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Impacts of NPA on Profitability of selected Public Sector Banks and Private Sector Banks in India – A Comparative Study

Dr. Dipa S. Tank, Assistant Professor, City C. U. Shah College, Gujarat University, Ahmedabad, Gujarat, India, dipastank@gmail.com

Abstract - The banking sector has undergone a huge change after the economic reforms of 1991. A healthy and sound banking system is very essential for economic development of the country. Non-Performing Assets (NPA) is the best indicator for the health of the banking sector. It affects the performance of the banks. Lower NPAs of banks show better performance and management of funds and higher NPAs show inefficiency of the bank. The problem of NPAs is not only affecting the banks but also the whole economy. Therefore, to improve financial health of the Indian banking sector it's necessary to reduced and controlled NPAs of banks. The selective study has been done on selected Public sector banks and Private sector banks in India to evaluate the effect of net NPAs on the net profitability of banks. The present study covers time period of ten years (2013 to 2022). The study is based on secondary data and has been analyzed through correlation analysis.

Keywords: Banking Sector, Non-Performing Assets, Net profitability, Public sector banks, Private sector banks

1. Introduction

The banking sector is a foundation of any financial system of the country. The smooth working of the banking sector ensures the healthy condition of the whole economy. In the process of accepting deposits and lending loans banks create credit. The funds received from the borrowers through the way of interest on loan and repayments of principal amount are recycled for raising resources. But on the other hand, building up of non-performing assets disturbs this flow of credit. It hinders credit growth, which affects the profitability of the banking sector. Non-performing assets are the foremost indicators to judge the performance of the banking sector. Interest earned on loans and advances and repayment of the principal is the main source of income of banks. All those assets which create periodical income are called as performing assets. While all those assets which do not create periodical income are called as Non Performing Assets (NPA). If the customers do not repay principal amount and interest for a specific period of time then such loans become Non-Performing Assets (NPA). According to the Reserve Bank of India, NPA is defined as a credit facility in respect of which the interest and/or installment of principal is "past due" for a specified period. Generally, if the loan payments have not been made for a period of 90 days, the asset is classified as non-performing asset.

2. Classification of NPAs:

(2.1) Standard assets: The asset that doesn't disclose any problems and these assets do not form a part of NPAs.

(2.2) Substandard Assets: An asset is called a substandard asset when the loan or advance has been non-performing for less than or equal to 18 months.

(2.3) Doubtful Assets: An asset is called a doubtful asset when it has been in the non-performing for more than 18 months. They have a higher level of risk than substandard asset.

(2.4) Loss Assets: An asset is called a loss asset when the bank or internal or external auditors or the inspection by the RBI identifies the loss, but it still has not been written off**.**

3. Types of NPAs:

(3.1) Gross NPAs- It is the sum of all loan assets that are classified as NPA as per RBI guidelines as on Balance sheet. Gross NPA Ratio is the ratio of gross NPAs to gross advances (loans) of the bank.

Gross NPA Ratio = Gross NPAs/Gross advances

(3.2) Net NPAs- Net NPAs is those type of NPAs in which the bank has deducted the provision regarding NPAs. It shows the actual burden of banks.

Net NPA = Gross NPAs - Provisions

4. Causes of NPAs:

(4.1) Internal Factors

1. Poor lending Process
2. Poor credit appraisal method
3. Funds borrowed for a specific purpose but not use for the said purpose.
4. Project not accomplished in time.

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5. Lack of sufficient securities
6. Inefficient management.
7. Business failures.
8. Absence of post credit supervision
9. Compulsory lending to priority sectors of the economy.

(4.2) External Factors

1. Sluggish legal system-
   - Long legal tangles
   - Lack of sincere work
   - Changes that had taken place in labor laws
2. Ineffective Recovery Tribunal
3. Political and social pressure on credit decision
4. Natural calamities such as cyclones, droughts, floods, earthquakes and pandemics like Covid 19.
5. Willful defaults or fraud
6. Adoption of out dated technology by the borrowed firm
7. Shortage of raw materials, electricity, raw material input price escalation, excess capacity etc.

5. Review of Literature:

Arasu, B., Sridevi, P., Nageswari, P., and Ramya, R. (2019) were made a Study on Analysis of Non -Performing Assets and its Impact on Profitability. This research paper found that ROA is negatively related to NPA. It showed that ownership had significant influence on the NPAs i.e. there was higher NPAs in public sector. The research also explained that the banks possess assets of deteriorating quality which eventually have an adverse impact on the economy.

