A Comparative Study of Non-Performing Assets of Domestic Commercial Banks in India

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ABSTRACT

The present study has been made to analyze the problem of NPAs among domestic bank groups (i.e., Public Sector Banks, Old and New Private Sector Bank Groups) of the country and for this purpose researcher has used Gross NPAs and Net NPAs as per cent to Total Assets. Further, the data used in study covers a period of ten year i.e., 2003/04 to 2012/13 and Kruskal Wallis test has been used. The results of the averages and C.V. showed that New Private Sector Banks are more efficient in handling their Gross and Net NPAs. But the results of Kruskal Wallis showed that the efficiency of all three categories of banks is same in handling their Gross and Net NPAs.

Key Words: Non-Performing Assets, Old and New private Sector Banks, Gross NPAs and Net NPAs.

Introduction

The Non-Performing Assets[1] (hereafter NPAs) has been major concern in the Capitalist Economies since long period and equally disbursed around the globe including India. The latest data on NPAs shows that the Total Amount of Gross NPAs[2] for Public and Private Sector Banks

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[1] A Non-performing asset (NPA) is defined as a credit facility in respect of which the interest and/or installment of principal has remained 'past due' for a specified period of time. In simple terms, an asset is tagged as non-performing when it ceases to generate income for the lender.

[2] Gross NPA: It is the total number of NPAs of the bank simply added. Banks would

is around 6.00 Lakh Crore (The Hindu: November 21, 2016). Thus, we can say that the problem of bad loan has been reached to danger level. While, without resolving this problem the economy of the nation can't achieve the target of eight per cent of

continuously assess this by evaluating their loan payments and decide the NPAs. What you need to understand here is when the NPA occurs, it is not just an interest income loss to the bank, but a principal loss as well. That means, if a bank has lent 100 Crore to a company with an outstanding loan amount of 60 Crores, then the bank would lose these 60 Crores along with the future interest payments as well- when the company goes bust. Now this is a serious loss to the bank and someone has to bear that loss. If the loss is much higher and there is every possibility that the customer's deposits may get eroded. This is where the risk management and regulators come into picture. Knowing that the banks would take extra risk in giving the loans, the regulators decided to put a condition known as provision for bad assets. To elaborate, banks need to continuously assess their loans and set aside an amount in the beginning itself to accommodate for any losses. It means that for a total loan base of say 500 Crores, depending on the interest payments nature, banks are required to keep a provision aside, let us say 50 Crores. In simple terms, it means that the bank has already kept aside 50 Crores for bad assets and has the money to bear that loss.

economic growth. Therefore, the present study has been an attempt to analysis the comparative position of different domestic commercial banks in concern of their bad loans.

Objective of the Study

1. To study the trends of NPAs (GNPAs and NNPAs as per cent to Total Assets) in domestic bank groups and

2. To find out the position of various domestic commercial banks in the country.

Research Methodology of the Study

The present study is based on secondary data which were collected from the publication of the Reserve Bank of India (RBI). Further, a period of Ten year i.e., 2003/04 to 2012/13 has been taken and Average, C.V. and Kruskal Wallis test have been also applied to analyze the data. Finally, the results of the study have been presented in tabulated and graphical manner.

Kruskal Wallis Test

A popular nonparametric test to compare outcomes among more than two independent

groups is the Kruskal Wallis test. The Kruskal Wallis Test is used to compare medians among k comparison groups (k > 2) and is sometimes described as an ANOVA with the data replaced by their ranks. The null and research hypotheses for the Kruskal Wallis nonparametric test are generally stated as follows:

H_0: The samples come from populations with equal medians.

H_1: The samples come from populations with medians that are not equal.

The procedure for the test involves pooling the observations from the k samples into one combined sample, keeping track of which sample each observation comes from, and then ranking lowest to highest from 1 to N, where $N = n_1 + n_2 + ... + n_k$.

