

A Study on Factors of Implication of Non- Performing Assets in State Bank of India

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Abstract: Banks play a pivotal role in the economic development of any country by providing effective institutional credit support to various regions and sectors. The banks have to deploy 30% of the total credit resources in priority and small scale sector. The present mainly analysis the factors implication of NPAs in SBI through factor analysis. The present study helps to specifically trace out the exact position of the SBI with respect to loan assets management. The attitude of top officials of SBI on the loan quality management is measured by Likert's five-point scale. As far as cluster comprising 60 respondents (65.93 percent) views that implication of NPAs in funding mismanagement is very severe with a mean score of 4.24, while the implications of NPAs are at a moderate level. The study concludes that the loan assets management of SBI has put in the right measure to address the ill effects of funding mismanagement and to resolve the moderately serious consequences of NPAs.

Keywords: *Non-Performing Assets, Cost and expenses mismanagement, Funding Mismanagement, Adverse Business Results*

I. INTRODUCTION

The management of NPAs has emerged as a vital area for any bank management. Any nonchalant attitude in this regard would cause dearly to the bank in terms of profitability, liquidity, and equity. Many studies relating to NPAs of Public Sector Banks in India have pointed unmistakably to the imperative necessity of showing due concern in managing NPAs significantly. The factors leading to NPAs can be broadly categorized under political, economic, social and technological reasons.

Political interference in the lending process into banking leads to neglect of proper credit appraisal, need-based credit, weak follow-up, etc. Political connections of borrowers cause wilful default on the part of borrowers. Directed lending, loan mela's (for housing loan alone) credit to various segments under political pressure have triggered neglect of appraisal and scrutiny and floating of prudent principles of lending which cumulatively result in lethargic repayment or non-repayment and difficulties in the recovery of loans. The general waiver of agricultural loans by the powers creates a bad culture of wilful default in farm loan segments.

Economic causes can be external and internal. Several studies which investigated the causes of NPAs concluded that changes in macroeconomic environment like recession, infrastructure bottlenecks, change in Government policies, etc. result in some of the loans of banks becoming

unproductive and borrowers turning defaulters. Lack of technological advancement which can help in reducing the cost of funds, faster movement of funds, ensuring efficient and effective payment and settlement system, is also stated to be one of the reasons for mounting NPAs.

II. REVIEW OF LITERATURE

Rani and Usha (2016) examined the performance and trend of NPAs of new generation private sector banks in India. The data for the study had been collected for the period of five year from 2009 to 2013. The study found that the private banks stay away from lending to agriculture activities and weaker sections. They achieve their target by investing in Rural Infrastructure Development Fund or loans from non-banking institutions.

Singh (2016) studied the impact and various recovery channel of NPAs of banks. The data for the study had been collected for a period of 14 years from 2000 to 2014. Gross NPAs and Net NPAs had been increased three-fold during the study period. Rs.77,241crores of NPAs of scheduled Commercial banks recovered through SARFAESI act.

Swain, Sahoo, and Mishra (2017) attempted to examine the effectiveness of NPA recovery measures. The study considered measures like LokAdalat, Debt Recovery Tribunal and SARFAESI Act to examine the effectiveness of NPAs recovery. The study covered for the period of nine years from 2008 to 2016 of NPAs recovery of scheduled

commercial banks. The study found the SARFAESI act is most effective in NPAs recovery in India.

Bhardwaj and Chaudhary (2018) attempted to understand the trend of NPAs and the factors contributing to NPAs, reasons for the high impact of NPAs on Scheduled commercial banks in India. The study found that the recovery problem is not with small borrowers. So, the strict recovery policy should be followed in recovery of NPAs of large borrowers.

Das and Surojit Dey (2019) identified ten factors that affect the Non-performing Asset of the bank through a literature review. The data for the study had been collected for ten years from 1997 to 2017 in the publication of Government of India. The multiple linear regression model is created to test the factors and their significant level on NPAs. The study found that non-priority sector lending has a higher contribution towards NPAs.

III. STATEMENT OF THE PROBLEM

Banks play a pivotal role in the economic development of any country by providing effective institutional credit support to various regions and sectors. The banks have to deploy 30% of the total credit resources in priority and small scale sector. The revenue resulting from these assets is not only low but also uncertain due to a high degree of default. The high degree of loan delinquency vitiates the quality of loan assets. They have a direct impact on the profitability, liquidity and position of the bank. SBI, a leading public sector bank which has contributed substantially to the economic development of the country, is one of the victims of trouble assets. The size of Gross NPAs in the SBI stood at Rs.223427 crores (10.91%) on a total advance of Rs.2048387 crores during 2017-18. What factors contribute to the huge size of the NPAs and what urgent steps to be initiated to stem the rot and what permanent mechanism should be put in place to make loan assets performing, warrant a deep understanding of the problem. Hence, the present study is undertaken.

