A Comparative Study Regarding Impact of Non-Performing Assets (NPA) On Working of the State Bank of India (SBI) and the Bank of India (BOI)

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Abstract: *While making comparative studies on impact of NPA on working of the State Bank of India (SBI) and the Bank of India (BOI) during the FY 2016-17, it was observed that mainly due to the biggest infrastructure, the SBI had the largest volumes among all PSBs in terms of total assets, total business, total deposits, gross advances, priority sector advances, gross NPAs, Net NPAs, provisioning, total income, net interest income, other income, total expenses, operating profit and net-profit, etc. In addition, in comparison to the BOI, the bank registered a higher percentage growth in terms of per employee business, credit deposit ratio (%), net interest margin (%), yield average on advances (%), and per employee profit. Another side, the BOI registered with the highest volume of substandard assets, doubtful assets, loss assets, cost to income ratio (%) and the lowest percentage growth in gross advances among all PSBs. However, the BOI was successful to retain its higher percentage growth over the SBI in terms of total business, capital adequacy ratio (%), priority sector advances, other income and lower percentage growth in cost of deposit (%), gross NPAs, net NPAs, total provisioning, and total expenses. However, the gradually increasing NPAs had impacts on overall working of both the banks' but it had worst impact on the BOI, as during the FY, the bank had a net loss of Rs. 1558 crores.*

Keywords: *Comparative study, Impact, NPA, performance indicators, SBI, BOI*

I. INTRODUCTION

Non-Performing Assets

In the general term, an asset is classified as Non-performing Assets (NPA), if interest or installment payment of principal remain due and unpaid for more than 180 days. However, since March 2004, default status had to be given to a borrower, if dues are not paid for 90 days. If any advance or credit facility granted by a bank to a borrower becomes non-performing then the bank will have to treat all the advances and credit facilities granted to that borrower as non-performing regardless existence of some performing advances or credit facilities. As per guidelines of the RBI (1992), banks' in India must adopt the international banking norms on Income Recognition, Asset Classification, Provisioning and Capital Adequacy (Basu, 2005).

Public Sector Banks' in India

In term of businesses, the public sector banks' now have a dominant position. They amounted for 70.5% of assets, 73.9% of deposits, 72.7% of advances and 69.9% of investments of all scheduled commercial banks' as on 31st March 2017. The 21 nationalized banks' had 85018 offices all over the country. In recent years, in order to meet credit needs of weaker sections, artisans, small and marginal farmers' etc., regional rural banks' were set-up in different parts of the country. On June 30, 2017 their branches numbered to 24,524 (RBI, 2017).

The public sector banks' (PSBs) in India have made significant contribution to almost all the sectors of the Indian economy such as agriculture, industries of various categories, trade, employment and infrastructure. The ever increasing trends in deposits and credits represents the performance of banks' in India. With over Rs. 7573085 crores as deposits and over Rs. 5237045 crores as loans on March 2017, the public sector banks' commands the heights of the Indian economy (RBI, 2017).

However, Non-Performing Assets (NPA) in credit portfolios in PSBs have become a serious issue since last two decades. NPA have not only affected the productivity and the profitability of banks' but also damaged the image of the Indian banking and a drain on the valued system of the society. Hence, the all-round cry is over the volume of NPA those have risen to an alarming level of over Rs. 330322 crores on March 2017 and this caused mainly because of wilful defaults on the part of the borrowers' (RBI, 2017).

II. REVIEW OF LITERATURE

The non-performing assets (NPAs) engrossed the attention of researchers in the late 1980's when the necessity to transform the banking sector was felt in Indian economy.

Naidu, B.R. and Naidu, A.P.S. (2004) assessed the impact of NPA on the profitability of PSBs. The authors identified the diversion of funds as the number one reason for the NPA in the banking sector.

Gopalakrishnan, T.V. (2004), explained that NPA pose significant blow on the balance sheets and profitability of PSBs and high level of NPAs in bank books is a great risk to bank's health, stability, viability and soundness.