The test statistic for the Kruskal Wallis test is denoted H and is defined as follows:

$$H = \left(\frac{12}{N(N+1)} \sum_{j=1}^{k} \frac{R_j{}^2}{n_j} \right) - 3(N+1)$$

Where: *k=the number of comparison groups, N= the total sample size, n_j is the sample size in the jth group and R_j is the sum of the ranks in the jth group.*

Data Analysis

Table 1

Gross NPAs (as Per cent to Total Assets) of Domestic Bank Groups

(In Per cent)

Year	PSBs	OPvt.SBs	NPvt.SBs
2003-04	3.5	3.6	2.4

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2004-05	2.7	3.1	1.6
2005-06	2.1	2.5	1.0
2006-07	1.6	1.8	1.1
2007-08	1.3	1.3	1.4
2008-09	1.2	1.3	1.7
2009-10	1.3	1.3	1.6
2010-11	1.4	1.2	1.3
2011-12	2.0	1.1	1.1
2012-13	2.4	1.2	1.0
C.V.	38.31	49.16	30.38
Average	1.95	1.84	1.42

Source: https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=17198

Table 1 shows the Trends of GNPAs of domestic bank groups operating in India from 2003/04 to 2012/13. It can be observed from the Table that the average GNPAs of PSBs, OPvt.SBs and NPvt.SBs has been 1.95, 1.84 and 1.42 per cent respectively; while during the same period the maximum variation (C.V.) has been observed in OPvt.SBs (49.16 per cent) as compare to other bank groups taken in the study. Table 1 reveals that New Private Sector banks are comparatively more efficient in handling their NPAs as their average Gross NPAs (as Percent to Total Assets) is lowest in comparison to other categories of bank and Public Sector Banks are comparatively least efficient in handling their Gross NPAs as their average Gross NPAs (as Percent to Total Assets) is highest.

Further, Figure 1 also reveals the growth of GNPAs of all bank groups. It can be seen from the Figure that the growth has been minimum in OPvt.SBs (100 to 33.33 per cent) followed by the NPvt.SBs (100 to 41.67 per cent) and PSBs (100 to 68.57 per cent).
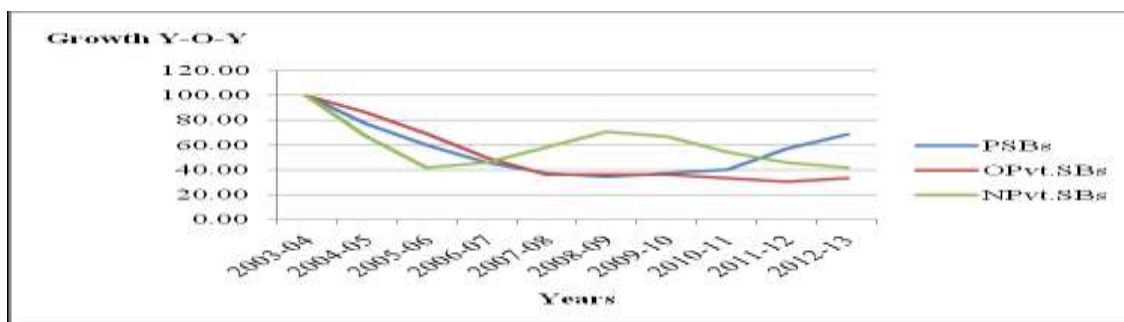
Figure 1: Growth of GNPAs of Domestic Bank Groups on Y-O-Y Base

Source: Researcher Calculations

Table 2

Ranks of the Sample for the Raw Material of the Kruskal Wallis Test

(GNPAs)

Year	Total Sample (30)			Rank (Ordered Smallest to Largest)		
	PSBs	OPvt.SBs	NPvt.SBs	PSBs	OPvt.SBs	NPvt.SBs
2003-04	3.5	3.6	2.4	29.00	30.00	24.50
2004-05	2.7	3.1	1.6	27.00	28.00	18.00
2005-06	2.1	2.5	1.0	23.00	26.00	1.50
2006-07	1.6	1.8	1.1	18.00	21.00	4.00
2007-08	1.3	1.3	1.4	11.50	11.50	15.50
2008-09	1.2	1.3	1.7	7.00	11.50	20.00
2009-10	1.3	1.3	1.6	11.50	11.50	18.00
2010-11	1.4	1.2	1.3	15.50	7.00	11.50
2011-12	2.0	1.1	1.1	22.00	4.00	4.00
2012-13	2.4	1.2	1.0	24.50	7.00	1.50
Total				189.00	157.50	118.50

Source: Researcher Calculations

To compare the position of domestic bank groups in contest of GNPAs I have been used Kruskal Wallis Test. The calculations of the Test are given below:

Null Hypothesis: H$_0$: There is no significant difference in performance of three select categories of banks in handling their Gross NPAs.