Chatterjee, Mukherjee & Das (2012), have studied "Management of Nonperforming Assets - a current scenario". According to the investigators NPAs have a negative impact on the overall economy's capital adequacy, funds mobilisation, banking system reputation, and competitiveness. According to the research report, public sector banks face the greatest challenges in the banking sector due to the social obligations they must meet. The private sector banks have been technologically strengthened and are now capable of managing the growing number of nonperforming assets (NPAs).

Khanna P., (2012), has studied "Managing Nonperforming Assets in Commercial Banks". The researcher consider selected Indian banks, which include State Bank of India, ICICI Bank, Axis Bank, etc. and noted that the main role of banks is to provide funds to different sections of economy including agricultural loans, housing loans, personal loans and business loans etc., but due to problem of NPA related to loans given, banks have become very cautious in sanctioning loans as NPA is a major factor affecting their financial performance of banks. High NPA leads to a higher number of loans turning into bad loans hence affecting the profitability and net worth of the banks.

Ombir and Sanjeev Bansal (2016), have studied "An Analysis of Non-Performing Assets of Indian Banks". Their study analyzed the recent trends in nonperforming assets (NPAs) of different categories of Indian banks. It is found that the impact of ownership pattern in deciding the level of NPAs is investigated against the perception that public sector banks have a relatively larger level of NPAs. But there was no strong empirical evidence is found in support of this perception. Their findings suggested that public sector banks are as good or as bad as their private counterparts, however, foreign banks have relatively higher profitability as domestic public and private banks. It is also found that a higher level of NPAs negatively affects the profitability of a bank.

Philip, B., & John, N. (2018). have made a study on the impact of NPA on the Share Price of Banks. They investigated that with increase in the credit in the economy, there has been an uptrend in the NPAs of banks. It also gave an overview of the various factors responsible for NPAs. The research was conducted to analyze the relation of share price and Non- Performing Asset (NPAs). The research showed that there was a strong relation between share price and NPAs in case of private banks however it differed for public banks.

Rana, P. (2016), has studied the topic of "Analysis of Non-Performing Assets of Public Sector Banks in India". The key goal of this research is to gauge the aggregate performance of Indian public banks in terms of NPAS. The researcher concludes that NPAs are steadily growing in India's public sector banks, with the percentage share of NPAs in both the priority and non-priority sectors increasing. According to the researcher, banks must conduct adequate credit worthiness assessments of borrowers in order to minimise the number of nonperforming assets (NPAs). Credit assessment and performance measurement approaches can now be applied so that borrowers' creditworthiness can be assessed in a variety of ways.

Rathore, D., Malpani, S., & Sharma, S. (2016). Were studied on "Non Performing Assets of Indian Banking System and its Impact on Economy". This research paper highlighted the status of NPA of banks in India and also suggested various ways through which banks can handle the existing NPAs and avoid future NPAs from occurring. The research also explained the impact of NPA on various factors like shareholder's confidence, capital adequacy etc. The research suggested various ways like technical write offs, one time settlement scheme, recovery camps etc. to reduce NPAs.

Roy, P., and Samanta, P. K. (2017), were studied "Analysis of Non-Performing Assets in Public Sector Banks of India. ". This paper explores whether Gross Non-Performing Assets (GNPA) has a bearing on the chosen banks' Net Profit over five years. The researcher discovered

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that Total Non-Performing Assets (GNPA) and Net Profit were inversely correlated, and that GNPA was a significant factor in the inverse shift in Net Profit. Furthermore, the researcher found a strong negative correlation between GNPA and Net Income, which was worrying. In 2015-16, the majority of the bank's earnings were lost due to a spike in NPAs. To retain consumer confidence, the researcher advises that banks be careful when giving loans, that loan recovery processes be made stricter, and that all banks adhere to transparency in disclosure norms.

Sharma, Kothari, Rathore & Prasad (2020) were studied). "Empirical Assessment of Management of Non-Performing Asset (NPA) in the Public and Private sector banks". This research paper looked into the effect of gross nonperforming assets on the profitability of various public and private banks. To determine the magnitude of the correlation between two variables, the researcher used the correlation between two variables and the statistical t-test. According to the findings, nonperforming assets (NPAs) have a negative effect on profitability. To determine the magnitude of the correlation between two variables, the researcher used the correlation between two variables and the statistical t-test. Nonperforming assets (NPAs) have a negative impact on not only banks' financial performance, but also the economy's financial growth, according to the report.

Suresh Kumar (2014), has studied "Non-Performing Assets: An Indian Perspective". According to him, 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.

6. Statement of the Problem

Non-performing assets is the key term for the banking sector. NPAs show the capability of the performance of the banks because it has adversely affected the financial sector of economy. From the last few years NPAs of banking sector had increased drastically. NPAs disturb the flow of credit which affect the economic development as well as growth of the economy. NPAs of banking sector has affects the profits earned by the banks. Against this background, the present study focused on the level of NPAs and how it impacts the profitability of selected public and private sector banks.