IV. OBJECTIVES OF THE STUDY

The present study has the following objectives

1. To identify the implications of the factors of NPAs in SBI.
2. To study the parametrical relationship among the factors of implications of NPA.

V. SCOPE OF THE STUDY

The present study helps to specifically trace out the exact position of the SBI with respect to loan assets management. The attitude of top officials of SBI on the loan quality management is measured by Likert's five-point scale. This study would certainly be a basis for an understanding of factors implications of Non-Performing Assets of the SBI.

VI. METHODOLOGY

A. Research Design

The present research design of the study is in descriptive nature. The mutual relationship between NPAs and micro level variables in the banking sector and the officials' perceptions on the causes, consequences, and remedies for NPAs have been discussed.

B. Population for the study

The NPA portfolio of SBI is currently managed by a division in Local Head Office (LHOs). There are 14 LHOs spread over the country. Therefore the researcher was advised to approach the LHOs in this regard. It was further reported by the SBI corporate office that the NPAs are not managed at branch level and officials at the branch office may not be conversant with the management of NPAs. Therefore it was decided to administer the questionnaire to the officials manning the NPA cells of 14 LHOs. The subjects for the present study include Assistant General Managers I, Assistant General Managers II, Managers, and Assistant Managers serving in NPA department of Local Head Offices (LHOs) of SBI in India.

Table 1 Number of Officials in NPA Department of LHOs

Cadre Place	AGM I	AGM II	Manager	Asst. Manager	Total
Ahmedabad	1	1	3	6	11
Bangalore	1	1	3	5	10
Bhopal	1	-	3	7	11
Bhubaneswar	1	1	3	6	11
Chandigarh	1	1	2	5	9
Chennai	1	-	2	5	8
Delhi	1	1	4	7	13
Guwahati	1	1	3	6	11
Hyderabad	1	1	2	5	9
Kolkata	1	1	3	6	11
Lucknow	1	-	3	4	8
Mumbai	1	1	4	6	12
Patna	1	1	3	5	10
Thiruvananthapuram	1	-	3	4	8
Total	14	10	41	77	142

Source: HR Reports of SBI

It is clear from Table 1 that there are 142 officials working in NPAs cell of SBI across India. It was decided to interview all the officials in view of the smallness of their number. In other words, census survey method has been adopted for the present study. The questionnaire was mailed to all of them. However, only 91 filled up questionnaires were received from them. The response rate constitutes 68 percent.

C. Collection of Data

Primary data are used in the present study. The primary data in the form of the perception of officials on

management of loan assets is measured with the help of pre-structured questionnaire.

VII. LIMITATIONS OF STUDY

1. The study is based on the perception of bank officials.
2. The result of the study may not be applicable to any other banks.
3. The present study intends to cover only officials serving in NPA cell of all LHOs.
4. The variables relating to causes, predictors, consequences, and measures to manage the troubled assets were selected from the literature survey.

VIII. ANALYSIS AND INTERPRETATION

A. Implications of NPAs

The emergence of NPAs has a wider ramification for banks. The 15 variables listed in Table 2 have been extracted from the literature survey. It is evident from the t values that NPAs lead to profit erosion, declining asset quality, increase in market borrowing and increase in operating expenses. In other words, the emergence of NPAs eats into the profits of the banks and to force the bank to allocate more provisions. The funds locked up in NPAs tell upon the inflow of funds in the banks, thereby hampering the recycling of funds for fresh loans. Therefore the banks afflicted by NPAs menaces are forced to seek additional funding to continue to extend fresh loans. The time, energy, money and other resources of banks are lost in making a recovery from bad assets. This, in turn, escalates the operating cost of the bank. However, the NPAs do not hit the SBI in a significant way in loss of goodwill and an increase in intermediation cost. The NPAs do not affect significantly the spread of SBI because of the wider gap between the cost of funds and the cost of lending. The other implications viz., drop in productivity, funds mismanagement, fall in efficiency, diversion of reserves and surplus are less serious consequences of NPAs in SBI.

