



A COMPARATIVE STUDY REGARDING IMPACT OF NON-PERFORMING ASSETS (NPA) ON WORKING OF THE STATE BANK OF INDIA (SBI) AND THE BANK OF BARODA (BOB)

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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 Baroda (BOB) during 2016-17, it was observed that due to the biggest infrastructure, in terms of volumes, the SBI was more comfortable in many aspects to all PSBs including the BOB. During the period, the SBI had the highest branches, number of employees, 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. Another side, in terms of percentage growth, the BOB was found superior in many aspects viz. highest total assets, total business, per employee business, average return on assets, per employee profit, net profit as well the lowest cost of deposit (%), total expenses, etc. in comparison to the all PSBs including the SBI. Similarly, the BOB had higher percentage growth over the SBI in terms of gross advances, priority sector advances, substandard and doubtful assets, loss assets, total income, other income, net interest margin, operating profit and lower percentage growth in terms of net NPA, net NPA (%), provisioning, cost to income ratio, etc. Ultimately, it was observed that continuously increasing NPA had bad impacts on working of the SBI and the BOB both in terms of their profitability.

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

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).

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 Baroda.
2. To undertake comparative study regarding profitability of the State Bank of India and Bank of Baroda.

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.

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

1.1 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 to 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.

| Table-1: 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'

Table-2: Performance indicators of SBI & BOB

| Sl. | Performance indicators | SBI (2016-17) | BOB (2016-17) |
|------------|--|--------------------------|----------------------|
| 1 | Number of Branches | 17170 | 5422 |
| 2 | Number of Employees | 209567 | 52420 |
| 3 | Total Assets (Rs. in Crores) | 2705966 | 694875 |
| 4 | Total Business (Rs. in Crores) | 3554251 | 1013266 |
| 5 | Per Employee Business (Rs. in Crores) | 16.24 | 17.49 |
| 6 | Capital Adequacy Ratio % (Basel-III) | 13.11 | 12.24 |
| 7 | Total Deposits (Rs. in Crores) | 2044751 | 601675 |
| 8 | Cost of Deposit (%) | 5.98 | 4.82 |
| 9 | Credit-Deposit Ratio (%) | 80.38 | 71.86 |
| 10 | Gross Advances (Rs. in Crores) | 1509500 | 383259 |
| 11 | Priority Sector Advances (Rs. in Crores) | 351894 | 104076 |
| 12 | Substandard Assets (Rs. in Crores) | 44229 | 8804 |
| 13 | Doubtful-1 Assets (Rs. in Crores) | 44890 | 29186 |
| 14 | Loss Assets (Rs. in Crores) | 3995 | 4729 |
| 15 | Gross NPA (Rs. in Crores) | 137244 | 42719 |
| 16 | Gross NPA (%) | 6.9 | 10.46 |
| 17 | Net NPA (Rs. in Crores) | 54065 | 18080 |
| 18 | Net NPA (%) | 3.71 | 4.72 |
| 19 | Provisions for NPA (Rs. in Crores) | 32247 | 7679 |
| 20 | Total Income (Rs. in Crores) | 210979 | 48957 |
| 21 | Net Interest Income (Rs. in Crores) | 61860 | 13513 |
| 22 | Net Interest Income (%) | 6.86 | 6.27 |
| 23 | Other Income (Rs. in Crores) | 35461 | 6758 |
| 24 | Other Income (%) | 1.39 | 1 |
| 25 | Total Expenses (Rs. in Crores) | 200495 | 47574 |
| 26 | Cost to Income Ratio (%) | 47.75 | 45.86 |
| 27 | Net Interest Margin (%) | 2.84 | 2.19 |
| 28 | Yield Average on Advances (%) | 9.46 | 7.27 |
| 29 | Average Return on Assets (%) | 0.41 | 0.2 |
| 30 | Operating Profit (Rs. in Crores) | 50848 | 10975 |
| 31 | Per Employee Profit (Rs. in Lacs) | 5.11 | 0.26 |
| 32 | Net Profit/Loss (Rs. in Crores) | 10484 | 1383 |

Source: compiled from annual reports of public sector banks'

1.2: Impact of NPA on Bank of Baroda (2015-16 to 2016-17)

Table-1 & 2 represents various performance indicators as below:

Table elaborates that Capital adequacy ratio (%) had decreased by -0.93% (PSBs 0.37%), Credit-Deposit ratio (%) decreased by -6.43% (PSBs -3.31%), Gross advances decreased by -5.39% (PSBs -4.15%). When quality of assets have been deteriorated in the bank during this period. Doubtful-1 assets increased by 13.27% (PSBs 34.87%), and Loss assets increased by 48.43% (PSBs 13.87%).

