Sectoral composition of bad loans:
A study of schedule commercial banks in India

Dr. Gagan Bhati
Assistant Professor IPS Academy, IBMR Indore
E-mail : gaganbhati@ipsacademy.org

Dr. Vivek Singh Kushwaha
Dirctor & Professor IPS Academy, IBMR Indore
E-mail : director.ibmr@ipsacademy.org

ABSTRACT

Indian schedule commercial banks are under stress due to huge number of credit defaults which causes Non Performing Assets in banks. The magnitude of NPA is more significant in public sector banks. Public sector banks includes SBI & associates and nationalised banks. Level of Non Performing Assets has increased with a notable rate in the recent past in these banks. In present study an effort has been made to examine the composition of NPA in priority sectors, non priority sectors and public sectors. Study also explores the influence of advance, non priority sector NPA and priority sector NPA on gross and net NPA of public sector banks. It has been observed that comparatively contribution of NPA from non priority sector is morethan the contribution of NPA from priority sector. Growth of NPA in Indian PSBs during the study period has been measured through average annual growth rate (AAGR). Bivariate correlation and linear regression have been applied in order to examine the influence of advance and sectoral NPA (priority sector NPA and non priority sector NPA) over gross and net NPA of public sector banks.Advance and sectoral NPA had statistically significant impact on gross and net NPA of PSBs in India. There are various reasons behind the same, study concludes with several suggestion for policy makers to cope up with the problem of NPA.

Introduction

Banking system of a nation plays very crucial role in the development of the economy. Sound and vibrant banking system empowers the economy to bear the brunt of downfall or recessionary pressure. Banks or financial institutions primarily deals with extension of credit in different sectors of the economy to attain socio economic objective of the nation. Broadly there are two sectors in which lending is to be done by financial institution namely (1) Priority sectors, and (2) non priority sectors. Priority sectors are to be called economically weaker sectors of the economy and do not enjoy easy and huge credit availability. On the other hand those sectors which are well served with credit facility are non priority sectors viz. corporate loans. Lending always carries risk also articulated as credit risk which arises due to non-payment of the borrower. When this phenomenon happens continuously for 90 days, borrower's account is classified as NPA account.

In the recent past it has been observed that maximum loan default cases belongs to non priority sectors. Although, priority sector also contributes in NPA, but magnitude of this contribution is less in total NPA of fanatical institutions. Indian banking system is not peculiar in this context as a major portion of NPA of schedule commercial banks belongs to non priority sector. Priority sector provides credit facilities to those sectors which are underserved or unserved with these kind of credit facilities. Priority sector lending includes lending to agriculture, Micro small and medium enterprises, export credit facility, loan for education purpose, housing loan, advance for social infrastructure, renewable energy etc. on the other hand non priority sectors are those sectors where banks and financial institutions are willing to facilitate with credit extension because of greater opportunity to earn significantly huge interest earning but when credit defaults happens in these sectors it badly affects the financial health of the banks due to big size of credit amount is to be extended in non priority sectors.

Review of literature

Pooja Rana (2016) examined in her research titled "Analysis of Non-Performing Assets of Public Sector Banks in India" that A high level of NPAs shows high possibility of a huge number of credit defaults that impinge on the profitability and net-worth of banks and also obstructs the money of the banks consequently affects the liquidity in the economy. NPA Database of PSU banks have been analysed in the study for the period 2004-2014. She found several reasons behind mounting NPA viz. economic conditions, wilful defaults, diversion of funds and inefficiency of banks to manage credit risk. Author concluded that NPA of PSU banks continuously increasing in priority and non priority sectors. Author suggested that Loan should be granted to different sectors according to the asset performance in various segments.

Vivek singh (2016) analysed that the Economic Value Additions (EVA) performed by banks has become poor because of greater level of NPA. High provisioning negatively affects capital adequacy ratio (CAR) and profitability. Study was pursued on SCBs for the period of 14 years during 2000-2014. Author concluded level of NPA is rather high in PSU Banks, government should make more provisions for faster settlement of pending cases and also it should reduce the mandatory lending to priority sector and RBI should take rigid actions against wilful defaulters.