Table 2 T-test for implications of NPAs

Variables	N	Mean	Std. Deviation	Std. Error Mean	t-values	Sig
Diversion of reserve and surplus	91	3.4505	0.85976	0.09013	4.999	0.000
Profit Erosion	91	3.7802	0.59259	0.06212	12.560	0.000
Decline in spread	91	3.5165	0.75074	0.07870	6.563	0.000
Increase in intermediation cost	91	3.2967	0.75269	0.07890	3.760	0.000
Increase in operating expenses	91	3.7033	0.88813	0.09310	7.554	0.000
Increase in market borrowing	91	3.8132	0.98784	0.10355	7.853	0.000
Increase in provision	91	3.6044	0.71304	0.07475	8.086	0.000
Increase in cost	91	3.780	0.96381	0.1010	7.722	0.000

Variables	N	Mean	Std. Deviation	Std. Error Mean	t-values	Sig
of raw material	1	2		4		0
Increase in labour cost	91	3.6813	0.98747	0.10351	6.582	0.000
Fall in good will resulting in to decline in business growth	91	3.2747	0.78974	0.08279	3.318	0.001
Decline in asset quality	91	4.0769	0.96874	0.10155	10.605	0.000
Drop in productivity	91	3.7033	1.00548	0.10540	6.672	0.000
Highly risky investment	91	3.7033	0.99437	0.10424	6.747	0.000
Fund mismanagement	91	3.7912	1.02758	0.10772	7.345	0.000
Fall in efficiency	91	3.5275	0.84775	0.08887	5.935	0.000

Source: Compiled from primary data

When performing assets turn into NPAs, it implies several consequences. The banks have to closely follow up such loans through reminders and personal supervision. It has the potential to escalate the operational cost of the bank. It has to make heavy provision which erodes the profitability of the bank. The out of order loan impairs the image of the borrower besides impairing its ability to raise fresh loans from the banks. All these consequences have been listed in Table 4. These consequence variables have been identified from the survey of literature relating to NPAs. Table 3 shows the results of KMO test applied to confirm the adequacy of the sample for factor analysis. The results indicate that sampling adequacy is significant with 87.4 percent.

Table 3

KMO and Bartlett's Test for implication of NPAs

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.874
Bartlett's Test of Sphericity	Approx. Chi-Square	1658.254
	Df	105
	Sig.	0.000

Source: Compiled from primary data

Table 4
Communalities of Implication of NPAs

Code	Variables	Initial	Extraction
Implication 1	Diversion of reserve and surplus	1.000	0.710
Implication 2	Profit Erosion	1.000	0.878
Implication 3	Decline in spread	1.000	0.909
Implication 4	Increase in intermediation cost	1.000	0.822
Implication 5	Increase in operating expenses	1.000	0.845
Implication 6	Increase in market borrowing	1.000	0.845
Implication 7	Increase in provision	1.000	0.831
Implication 8	Increase in cost of raw material	1.000	0.735
Implication 9	Increase in labour cost	1.000	0.860
Implication 10	Fall in good will resulting in to decline in business growth	1.000	0.762
Implication 11	Decline in asset quality	1.000	0.796

Implication 12	Drop in productivity	1.000	0.888
Implication 13	Highly risky investment	1.000	0.882
Implication 14	Fund mismanagement	1.000	0.910
Implication 15	Fall in efficiency	1.000	0.822

Source: Compiled from primary data

Extraction Method: Principal Component Analysis.

Table 4 displays the relative significance of consequence variables. A casual glance at Table 4 surfaces the fact that NPA implies funds mismanagement (0.910), decline in spread (0.909), increase in market borrowing (0.845), profit erosion (0.878) and increase in provision (0.831). However, some of the consequences shown in the table decline in asset quality (0.796), fall in goodwill of borrower (0.762), increase in the cost of raw material (0.735), diversion of reserves and surplus (0.710) etc. faced by the SBI are less significant as the extraction values are indicated by low.

Table 5 Total Variance Explained for implications of NPAs

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.088	60.588	60.588	5.492	36.610	36.610
2	2.131	14.209	74.797	4.740	31.598	68.208
3	1.275	8.499	83.296	2.263	15.088	83.296
4	0.625	4.166	87.462			
5	0.432	2.879	90.341			
6	0.336	2.237	92.578			
7	0.225	1.500	94.079			
8	0.205	1.364	95.443			
9	0.177	1.179	96.621			
10	0.143	0.951	97.573			
11	0.122	0.814	98.387			
12	0.094	0.624	99.011			
13	0.076	0.509	99.520			
14	0.044	0.297	99.817			
15	0.028	0.183	100.000			

Source: Compiled from primary data

Extraction Method: Principal Component Analysis.

Table 5 shows the results of factor analysis and rotation sums of squared loadings. These loadings have brought out 3 factors which account for 83.29 percent variation in the implication variables. Table 6 shows the 3 factors identified through factor analysis namely cost and expenses mismanagement, funding mismanagement, and adverse business results. Factor 1 titled as Cost and Expenses mismanagement includes variables with their respective loadings. It can be seen that funds mismanagement (0.915), the decline in spread (0.858), diversion of funds and surplus

(0.784), increase in provision (0.75) are the immediate implications of NPAs in SBI. Therefore SBI has to address the NPA issue in view of its serious implications on the bottom line of the banks.