However, the bank was quite successful to retain its NPA on comfortable levels, but amount of Gross NPA increased by 5.42% (PSBs 20.02%), gross NPA (%) increased by 0.47% (PSBs 2.81%).

Overall due to such negative impacts, Net interest income of the bank was decreased by -69.33% (PSBs -7.42%), Net interest income (%) was decreased by -0.04% (PSBs -0.85%), Yield average on advances (%) decreased by -2.7% (PSBs -0.74%). This all reflects bad impact of NPA on workings of Bank of Baroda.

1.3: Comparative studies regarding impact of NPA on the SBI and Bank of Baroda:

(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 State Bank of India had the largest volume as Rs. 2705966 crores when Bank of Baroda as Rs. 694875 crores.

Analysis by percentage growth: The average growth of total assets of PSBs was noted as 13.17% and the Bank of Baroda had the highest growth as 205.44% followed by the State Bank of India as 14.77%.

(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 State Bank of India had the highest business as Rs. 3554251 crores when Bank of Baroda as Rs. 1013266 crores.

Analysis by percentage growth: The average growth of total business of PSBs was noted as 4.18% and the Bank of Baroda had the highest growth as 57.9%. The State Bank of India was noted it as 5.84%.

(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 Bank of Baroda had the high business as Rs. 17.49 crores when the SBI as Rs. 16.24 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 Bank of Baroda as 4.1%.

(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 maintained it as 13.11% and Bank of Baroda as 12.24%.

Analysis by percentage growth: The average growth of CAR of PSBs was noted as 0.37%. The SBI had the CAR growth of -0.01% and the Bank of Baroda as -0.93%.

(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 was noted with the highest deposit as Rs. 2044751 crores when the Bank of Baroda as Rs.601675 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 Bank of Baroda as 4.81%.

(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 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%. The SBI was noted with -0.37% growth rate when Bank of Baroda as -0.26%.

(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 Bank of Baroda as 71.86%.

Analysis by percentage growth: The average growth of C.D. ratio of PSBs was noted as -3.31% and the SBI was noted with -3.18% growth rate. When Bank of Baroda had it as -6.43%.

(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 was noted with the highest gross advances as Rs. 1509500 crores when the Bank of Baroda as Rs. 383259 crores.

Analysis by percentage growth: The average growth of gross advances of PSBs was noted as -4.15% and the SBI was noted with -7.23% growth rate. When Bank of Baroda was noted with 5.39%.

(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 was noted with the highest priority sector advances as Rs. 351894 crores when the Bank of Baroda as Rs. 104076 crores.

Analysis by percentage growth: The average growth of priority sector advances of PSBs was noted as 5.79% and the SBI was noted with 3.63% growth rate. When the Bank of Baroda was noted with 12.9%.

(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 SBI was having substandard assets as Rs. 44229 crores. When the Bank of Baroda was noted as Rs. 8804 crores.

Analysis by percentage growth: The average growth of substandard assets of PSBs was noted as 0.87% and the SBI was noted with 14.4% growth rate. When the Bank of Baroda was noted with 23.9%.

(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 SBI was having Doubtful-1 assets as Rs. 44890 crores. When the Bank of Baroda was noted as Rs. 29186 crores.

Analysis by percentage growth: The average growth of Doubtful-1 assets of PSBs was noted as 34.87% and the SBI had 11.3% growth rate. When the Bank of Baroda was noted with 13.27%.

(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 SBI was having Loss assets as Rs. 3995 crores. When the Bank of Baroda was noted with Rs. 4729 crores.

Analysis by percentage growth: The average growth of Loss assets of PSBs was noted as 13.87% and the SBI had 34.51% growth rate. When the Bank of Baroda was noted with 48.43%.

