

## A COMPARATIVE STUDY OF NON PERFORMING ASSETS OF PUBLIC AND PRIVATE SECTOR BANKS IN INDIA

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### **Abstract:**

The banking industry has undergone a sea change after the economic liberalization, globalization and privatization. The presence of NPA has an adverse impact on the banking system of India. According to Reserve Bank of India, "Reduction of NPAs in the Indian Banking sector should be treated as a national priority item to make the system stronger, resilient and geared to meet the challenges of globalization. The ASSOCHAM study titled-Solvency Analysis of the Indian Banking sector reveals that on an average 24 percent rise in net non performing assets have been registered by 25 public sector and commercial banks during the second quarter of the 2009 as against 2008. In this paper an attempt has been made to evaluate the operational performance and the efficiency of managing NPA of some selected public sector banks and private sector banks of India for a period of ten years with the help of various ratios. The data has been collected through secondary sources.

All the Indian banks are facing hard time managing their NPA. The magnitude of NPA was comparatively higher in public sectors banks compared to private banks under study but now, they have managed the number at lower end.

**Keywords:** NPA, Public & Private Banks, SBI, PNB, IOB, P&S, ICICI, HDFC, AXIS & IndusInd .

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## Introduction

The banking in India is governed by the Banking Regulation Act of India, 1949 defined it under Section 5(A) as “any company which transacts banking business” and the purpose of banking business defined under Section 5(B), “accepting deposits from public for the purpose of lending or investing, repayable on demand through cheque/draft or otherwise”. The banking industry has undergone a sea change after the economic liberalization. Due to the introduction of various norms banks are now pressurized to improve their efficiency and trim down their mounting NPAs. The presence of NPA has an adverse impact on the banking system of India.

An NPA is defined as a loan asset, which has ceased to generate any income for a bank whether in the form of interest or principal repayment. As per the prudential norms suggested by the Reserve Bank of India (RBI), a bank cannot book interest on an NPA on accrual basis. In other words, such interests can be booked only when it has been actually received. Therefore, an NPA account not only reduces profitability of banks by provisioning in the profit and loss account, but their carrying cost is also increased which results in excess & avoidable management attention. Apart from this, a high level of NPA also puts strain on a bank's net worth because banks are under pressure to maintain a desired level of Capital Adequacy and in the absence of comfortable profit level, banks eventually look towards their internal financial strength to fulfill the norms thereby slowly eroding the net worth.

## Defining Non Performing Assets

Non Performing Asset means an asset or account of borrower, which has been classified by a bank or financial institution as sub-standard, doubtful or loss asset, in accordance with the directions or guidelines relating to asset classification issued by RBI. An amount due under any credit facility is treated as "past due" when it has not been paid within 30 days from the due date. Due to the improvement in the payment and settlement systems, recovery climate, up gradation of technology in the banking system, etc., it was decided to dispense with 'past due' concept, with effect from March 31, 2001. Accordingly, as from that date, a Non performing asset (NPA) shall be an advance where

- i. Interest and /or installment of principal remain overdue for a period of more than 180 days in respect of a Term Loan,
- ii. The account remains 'out of order' for a period of more than 180 days, in respect of an overdraft/ cash Credit (OD/CC),

- iii. The bill remains overdue for a period of more than 180 days in the case of bills purchased and discounted,
- iv. Interest and/ or installment of principal remains overdue for two harvest seasons but for a period not exceeding two half years in the case of an advance granted for agricultural purpose, and
- v. Any amount to be received remains overdue for a period of more than 180 days in respect of other accounts.

With a view to moving towards international best practices and to ensure greater transparency, it has been decided to adopt the '90 days overdue' norm for identification of NPAs, from the year ending March 31, 2004.

Accordingly, with effect from March 31, 2004, a non-performing asset (NPA) shall be a loan or an advance where;

- i. Interest and /or installment of principal remain overdue for a period of more than 90 days in respect of a Term Loan,
- ii. The account remains 'out of order' for a period of more than 90 days, in respect of an overdraft/ cash Credit (OD/CC),
- iii. The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted,
- iv. Interest and/ or installment of principal remains overdue for two harvest seasons but for a period not exceeding two half years in the case of an advance granted for agricultural purpose, and
- v. Any amount to be received remains overdue for a period of more than 90 days in respect of other accounts.