Basu, P. (2005) recommended various banking reforms, integration of best practices from abroad and the development of capital market to counteract the threat of financial distress.

Shiralashetu and Akash (2006) reported that the priority sector, in particular the SSI sector contributed NPA significantly and PSBs accounts for 91.07% of the total NPA of priority sector.

Chakrabarti, R. (2006) discussed the major contemporary issues on public sector bank performance, and the nature and management of NPAs in Indian commercial banking. The author briefed that Indian banking sector is suffering from considerable NPAs in their asset portfolio.

Vallabh, *et al.*, (2007) examined the impact of NPA on banks' macroeconomic factors and bank-specific parameters. The other notable observation is that the banks' exposure to priority sector lending reduces the NPA.

Rajeev (2008) analyzed the level of NPA and its relationship with key performance indicators in Indian banking. Inference based on analysis revealed that rural branches contribute more NPA in SSI sector. Regarding the generation of the NPA, the study pointed out that inadequate funds and higher amounts of accumulated NPAs resulted in the creation of the more NPA in SSI.

Dash, M.K. and Kabra, G. (2010) concluded that the commercial banks' that are aggressive and charge relatively higher interest rates incurred greater NPAs.

Faizanuddin, Md. and Mishra R.K. (2011) examined the dimensional approach of NPA in the banking system in India with special focus on State Bank of India, Patna Circle, Bihar. Findings and inferences based on analysis recommended major changes in the recovery policy, project financing norms, legal aspects and supervision of NPA accounts.

Prasad and Veena, D. (2011) recommended revitalizing the PSBs and incorporating the best practices in operations, technology and management to improve financial performance.

Siraj, K.K. and Pillai, P.S. (2011) recommended improvements in the management of the loan portfolio to withhold the impact created by the financial crisis.

Yadav, M.S. (2011) explained that the level of the NPAs of PSBs affected fifty percent profitability of the banks and its impact has increased at very large extent with other strategic banking variables in terms of business per employee and operating profit per employee.

Siraj, K.K. and Pillai, P.S. (2012) recognized that NPA remains a major threat and the incremental component explained through additions to NPA poses a great question mark on the efficiency of credit risk management practices of banks' in India.

Ahmad, *et al.*, (2013) concluded the causes for NPA in public sector banks'. Secondary data was collected for a period of five years and analysed by CAGR, average, ANOVA and banks' ranking. Banks' were ranked according to their performance to manage the NPA's.

Arora, N. and Ostwal, N., (2014) concluded that the NPA's are a big issue for the banks'. According to them, the financial companies and public sector banks' have higher NPA's as compared to Private sector banks'.

Satpal (2014) has made the proper definition of NPA and the factors responsible to NPAs, reasons for high values of NPA's and their impact on various banking systems.

Kavitha, *et al.*, (2016) concluded that the extent of NPA is comparatively very high in public sector banks' as compared to private banks'.

Singh, V. R., (2016) concluded that Non-Performing Assets have always created a big problem for banks' in India and the NPAs level of our banks' is still high as compared to the foreign banks'.

Importance of the Study

Examination of published works on NPA in public sector banks' in India showed that:-

(1) Most of the studies focused on NPA ratio's (gross NPA ratio and net NPA ratio) to assess the asset quality and effectiveness of credit risk management.
(2) Very few studies were conducted towards examining the relationship between NPA and bank performance and macroeconomic indicators.
(3) Very few studies were conducted towards examining impact of NPA on working of Public Sector Banks'.

Statement of the problem

Adherence to newly defined prudential norms of accounting saw a heavy build-up of NPA portfolios in books of many banks'. In 1992, NPA were alarmingly high for most of the public sector banks' accounting for more than 80% of the banking business in the country. In case of some banks', ratio of NPA to capital funds was disturbingly high and it exceeded even to their net worth which undermined solvency (Aravanan, and Vijaykumar, 2007). As per latest report of the RBI, "Trends and Progress of Banking in India 2016-17" the Gross NPA of public sector banks' have increased from Rs.5,02,068 (9.83%) crores in 2016 to Rs.5,89,502 (11.82%) crores in 2017. So after publication of the Narasimham Committee Report (1991) profitability and its related issues including reduction of NPA received priority in the agenda of all public sector banks' in the country. (Joshi and Little, 1996).

