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## IMPACT OF NON-PERFORMING ASSETS (NPA) ON WORKING OF BANKS': A COMPARATIVE STUDY BETWEEN STATE BANK OF INDIA AND OTHER PUBLIC SECTOR BANKS'

Avani Ojha<sup>1</sup>, Hem Chandra Jha<sup>2</sup>

<sup>1</sup> Corresponding Author & Ph.D. Research Scholar, University Department of Commerce & Business Administration, Lalit Narayan Mithila University, Darbhanga-846004, Bihar, INDIA.

<sup>2</sup> Associate Professor, Department of Commerce, Ganesh Dutt College, Begusarai-851101, Bihar, INDIA

### ABSTRACT

*While making comparative studies on impact of NPA on working of the SBI and other public sector banks' during 2016-17, it was observed that due to the biggest infrastructure, in terms of volumes, the SBI was more comfortable in many aspects than other PSBs. During the period, the SBI had the highest branches, number of employees, total assets, total business, total deposits, gross advances, priority sector advances, total income, net interest income, other income, operating profit and net-profit etc.*

*Another side, in terms of percentage growth, except to per employee business and total deposits, other PSBs were found superior in other aspects in comparison to the SBI. However, despite having biggest volume of Gross NPA, Net NPA, provisions for NPA, and total expenses, the SBI was quite successful to maintain its capital adequacy ratio (%) as the second highest after the Indian Bank, having credit-deposit ratio (%) as the second highest after the Union Bank of India, and having net interest margin (%) as the second highest after the Andhra Bank. Further, the SBI was successful to contain its percentage Gross NPA (6.9%) as the second lowest after the Vijya Bank and the percentage Net NPA as 3.71%, which was the lowest among all public sector banks' during the period.*

*However, the SBI had highest volume of net-profit as ₹ 10484 crores, but in terms of percentage growth in operating profit, per employee profit and net-profit, the Bank of India,*

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*the Bank of Baroda and the Corporation Bank were much ahead respectively. Ultimately, it was observed that continuously increasing NPA had bad impacts on working of almost all public sector banks' and especially to their profitability.*

**Keywords:** Comparative study, Impact, NPA, performance indicators, public sector banks', SBI, working

## **Introduction**

The commercial banking system in India now consists of scheduled public sector banks', scheduled private sector banks' as well as non-scheduled banks'. 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 31<sup>st</sup> March 2017. Amongst public sector banks' the State Bank of India has its 17170 branches as on March 31, 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. The foreign scheduled banks' operated mostly in big cities and their number of branches in the whole country was just 325, other scheduled commercial banks' are private sector banks' and their branches numbered 7,191 as on June 30, 2017 (RBI, 2017).

As a whole, India now has a far more developed and integrated banking system as compared to the time of independence. However, under a highly regulated system not only the service to customers both as depositors' and borrowers' get suffered besides this many irregularities were developed in the banking systems those raised in 1992. Under financial sector reforms, an attempt was made to overcome from these weaknesses of the banking system. It is nevertheless true that certain non-liberal reforms have eroded the achievements of banks' nationalization. (RBI, 2017).

## **Review of Literature**

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.

Rajendar, K. and Suresh, S. (2007) evaluated the effectiveness of the reform process on the basis of the recommendations of the Narasimham Committee, using statistical data on banks' for the period 2000-01 to 2005-06.

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.

Poongavanam (2011) concluded that shortcomings in the functioning of the banking sector stressed the need to incorporate prudential norms for income recognition, asset classification and provisioning.

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.

Ganesan, D. and Santhanakrishnan, R., (2013) have been made to evaluate the non-performance assets of the SBI since 2002.

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.

Tripathi, *et al.*, (2014) analyzed the impact of priority sector advances, unsecured advances and other advances on Gross NPAs of banks.

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'.

## **Statement of the problem**

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 ₹5,02,068 (9.83%) crores in 2016 to ₹5,89,502 (11.82%) crores in 2017. 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 (RBI, 2017).

## **Objectives of the study**

1. To undertake comparative study regarding impact of NPA on working of SBI & other Public Sector Banks’.
2. To undertake comparative study regarding profitability of SBI & other Public Sector Banks’.