The Non Performing Assets can be classified into the following three broad groups

- a. Sub--Standard Assets
- b. Doubtful Assets
- c. Loss Assets

#### **Reasons for An Account Becoming NPA**

- I. Internal factors
- II. External factors

**Internal Factors:**

- I. Funds borrowed for a particular purpose but not use for the said purpose.
- II. Project not completed in time.
- III. Poor recovery of receivables.
- IV. Excess capacities created on non-economic costs.
- V. In-ability of the corporate to raise capital through the issue of equity or other debt instrument from capital markets.
- VI. Business failures.
- VII. Diversion of funds for expansion/modernization/setting up new projects/ helping or promoting sister concerns.
- VIII. Willful defaults, siphoning of funds, fraud, disputes, management disputes, mis-appropriation etc.
- IX. Deficiencies on the part of the banks viz. in credit appraisal, monitoring and follow-ups, delaying settlement of payments/ subsidiaries by government bodies etc.,

**External Factors:**

- I. Sluggish legal system –
  - Long legal tangles
  - Changes that had taken place in labor laws
  - Lack of sincere effort.
- II. Scarcity of raw material, power and other resources.
- III. Industrial recession.
- IV. Shortage of raw material, raw material/input price escalation, power shortage, industrial recession, excess capacity, natural calamities like floods, accidents.
- V. Failures, nonpayment/ over dues in other countries, recession in other countries, externalization problems, adverse exchange rates etc.
- VI. Government policies like excise duty changes, Import duty changes etc.,

**Impact of NPA**

**Profitability**

NPA means booking of money in terms of bad asset, which occurred due to wrong choice of client. Because of the money getting blocked the prodigality of bank decreases not only by the amount of NPA but NPA lead to opportunity cost also as that much of profit invested in some return earning project/asset. So NPA doesn't affect current profit but also future stream of profit, which may lead to loss of some long-term beneficial opportunity. Another impact of reduction in profitability is low ROI (return on investment), which adversely affect current earning of bank.

### **Liquidity**

Money is getting blocked, decreased profit lead to lack of enough cash at hand which lead to borrowing money for shortest period of time which lead to additional cost to the company. Difficulty in operating the functions of bank is another cause of NPA due to lack of money, routine payments and dues.

### **Involvement of management**

Time and efforts of management is another indirect cost which bank has to bear due to NPA. Time and efforts of management in handling and managing NPA would have diverted to some fruitful activities, which would have given good returns. Now day's banks have special employees to deal and handle NPAs, which is additional cost to the bank.

### **Credit loss**

Bank is facing problem of NPA then it adversely affect the value of bank in terms of market credit. It will lose its goodwill and brand image and credit which have negative impact to the people who are putting their money in the banks.

### **Review of Literature**

**Prashant K. Reddy(2002)** in his thesis titled, " A Comparative Study of Non Performing Assets in India in the Global Context – similarities and dissimilarities, remedial measures" highlighted that financial sector reforms in India has progressed rapidly but the sheltering of weak institutions while liberalizing operational rules of the game is making implementation of operational changes more difficult and ineffective. Changes required to tackle the NPA problem would have to span the entire gamut of judiciary, polity and the bureaucracy to be truly

effective. It also suggests mechanisms to handle the problem of NPAs by drawing on experiences from other countries.

**Rajput(2003)** in his thesis titled, “Banking Sector Reforms in India” – A Study of Post Liberalization Period”, highlighted that decade of nineties in last century brought revolution in Indian banking sector. Banks were made free from the clutches of hefty regulations and allowed to decide their own fate. Author suggested that Indian banks especially public sector banks have to learn to live up with the competitive environment. They must make persistent efforts to improve their profitability. On the revenue side, they should increase non-interest income by diversifying their operation into Para banking activities on the lines of new private banks. On the expenditure side, they must bring efficiency in their operations to minimize costs and strive hard to control their booming NPAs.

