and other development organizations, necessitating the creation of district credit plans for the district's appropriate growth and development. **Goel and Rastogi (2023)** aimed to develop psychological and behavioral credit scoring models for small- and medium-sized business owners in India. Based on the findings, the study suggested that financial institutions can quickly evaluate the credit worthiness by using specific psychological & behavioral factors thus, enhancing the competence of lending institutions in evaluating the borrowers of small and medium scale enterprises.

3. Research Methodology

The present study is descriptive and analytical in nature. It aims to examine the pattern of sectoral credit growth and analyze its impact on non performing assets (NPAs). The research is based on secondary data gleaned from sample bank annual reports. The analysis is based on a four-year time frame, from 2020 to 2024. The availability of balanced panel data prompted the use of such a short time frame. The collected data were analyzed using various statistical and analytical tools like, descriptive statistics; annual growth rate; trend analysis; correlation and regression analysis.

4. PROBLEM STATEMENT

Only a few commercial banks are prepared to deploy their funds wisely in the priority industry. Lower loan amounts and a higher default rate are two potential causes. Banks are currently required to give this specific industry 40% of their loans. There is a need to investigate how various sectors contribute to non-performing assets (NPA) because not all priority sector subsectors are equally harmful. To reduce risk, banks should diversify their interests across a variety of businesses. The banks will be able to change how they offer loans and collect debts by identifying the weaker segment. Authorities may therefore decide how much money should be lent in a particular area with greater knowledge.

5. OBJECTIVES OF THE STUDY

- To study the trend and growth of sectoral credit extended by banks to selected sectors.
- To examine the impact of sectoral credit growth on non performing assets (NPAs) in the selected banking sector.

6. SAMPLING PLAN

Banks included in the Bombay Stock Exchange's (BSE) BANKEX, a renowned bank index, are used as a representative sample. The following BSE BANKEX banks were utilized as a representative sample as of December, 2020. BANKEX is made up of well-capitalized and liquid banks that serve as a yardstick for measuring the stock performance of Indian banks. It accounts for over 90% of the banking sector's free float market capitalisation.

Table 1: Name of Banks			
1.	Axis Bank	2.	IndusInd Bank
3.	Bank of Baroda	4.	Kotak Mahindra Bank
5.	Federal Bank	6.	Punjab National Bank
7.	HDFC Bank	8.	State Bank of India
9.	ICICI Bank	10.	Yes Bank

Hypothesis

H0: NPA in the priority sector is not affected significantly by sectoral advancements.

H1: NPA in the priority sector is not affected significantly by sectoral advancements.

DESCRIPTION OF VARIABLES

Regression and correlation analyses are used to examine the impact of different industries on the NPA. The percentage of each sector in the loan amount is treated as an independent variable, whereas priority sector NPA is treated as a dependent one. Table 2 lists the variables that were used in the research. Considering that it reflects how much damage a bank can tolerate from credit risk and operating risk, the capital adequacy ratio (CAR) has been included as a control variable in the study. In comparison to institutions with lower NPA, banks with greater CAR may have less hazardous lending. As a result, it is crucial to figure out if the shift in NPA is due to CAR or something else.

Table – 2: Description of Variables

Nature of Variable	Name	Symbol	Formula
Dependent Variable	Priority Sector NPA	PSNPA	Extracted from Annual Reports of Bank
Explanatory Variables	Agricultural Lending to Total PSL	ALTL	Agricultural Loan/Total PSL
	Industrial Lending to Total PSL	ILTL	Industrial Loan/Total PSL
	Service Sector Lending to Total PSL	SLTL	Service sector Loan/Total PSL
	Personal Lending to Total PSL	PLTL	Personal Loan/Total PSL
Control Variables	Size	Sz	Log (Total Assets)
	Capital Adequacy Ratio	CAR	Extracted from Annual Reports of Bank

7. RESEARCH MODEL

Statistical inferences can be derived from data using multiple regression, correlation analysis, and descriptive analysis, to name just a few ways. The Variance Inflation Factor (VIF) and Durbin-Watson (D-W) statistics are both utilized to test for multicollinearity and autocorrelation. We will use the model to investigate the impact of an independent variable on its counterpart, a dependent variable.