## **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.

## **Results and Discussion**

Now as per Table-1, 2 & 3, impact of NPA on the SBI and public sector banks’ during FY 2016-17 are being presented as follows:

### **Impact of NPA on total assets of banks’**

Analysis by volumes: The total assets of all PSBs was noted as ₹ 8849658 crores. The State Bank of India was noted with the largest volume as ₹ 2705966 crores when Punjab and Sind bank with the lowest volume as ₹ 96643 crores.

Analysis by percentage growth: The average growth of total assets of PSBs was noted as 13.17% and the Bank of Baroda noted with the highest growth as 205.44% followed by the State Bank of India as 14.77%. The Punjab and Sind bank was noted with the lowest growth as -5.78%.

<b>Table-1: Overall performance of Public Sector Banks' (2015-16 &amp; 2016-17)</b>				
<b>Sl.</b>	<b>Performance indicators</b>	<b>2015-16</b>	<b>2016-17</b>	<b>% Change</b>
1	Total Number of Branches	82764	85018	2.72
2	Total Number of Employees	775476	790204	1.89
3	Total Assets (₹ in Crores)	7819575	8849658	13.17
4	Total Business (₹ in Crores)	12438512	12959113	4.18
5	Per Employee Business Average (₹ in Crores)	15.64	15.82	1.15
6	Capital Adequacy Ratio (%) Average (Basel-III)	11.36	11.73	0.37
7	Total Deposits (₹ 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 (₹ in Crores)	5464223	5237045	-4.15
11	Total Priority Sector Advances (₹ in Crores)	1502271	1589374	5.79
12	Total Substandard Assets (₹ in Crores)	465099	469164	0.87
13	Total Doubtful-1 Assets (₹ in Crores)	384113	518077	34.87
14	Total Doubtful-2 Assets (₹ in Crores)	366671	637426	73.84
15	Total Doubtful-3 Assets (₹ in Crores)	53370	99681	86.77
16	Total Loss Assets (₹ in Crores)	46617	53087	13.87
17	Total Gross NPA (₹ in Crores)	519778	623867	20.02
18	Gross NPA (%) Average	9.51	12.32	2.81
19	Total Net NPA (₹ in Crores)	280419	330322	17.79
20	Net NPA (%) Average	6.08	7.7	1.62
21	Total Provisions for NPA (₹ in Crores)	143110	152386	6.48
22	Total Income (₹ in Crores)	679457	713163	4.96
23	Total Net Interest Income (₹ in Crores)	457790	423802	-7.42
24	Net Interest Income (%) Average	8.25	7.4	-0.85

25	Total Other Income (₹ in Crores)	85882	114790	33.66
26	Other Income (%) Average	1.57	1.7	0.13
27	Total Expenses (₹ 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 (₹ in Crores)	126982	149909	18.05
33	Per Employee Profit Average (₹ in Lacs)	-1.11	-0.51	54.05
34	Total Net Profit (₹ in Crores)	-16133	3435	121.29
<b>Source: compiled from annual reports of public sector banks</b>				

<b>TABLE-2: PERFORMANCE INDICATORS OF PUBLIC SECTOR BANKS (2016-17)</b>											
<b>Performance indicators</b>	<b>SBI</b>	<b>ALB</b>	<b>ANB</b>	<b>BOB</b>	<b>BOI</b>	<b>BOM</b>	<b>CAN</b>	<b>CBI</b>	<b>COR</b>	<b>DB</b>	<b>IB</b>
Number of Branches	17170	3246	2908	5422	5016	1897	6083	4714	2517	1874	2682
Number of Employees	20956	2394	1938	52420	4775	1297	5571	3174	1966	1398	2092
	7	4	0		0	4	7	4	7	5	4
Total Assets (₹ in Crores)	27059	2379	2254	69487	6263	1593	5961	3334	1274	1296	1446
	66	62	46	5	09	32	58	01	90	23	10
Total Business (₹ in Crores)	35542	3583	3396	10132	9338	2405	8372	4496	3609	1914	3146
	51	52	73	66	20	90	84	79	16	81	54
Per Empl. Business (₹ in Cr.)	16.24	15.03	16.61	17.49	19.4	18.54	14.42	11.81	19.58	13.69	14.88
CAR % (Basel-III)	13.11	11.45	12.38	12.24	12.14	11.18	12.86	10.95	11.32	11.39	13.64
Total Deposits (₹ in Crores)	20447	2018	1954	60167	5400	1390	4952	2966	2205	1139	1825
	51	17	41	5	32	53	75	71	59	43	09
Cost of Deposit (%)	5.98	5.94	6.43	4.82	4.84	6.05	5.59	6.2	6.74	6.43	6.03
Credit-Deposit Ratio (%)	80.38	79.03	73.8	71.86	68.91	73.02	68.38	51.57	63.64	66.95	72.4
Gross Adv. (₹ in Cr.)	15095	1581	1442	38325	2803	1015	3420	1530	1403	7753	1321
	00	03	32	9	02	37	09	08	56	8	45
Priority Sector Adv. (₹ in Cr.)	35189	6537	2664	10407	9817	4038	1602	8808	6060	3699	5376
	4	8	3	6	5	8	6	5	4	2	5
Substandard Assets (₹ in Cr.)	44229	5808	6611	8804	1086	5284	8081	6033	5094	4381	1797
		3			26	2	9	3			
Doubtful-1 Assets (₹ in Cr.)	44890	5179	3692	29186	1249	6644	1424	8855	7991	2212	2042
		1	3		52	1	1	6			
Doubtful-2 Assets (₹ in Cr.)	71376	8144	6259		2361	4604	1202	9087		4371	5334