7. Objective of the Study

- To study trend of Non-performing assets and Net profit of selected public sector and private sector banks in India.
- To examine the relationship between net profit and net non-performing assets of selected public and private sector banks.
- To examine the impact of NPAs on the profitability of selected public sector and private sector banks.

8. Hypothesis of the Study:

Ho: There is no significant impact of net Non-Performing Assets on net profitability of selected banks.

9. Research Methodology: .

(9.1) Sources of Data:

The present study is based on secondary data. These data have been collected from different sources like annual reports of selected public and private sector banks, different literature books, magazines, journals, websites of selected banks and website of RBI.

(9.2) Sampling Techniques:

The public and private sector bank for the study were selected based on convenience sampling method. The present study is a descriptive study which tries to establish the relationship between the net non-performing assets and net profits.

(9.3) Sample for the Study:

The sample size for the study is 10 units. The sample consists of five Public Sector and five Private Sector Banks in India. Following banks are selected for the study.

Public Sector Banks: State Bank of India (SBI), Bank of India (BOI), Bank of Baroda (BOB), Indian Overseas Bank (IOB) and Bank of Maharashtra (BOM).

Private Sector Banks: AXIS Bank, HDFC Bank, ICICI Bank, Kotak Mahindra Bank (KMB) and Indusind Bank.

(9.4) Period of the Study: The present study is carried out for a period of ten financial year from 2013 to 2022.

(9.5) Statistical Tools: Correlation Analysis is used to determine the relation between net NPAs and net Profits.

(10) Analysis and Interpretation

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Table-1 Net NPA and Net Profit of Public Sector Banks

Year	SBI		BOI		BOB		IOB		BOM	
	Net NPA	Net Profit	Net NPA	Net Profit	Net NPA	Net Profit	Net NPA	Net Profit	Net NPA	Net Profit
2013	21956	14105	5947	2749	4192	4481	4027	567	392	760
2014	31096	10891	7417	2729	6034	4541	5658	602	1807	386
2015	27591	13102	13518	1709	8069	3398	9813	-454	4127	451
2016	55807	9951	27996	-6089	19406	-5396	19213	-2897	6832	101
2017	58277	10484	25305	-1558	18080	1383	19749	-3417	11230	-1373
2018	110855	-6547	28207	-6044	23483	-2431	20399	-6200	9641	-1146
2019	65894	862	19119	-5547	15610	434	14368	-3738	4559	-4784
2020	51871	14488	14320	-2957	21577	546	6603	-8527	4145	389
2021	36810	20410	12262	2160	21800	829	4578	831	2544	550
2022	27966	31676	9852	3405	13365	7272	3825	1710	1277	1152
R	-0.788		-0.858		-0.685		-0.543		-0.423	
p-value	0.0067		0.0014		0.0288		0.104		0.223	

Source –Annual Reports of Banks

The above table shows the net Non-Performing Assets, net profit, value of correlation coefficient and its significant value of selected public sector banks. From the above table we can say that SBI (-0.788), BOI (-0.858), BOB (-0.685), IOB (-0.543) and BOM (-0.423) have negative correlation between net NPAs and net profits. This means that NPA is inversely related with net profit.

The p-value was obtained by applying linear regression on net NPA and net profits of all the selected public sector banks. Above table -1 indicate that the p-value in case of SBI (0.0067), BOI (0.0014) and BOB (0.0288) is less than 0.05 suggesting the rejection of Ho hypothesis indicating that the profits of SBI, BOI and BOB got impacted due to Non-performing Assets. Similarly the p-value of IOB ().104) and BOM (0.23) is greater than 0.05. The result is not significant at $p < 0.05$. Therefore Ho hypothesis is accepted. It means that the profit of IOB and BOM is not impacted due to NPA.

Table:2 Net NPA and Net Profit of Private Sector Banks

Year	AXIS		HDFC		ICICI		KMB		Indusind Bank	
	Net NPA	**Net Profit**	**Net NPA**	**Net Profit**	**Net NPA**	**Net Profit**	**Net NPA**	**Net Profit**	**Net NPA**	**Net Profit**
2013	704	5179	469	6726	2231	8325	311	1361	137	1061
2014	1025	6218	820	8478	3298	9810	574	1503	184	1408
2015	1317	7358	896	10216	6256	11175	609	1866	210	1794
2016	2522	8223	1320	12296	13297	9726	1262	2089	322	2286
2017	8627	3679	1844	14550	25451	9801	1718	3412	439	2868
2018	16592	276	2601	17487	27886	6777	1665	4084	746	3606
2019	11276	4677	3215	21078	13577	3363	1544	4865	2448	3301
2020	9360	1627	3542	26257	10114	7931	1558	5947	1887	4418
2021	6994	6589	4555	31117	9180	16193	2705	6965	1477	2836
2022	55.12	13025	4408	36961	6961	23339	1737	8573	1530	4611
R	-0.282		0.974		-0.308		0.79		0.742	
p-value	0.429		0.00001		0.386		0.0065		0.014	