**Reddy (2003)** pointed out in his study, “NPAs; Threat to Financial Stability”, that financial stability is an essential prerequisite for substantial long term economic growth of any country. He concluded that macro and micro level reforms and financial system be an essential adjunct for economic growth.

**Harpreet Kaur and J.S. Pasricjha,(2004)** in their research on management of NPAs in Public sector banks over a period of eight years ending on 2002 found that Gross NPA has registered a constant increase from 1995-2002. They had studied the sector wise and bank wise position of NPAs in public sector banks. It was recommended that proper policy of appraisal, supervision and follow up of advances be taken up for controlling NPAs.

**Kumar (2005)** in his article, “Non-Performing Assets in Indian Banks” studied that the Indian banking sector faced a serious problem of NPAs. The extent of NPAs has comparatively higher in public sector banks. To improve the efficiency and profitability, the NPAs have to be scheduled. Various steps have been taken by government to reduce the NPAs. It is highly impossible to have zero percentage NPAs. But at least Indian banks can try competing with foreign banks to maintain international standards.

**Chugh (2005)** in his study titled “Indian Banking Today-Impact of Reforms” concluded that public sector banks were coming up fastly to meet the challenges of open competition in financial markets in India. They were adopting latest banking technologies day by day and providing quality services to their respective customers at lower cost.

**Harpreet (2006)** suggested in her thesis titled “Credit management and problems of NPAs in Public Sector Banks” that for effective handling of NPAs, there is an urgent need for creating proper awareness about the adverse impact of NPAs on profitability amongst bank staff, particularly the field functionaries. Bankers should have frequent interactions and meetings with the borrowers for creating better understanding and mutual trust.

**Roma Mitra, Shankar Ravi (2008)**, in their paper tried to model and evaluate the efficiency of 50 Indian Banks. The results were insightful to the financial policy planner as it identifies the priority areas for different banks, which can improve the performance.

**Shalu Rani (2011)** examined the existing position of banks in Scheduled Commercial Banks of India in respect of NPAs, the causes and remedial measures thereof and concluded that the level of NPA has increased, eroding whatever reduction was made with the ever increasing level of the fresh NPAs and tightening of norms by RBI time to time. Total elimination is not possible in banking business so it is wise to follow the proper policy for appraisal, supervision and followup of advances to avoid NPAs.

### Objective of the Study

The objectives of the present study are:

1. To compare the NPA position of selected Public Sector Banks and Private Banks in India
2. To find out the variations in the NPA ratio in the selected banks.
3. To highlight the trends in NPA level and position of NPA in these banks.

### Research Methodology

The present study is secondary data based, as the main source of data is published Annual Report of “Reserve Bank of India” including “Trends and Progress of Banking in India”, statistical tables related to banks in India and report on currency and finance. Some data has also been collected through the internet site moneycontrol.com and the journals, magazines, newspapers, periodicals and internet having information related to Non performing assets are also considered over here for the collection of data.

Four Public Sector Banks viz; State Bank of India (SBI), Punjab National Bank (PNB), Indian Overseas Bank (IOB) and Punjab and Sind Bank (P&SB) and Four Private Banks viz ; ICICI Bank, HDFC Bank, AXIS Bank and IndusInd Bank are selected for the study. The study covers a

period of ten years i.e. from 2001-02 to 2010-11. Various statistical tools such as ratio analysis, mean, standard deviation, coefficient of variation and ANOVA test at 5% level of significance have been used to analyze the data and interpret the result thereof.

### Analysis and Interpretation

On analysing the NPA positions of the selected Public Sector Banks & Private banks the findings are as following

#### Gross NPA Ratio (in%): (position of gross NPA to gross advances)

Gross NPA is advance which is considered irrecoverable, for bank has made provisions, and which is still held in banks' books of account. Lower the Ratio the better it is. After analysing the position of Gross NPA in all selected banks under study it has been find out that there has been a marginal decline in NPAs level nearly every year over the period of ten years. it can be analysed from the table that in case of Public Sector Banks the P&S Bank have shown a remarkable progress by decreasing its ratio from a high figure of 18.19% in the year 2001-02 to a very low figure of 0.99% in the year 2010-11 while in case of Private Banks the performance of IndusInd Bank is noteworthy as the ratio declined from 7.41% in the year 2001-02 to 1.01% in the year 2010-11.