Model 1: $PSNPA = \alpha_1 + \beta_1 ALTLit + \beta_2 Szit + \beta_3 CARit + \epsilon it$

Model 2: $PSNPA = \alpha_2 + \beta_1 ILTLit + \beta_2 Szit + \beta_3 CARit + \epsilon it$

Model 3: $PSNPA = \alpha_3 + \beta_1 SLTLit + \beta_2 Szit + \beta_3 CARit + \epsilon it$

Model 4: $PSNPA = \alpha_4 + \beta_1 PLTLit + \beta_2 Szit + \beta_3 CARit + \epsilon it$

“Where,

α = Intercept of the regression line

β = Regression Co-efficient (Slope) of independent and control variable

i = Number of Banks (1 to 10)

t = years from 2020 to 2024

8. DATA ANALYSIS AND INTERPRETATION

8.1. Descriptive Statistics

Table 3: Descriptive Statistics

Particulars	N	Minimum	Maximum	Mean	Std. Deviation
Priority Sector NPA	40	.0015	.1189	.034530	.0308734
ALTL	40	.24	.50	.3600	.06816
ILTL	40	.03	.28	.1876	.06318
SLTL	40	.09	.68	.2721	.14616
PLTL	40	.00	.39	.1810	.12328
Size	40	11.87	13.43	12.5690	.43808
Capital Adequacy Ratio	40	.1128	.1883	.146770	.0204421

According to the data in the above table 3, the agricultural sector receives an average of 36% of total PSL, followed by the service sector at 27.21% and industries at 3.6%. These findings suggest that agricultural sectors account for the majority of banks' PSL, but a survey by the Union Bank of India (UBI) shows that these loans are not being put to productive use. During the same time period, the average NPA in the priority sector was 3.45%, but the same figure was 4.23% in the non-priority sector.

8.2 Correlation Analysis

Table -4 displays the results of the data's correlation analysis. Almost all factors, with the exception of service sector lending and capital adequacy ratio, are positively related to priority sector NPA. It is worth noting that the association between industrial credit and GDP growth is 0.352%. As a result, banks must exercise greater caution when making industrial sector investments. More lending in the service sector will lead to a decrease in non-performing assets (NPAs) in the priority sector. At a 5% level of confidence, the connection is substantial. However, there is no statistically significant link between agricultural or personal loans and non-performing assets (NPA). Priority sector NPA is affected negatively by the capital adequacy ratio, which is considerable at a 1% level.

Table 4: Correlation Analysis

	PSNPA	ALTL	ILTL	SLTL	PLTL	Size	CAR
PSNPA	1						
ALTL	.251	1					
ILTL	.352*	-.151	1				
SLTL	-.376*	-.111	-.572**	1			
PLTL	.127	-.297	.272	-.809**	1		
Size	.214	.012	-.030	-.287	.288	1	
CAR	-.711**	-.349*	-.025	.139	.036	-.044	1
*. Correlation is significant at the 0.05 level (2-tailed).							
**. Correlation is significant at the 0.01 level (2-tailed).							

8.3 Regression Analysis

Table 5: Regression Model 1: $PSNPA = \alpha_1 + \beta_1 ALTLit + \beta_2 Szit + \beta_3 CARit + \epsilon_{it}$

Parameters	Intercept	ALTL	Size	CAR
Coefficient	0.027242	0.002055	0.012884	-1.058757
t – Value	0.250677	0.037563	1.613048	-5.797327
Significance	0.803489	0.970244	0.115467	0.000001
R – Square	0.538473			
Adj. R2	0.500013			
F – Value	14.000651			
F – Significance	0.000003			
D – W Statistics	1.157693			
VIF	1.138499			

The Table 5 shows the regression model 1's results. Agricultural financing has a small but favorable influence on the non-performing assets (NPAs) in the priority sector. It suggests that increased agricultural financing would lead to increasing non-performing assets (NPAs) for a variety of reasons. The agricultural production in India is heavily reliant on the monsoon, which is notoriously unpredictable. Aside from that, agricultural productivity is hampered by technical lag and a low literacy rate among farmers. P value 0.05 indicates statistical significance for the total regression model.

Table 6: Regression Model 2: $PSNPA = \alpha_1 + \beta_1 ILTLit + \beta_2 Szit + \beta_3 CARit + \epsilon_{it}$

Parameters	Intercept	ILTL	Size	CAR
Coefficient	-0.014227	0.166207	0.013633	-1.047667
t – Value	-0.155621	3.466411	1.970146	-7.065999
Significance	0.877201	0.001382	0.056551	0.000000
R – Square	0.653957			
Adj. R2	0.625120			
F – Value	22.677735			
F – Significance	0.000000			
D – W Statistics	1.228972			
VIF	1.001597			

Table 6 reveals that Priority sector non-performing assets (NPAs) benefit greatly from industrial loans. An increase in industrial loans will lead to an increase in non-performing assets, as demonstrated by the statistically significant regression coefficient of 0.17 ($p=0.001$). Such a scenario is possible owing to lower IIP, technological inferiority, inefficient demand for capital goods, and a lack of infrastructural facilities. The regression model's p value is less than 0.05, making it highly significant. In the modified model, the exploratory factors account for 62.51 percent of the change in dependent variable.