Objectives of the study

1. To undertake comparative study regarding impact of NPA on working of the State Bank of India and Bank of India.
2. To undertake comparative study regarding profitability of the State Bank of India and Bank of India.

Hypotheses Tested

The present research study is problem oriented analysis and thus, it may be studied on the development of following hypotheses:

1. After nationalization in 1969, the extension of banking sector activities is mainly guided by policies of the government.
2. Various problems have been faced by public sector banks' including the State Bank of India particularly with priority sector lending which caused large NPA as amount and defaulting accounts.
3. The Multi-Agency approach which caused less co-ordination is responsible for defaults in bank lending.
4. The structural system of banks' are lacking a goal approach to financing. Lending operations lacks co-ordination and thus difficult to contain NPA at desired levels.

III. RESEARCH METHODOLOGY

To achieve the stated objectives, data have been collected from various sources and include:-

(1) Research reports, published articles, news reports and conference proceedings available at national and international level related to NPA. The information obtained from these sources have been used for critical evaluation of the subject and identify research gap in the area of study.

(2) Statistical Data on NPA, bank-specific and economic indicators during 2015-16 to 2016-17, have been collected mainly from the RBI and the SBI websites, websites of other public sector banks, Indian Banks Association, India Stat and Ministry of Finance.

(3) Unpublished reports on the above topic.

IV. RESULTS AND DISCUSSION

Impact of NPA on public sector banks' (2015-16 to 2016-17)

Table-1 represents various performance indicators as below:

Table elaborates that the quality of assets have been deteriorated in PSBs during this period. Doubtful-3 assets have badly deteriorated as 86.77% from Rs. 53370 crores to Rs. 99681 crores, followed by Doubtful-2 assets as 73.84% from Rs. 366671 crores to Rs. 637426 crores, Doubtful-1 assets as 34.87% from Rs. 384113 crores Rs. 518077 crores, Loss assets as 13.87% from Rs. 46617 crores to Rs. 53087 crores and Substandard assets as 0.87% from Rs. 465099 crores to Rs. 469164 crores.

Accordingly the situation of NPA has become more terrible. Gross NPA has been increased as 20.02% from Rs. 519778 crores to Rs. 623867 crores, Gross NPA (%) increased as 2.81% from 9.51 to 12.32, Net NPA increased as 17.79% from Rs. 280419 crores to Rs. 330322 crores, Net NPA (%) increased as 1.62% from 6.08 to 7.7. Due to such bad loans, Provisions for NPA has been increased as 6.48% from Rs. 143110 crores to Rs. 152386 crores. This all hampered the overall working of PSBs as Credit-Deposit ratio (%) has been decreased as -3.31% from 79.9 to 70.59, Gross advances decreased as -4.15% from Rs. 5464223 crores to Rs. 5237045 crores, Net interest income decreased as -7.42% from Rs. 457790 crores to Rs. 423802 crores, Net interest income (%) decreased as -0.85% from 8.25 to 7.4, Net interest margin (%) decreased as -0.06% from 2.34 to 2.28, Yield average on advances (%) decreased as -0.74% from 10.23 to 9.49, Average return on assets (%) decreased as -0.15% from 0.24 to 0.09.

Overall due to such negative impacts, total expenses of PSBs increased as 2.46% from Rs. 622502 crores to Rs. 637823 crores which adversely effected the per employee profit as Rs. -0.51 lacs. However, Net profit have increased as 121.29% from Rs.-16133 crores to Rs. 3435 crores, but keeping in view such a large transactions made by these 21 public sector banks' such a low cumulative net profit is not acceptable and this shows a picture of bad impacts of NPA on public sector banks' in India.