Dr Sushma Yadav(2014) concluded in her study that The problem of NPAs may be addressed only with correct credit assessment and risk administration mechanism. It is necessary that the banking system is to be prepared with prudential norms to reduce if not completely to keep away from the trouble of NPAs. It is much better to avoid NPAs at the growing phase of credit consideration by putting in place of precise and proper credit appraisal mechanisms. So, it is essential for bank to maintain the stage of NPA as small as possible. NPA affects the financial performance of banks badly so it should be managed accurately.

Dr Narula & Monika (2014) examined in their research that NPA has negative impact on the profitability of the banks. Study was pursued to analyse relation among Non Performing Assets and Net Profit of PNB during 2007 to 2012. Study revealed that poor management is major cause behind high NPA. Due to wrong selection of the borrower there is positive relationship between PNB's Net profit and NPA during study period. Study concluded with various suggestions for better management of NPA

K. veerkuma (2012) observed that Indian banking system is suffering badly with bad loan problem. One of the greatest reason behind the problem is direct granting of credit by RBI in order to achieve socio economic objective. According to which SCBs of India need to lend 40 percent of their total credit to priority sectors of the economy. Banks who achieved their target lending in priority sector suffering from high level of NPA. Study was conducted to make a comparison of NPA due to priority and non priority sector lending during 2002-2011.

Roshand Lal & Rajani Saluja (2010) examined that NPA of banks is a serious cause of concern for entire banking system of India. Increasing NPA renders negative impact on the overall economy growth of the nation. There are different levels of NPA in Public sector and foreign banks. The situation is worst in public sector banks where major portion of NPA comes from non priority sector lending.

Research methodology and database

Research is descriptive based on secondary data. Level of Non Performing Assets also articulated as bad loans in Priority sector and Non priority sector have been compared for study period in Indian PSU banks.For the purpose of analysis total 14 years data (2003-2016) of relevant variables (advance, gross NPA, net NPA priority sector NPA and Non priority sector NPA) have been taken into consideration. Secondary data has

been drawn from various annual and semi-annual publications of RBI viz. handbook of statistics on Indian economy, financial stability report, report on trend and progress of banking in India etc.

Sectoral comparison of bad loans have been performed for SBI & associates and nationalized banks separately. Growth of NPA in public sector banks has been measured through average annual growth rate (AAGR) during study period. Movement of NPA have been shown inpriority and non priority sectors through bar diagrams trend lines. Further, impact of advance and sectoral NPA (priority sector NPA and non priority sector NPA) on gross and net NPA of PSBs have been measured through bivariate correlation and linear regression.

Objectives of the study

1.　　To study the composition of NPA in priority and non priority sectors during study period.
2.　　To analyse the influence of advances on Gross and Net NPA of public sector banks.
3.　　To examine influence of sectoral NPA on Gross and Net NPA of public sector banks.

Hypotheses

H_{01}: There is no significant impact of advances on Gross NPA of public sector banks

H_{02}: There is no significant impact of priority sector NPA on Gross NPA of public sector banks

H_{03}: There is no significant impact of non priority sector NPA on Gross NPA of public　sector banks

H_{05}: There is no significant impact of advances on Net NPA of public sector banks

H_{06}: There is no significant impact of priority sector NPA on Net NPA of public sector banks

H_{07}: There is no significant impact of non priority sector NPA on Net NPA of public　sector banks

Objective-1

Data analysis and Interpretation

Table-I Sector wise composition of NPA in SBI & Associates

| Composition of NPA in Priority and Non Priority sector						
SBI & its Associates as on 31 March (Amount in Rupees Billion)						
Years	Priority Sector		Non Priority Sector		Public Sector		Total
	Amount	%	Amount	%	Amount	%	Amount
2003	81	47.49	84	49.44	5	3.1	170
2004	71	47.07	78	51.48	2	1.45	152
2005	62	41.84	84	56.9	2	1.26	148
2006	73	58.27	51	40.25	2	1.49	126
2007	72	56.57	53	41.49	2	1.93	127
2008	89	57.5	64	41.62	1	0.88	155
2009	84	45.7	99	53.35	2	0.95	185
2010	109	46.45	126	53.51	0	0.04	235
2011	156	51.22	148	48.78	0	0	304
2012	234	48.44	233	48.27	16	3.29	482
2013	264	42.12	361	57.55	2	0.33	628
2014	261	32.76	537	67.24	0	0	798
2015	257	34.93	478	65.07	0	0	735
2016	289	23.7	931	76.3	17	1.41	1220