**TABLE -1**  
GROSS NPA RATIO(%)

| YEAR    | SBI   | PNB   | IOB   | P&S   | ICICI | HDFC | AXIS | INDUSIND |
|---------|-------|-------|-------|-------|-------|------|------|----------|
| 2001-02 | 11.95 | 11.38 | 11.35 | 18.19 | 10.23 | 3.18 | 5.18 | 7.41     |
| 2002-03 | 9.34  | 11.59 | 10.29 | 19.25 | 8.72  | 2.22 | 3.16 | 4.94     |
| 2003-04 | 7.75  | 9.36  | 7.4   | 18.16 | 4.7   | 1.86 | 2.88 | 3.3      |
| 2004-05 | 5.96  | 5.97  | 5.28  | 17.17 | 4.27  | 1.69 | 1.98 | 3.53     |
| 2005-06 | 3.61  | 4.1   | 3.4   | 9.61  | 1.51  | 1.44 | 1.68 | 2.86     |
| 2006-07 | 2.92  | 3.45  | 2.3   | 2.43  | 2.08  | 1.39 | 1.13 | 3.07     |
| 2007-   | 3.04  | 2.74  | 1.6   | 0.74  | 3.3   | 1.42 | 0.83 | 3.04     |

|                |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|
| <b>08</b>      |      |      |      |      |      |      |      |      |
| <b>2008-09</b> | 2.86 | 1.6  | 2.5  | 0.65 | 4.32 | 1.98 | 1.08 | 1.61 |
| <b>2009-10</b> | 3.05 | 1.71 | 4.5  | 0.63 | 6.52 | 1.44 | 1.39 | 1.23 |
| <b>2010-11</b> | 3.28 | 1.79 | 2.71 | 0.99 | 5.8  | 1.06 | 1.28 | 1.01 |

Source: Reports on Trends & Progress of Baking in India

Table1 (a) shows bankwise mean ,standard deviation and coefficient of variation of Gross NPA ratioof the selected banks. P& S Bank has 8.78,8.09 and 92.18 as the meanvalue, standard deviation and coefficient of variation respectively which stands highest in comparision to other banks.HDFC have the lowest meanvalue, standard deviation and coefficient of variation as 1.77, 0.57 and 32.19 respectively.

**Table1(a)**

**Analysis of Mean, Standard Deviation &Coefficient of Variation**

| <b>Banks</b>    | <b>Mean</b> | <b>Standard Deviation</b> | <b>Coefficient of Variation</b> |
|-----------------|-------------|---------------------------|---------------------------------|
| <b>SBI</b>      | 5.38        | 3.09                      | 56.53                           |
| <b>PNB</b>      | 5.37        | 3.79                      | 70.61                           |
| <b>IOB</b>      | 5.13        | 3.27                      | 63.76                           |
| <b>P&amp;S</b>  | 8.78        | 8.09                      | 92.18                           |
| <b>ICICI</b>    | 5.15        | 2.62                      | 50.91                           |
| <b>HDFC</b>     | 1.77        | 0.57                      | 32.19                           |
| <b>AXIS</b>     | 2.06        | 1.27                      | 61.75                           |
| <b>INDUSIND</b> | 3.2         | 1.79                      | 56.11                           |

Source:Calculated on the basis of Data in Table-1

TABLE-1(b)

ANOVA

Table

| Source of Variation | Sum of Square                     | Degree of Freedom | Mean Square |
|---------------------|-----------------------------------|-------------------|-------------|
| Between             | 357.0055                          | 7                 | 51.088      |
| Within              | 1122.151                          | 72                | 15.59       |
| Total               | 1479.1565                         | 79                | 66.678      |
| F-value             | 3.2723                            |                   |             |
| Table value         | 2.139 at 5% level of significance |                   |             |

Source: Calculated on the basis of Data in Table-1

H<sub>0</sub>: There is no significant difference in the in the Gross NPAs to Gross Advances ratio of all the selected banks i.e. SBI,PNB,IOB,P&S ICICI,HDFC AXIS & IndusInd.