Table1: Overall performance of Public Sector Banks' (2015-16 & 2016-17)				
Sl.	Performance indicators	2015-16	2016-17	% Change
1	Total Number of Branches	82764	85018	2.72
2	Total Number of Employees	775476	790204	1.89
3	Total Assets (Rs. in Crores)	7819575	8849658	13.17
4	Total Business (Rs. in Crores)	12438512	12959113	4.18
5	Per Employee Business Average (Rs. in Crores)	15.64	15.82	1.15
6	Capital Adequacy Ratio (%) Average (Basel-III)	11.36	11.73	0.37
7	Total Deposits (Rs. in Crores)	6988889	7573085	8.35
8	Cost of Deposit (%) Average	6.65	6.03	-0.62
9	Credit-Deposit Ratio (%) Average	79.9	70.59	-3.31
10	Total Gross Advances (Rs. in Crores)	5464223	5237045	-4.15
11	Total Priority Sector Advances (Rs. in Crores)	1502271	1589374	5.79
12	Total Substandard Assets (Rs. in Crores)	465099	469164	0.87
13	Total Doubtful-1 Assets (Rs. in Crores)	384113	518077	34.87
14	Total Doubtful-2 Assets (Rs. in Crores)	366671	637426	73.84
15	Total Doubtful-3 Assets (Rs. in Crores)	53370	99681	86.77
16	Total Loss Assets (Rs. in Crores)	46617	53087	13.87
17	Total Gross NPA (Rs. in Crores)	519778	623867	20.02
18	Gross NPA (%) Average	9.51	12.32	2.81
19	Total Net NPA (Rs. in Crores)	280419	330322	17.79
20	Net NPA (%) Average	6.08	7.7	1.62
21	Total Provisions for NPA (Rs. in Crores)	143110	152386	6.48
22	Total Income (Rs. in Crores)	679457	713163	4.96
23	Total Net Interest Income (Rs. in Crores)	457790	423802	-7.42
24	Net Interest Income (%) Average	8.25	7.4	-0.85
25	Total Other Income (Rs. in Crores)	85882	114790	33.66
26	Other Income (%) Average	1.57	1.7	0.13
27	Total Expenses (Rs. in Crores)	622502	637823	2.46
28	Cost to Income Ratio (%) Average	53.49	52.96	-0.53
29	Net Interest Margin (%) Average	2.34	2.28	-0.06
30	Yield Average on Advances (%)	10.23	9.49	-0.74
31	Average Return on Assets (%)	0.24	0.09	-0.15
32	Total Operating Profit (Rs. in Crores)	126982	149909	18.05
33	Per Employee Profit Average (Rs. in Lacs)	-1.11	-0.51	54.05
34	Total Net Profit (Rs. in Crores)	-16133	3435	121.29
Source: compiled from annual reports of public sector banks’				

Table2: Performance indicators of SBI & BOI			
Sl.	Performance indicators	SBI (2016-17)	BOI (2016-17)
1	Number of Branches	17170	5016
2	Number of Employees	209567	47750
3	Total Assets (Rs. in Crores)	2705966	626309
4	Total Business (Rs. in Crores)	3554251	933820

5	Per Employee Business (Rs. in Crores)	16.24	19.4
6	Capital Adequacy Ratio % (Basel-III)	13.11	12.14
7	Total Deposits (Rs. in Crores)	2044751	540032
8	Cost of Deposit (%)	5.98	4.84
9	Credit-Deposit Ratio (%)	80.38	68.91
10	Gross Advances (Rs. in Crores)	1509500	280302
11	Priority Sector Advances (Rs. in Crores)	351894	98175
12	Substandard Assets (Rs. in Crores)	44229	108626
13	Doubtful-1 Assets (Rs. in Crores)	44890	124952
14	Loss Assets (Rs. in Crores)	3995	25307
15	Gross NPA (Rs. in Crores)	137244	52044
16	Gross NPA (%)	6.9	13.22
17	Net NPA (Rs. in Crores)	54065	25303
18	Net NPA (%)	3.71	6.9
19	Provisions for NPA (Rs. in Crores)	32247	11672
20	Total Income (Rs. in Crores)	210979	46404
21	Net Interest Income (Rs. in Crores)	61860	11826
22	Net Interest Income (%)	6.86	2.03
23	Other Income (Rs. in Crores)	35461	6772
24	Other Income (%)	1.39	1.45
25	Total Expenses (Rs. in Crores)	200495	47998
26	Cost to Income Ratio (%)	47.75	76.38
27	Net Interest Margin (%)	2.84	2.6
28	Yield Average on Advances (%)	9.46	7.98
29	Average Return on Assets (%)	0.41	-0.24
30	Operating Profit (Rs. in Crores)	50848	9733
31	Per Employee Profit (Rs. in Lacs)	5.11	-3.2
32	Net Profit/Loss (Rs. in Crores)	10484	-1558