Source- Annual Reports of Banks

The above table shows the net NPAs, net profit, value of correlation coefficient and its significant value of selected private sector banks. It is clear from the above table that AXIS bank (-0.282) and ICICI (-0.308) bank have shown weak negative correlation. While HDFC (0.974), KMB (0.79) and Indusind bank (0.742) have shown a positive correlation between net NPAs and net profits.

Above table also indicate that the p-value in case of HDFC (0.00001), KMB (0.0065) and Indusind bank (0.014) is less than 0.05. The result is significant at $p< 0.05$. Therefore Ho hypothesis is rejected. That means the profit of HDFC, KMB and Indusind bank got impacted due to Non-performing Assets. Similarly the p-value of AXIS bank (0.429) and ICICI bank (0.386) is greater than 0.05. The result is not significant at $p < 0.05$. Therefore Ho hypothesis is accepted. In other words the profit of AXIS bank and ICICI is not impacted due to NPA.

11. Limitation of the Study;

- The study is related to only secondary data, primary data cannot be covered.
- The present study is limited to duration of ten years starting from 2013 ending with 2022.
- The study is limited to 10 banks that is 5 public sectors (SBI, BOI, BOB, IOB, and BOM) and 5

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private sector banks (AXIS, ICICI, HDFC, KMB and Indusind Bank)

- The study has cover only selected public and private sector banks. It has not covered foreign banks and cooperative banks.
- All other factor like gross NPA and advance are not considered in this study because these factors are included in net NPA.
- The profit earned by the banks is affected by various elements however in this study the only focus is on Non-performing assets.
- Non-performing assets are changing over time and the research is carried out in the present time, with little consideration for future possible changes.

12. Findings:

- From the above study it is clear that all the selected public and private sector banks are facing serious problem on Non-Performing Assets.
- The condition of selected public sector banks is very poor due to rising net NPAs.
- The result of Correlation indicates that net NPAs was negatively correlated with net profits in the selected banks except HDFC, ICICI and Indusind bank.
- The performance of private sector banks is better than public sector banks in the case of NPAs.
- The profit of SBI, BOI, BOB, HDFC, KMB and Indusind bank got impacted due to Non-performing Assets.

13. Conclusion:

Banking sector plays a significant role in the economic growth of the country. Indian public and private sector banks are adversely affected by the mounting non-performing assets, which is becoming a huge concern. From the above study it can be seen that the condition of selected public sector banks is very poor due to rising net NPAs. It can be concluded that in the case of NPAs, the performance of private sector banks is better than public sector banks. The result of Correlation shows that net NPAs was negatively correlated with net profits in the selected banks except HDFC, ICICI and Indusind bank. Due to NPAs the profit of SBI, BOI, BOB, HDFC, KMB and Indusind bank got impacted. In short, NPAs have adverse impacts on profitability of selected public and private sector banks in India. This is because the money locked in NPAs is not available for the productive activities and at the same time, banks are required to provide provision for NPAs from their current profits. Therefore to improve efficiency and profitability of selected public and private sector banks, NPAs needs to be controlled.

To tackle the NPAs crisis of banks, strict steps must be applied. Since complete removal of NPAs is highly unrealistic. It can only be regulated, as in the case of -quick loan recovery, Improved recovery management, implementation of new recovery schemes for overdues, tracking of defaulters' accounts, adequate credit appraisals, disbursements, post-sanction follow-up, maintaining frequent communication with borrowers and need-based credit are some of the areas of credit management that need to be improved in order to minimise NPAs of banks. Selected public and private sector bank should need to check all the creditability of borrowers before providing loan. The public and private sector banks should more focused on providing quality loan as "Prevention is always better than cure". Every bank and the regulators in the banking sector need to robust change in their operations and also there is a need for political will from the government of India to take the corrective measures and reduce the level of NPAs especially the Public sector banks. So the problem of NPAs needs lots of serious efforts otherwise it will killing the profitability of banking sector, which is not good for the Indian economy at all.

14. Future Scope

This study helps the public and private Sector Banks, to realize their net NPAs and net profit status during the study period and warns them to take appropriate steps. On the basis of this research paper the other researchers can study the performance of other public sector banks, private sector banks, Cooperative banks and foreign banks by taking past 5 or 10 years data and using other different statistical tools.

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