Cr.)		6	7		46	4	4	6			
Doubtful-3 Assets (₹ in Cr.)	14674	9389	1047		2770			2592			
Cr.)			6		8	4774	0	4		1091	285
Loss Assets (₹ in Cr.)	3995	6165	590	4729	2530	7	1783	586	6824	173	562
Cr.)											40
Gross NPA (₹ in Cr.)	13724	2068	1767		5204	1717	3420	2725	1704	1261	
Cr.)				42719		4	9	2	1	5	9
Gross NPA (%)	6.9	13.09	12.25	10.46	13.22	16.93	9.63	17.81	11.7	16.27	7.47
Net NPA (₹ in Cr.)	54065	1343	1035		2530	1123	2173	1421	1169		
Cr.)		3	4	18080		3	0	8	8	2	7735
Net NPA (%)	3.71	8.92	7.57	4.72	6.9	11.76	6.33	10.2	8.33	10.66	4.39
Provisions for NPA (₹ in Cr.)	32247	4877	7302	7679	1167	2	5794	7437	6216	3860	1743
Cr.)											3788
Total Income (₹ in Cr.)	21097		2033		4640	1357	4894	2753	2256	1143	1802
Cr.)		9	1330	6	48957	4	0	2	7	1	7
Net Interest Income (₹ in Cr.)	61860	4250	5531	13513	1182	1206	4138	2466	1947	1018	1604
Cr.)					6	1	7	1	1	2	0
Net Interest Income (%)	6.86	7.57	8.38	6.27	2.03	7.55	7.35	8.1	9.81	7.87	7.67
Other Income (₹ in Cr.)	35461	1222									
Cr.)		9	2308	6758	6772	1508	7554	2876	3090	1251	2211
Other Income (%)	1.39	1.13	1.07	1	1.45	0.94	1.34	0.94	13.7	0.97	1.06
Total Expenses (₹ in Cr.)	20049	2085	1594		4799	1174	4002	2444	1812	1004	1425
Cr.)		5	7	8	47574	8	3	8	8	2	2
Cost to Income Ratio (%)	47.75	51.25	44.03	45.86	76.38	60.98	48.85	67.31	41.13	62.01	45.62
Net Interest Margin (%)	2.84	2.54	3.07	2.19	2.6	1.99	2.23	2.51	2.12	2	2.59
Yield Average on Adv. (%)	9.46	8.41	9.77	8804	7.98	8.42	7.35	9.01	9.85	8.98	9.17
Average Return on Assets (%)	0.41	-0.13	0.08	0.2	-0.24	-0.86	0.2	-0.8	0.23	-0.67	0.67
Operating Profit (₹ in Cr.)	50848	3867	4388	10975	9733	1827	8914	3089	4439	1390	4001
Cr.)											
Per Employee Prof. (₹ in Lacs)	5.11	-1.3	1	0.26	-3.2	10.58	2	-6.49	3	-6.18	6.72
Cr.)											
Net Profit/Loss (₹ in Cr.)	10484	-314	174	1383	-1558	-1373	1122	-2439	561	-863	1406
Cr.)											
<b>Compiled from annual reports of public sector banks'</b>											