Source: compiled from annual reports of public sector banks'

Impact of NPA on Bank of India (2015-16 to 2016-17)

Table 1 & 2 represents various performance indicators as below:

Table elaborates that during the period the bank was having the largest quantity of bad quality assets among all public sector banks around 1/4th in quantity. During 2016-17 the bank had substandard assets as Rs. 108626 crores, Doubtful-1 assets as Rs. 124952 crores, Doubtful-2 assets as Rs. 236146 crores, Doubtful-3 assets as Rs. 27708 crores, and loss assets as Rs. 25307 crores.

Due to such heavy amount of bad assets, cost-deposit ratio (%) had decreased by -0.41% (PSBs -0.62%), Credit-Deposit ratio (%) decreased by -3.94% (PSBs -3.31%), and gross advances decreased by -21.68% (PSBs -4.15%).

However, the bank was quite successful to retain its NPA on comfortable levels, but amount of Gross NPA increased by 0.5% (PSBs 20.02%), gross NPA (%) increased by 0.15% (PSBs 2.81%).

This all hampered the overall working of the bank as Net interest income (%) decreased by -7.95% (PSBs -0.85%), Yield average on advances (%) decreased by -0.3% (PSBs -0.74%), Average return on assets (%) decreased by -1.18% (PSBs -0.15%), other income (%) decreased by -0.09% (PSBs 0.13%) where cost to income ratio (%) was increased by 37.28% (PSBs -0.53%).

Overall due to such negative impacts, per employee profit of the bank was noted as Rs. -3.2 lacs in 2016-17 accordingly the net profit of the bank in the same year as Rs. -1558 crores which reflects bad impact of NPA on workings of Bank of India.

Comparative studies regarding impact of NPA on the SBI and the BOI:

(i) Impact of NPA on total assets of banks'

Analysis by volumes: The total assets of all PSBs was noted as Rs. 8849658 crores. The SBI had the largest volume as Rs. 2705966 crores when the BOI as Rs. 626309 crores.

Analysis by percentage growth: The average growth of total assets of PSBs was noted as 13.17% and the SBI had it as 14.77% when the BOI as 2.68%.

(ii) Impact of NPA on total business of banks'

Analysis by volumes: The total business of all PSBs was noted as Rs. 12959113 crores. The SBI had the highest business as Rs. 3554251 crores when the BOI as Rs. 933820 crores.

Analysis by percentage growth: The average growth of total business of PSBs was noted as 4.18% and the SBI had it as 5.84% when the BOI as 7.22%.

(iii) Impact of NPA on per employee business of banks'

Analysis by volumes: The average per employee business of all PSBs was noted as Rs. 15.82 crores. The SBI had it as Rs. 16.24 crores when the BOI as Rs. 19.4 crores.

Analysis by percentage growth: The average growth of per employee business of PSBs was noted as 1.15% and the SBI had the highest growth as 15.09% and the BOI as 6.57%.

(iv) Impact of NPA on capital adequacy ratio (%) of banks'

Analysis by volumes: The average capital adequacy ratio of all PSBs was noted as 11.73%, when the RBI insisted to PSBs to maintain this at least 12.0% level during 2016-17. The SBI had it as 13.11% when the BOI as 12.14%.