Table 7: Regression Model 3: $PSNPA = \alpha_1 + \beta_1 SLTLit + \beta_2 Szit + \beta_3 CARit + \epsilon_{it}$

Parameters	Intercept	SLTL	Size	CAR
Coefficient	0.098411	-0.053078	0.007899	-1.013281
t – Value	0.957460	-2.250814	1.012708	-6.267414
Significance	0.344721	0.030599	0.317958	0.000000
R – Square	0.595394			
Adj. R2	0.561677			
F – Value	17.658475			
F – Significance	0.000000			
D – W Statistics	1.184696			
VIF	1.108978			

Table 7 reveals the connection between loans in the services sector and non-performing assets (NPAs) in that sector. The lesser the NPA, the higher the service sector lending. As you can see, the regression is negative, with a p-value of just three. A growing trend in IT and enabled industries, as well as a bigger GDP contribution from the service sector and an expanding stage for that industry, might all be factors in such a situation.

Table 8: Regression Model 4: $PSNPA = \alpha_1 + \beta_1 PLTLit + \beta_2 Szit + \beta_3 CARit + \epsilon_{it}$

Parameters	Intercept	PLTL	Size	CAR
Coefficient	0.052675	0.027349	0.010648	-1.069209
t – Value	0.494071	0.933455	1.290972	-6.313183
Significance	0.624257	0.356804	0.204942	0.000000
R – Square	0.549362			
Adj. R2	0.511809			
F – Value	14.628923			
F – Significance	0.000002			
D – W Statistics	1.150313			
VIF	1.093471			

Model 4's regression results are reported in Table 8. Lending to individuals has a positive relationship with non-performing loans (NPAs). Statistically, the connection is meaningless. The maximum D-W statistics and VIF values are respectively 1.23 and 1.13, demonstrating a reduced amount of residual autocorrelation and multicollinearity.

9. CONCLUSION

The study concludes that sectoral credit growth plays a significant role in promoting economic development by providing financial support to key sectors such as agriculture, industry, services, and retail. However, the quality of credit is as important as the quantity of credit extended. Excessive or inadequately monitored lending to certain sectors can lead to a rise in Non-Performing Assets (NPAs), adversely affecting banks' profitability, liquidity, and

overall financial stability. The analysis indicates that the relationship between sectoral credit growth and NPAs varies across sectors, highlighting the need for sector-specific credit appraisal and risk management practices.

The study emphasise that, not all industries cause banks to lose money; the findings indicates that the service sector benefits banks. As manufacturing has not fully grown in the country, the industrial sector has proven to be a key contributor to the priority NPA sector deficit. To help banks and regulators minimize non-performing assets (NPAs) and support greater investment in high-risk industries, the study may offer new insights and might lead to better outcomes for these sectors. Overall, achieving a balance between sectoral credit expansion and asset quality is essential for enhancing the resilience, efficiency, and long-term stability of the Indian banking sector and supporting inclusive economic growth.

REFERENCES

1. Dave, D. K. (2016). A Study of Priority Sector Lending for Selected Public Sector Banks of India. *International Journal of Research and Analytical Reviews*, 3(1), 84-86.
2. Goel, A., & Rastogi, S. (2023). Credit scoring of small and medium enterprises: a behavioural approach. *Journal of Entrepreneurship in Emerging Economies*, 15(1), 46-69.
3. Goyal, N, Agrawal R & Aggrawal R (2016). Two Way Fixed Effect of Priority Sector Lending (Sector Wise) On Non Performing Assets of Indian Commercial Banks, *International Journal of BRIC Business Research*, 5(1).
4. Laveena, & Malhotra, M. (2014). Empirical Analysis of Non Performing Assets Related to Private Banks of India. *International Journal of Management Excellence*, 3(1), 386-391.
5. Kaur, M. (2015). Perceptions of Small Scale Firms towards Bank Financing: An Emperical Study. *Amity Journal of Management Research*, 2(1), 46-60.
6. Kumar, D. K., & Gambhir, A. (2012). Commercial Banks Financing Priority Sector: An Impetus to Economy (A Study of Problems and Prospects). *IOSR Journal of Business and Management*, 1(5), 45.
7. Selvi, V. D. (2014). Lending to Priority Sector: A Scenario from Indian Scheduled Commercial Banks. *EPRA International Journal of Economic and Business Review*, 2(7), 44-49.
8. Shabbir, N. (2013). Sector Wise Priority Sector Advances in India. *International Journal*, 3(2), 2307-227X.
9. Sharma, S., & D.S., R. (2016). Measuring the Impact of Non-Performing Assets on the Profitability of Indian Scheduled Commercial Banks. *IOSR Journal of Economics and Finance*, 7(6), 40-46.
10. Suresh, P., & Mohideen, M. A. (2012). Small medium enterprise's in India-Issues and prospects. *International Journal of Management Research and Reviews*, 2(2), 247-255.
11. Tamboli, M. A., & Sharma, M. P. (2018). A Study on Achievement of Priority Sector Lending Under the Lead Bank of the Ahmednagar District. *IBMRD's Journal of Management & Research*, 7(1), 34-37.
12. <http://rbi.org.in>
13. <https://www.scribd.com>
14. <https://msme.gov.in>