It is observed from Table 1(b) that the calculated value (i.e. 3.2723) is greater than the Table value (i.e. 2.139) resulting in **rejecting the null hypothesis** meaning thereby there is a significant difference in the Gross NPAs to Gross Advances ratio of all the selected banks i.e. SBI,PNB,IOB,P&S ICICI,HDFC AXIS & IndusInd .

#### Net NPA ratio (in %age): (position of net NPA to net advances)

Net NPA is obtained by deducting items like interest due but not recovered, part payment received and kept in suspense account from Gross NPA It is observed from **Table-2** that there has been marginal reduction in Net NPAs ratio of all selected banks over the considered period. The situation of ICICI Bank seems to be a littlebit unsatisfactory as the decreasing ratio trend starts reversing after the end of the financial year2006 as the ratio has been increased from 0.72% at the end of the financial year2006 to 1.11% at the end of the financial year2011 . After analysing the position of Net NPA in all selected banks under study it has been find out that there has been a marginal decline in NPAs level nearly every year over the period of ten years. In terms of improvement it can be analysed from the table that in case of Public Sector Banks the P&S Bank have shown a significantresult by decreasing its ratio from a high figure of 12.27% in the year 2001-02 to a very low figure of 0.56% in the year 2010-11 while in case of Private

Banks the performance of IndusInd Bank is noteworthy as the ratio declined from 6.59% in the year 2001-02 to 0.28% in the year 2010-11.

**TABLE-2**  
**NET NPA RATIO(%)**

| YEAR    | SBI  | PNB  | IOB  | P&S   | ICICI | HDFC | AXIS | INDUSIND |
|---------|------|------|------|-------|-------|------|------|----------|
| 2001-02 | 6.03 | 5.27 | 7.01 | 12.27 | 5.48  | 0.5  | 3.46 | 6.59     |
| 2002-03 | 4.5  | 3.86 | 5.23 | 10.89 | 5.21  | 0.37 | 2.26 | 4.25     |
| 2003-04 | 3.48 | 0.98 | 2.85 | 9.63  | 2.21  | 0.16 | 1.2  | 2.72     |
| 2004-05 | 2.65 | 0.2  | 1.27 | 8.11  | 1.65  | 0.24 | 1.39 | 2.71     |
| 2005-06 | 1.88 | 0.35 | 0.65 | 2.43  | 0.72  | 0.44 | 0.99 | 2.09     |
| 2006-07 | 1.56 | 0.76 | 0.55 | 0.66  | 1.02  | 0.43 | 0.72 | 2.47     |
| 2007-08 | 1.78 | 0.64 | 0.6  | 0.37  | 1.55  | 0.47 | 0.42 | 2.27     |
| 2008-09 | 1.79 | 0.17 | 1.3  | 0.32  | 2.09  | 0.63 | 0.4  | 1.14     |
| 2009-10 | 1.72 | 0.53 | 2.52 | 0.36  | 2.12  | 0.31 | 0.4  | 0.5      |
| 2010-11 | 1.63 | 0.85 | 1.19 | 0.56  | 1.11  | 0.19 | 0.29 | 0.28     |

Source: Reports on Trends & Progress of Banking in India

Table2 (a) shows bankwise mean ,standard deviation and coefficient of variation of Net NPA ratio of the selected banks. P& S Bank has 4.56 and 4.76 as the meanvalue and standard deviation respectively which stands highest in comparison to other banks..HDFC have the lowest meanvalue and standard deviation as 0.37 and 0.14 respectively. The Bank with the highest coefficient of variation isPNB. The bank with lowest meanvalue, standard deviation and coefficient of variation(i.e. 1.77, 0.57 and 32.19 respectively) is HDFC .