Analysis by percentage growth: The average growth of CAR of PSBs was noted as 0.37% and the SBI had it as -0.01% when the BOI as 0.13%.

(v) Impact of NPA on total deposits of banks'

Analysis by volumes: The total deposits of all PSBs was noted as Rs. 7573085 crores, and the SBI had the highest deposit as Rs. 2044751 crores when the BOI as Rs.540032 crores.

Analysis by percentage growth: The average growth of total deposits of PSBs was noted as 8.35% and the SBI had the highest growth as 18.14% and the BOI as 5.26%.

(vi) Impact of NPA on Cost of deposit (%) of banks'

Analysis by volumes: The average cost of deposits of all PSBs was noted as 6.03%, and the SBI had it as 5.98% and the BOI as 4.84%.

Analysis by percentage growth: The average growth of cost of deposits of PSBs was noted as -0.62%. The SBI had it as -0.37% when the BOI as -0.41%.

(vii) Impact of NPA on Credit-Deposit ratio (%) of banks'

Analysis by volumes: The average C.D. ratio of all PSBs was noted as 70.59%, and the SBI as 80.38% when the BOI as 68.91%.

Analysis by percentage growth: The average growth of C.D. ratio of PSBs was noted as -3.31% and the SBI had it as -3.18% when the BOI as -3.94%.

(viii) Impact of NPA on gross advances of banks'

Analysis by volumes: The total gross advances of all PSBs was noted as Rs. 5237045 crores, and the SBI had the highest gross advances as Rs. 1509500 crores when the BOI as Rs. 280302 crores.

Analysis by percentage growth: The average growth of gross advances of PSBs was noted as -4.15% and the Bank of India had the lowest growth as -21.68%. The SBI had it as -7.23% growth rate.

(ix) Impact of NPA on priority sector advances of banks'

Analysis by volumes: The total priority sector advances of all PSBs was noted as Rs. 1589374 crores, and the SBI had the highest priority sector advances as Rs. 351894 crores when the BOI as Rs. 98175 crores.

Analysis by percentage growth: The average growth of priority sector advances of PSBs was noted as 5.79% and the SBI had it as 3.63% when the BOI as 10.02%.

(x) Impact of NPA on substandard assets of banks'

Analysis by volumes: The total substandard assets of all PSBs was noted as Rs. 469164 crores, and the Bank of India was noted with the highest substandard assets as Rs. 108626 crores when the SBI had it as Rs. 44229 crores.

Analysis by percentage growth: The average growth of substandard assets of PSBs was noted as 0.87% and the SBI had it as 14.4% when the BOI as -24.54%.

(xi) Impact of NPA on Doubtful-1 assets of banks'

Analysis by volumes: The total Doubtful-1 assets of all PSBs was noted as Rs. 518077 crores, and the Bank of India was noted with the highest Doubtful-1 assets as Rs. 124952 crores when the SBI had it as Rs. 44890 crores.

Analysis by percentage growth: The average growth of Doubtful-1 assets of PSBs was noted as 34.87% and the SBI had it as 11.3% when the BOI as -16.56%.

(xii) Impact of NPA on Loss assets of banks'

Analysis by volumes: The total Loss assets of all PSBs was noted as Rs. 53087 crores, and the Bank of India was noted with the highest Loss assets as Rs. 25307 crores when the SBI had it as Rs. 3995 crores.

Analysis by percentage growth: The average growth of Loss assets of PSBs was noted as 13.87% and the SBI had it as 34.51% when the BOI as 4.01%.

(xiii) Gross NPA of banks'

Analysis by volumes: The total gross NPA of all PSBs was noted as Rs. 623867 crores, and the SBI had the highest gross NPA as Rs. 137244 crores when the BOI as Rs. 52044 crores.

Analysis by percentage growth: The average growth of gross NPA of PSBs was noted as 20.02% and the SBI had it as 13.49% when the BOI as 0.5%.