**TABLE-3: PERFORMANCE INDICATORS OF PUBLIC SECTOR BANKS (2016-17)**

<b>Performance indicators</b>	<b>SBI</b>	<b>IOB</b>	<b>OBC</b>	<b>PNB</b>	<b>SYB</b>	<b>UNB</b>	<b>PSB</b>	<b>UCO</b>	<b>IDBI</b>	<b>UTB</b>	<b>VB</b>
Number of Branches	17170	3381	2376	6937	3933	4282	1500	3100	1896	2053	2031
Number of Employees	20956	3194	2155	73919	3498	3687	9400	2462	1818	1496	1567
	7	7	2		9	7		0	7	2	9
Total Assets (₹ in Crores)	27059	2856	2530	72033	2990	4556	9664	1003	3617	1410	1548
	66	36	64	1	73	68	3	70	67	53	81
Total Business (₹ in Crores)	35542	4250	3857	10411	4676	6800	1458	3329	4593	1974	2298
	51	90	77	97	26	76	03	40	63	42	33
Per Empl. Business (₹ in Cr.)	16.24	13.24	17.9	14.17	13.51	16.43	15.34	13.48	23.45	13.04	14.17
CAR % (Basel-III)	13.11	10.11	11.64	11.66	12.03	11.79	11.05	10.93	10.7	11.14	12.73
Total Deposits (₹ in Crores)	20447	2460	2193	62170	2605	3783	8554	2012	2685	1269	1330
	51	49	39	4	61	92	0	85	38	39	12
Cost of Deposit (%)	5.98	7.84	6.33	5.33	5.86	6.28	6.73	5.83	5.06	6	6.5
Credit-Deposit Ratio (%)	80.38	69.13	75.92	67.47	79.47	81.45	69.15	65.41	76.13	55.54	72.79
Gross Adv. (₹ in Cr.)	15095	1790	1577	41949	2070	3016	6026	1316	1908	7050	9682
	00	41	06	3	65	84	3	55	25	3	1
Priority Sector Adv. (₹ in Cr.)	35189	6363	6556	14023	6726	1118	2492	4208	6056	3062	4059
	4	5	2	9	2	61	8	4	0	3	4
Substandard Assets (₹ in Cr.)	44229	6874	7831		4873	2312	2628	5007	4692	1602	1726
Doubtful-1 Assets (₹ in Cr.)	44890	7806	1060		6171	6311	1681	4530	5924	3343	2480
			6								
Doubtful-2 Assets (₹ in Cr.)	71376		4421		5212		1784	9281		4647	1867
Doubtful-3 Assets (₹ in Cr.)	14674		0		1204		195	2574		1116	271
Loss Assets (₹ in Cr.)	3995	241	0		148	431	75	1147	34	221	36
Gross NPA (₹ in Cr.)	13724	1492	2285	55317	1760	3371	6297	2254	4475	1095	6382
	4	2	9		9	2		0	2	2	
Gross NPA (%)	6.9	8.33	13.73	12.53	8.5	11.17	10.45	17.12	19.11	15.53	6.69
Net NPA (₹ in Cr.)	54065	9813	1411	32702	1041	1883	4375	1070	2520	6592	4118
			7		0	3		3	5		
Net NPA (%)	3.71	5.68	8.96	7.81	5.21	6.57	7.51	8.94	13.21	10.02	4.36
Provisions for NPA (₹ in Cr.)	32247	4457	6284	15881	3545	6031	1135	4387	1535	1136	1558
									7		
Total Income (₹ in Cr.)	21097	2607	2118	56227	2646	3762	8750	1844	3175	1140	5157
	9	6	7		1	5		0	8	4	
Net Interest Income (₹ in Cr.)	61860	2393	1842	47275	2300	3266	8172	1632	2779	1927	3506
		8	2		3	0		6	1		