**Table2(a)**

**Analysis of Mean, Standard Deviation & Coefficient of Variation**

| <b>Banks</b>   | <b>Mean</b> | <b>Standard Deviation</b> | <b>Coefficient of Variation</b> |
|----------------|-------------|---------------------------|---------------------------------|
| <b>SBI</b>     | 2.7         | 1.44                      | 53.23                           |
| <b>PNB</b>     | 1.36        | 1.65                      | 121.38                          |
| <b>IOB</b>     | 2.31        | 2.08                      | 89.58                           |
| <b>P&amp;S</b> | 4.56        | 4.76                      | 104.42                          |
| <b>ICICI</b>   | 2.32        | 1.59                      | 68.54                           |
| <b>HDFC</b>    | 0.37        | 0.14                      | 37.8                            |
| <b>AXIS</b>    | 1.15        | 0.96                      | 83.35                           |
| <b>INDUS</b>   | 2.5         | 1.76                      | 70.24                           |

Source: Calculated on the basis of Data in Table-2

$H_0$ : There is no significant difference in the Net NPAs to Net Advances ratio of all the selected banks i.e. SBI, PNB, IOB, P&S, ICICI, HDFC, AXIS & IndusInd.

It is observed from Table 2(b) that the calculated value (i.e. 2.9682) is greater than the Table value (i.e. 2.139) resulting in **rejecting the null hypothesis** meaning thereby there is a significant difference in the Net NPAs to Net Advances ratio of all the selected banks i.e. SBI, PNB, IOB, P&S, ICICI, HDFC, AXIS & IndusInd.

**Table2(b)**

**ANOVA**

**Table**

| <b>Source of Variation</b> | <b>Sum of Square</b>                     | <b>Degree of Freedom</b> | <b>Mean Square</b> |
|----------------------------|--|--------------------------|--------------------|
| <b>Between</b>             | 110.6195                                 | 7                        | 15.8028            |
| <b>Within</b>              | 383.3267                                 | 72                       | 5.324              |
| <b>Total</b>               | 493.9462                                 | 79                       | 21.1268            |
| <b>F-value</b>             | <b>2.9682</b>                            |                          |                    |
| <b>Table value</b>         | <b>2.139 at 5% level of significance</b> |                          |                    |

Source: Calculated on the basis of Data in Table-2

**Problem Asset ratio (in %age): (position of Gross NPA to Total Assets)**

The Problem assets ratio shows the proportion of Gross NPA to total asset. The lower the ratio the better is the quality of advances. It is observed from **Table-3** that there has been marginal reduction in Problem assets ratio of all selected banks over the considered period. P&S bank have shown the significant result in controlling Problem Assets in comparison to other banks under study as it can be seen that having a high figure of 7.94% of Problem Asset Ratio which was highest in comparison to other banks in the year 2001-02 it has controlled its NPA & reduced the ratio to a very low figure of 0.62% in the year 2010-11. It seems that much attention has been given by the management to the proportion of Gross NPA and total assets of the bank. On the other hand ICICI bank has to put more efforts regarding this, as the problem asset ratio started increasing from the end of financial year 2006-07 but declined slightly in the end of financial year 2011.

**Table-3**  
**PROBLEM ASSET**  
**RATIO(%)**

| YEAR    | SBI  | PNB  | IOB  | P&S  | ICICI | HDFC | AXIS | INDUSIND |
|---------|------|------|------|------|-------|------|------|----------|
| 2001-02 | 4.45 | 5.68 | 5.13 | 7.94 | 4.82  | 0.94 | 1.96 | 4.09     |
| 2002-03 | 3.59 | 5.78 | 4.61 | 8.6  | 4.71  | 0.87 | 1.17 | 2.69     |
| 2003-04 | 3.11 | 4.56 | 3.33 | 8.02 | 2.43  | 0.79 | 1.14 | 1.72     |
| 2004-05 | 2.71 | 2.96 | 2.73 | 7.62 | 1.65  | 0.85 | 0.82 | 2.05     |
| 2005-06 | 1.95 | 2.16 | 2.07 | 4.94 | 0.88  | 0.69 | 0.76 | 1.53     |
| 2006-07 | 1.76 | 2.09 | 1.36 | 1.32 | 1.2   | 0.72 | 0.6  | 1.64     |
| 2007-08 | 1.78 | 1.67 | 1    | 0.4  | 1.9   | 0.7  | 0.5  | 1.7      |
| 2008-09 | 1.62 | 1.02 | 1.6  | 0.4  | 2.5   | 1.1  | 0.6  | 0.9      |
| 2009-10 | 1.85 | 2.33 | 2.63 | 3.63 | 2.6   | 0.81 | 0.72 | 0.72     |

|                |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|
| <b>10</b>      |      |      |      |      |      |      |      |      |
| <b>2010-11</b> | 2.06 | 2.71 | 1.56 | 0.62 | 2.41 | 0.59 | 0.65 | 0.58 |