(xiv) Gross NPA (%) of banks'

Analysis by volumes: The average gross NPA of all PSBs was noted as 12.32%, and the SBI had it as 6.9%, when the BOI as 13.22%.

Analysis by percentage growth: The average growth of gross NPA (%) of PSBs was noted as 2.81% and the SBI had it as 0.4% when the BOI as 0.15%.

(xv) Net NPA of banks'

Analysis by volumes: The total net NPA of all PSBs was noted as Rs.330322 crores, and the SBI had the highest net NPA as Rs. 54065 crores when the BOI as Rs. 25303 crores.

Analysis by percentage growth: The average growth of net NPA of PSBs was noted as 17.79% and the Bank of India had the lowest growth as -9.61%. The SBI had it as 27.61%.

(xvi) Net NPA (%) of banks'

Analysis by volumes: The average net NPA (%) of all PSBs was noted as 7.7%, and the SBI had it as the lowest 3.71% when the BOI as 6.9%.

Analysis by percentage growth: The average growth of net NPA (%) of PSBs was noted as 1.62% and the Bank of India had the lowest growth as -0.89%. The SBI had it as -0.1%.

(xvii) Provisions for NPA of banks'

Analysis by volumes: The total provisions of all PSBs was noted as Rs.152386 crores, and the SBI had the highest provisions as Rs. 32247 crores when the BOI as Rs. 11672 crores.

Analysis by percentage growth: The average growth of provisions of PSBs was noted as 6.48% and the SBI had it as 19.5% when the BOI as -17.22%.

(xviii) Impact of NPA on total income of banks'

Analysis by volumes: The total income of all PSBs was noted as Rs.713163 crores, and the SBI had the highest income as Rs. 210979 crores when the BOI as Rs. 46404 crores.

Analysis by percentage growth: The average growth of total income of PSBs was noted as 4.96% and the SBI had it as 9.97% when the BOI as 1.39%.

(xix) Impact of NPA on Net interest income of banks'

Analysis by volumes: The total net interest income of all PSBs was noted as Rs.423802 crores, and the SBI had the highest income as Rs. 61860 crores when the BOI as Rs. 11826 crores.

Analysis by percentage growth: The average growth of net interest income of PSBs was noted as -7.42% and the SBI had it as 8.15% when the BOI as 0.87%.

(xx) Impact of NPA on Net interest income (%) of banks'

Analysis by volumes: The average net interest income (%) of all PSBs was noted as 7.4%, and the Bank of India had it as the lowest 2.03% when the The SBI had it as 6.86%.

Analysis by percentage growth: The average growth of net interest income (%) of PSBs was noted as -0.85% and the Bank of India had the lowest growth as -7.95%. The SBI had it as -0.41%.

(xxi) Impact of NPA on other income of banks'

Analysis by volumes: The total other income of all PSBs was noted as Rs.114790 crores, and the SBI had the highest other income as Rs. 35461 crores when the BOI as Rs. 6772 crores.

Analysis by percentage growth: The average growth of other income of PSBs was noted as 33.66% and the SBI had it as 27.35% when the BOI as 85.38%.

(xxii) Impact of NPA on other income (%) of banks'

Analysis by volumes: The average other income (%) of all PSBs was noted as 1.7%, and the SBI had it as 1.39% when the BOI as 1.45%.

Analysis by percentage growth: The average growth of other income (%) of PSBs was noted as 0.13% and the SBI had it as 0.14% when the BOI as -0.09%.

(xxiii) Impact of NPA on total expenses of banks'

Analysis by volumes: The total expenses of all PSBs was noted as Rs.637823 crores, and the SBI had the highest expenses as Rs. 200495 crores when the BOI as Rs. 47998 crores.

Analysis by percentage growth: The average growth of expenses of PSBs was noted as 2.46% and the SBI had it as 10.22% when the BOI as -7.87%.

(xxiv) Impact of NPA on cost to income ratio (%) of banks'

Analysis by volumes: The average cost to income ratio (%) of all PSBs was noted as 52.96%, and the Bank of India had it the highest as 76.38% when the SBI as 47.75%.