Source: Handbook of statistics on Indian Economy
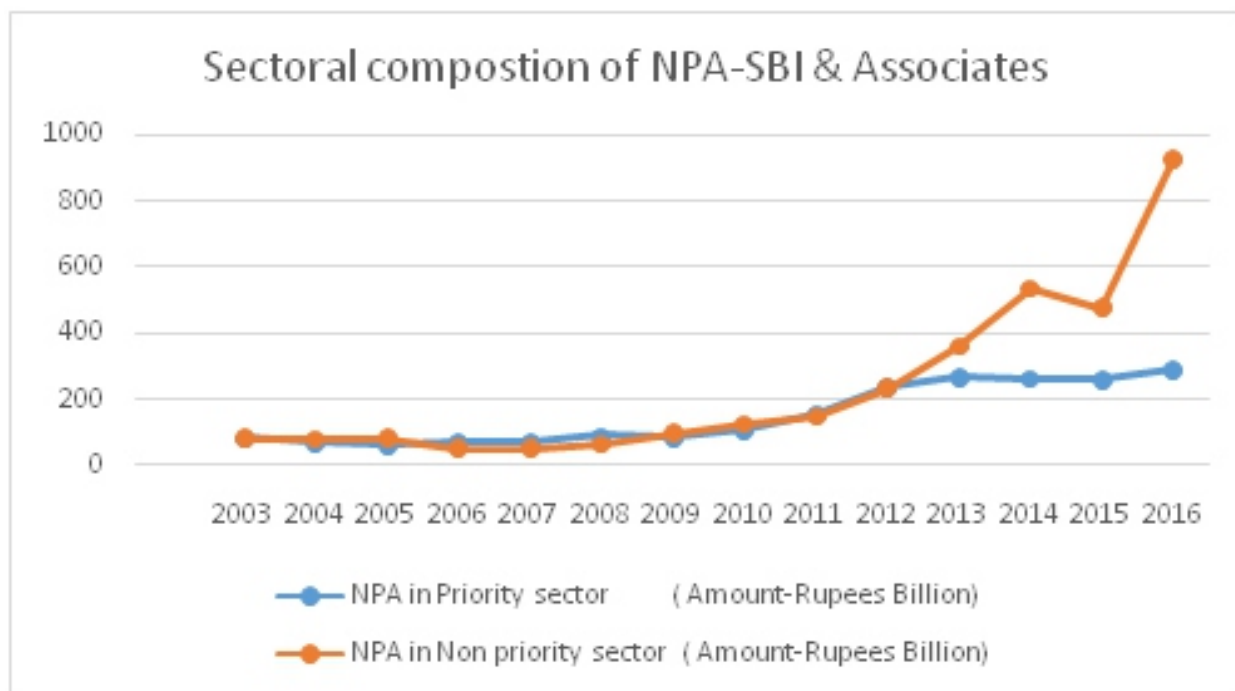
Figure-1: Increasing level of NPA in Non priority Sector in SBI & Associates(2003-16)

SBI & associates hold major portion out of total NPA of nationalised banks. Table-I shows in the recent past the level of NPA has increased in non priority sectors. Contribution of non priority sector in total NPA was 49.44 % as on March 2003, which has been observed 76.30 % as on March 2016. While priority sector contributed only 23.7% in total NPA of SBI & associates as on March 2016.

Table-II Sector wise composition of NPA in Nationalised banks

Composition of NPA in Priority and Non Priority sector						
Nationalized Banks as on 31 March (Amount in Rupees Billion)						
Years	Priority Sector		Non Priority Sector		Public Sector		Total
	Amount	%	Amount	%	Amount	%	Amount
2003	169	47.1	184	51.33	6	1.57	359
2004	167	47.74	179	51.14	4	1.12	350
2005	153	46.75	171	52.01	4	1.24	328
2006	149	51.78	132	45.9	7	2.32	288
2007	153	58.63	103	39.51	5	1.86	262
2008	160	63.96	86	34.29	4	1.76	250
2009	158	59.35	107	40.19	1	0.46	265
2010	196	53.76	165	45.4	3	0.84	364
2011	246	55.61	194	43.84	2	0.55	443
2012	324	46.96	356	51.49	11	1.55	690
2013	408	40.16	599	58.91	9	0.93	1017
2014	538	36.45	936	63.46	1	0.09	1474
2015	709	34.61	1338	65.26	3	0.13	2050
2016	969	23.18	3211	76.82	18	0.42	4180