Net Interest Income (%)	6.86	9.16	7.66	6074	7.6	7.6	8.17	6.65	7.39	7.01	8.14
Other Income (₹ in Cr.)	35461	2138	2765	8951	3457	4965	578	2114	3967	2186	1651
Other Income (%)	1.39	0.82	1.15	1.28	1.14	1.16	0.58	0.86	1.06	1.63	1.09
Total Expenses (₹ in Cr.)	20049	2653	1701	9379	3616	3019	8549	1551	2718	2507	1328
Cost to Income Ratio (%)	47.75	57.37	45.67	41.57	56.51	46.42	54.63	50.67	52.89	62.26	53.06
Net Interest Margin (%)	2.84	2.21	2.42	2.38	2.37	2.07	2.22	1.56	1.62	1.6	2.77
Yield Average on Adv. (%)	9.46	14.04	11.68	8.29	8.34	8.72	9.73	9.6	14.56	8.95	9.89
Average Return on Assets (%)	0.41	-1.3	-0.46	0.19	0.12	2.86	0.2	-0.75	1.37	0.16	0.49
Operating Profit (₹ in Cr.)	50848	3322	4170	14565	4233	7430	1241	2926	4578	1552	2421
Per Employee Prof.(₹ in Lacs)	5.11	-1.2	-5.08	2	1.1	20.15	2	-7.5	-28	10.38	5
Net Profit/Loss (₹ in Cr.)	10484	-454	-1094	1325	359	555	201	-1851	-5158	219	750
<b>Compiled from annual reports of public sector banks'</b>											

### **Impact of NPA on total business of banks'**

Analysis by volumes: The total business of all PSBs was noted as ₹ 12959113 crores. The State Bank of India was noted with the highest business as ₹ 3554251 crores when Punjab and Sind bank with the lowest business as ₹ 145803 crores.

Analysis by percentage growth: The average growth of total business of PSBs was noted as 4.18% and the Bank of Baroda was noted with the highest growth as 57.9% and the Punjab and Sind bank was noted with the lowest growth as -6.85%. The State Bank of India was noted with the business growth of 5.84%.

### **Impact of NPA on per employee business of banks'**

Analysis by volumes: The average per employee business of all PSBs was noted as ₹ 15.82 crores. The IDBI was noted with the highest business as ₹ 23.45 crores when Central Bank of India with the lowest business as ₹ 11.81 crores. The SBI was noted with per employee business as ₹ 16.24 crores.

Analysis by percentage growth: The average growth of per employee business of PSBs was noted as 1.15% and the SBI was noted with the highest growth as 15.09% and the Syndicate bank was noted with the lowest growth as -7.52%.

### **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 Indian Bank was noted with the highest CAR as 13.64%, followed by the SBI as 13.11% when Indian Overseas Bank with the lowest CAR as 10.11%.

Analysis by percentage growth: The average growth of CAR of PSBs was noted as 0.37% and the Canara Bank was noted with the highest CAR growth as 1.78% and the IDBI was noted with the lowest growth as -0.97%. The SBI had the CAR growth of -0.01%.

### **Impact of NPA on total deposits of banks'**

Analysis by volumes: The total deposits of all PSBs was noted as ₹ 7573085 crores, and the SBI was noted with the highest deposit as ₹ 2044751 crores when the Punjab and Sind Bank was noted with the lowest deposit as ₹85540 crores.

Analysis by percentage growth: The average growth of total deposits of PSBs was noted as 8.35% and the SBI was noted with the highest growth as 18.14% and the Uco bank was noted with the lowest growth as -7.29%.

### **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 Indian Overseas Bank was noted with the highest cost of deposit as 7.84% when the Bank of Baroda was noted with the lowest as 4.82%. The SBI was noted with the cost of deposit as 5.98%.

Analysis by percentage growth: The average growth of cost of deposits of PSBs was noted as -0.62% and the Indian Overseas Bank was noted with the highest growth as 0.03% and the IDBI bank was noted with the lowest growth as -1.21%. The SBI was noted with -0.37% growth rate.

### **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 Union Bank of India was noted with the highest C.D. ratio as 81.45% followed by the SBI as 80.38% when the Central Bank of India was noted with the lowest as 51.57%.

Analysis by percentage growth: The average growth of C.D. ratio of PSBs was noted as -3.31% and the Vijya Bank was noted with the highest growth as 3.38% and the Central Bank of India was noted with the lowest growth as -19.87%. The SBI was noted with -3.18% growth rate.

### **Impact of NPA on gross advances of banks'**

Analysis by volumes: The total gross advances of all PSBs was noted as ₹ 5237045 crores, and the SBI was noted with the highest gross advances as ₹ 1509500 crores when the Panjab and Sind Bank was noted with the lowest as ₹ 60263 crores.

Analysis by percentage growth: The average growth of gross advances of PSBs was noted as -4.15% and the Union Bank of India was noted with the highest growth as 12.84% and the Bank of India was noted with the lowest growth as -21.68%. The SBI was noted with -7.23% growth rate.