(xiii) Gross NPA of banks'

Analysis by volumes: The total gross NPA of all PSBs was noted as Rs. 623867 crores, and the SBI was noted with the highest gross NPA as Rs. 137244 crores when the Bank of Baroda was noted with the lowest as Rs. 42719 crores.

Analysis by percentage growth: The average growth of gross NPA of PSBs was noted as 20.02% and the SBI was noted with 13.49% growth rate. When the Bank of Baroda was noted with 5.42%.

(xiv) Gross NPA (%) of banks'

Analysis by volumes: The average gross NPA of all PSBs was noted as 12.32%, and the SBI was noted it as 6.9%, when the Bank of Baroda as 10.46%.

Analysis by percentage growth: The average growth of gross NPA (%) of PSBs was noted as 2.81% and the SBI was noted with 0.4% growth rate and the Bank of Baroda as 0.47%.

(xv) Net NPA of banks'

Analysis by volumes: The total net NPA of all PSBs was noted as Rs.330322 crores, and the SBI was noted with the highest net NPA as Rs. 54065 crores and the Bank of Baroda as Rs. 18080 crores.

Analysis by percentage growth: The average growth of net NPA of PSBs was noted as 17.79% and the SBI was noted with 27.61% growth rate. When the Bank of Baroda was noted it as -6.83%.

(xvi) Net NPA (%) of banks'

Analysis by volumes: The average net NPA (%) of all PSBs was noted as 7.7%, and the SBI was noted it as the lowest 3.71%. When the Bank of Baroda was noted it as 4.72%.

Analysis by percentage growth: The average growth of net NPA (%) of PSBs was noted as 1.62% and the SBI had -0.1% growth rate and the Bank of Baroda as -0.34%.

(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 and the Bank of Baroda as Rs. 7679 crores.

Analysis by percentage growth: The average growth of provisions of PSBs was noted as 6.48% and the SBI had 19.5% growth rate. When the Bank of Baroda was noted it as - 44.21%.

(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 and the Bank of Baroda as Rs. 48957 crores.

Analysis by percentage growth: The average growth of total income of PSBs was noted as 4.96% and the SBI had 9.97% growth rate and the Bank of Baroda as 16.67%.

(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 and the Bank of Baroda as Rs. 13513 crores.

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

(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 SBI had it as 6.86% and the Bank of Baroda as 6.27%.

Analysis by percentage growth: The average growth of net interest income (%) of PSBs was noted as -0.85% and the SBI had -0.41% growth rate. When the Bank of Baroda was noted it as -0.04%.

(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 Bank of Baroda as Rs. 6758 crores.

Analysis by percentage growth: The average growth of other income of PSBs was noted as 33.66% and the SBI was noted with 27.35% growth rate. When the Bank of Baroda was noted it as 35.18%.

(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 the other income (%) as 1.39%. When the Bank of Baroda was noted it as 1.0%.

Analysis by percentage growth: The average growth of other income (%) of PSBs was noted as 0.13% and SBI had 0.14% growth rate. When the Bank of Baroda was noted it as 0.28%.

(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 Bank of Baroda was noted it as Rs. 47574 crores.

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

(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 SBI had cost to income ratio (%) as 47.75%. When the Bank of Baroda was noted it as 45.86%.

Analysis by percentage growth: The average growth of cost to income ratio (%) of PSBs was noted as -0.53% and the SBI was noted with -1.38% growth rate. When the Bank of Baroda was noted it as -4.44%.

(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 Bank of Baroda was noted it as 2.19%.

Analysis by percentage growth: The average growth of net interest margin (%) of PSBs was noted as -0.06% and the SBI had -0.12% growth rate. When the Bank of Baroda was noted it as 0.14%.

(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 Bank of Baroda was noted it as the lowest 7.27%. When the SBI was noted it as 9.46%.

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

(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 was noted with 0.41% growth rate when the Bank of Baroda was noted it as 0.2%.

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

(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 and the Bank of Baroda was as Rs. 10975 crores.

Analysis by percentage growth: The average growth of operating profit of PSBs was noted as 18.05%. The SBI had the growth rate as 17.54% when the Bank of Baroda was noted it as 24.48%.

(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 per employee profit as Rs. 5.11 lacs. When the Bank of Baroda was noted it as Rs. 0.26 lacs.

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

(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 and the Bank of Baroda as Rs. 1383 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% and the Bank of Baroda as 125.63%.

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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