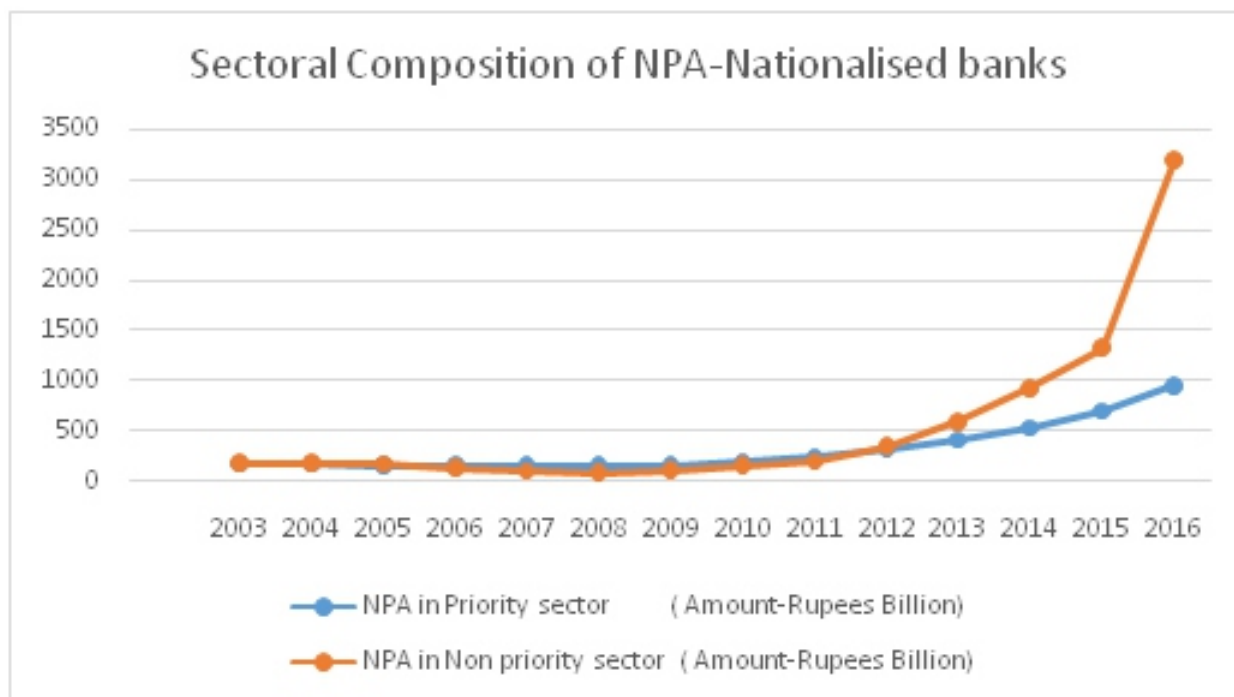*Source: Handbook of statistics on Indian Economy*

Figure-2: Increasing level of NPA in Non priority Sector in Nationalised banks(2003-16)

Non priority sector contributed 51.33% in total NPA of nationalised banks as on March 2003, at the same time contribution priority sector in total NPA found 47.1%. Level of NPA has increased in non priority sector during the study period with irregular downfall in the year 2007 and 2008. Out of Total NPA of Nationalized banks as on March 2016, 76.82 % comes from Non priority sector and 23.18 % comes from priority sector.