### **Impact of NPA on priority sector advances of banks'**

Analysis by volumes: The total priority sector advances of all PSBs was noted as ₹ 1589374 crores, and the SBI was noted with the highest priority sector advances as ₹ 351894 crores when the Canara Bank was noted with the lowest as ₹ 16026 crores.

Analysis by percentage growth: The average growth of priority sector advances of PSBs was noted as 5.79% and the Indian Bank was noted with the highest growth as 15.64% and the Uco Bank was noted with the lowest growth as -6.54%. The SBI was noted with 3.63% growth rate.

### **Impact of NPA on substandard assets of banks'**

Analysis by volumes: The total substandard assets of all PSBs was noted as ₹ 469164 crores, and the Bank of India was noted with the highest substandard assets as ₹ 108626 crores when the United Bank of India was noted with the lowest as ₹ 1602 crores. The SBI was having substandard assets as ₹ 44229 crores.

Analysis by percentage growth: The average growth of substandard assets of PSBs was noted as 0.87% and the Central Bank of India was noted with the highest growth as 361.9% and the Vijya Bank was noted with the lowest growth as -43.9%. The SBI was noted with 14.4% growth rate.

### **Impact of NPA on Doubtful-1 assets of banks'**

Analysis by volumes: The total Doubtful-1 assets of all PSBs was noted as ₹ 518077 crores, and the Bank of India was noted with the highest Doubtful-1 assets as ₹ 124952 crores when the Panjab and Sind Bank was noted with the lowest as ₹ 1681 crores. The SBI was having Doubtful-1 assets as ₹ 44890 crores.

Analysis by percentage growth: The average growth of Doubtful-1 assets of PSBs was noted as 34.87% and the Andhra Bank was noted with the highest growth as 1338.93% and the Dena Bank was noted with the lowest growth as -36.58%. The SBI was noted with 11.3% growth rate.

### **Impact of NPA on Doubtful-2 assets of banks'**

Analysis by volumes: The total Doubtful-2 assets of all PSBs was noted as ₹ 637426 crores, and the Bank of India was noted with the highest Doubtful-2 assets as ₹ 236146 crores when the Panjab and Sind Bank was noted with the lowest as ₹ 1784 crores. The SBI was having Doubtful-2 assets as ₹ 71376 crores.

Analysis by percentage growth: The average growth of Doubtful-2 assets of PSBs was noted as 73.84% and the Andhra Bank was noted with the highest growth as 1346.32% and the Oriental Bank of Commerce was noted with the lowest growth as 19.29%. The SBI was noted with 119.53% growth rate.

### **Impact of NPA on Doubtful-3 assets of banks'**

Analysis by volumes: The total Doubtful-3 assets of all PSBs was noted as ₹ 99681 crores, and the Bank of India was noted with the highest Doubtful-3 assets as ₹ 27708 crores when the Panjab and Sind Bank was noted with the lowest as ₹ 195 crores. The SBI was having Doubtful-3 assets as ₹ 14674 crores.

Analysis by percentage growth: The average growth of Doubtful-3 assets of PSBs was noted as 86.77% and the Andhra Bank was noted with the highest growth as 796.15% and the Vijaya Bank was noted with the lowest growth as 20.98%. The SBI was noted with 63.26% growth rate.

### **Impact of NPA on Loss assets of banks'**

Analysis by volumes: The total Loss assets of all PSBs was noted as ₹ 53087 crores, and the Bank of India was noted with the highest Loss assets as ₹ 25307 crores when the IDBI Bank was noted with the lowest as ₹ 34 crores. The SBI was having Loss assets as ₹ 3995 crores.

Analysis by percentage growth: The average growth of Loss assets of PSBs was noted as 13.87% and the Panjab and Sind Bank was noted with the highest growth as 1456% and the Oriental Bank of Commerce was noted with the lowest growth as -130%. The SBI was noted with 34.51% growth rate.

### **Gross NPA of banks'**

Analysis by volumes: The total gross NPA of all PSBs was noted as ₹ 623867 crores, and the SBI was noted with the highest gross NPA as ₹ 137244 crores when the Panjab and Sind Bank was noted with the lowest as ₹ 6297 crores.