Factor 2 funding mismanagement accommodates the implications like increase in market borrowing (0.887), fall in efficiency (0.793), drop in productivity (0.789) and fall in goodwill (0.779). All these intermediate variables are macro in nature. Any failure to reign in NPAs has the potential to expose the bank to these consequences. However, factor 3 Adverse Business Results needs less attention of SBI in view of their less statistical significance of loadings.

Table 6
Variables loadings of factors of Implication of NPA
Factor 1

Cost and expenses mismanagement

Code	Variables	Factor loading
Implication 9	Increase in labour cost	0.915
Implication 4	Increase in intermediation cost	0.858
Implication 10	Fall in goodwill resulting in to decline in business growth	0.784
Implication 6	Increase in market borrowing	0.750
Implication 8	Increase in cost of raw material	0.731
Implication 12	Drop in productivity	0.700
Implication 13	Highly risky investment	0.699
Implication 5	Increase in operating expenses	0.664

Factor 2
Funding Mismanagement

Implication 14	Fund mismanagement	0.887
Implication 3	Decline in spread	0.793
Implication 15	Fall in efficiency	0.789
Implication 1	Diversion of reserve and surplus	0.779

Factor 3
Adverse Business Results

Implication 2	Profit Erosion	0.919
Implication 11	Decline in asset quality	0.810
Implication 7	Increase in provision	0.779

Source: Compiled from primary data

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization. A Rotation converged in 5

B. Cluster Analysis

Factor analysis by principal component method reduced the variables of the level of NPAs in different segments. The bank executives pursued these factors in different angles of identification. Their perceptual difference is identified through K-means cluster analysis. It classifies the respondents into various categories based on the responses towards the factors of NPAs. The following results of cluster analysis clearly present the perception levels of respondents.

The factors explaining the implication of NPAs have been shown in Table 7. The cluster analysis has grouped the respondents into two categories. According to the views of the 60 respondents falling under the first cluster known as 'High Implications', the implications of NPAs are moderately serious with respect to factors like cost and expenses mismanagement (Mean score 3.57) and adverse business results (Mean score 3.92). The implications are strong in the case of funding mismanagement with a mean score of 4.24. As per the views of 31 respondents falling under the second cluster known as 'Low Implication' group, the implications are moderate in funding mismanagement and adverse business results. However, the implication on cost and expenses mismanagement is not highly serious in the perception of 31 respondents. The total respondents who have the perception regarding the implication of NPAs were classified into two clusters in Table 8.

Table 7
Final cluster Centers for implications for NPAs

Factor	Cluster	
	1	2
Cost and expenses mismanagement	3.57 (Moderate)	2.97 (Weak)
Funding Mismanagement	4.24 (Strong)	3.39 (Moderate)
Adverse business results	3.92 (Moderate)	3.67 (Moderate)

Source: Computed from primary data

The first cluster comprising 60 respondents (65.93 percent) views that implication of NPAs in funding mismanagement is very severe with a mean score of 4.24 while the implications of NPAs are at a moderate level. Therefore it can be concluded that the loan assets management of SBI has put in the right measure to address the ill effects of funding mismanagement and to resolve the moderately serious consequences of NPAs.

Table 8
Frequency distribution of clusters for implications for NPAs

Cluster	High Implication		Low Implication	
	Count	Percentage	Count	Percentage
Valid	60	65.93	31	34.07
Missing	0	0	0	0

Source: Computed from primary data

C. Parametrical Relationship among the Factor of Implication of NPAs

Table 9 shows the correlation results among the factors of the implication of NPAs. It can be noticed from the table that cost and expenses mismanagement is significantly correlated with funding mismanagement ($r = 0.482$). If the NPAs are not properly managed by the bank, it would cause an increase in market borrowing caused by dysfunctional fund recycling process. Further NPAs cause a drop in productivity, loss of goodwill of bank and overall fall in efficiency. In view of these negative implications, the bank has to take measures to contain NPAs.

Table 9
Parametrical relationship among the factor of the Implication of NPAs

Factors	Cost and expenses mismanagement	Funding Mismanagement	Adverse business results
Cost and expenses mismanagement	1		
Funding Mismanagement	0.482 ^a	1	
Adverse business results	0.100	0.102	1

Source: Computed from primary data

^a Correlation is significant at the 0.01 level (2-tailed).

IX. CONCLUSION

The present study analyzing the factors implication of NPAs in SBI through factor analysis is to be encountered. As far as cluster comprising 60 respondents (65.93 percent) views that implication of NPAs in funding mismanagement is very severe with a mean score of 4.24 while the implications of NPAs are at a moderate level. Therefore it can be concluded that the loan assets management of SBI has put in the right measure to address the ill effects of funding mismanagement and to resolve the moderately serious consequences of NPAs.

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