Table-III Sector wise composition of NPA in Public Sector Banks

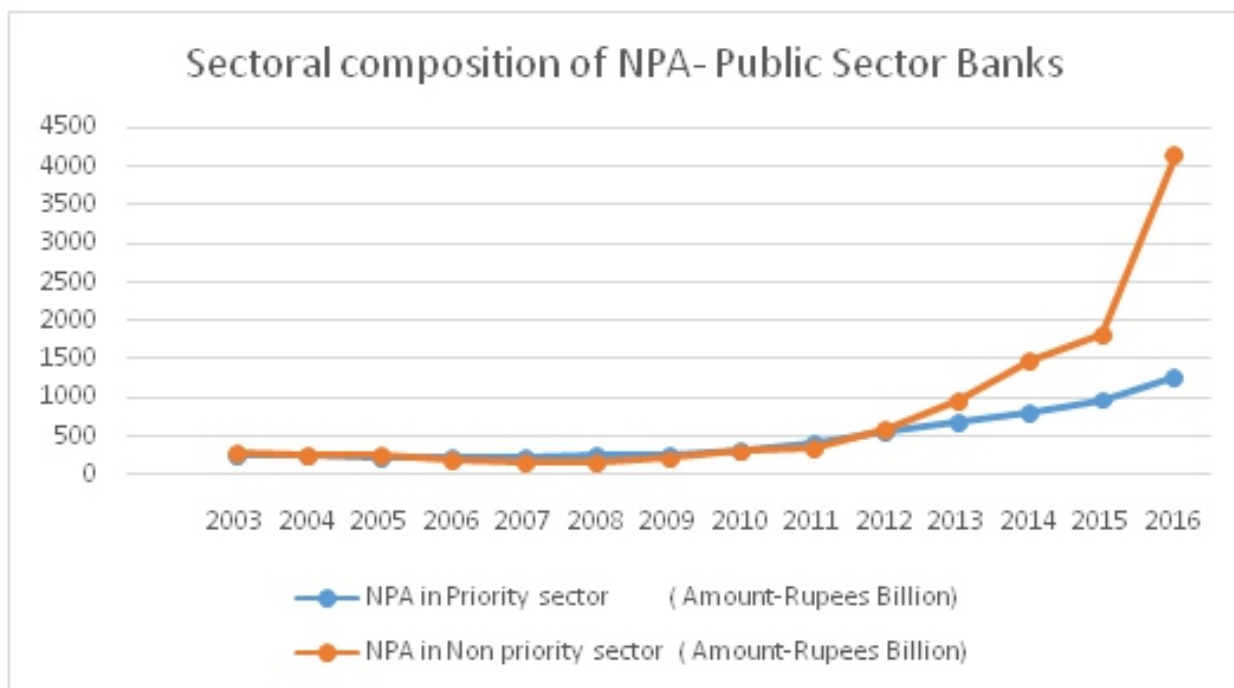| Years	Priority Sector		Non Priority Sector		Public Sector		Total
	Amount	%	Amount	%	Amount	%	Amount
2003	249	47.23	268	50.72	11	2.06	528
2004	238	47.54	257	51.24	6	1.22	501
2005	215	45.22	255	53.53	6	1.24	476
2006	222	53.75	183	44.18	9	2.07	414
2007	225	57.96	156	40.16	7	1.88	389
2008	249	61.48	150	37.1	6	1.42	405
2009	242	53.75	205	45.59	3	0.66	450
2010	305	50.89	291	48.58	3	0.52	599
2011	402	53.82	342	45.85	2	0.32	747
2012	558	47.57	588	50.17	27	2.27	1173
2013	673	40.91	960	58.39	12	0.7	1645
2014	799	35.16	1472	64.79	1	0.06	2273
2015	966	34.69	1816	65.21	3	0.09	2785
2016	1258	23.29	4141	76.72	35	0.64	5400

Source: Handbook of statistics on Indian Economy

Figure-3: Increasing level of NPA in Non priority Sector in public sector banks(2003-16)

Public sector banks (includes SBI & associates and nationalized banks) have shown noteworthy growth in level of NPA from non priority sector. Contribution of priority sector in total NPA has been observed less (23.29%) as compare to contribution of non priority sector (76.72%)as on march 2016.

Objective- 2 & 3

Data analysis and Interpretation

Table: IV Impact of advances and Sectoral NPA on Gross NPA (Coefficient Values, Test of Significance and comparison)

Variables	Regression Coefficients	Test of Significance		Value of R-Square	Correlation Coefficient (r)
		P-Value	Significance		
Advance	0.063	0.001	Yes	0.637	0.798
Priority sector NPA	0.028	0.000	Yes	0.627	0.667
Non Priority sector NPA	0.056	0.008	Yes	0.788	0.689

Source: Author's compilation through SPSS output

Table IV explicates that advances had a significant influence over Gross NPA of public sector banks during the study period. Significant correlation (r=0.798) has been observed between advance and Gross NPA. When advance increased Gross NPA has also increased. Value of R-square explains that advance can explain 63.7% variation in Gross NPA. P-value (0.001) was significant and null hypothesis (H01) rejected and significant impact of advance on Gross NPA has been observed.