Analysis by percentage growth: The average growth of gross NPA of PSBs was noted as 20.02% and the IDBI Bank was noted with the highest growth as 79.9% and the Panjab National Bank was noted with the lowest growth as -0.89%. The SBI was noted with 13.49% growth rate.

### **Gross NPA (%) of banks'**

Analysis by volumes: The average gross NPA of all PSBs was noted as 12.32%, and the IDBI Bank was noted with the highest gross NPA (%) as 19.11% when the SBI was noted it as 6.9%, followed by Vijya Bank as the lowest as 6.69%.

Analysis by percentage growth: The average growth of gross NPA (%) of PSBs was noted as 2.81% and the IDBI Bank was noted with the highest growth as 9.04% and the Panjab National Bank was noted with the lowest growth as -0.37%. The SBI was noted with 0.4% growth rate.

### **Net NPA of banks'**

Analysis by volumes: The total net NPA of all PSBs was noted as ₹330322 crores, and the SBI was noted with the highest net NPA as ₹ 54065 crores when the Vijya Bank was noted it as the lowest ₹ 4118 crores.

Analysis by percentage growth: The average growth of net NPA of PSBs was noted as 17.79% and the Indian Overseas Bank was noted with the highest growth as 73.43% and the Bank of India was noted with the lowest growth as -9.61%. The SBI was noted with 27.61% growth rate.

### **Net NPA (%) of banks'**

Analysis by volumes: The average net NPA (%) of all PSBs was noted as 7.7%, and the IDBI was noted with the highest net NPA (%) as 13.21% when the SBI was noted it as the lowest 3.71%.

Analysis by percentage growth: The average growth of net NPA (%) of PSBs was noted as 1.62% and the IDBI Bank was noted with the highest growth as 6.43% and the Bank of India was noted with the lowest growth as -0.89%. The SBI was noted with -0.1% growth rate.

### **Provisions for NPA of banks'**

Analysis by volumes: The total provisions of all PSBs was noted as ₹152386 crores, and the SBI was noted with the highest provisions as ₹ 32247 crores when the Panjab and Sind Bank was noted it as the lowest ₹ 1135 crores.

Analysis by percentage growth: The average growth of provisions of PSBs was noted as 6.48% and the United Bank of India was noted with the highest growth as 236.09% and the Bank of Baroda was noted with the lowest growth as -44.21%. The SBI was noted with 19.5% growth rate.

### **Impact of NPA on total income of banks'**

Analysis by volumes: The total income of all PSBs was noted as ₹713163 crores, and the SBI was noted with the highest income as ₹ 210979 crores when the Allahabad Bank was noted it as the lowest ₹ 1330 crores.

Analysis by percentage growth: The average growth of total income of PSBs was noted as 4.96% and the Vijya Bank was noted with the highest growth as 41.9% and the Uco Bank was noted with the lowest growth as -8.51%. The SBI was noted with 9.97% growth rate.

#### **Impact of NPA on Net interest income of banks'**

Analysis by volumes: The total net interest income of all PSBs was noted as ₹423802 crores, and the SBI was noted with the highest income as ₹ 61860 crores when the United Bank of India was noted it as the lowest ₹ 1927 crores.

Analysis by percentage growth: The average growth of net interest income of PSBs was noted as -7.42% and the Indian Overseas Bank was noted with the highest growth as 55.32% and the Bank of Baroda was noted with the lowest growth as -69.33%. The SBI was noted with 8.15% growth rate.

#### **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 Corporation Bank was noted with the highest net interest income (%) as 9.81% when the Bank of India was noted it as the lowest 2.03%. The SBI was noted with net interest income (%) of 6.86%.

Analysis by percentage growth: The average growth of net interest income (%) of PSBs was noted as -0.85% and the Corporation Bank was noted with the highest growth as 1.58% and the Bank of India was noted with the lowest growth as -7.95%. The SBI was noted with -0.41% growth rate.

#### **Impact of NPA on other income of banks'**

Analysis by volumes: The total other income of all PSBs was noted as ₹114790 crores, and the SBI was noted with the highest other income as ₹ 35461 crores when the Panjab and Sind Bank was noted it as the lowest ₹ 578 crores.

Analysis by percentage growth: The average growth of other income of PSBs was noted as 33.66% and the Vijya Bank was noted with the highest growth as 89.11% and the Corporation Bank was noted with the lowest growth as -56.07%. The SBI was noted with 27.35% growth rate.