Analysis by percentage growth: The average growth of cost to income ratio (%) of PSBs was noted as -0.53% and the Bank of India had the highest growth as 37.28% and the SBI as -1.38%.

(xxv) Impact of NPA on net interest margin (%) of banks'

Analysis by volumes: The average net interest margin (%) of all PSBs was noted as 2.28%, and the SBI as 2.84% when the BOI as 2.6%.

Analysis by percentage growth: The average growth of net interest margin (%) of PSBs was noted as -0.06% and the SBI had it as -0.12% when the BOI as 0.1%.

(xxvi) Impact of NPA on yield average on advances (%) of banks'

Analysis by volumes: The overall yield average on advances (%) of all PSBs was noted as 9.49%, and the SBI had it as 9.46% when the BOI as 7.98%.

Analysis by percentage growth: The average growth of yield average on advances (%) of PSBs was noted as -0.74% and the SBI had it as -0.66% when the BOI as -0.3%.

(xxvii) Impact of NPA on average return on assets (%) of banks'

Analysis by volumes: The overall average return on assets (%) of all PSBs was noted as 0.09%, and the SBI had it as 0.41% when the BOI as -0.24%.

Analysis by percentage growth: The growth of average return on assets (%) of PSBs was noted as -0.15% and the SBI had it as -0.05% when the BOI as -1.18%.

(xxviii) Impact of NPA on operating profit of banks'

Analysis by volumes: The total operating profit of all PSBs was noted as Rs.149909 crores, and the SBI had the highest operating profit as Rs. 50848 crores when the BOI as Rs. 9733 crores.

Analysis by percentage growth: The average growth of operating profit of PSBs was noted as 18.05%. The Bank of India had the highest growth as 61.24% when the SBI had it as 17.54%.

(xxix) Impact of NPA on per employee profit of banks'

Analysis by volumes: The average per employee profit of all PSBs was noted as Rs.-0.51 lacs, and the SBI had it as Rs. 5.11 lacs when the BOI as Rs. -3.2 lacs.

Analysis by percentage growth: The average growth of per employee profit of PSBs was noted as 54.05%. The SBI had it as 8.72% when the BOI as 73.77%.

(xxx) Impact of NPA on net profit of banks'

Analysis by volumes: The cumulative net profit of all PSBs was noted as Rs. 3435 crores, and the SBI had the highest net profit as Rs. 10484 crores. When the BOI had it as Rs. -1558 crores.

Analysis by percentage growth: The average growth of net profit of PSBs was noted as 121.29%. The SBI had the growth rate as 5.35% when the BOI as 74.41%.

V. CONCLUSION

NPAs are contributing significantly in different aspects of workings of banks' in the country. The Banking Sector Reforms in 1992 and 1998 have ensured the better workings of public sector banks' in the country. Various segments of the businesses of banks' related to financial performance, profitability, productivity analysis, assets liability management, and risk management etc. NPAs are related to these aspects of workings of banks' as NPAs have effects on profitability of banks'. NPAs are resulted due to under-recovery or non-recovery of loans and advances i.e. credit facilities of banks'. In this regard, the profitability of banks' should be properly analysed. Profitability assessment of banks' can be made by studying interest income, non-interest income, expenses on interest, and operating costs etc., in relation to total assets in banks'. In this regard, the income recognition, capital adequacy norms, assets classification, provisioning and investment portfolios should be the part of prudential norms suggested by the Reforms Committees under the guidelines of the RBI to improve the conditions of NPAs in banks'.

Recommendations

i. A constant analysis of NPA should be attempted as borrower-wise, purpose-wise, size-wise, region-wise, etc.
ii. There should be proper examinations at stock-levels of borrowers' and also their liquidity positions.
iii. There should be proper counselling, consultancy and credit management services from banks' at regular basis.
iv. The district level co-ordination committees should concentrate their efforts to issues relating to the recovery rather than deployment of funds.
v. There should be extensive information on financial positions of borrowers' and especially to wilful defaulters.

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