Priority sector NPA and Non priority sector NPA had significant correlation with Gross NPA.Priority sector NPA had positive significant correlation (r=0.667) with Gross NPA, during the same period non priority

sector also had positive and significant correlation (r=0.689) with gross NPA. Value of R-square shows that priority sector NPA may explain 62.7% variation in gross NPA while non priority sector NPA furthermore can explain 78.8% variation in gross NPA. P-value found significant in both and null hypotheses (H_{02} & H_{03}) rejected with the conclusion that priority sector and non priority sector had significant impact over gross NPA of public sector banks. Comparatively non priority sector NPA had greater impact on Gross NPA. Since the size of non priority sector NPA is considerable, its impact on gross NPA has been found more significant.

Table: V Impact of advances and Sectoral NPA Net NPA (Coefficient Values, Test of Significance and comparison) i

Variables	Regression Coefficients	Test of Significance		Value of R-Square	Correlation Coefficient (r)
		P-Value	Significance		
Advance	0.039	0.001	Yes	0.623	0.789
Priority sector NPA	0.046	0.001	Yes	0.668	0.714
Non Priority sector NPA	0.010	0.000	Yes	0.794	0.722

Source: Author's compilation through SPSS output

Advance had greater influence on net NPA (Table-V). Positive and significant correlation (0.789) has been observed between advance made by public sector banks and net NPA during the study period. Further, advance can explain up to 62.3 % variation in net NPA. P-value (0.001) found significant and null hypothesis (H_{04}) rejected and significant impact of advance on net NPA has been observed.

Priority sector NPA and non priority sector NPA has shown significant and positive correlation with net NPA. Value of R-square shows that priority sector NPA can explain up to 66.8% variation while non priority sector NPA may explain 79.4% variation in net NPA during study period. With significant p-value it has been observed that null hypotheses (H05 & H06) got rejected and significant impact have been found priority sector NPA and non priority sector NPA on net NPA of public sector banks.

Findings

After examining the level of NPA of Public sector banks, the research reveals that in 2003 PSBs of India contributed 78.74 % of Gross NPA of Schedule Commercial Banks (SCBs) of India. This later increased to 85.59% in March 2016. On the other hand Net NPA of PSBs was 83.83 % of the of SCB's Net NPA in 2003. This later increased to 93.94 % in March 2016.During the entire study period (2003-2016) the average annual growth rate of Gross NPA has remained 20.68 % on the other hand 24.13 % AAGR have been observed in net NPA of Public Sector Banks.During the entire study period (2003-2016) average annual growth rate of Gross NPA and Net NPA has remained 18.85% and 21.01% respectively in SBI & associates while at the same period average annual growth rate of Gross and Net NPA has remained 21.96% and 25.64 % in nationalized banks in India.

Major Portion of NPA in Public Sector Banks comes from Non Priority Sectors. Non priority sector lending comprises extension of credit into large and medium industries, loans to big corporate houses, commercial real estate and wholesale and retail trade etc. Major portion of NPA in non priority sector contributed by steel, power, mining, infrastructure and aviation sector. As on 31 March 2016, 76.70 % of Total Gross NPA of PSBs was from Non Priority Sector and 23.30 % of Total Gross NPA was from priority sector. Aggressive lending in

non priority sector in recent past is the main reason behind mounting NPA, poor credit appraisal system, inadequacy and inefficiency of staff to manage credit portfolio were the major reasons behind mounting NPA. Further, Poor mechanism of government machinery, lack of timely legal solution, access work load, inadequacy of staff and continuous rise in wilful defaults were the major reasons behind ballooning NPA in nationalized banks.

When Advance increases, NPA also increases. Aggressive lending practices in order to meet socio economic objectives and to meet the loan disbursement targets without proper pre-sanction appraisal and post sanction follow-ups along with ineffective credit risk management leads to Non Performing Assets. Study highlighted that Advance has significant impact on Gross and Net NPA of PSBs during the study period. Non priority sector contributes more in total NPA of public sector banks, since major lending is to be done by the public sector banks into non priority sectors so possibility of potential loss is bigger in this sector. Hence impact of non priority sector NPA on gross and net NPA is greater than the impact of priority sector NPA.