#### **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 Corporation Bank was noted with the highest other income (%) as 13.7% when the Panjab

and Sind Bank was noted it as the lowest 0.58%. The SBI had the other income (%) as 1.39%.

Analysis by percentage growth: The average growth of other income (%) of PSBs was noted as 0.13% and the Corporation Bank was noted with the highest growth as 5.49% and the Andhra Bank was noted with the lowest growth as -7.08%. The SBI was noted with 0.14% growth rate.

#### **Impact of NPA on total expenses of banks'**

Analysis by volumes: The total expenses of all PSBs was noted as ₹637823 crores, and the SBI was noted with the highest expenses as ₹ 200495 crores when the United Bank of India was noted it as the lowest ₹ 2507 crores.

Analysis by percentage growth: The average growth of expenses of PSBs was noted as 2.46% and the Syndicate Bank was noted with the highest growth as 39.6%, followed by the SBI as 10.22% and the Bank of Baroda was noted with the lowest growth as -12.63%.

#### **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 was noted with the highest cost to income ratio (%) as 76.38% when the Corporation Bank was noted it as the lowest 41.13%. The SBI had cost to income ratio (%) 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 was noted with the highest growth as 32.28% and the United Bank of India was noted with the lowest growth as -17.05%. The SBI was noted with -1.38% growth rate.

#### **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 Andhra Bank was noted with the highest net interest margin (%) as 3.07% followed by the SBI as 2.84% when the Uco Bank was noted it as the lowest 1.56%.

Analysis by percentage growth: The average growth of net interest margin (%) of PSBs was noted as -0.06% and the Vijya Bank was noted with the highest growth as 0.5% and the Uco was noted with the lowest growth as -0.6%. The SBI was noted with -0.12% growth rate.

#### **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 IDBI Bank was noted with the highest yield average on advances (%) as 14.56% when the Bank of Baroda was noted it as the lowest 7.27%.



Analysis by percentage growth: The average growth of yield average on advances (%) of PSBs was noted as -0.74% and the IDBI Bank was noted with the highest growth as 1.57% and the Bank of Baroda was noted with the lowest growth as -2.7%. The SBI was noted with -0.66% growth rate.

#### **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 United Bank of India was noted with the highest average return on assets (%) as 2.86% when the Indian Overseas Bank was noted it as the lowest -1.3%.

Analysis by percentage growth: The growth of average return on assets (%) of PSBs was noted as -0.15% and the Bank of Baroda was noted with the highest growth as 0.98% and the Union Bank of India was noted with the lowest growth as -3.98%. The SBI was noted with -0.05% growth rate.

#### **Impact of NPA on operating profit of banks'**

Analysis by volumes: The total operating profit of all PSBs was noted as ₹149909 crores, and the SBI was noted with the highest operating profit as ₹ 50848 crores when the Panjab and Sind Bank was noted it as the lowest ₹ 1241 crores.

Analysis by percentage growth: The average growth of operating profit of PSBs was noted as 18.05%. The Bank of India was noted with the highest growth as 61.24% when Bank of Maharashtra was noted with the lowest growth as -22.08%. The SBI had the growth rate as 17.54%.

#### **Impact of NPA on per employee profit of banks'**

Analysis by volumes: The average per employee profit of all PSBs was noted as ₹-0.51 lacs, and the Union Bank of India was noted with the highest per employee profit as ₹ 20.15 lacs. When the IDBI Bank was noted it as the lowest ₹ -28 lacs. The SBI had per employee profit as ₹ 5.11 lacs.

Analysis by percentage growth: The average growth of per employee profit of PSBs was noted as 54.05%. The Bank of Baroda was noted with the highest growth as 360% when Bank of Maharashtra was noted with the lowest growth as -1549.31%. The SBI had the growth rate as 8.72%.

#### **Impact of NPA on net profit of banks'**

Analysis by volumes: The cumulative net profit of all PSBs was noted as ₹ 3435 crores, and the SBI was noted with the highest net profit as ₹ 10484 crores. When the IDBI Bank was noted it as the lowest ₹ -5158 crores.

Analysis by percentage growth: The average growth of net profit of PSBs was noted as 121.29%. The Corporation Bank was noted with the highest growth as 210.86% when Bank of Maharashtra was noted with the lowest growth as -1459.4%. The SBI had the growth rate as 5.35%.

## **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'.

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