Source: Reports on Trends & Progress of Baking in India

Table3 (a) shows bankwise mean ,standard deviation and coefficient of variation of Problem Asset ratio of the selected banks. P& S Bank has 4.35, 3.32 and 76.36 as the meanvalue, standard deviation & coefficient of variation respectively which stands highest in comparison to other banks..HDFC have the lowest meanvalue, standard deviation & coefficient of variation as 0.81,0.14 & 17.08 respectively.

**TABLE 3(a)**

**Analysis of Mean, Standard Deviation &Coefficient of Variation**

| <b>Banks</b>    | <b>Mean</b> | <b>Standard Deviation</b> | <b>Coefficient of Variation</b> |
|-----------------|-------------|---------------------------|---------------------------------|
| <b>SBI</b>      | 2.49        | 0.9                       | 36.32                           |
| <b>PNB</b>      | 3.09        | 1.58                      | 51.08                           |
| <b>IOB</b>      | 2.6         | 1.32                      | 50.77                           |
| <b>P&amp;S</b>  | 4.35        | 3.32                      | 76.36                           |
| <b>ICICI</b>    | 2.51        | 1.25                      | 49.9                            |
| <b>HDFC</b>     | 0.81        | 0.14                      | 17.08                           |
| <b>AXIS</b>     | 0.89        | 0.41                      | 46.42                           |
| <b>INDUSIND</b> | 1.76        | 0.98                      | 55.79                           |

Source:Calculated on the basis of Data in Table-3

**TABLE-3(b)**

**ANOVA  
Table**

| <b>Source of Variation</b> | <b>Sum of Square</b> | <b>Degree of Freedom</b> | <b>Mean Square</b> |
|----------------------------|----------------------|--------------------------|--------------------|
| <b>Between</b>             | 95.01                | 7                        | 13.57              |
| <b>Within</b>              | 188.17               | 72                       | 2.61               |
| <b>Total</b>               | 283.18               | 79                       | 16.18              |

|                    |   |
|--------------------|---|
| <b>F-value</b>     | <b>5.1935</b>                           |
| <b>Table value</b> | <b>2.139 at 5%level of significance</b> |

Source: Calculated on the basis of Data in Table-3

$H_0$ : There is no significant difference in the in the proportion of Gross NPA to total asset ratio of all the selected banks i.e. SBI,PNB,IOB,P&S ICICI,HDFC AXIS & IndusInd.

It is observed from Table 3(b) that the calculated value (i.e. 5.1935) is greater than the Table value (i.e. 2.139) resulting in **rejecting the null hypothesis** meaning thereby there is a significant difference in the proportion of Gross NPA to total asset ratio of all the selected banks i.e. SBI,PNB,IOB,P&S ICICI,HDFC AXIS & IndusInd .

### Conclusion

To be conclude , all the selected Public Sector Banks as well as the Private Banks are striving hard to control their NPA positions All the banks under study have shown improvement in terms of reducing their NPA level to a great extent.Gross NPAs ratio of P&S Bank is less and it has been reduced over the period in comparison to other Public Sector Banks.On the other side as far as Private Banks are concerned IndusInd has better performance in comparison to Private Banks and also NNPA's Ratio and Problem Assets ratio is reduced of P&S Bank in PSBs & IndusInd Bank in Private sector banks.There is more variation in GNPA & ProblemAssets ratio of P&S Bank while in NNPA ratio PNB as more variability. There is a significant difference in the Gross NPA,Net NPA& Problem Asset ratio of all the selected banks i.e. SBI,PNB,IOB,P&S ICICI,HDFC AXIS & IndusInd . Total elimination of NPAs is a difficult task in banking business so it is wise to follow the proper policy for appraisal, supervision and followup of advances to avoid NPAs.

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