Suggestions

Study revealed that Major portion of Non Performing Assets belongs to Non priority sector, aggressive lending in the recent past in non priority sector is the main reason behind it. Contribution of priority sector in Total NPA of PSBs is less than the Non priority sector. PSBs must focus on the improved credit appraisal mechanism particularly in non priority sector lending. Extension of credit must depend up on the credit worthiness of the borrower and viability of the project whether it may be priority sector or non priority sector.

Study revealed that Major portion of Non Performing Assets belongs to Non priority sector, aggressive lending in the recent past in non priority sector is the main reason behind it. Contribution of priority sector in Total NPA of PSBs is less than the Non priority sector. PSBs must focus on the improved credit appraisal mechanism particularly in non priority sector lending. Extension of credit must depend up on the credit worthiness of the borrower and viability of the project whether it may be priority sector or non priority sector.

Credit management should be viewed as part of a co-ordination group efforts made by all departments involved with customers to minimize bad debts and maximize profit instead of leaving it in the hands of the credit risk management department. Further, training should be provided to the entire workforce of public sector banks for effective use of technology in regular operations of banking business and for better management of NPA along with revitalizing obsolete and existing technology.

Credit management should be viewed as part of a co-ordination group efforts made by all departments involved with customers to minimize bad debts and maximize profit instead of leaving it in the hands of the credit risk management department. Further, training should be provided to the entire workforce of public sector banks for effective use of technology in regular operations of banking business and for better management of NPA along with revitalizing obsolete and existing technology.

There must be proactive approach in order to mitigate the risk associated with loan/advance assets like diversification of credit portfolio, increase in the frequency of visiting the project sites, effective use of market intelligence to gather accurate information about the borrower.

References

- Rajini Saluja and Dr. Roshan Lal, "Comparative analysis on Non-performing Assets (NPAs) of Public Sector, Private Sector and Foreign Sector Banks in India", International Journal of Research in Commerce and Management, Vol. No.1, Issue No.7, Nov, 2010, pp.80-89.

- Dr Sushma yadav   NPAs: Rising Trends and Preventive Measures in Indian Banking Sectors "International Journal of Advance Research in Computer Science and Management Studies Volume 2, Issue 1, January 2014 pg. 129-140

- Pooja rana; Analysis of Non-Performing Assets of Public Sector Banks in India; International Journal of Advance Research in Computer Science and Management Studies, Volume 4, Issue 6, June 2016.

- Meenakshi Rajeev (2008) NPA in the Indian Banking Sector-With Special Reference to Small Industries sector"-Research project funded by South Asia Network of Economic Research Institute.www.saneinetwork.net/pdf/SANEIVIII/6

- Meenakshi Rajeev and H P Mahesh, "banking sector reforms and NPA: a study of Indian commercial bank"s, working paper 252,institute for social change and economic change, Bangalore, ISBN 978-81-7791-108-4,,2010.

- Dr Sonia narula and monika single, Empirical study on Non Performing Assets of Banks; International Journal of Advance Research in Computer Science and Management Studies, Volume 2 , Issue 1 , January 2014

- Vivek Rajbahadur Singh; A Study of Non-Performing Assets of Commercial Banks and it's recovery in India; Annual Research Journal of Symbiosis Centre for Management Studies, Pune Vol. 4, March 2016

- Thiagarajan, S. Ayyappan, A and Ramachandran (2011), Credit Risk determinants of Public and Private Sector Banks in India, European Journal of Economics, Finance and Administrative Sciences, Issue 34 (2011).

- Thummuluri Siddaiah "Financial Services" PEARSON, Delhi, 2011, P-6,7Top 30 NPA accounts of banks under scanner": Finance Minister P.Chidambaram. The Hindu 23rd October 2013.

- Upadhyay, Suresh (2007), "Vargikrut Vepari Bankoni Bin-Labhdayak Askyamato" , Yojana (Gujarati edition), issue no. 8, cont. issue no. 683, pp. no 22-25

- Usha Arora, Bhavana Vashist and Monica Bansal, "An Analytical Study of Growth of Credit Schemes of Selected Banks", The Icfai University Journal of Services Marketing, Vol.VII, No.1, 2009, pp.51-65.