Alternative Hypothesis: H$_1$: There is significant difference in performance of three select categories of banks in handling their Gross NPAs.

$$\left\{ \frac{12}{30(30+1)} * \frac{189 \text{ Square}}{10} + \frac{157.50 \text{ Square}}{10} + \frac{118.50 \text{ Square}}{10} \right\} - \left\{ 3(30+1) \right\}$$

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$$H = \left\{ 12/930 * 35721/10 + 24806.25/10 + 14042.25/10 \right\} - \left\{ 93 \right\}$$

$$H = \left\{ 0.012 * 7456.95 \right\} - \left\{ 93 \right\}$$

$$H = 96.21 - 93.00$$

$$H = 3.21$$

Calculated value of the Test Statistics is 3.21, while Tabulated value of χ^2 at 5% level and degree of freedom 2 is 5.991. Because calculated value is less than tabulated value, the null hypothesis is not rejected. So, the researcher concluded that there is no significant difference in performance of three select categories of domestic commercial banks in handling their Gross NPAs.

Table 3

Net NPAs (as Per cent to Total Assets) of Domestic Bank Groups

(In Per cent)

Year	PSBs	OPvt.SBs	NPvt.SBs
2003-04	1.3	1.8	0.8
2004-05	1.0	1.4	0.8
2005-06	0.7	0.9	0.4
2006-07	0.6	0.6	0.5
2007-08	0.6	0.4	0.7
2008-09	0.6	0.5	0.8
2009-10	0.7	0.5	0.6
2010-11	0.7	0.3	0.3
2011-12	1.0	0.4	0.2
2012-13	1.3	0.5	0.3
C.V.	32.92	67.74	42.94

Average	0.85	0.73	0.54

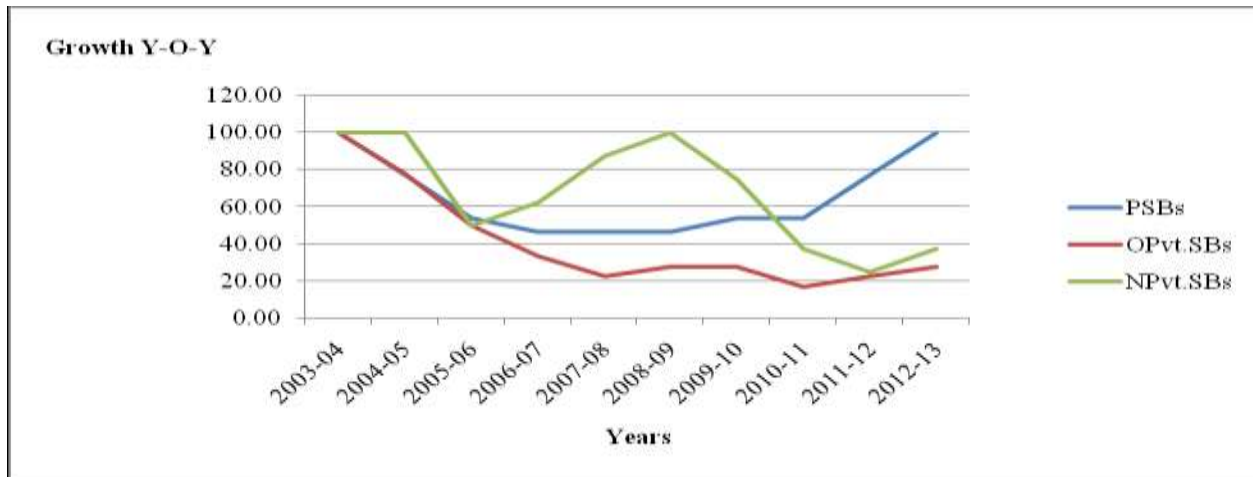Source: https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=17198

Figure 2: Average NNPAs of Domestic Bank Groups

Source: Researcher Calculations

Table 3 depicts the Trends of NNPAs[3] of domestic bank groups operating in India from 2003/04 to 2012/13. It can be viewed from the Table that the average NNPAs of PSBs has 0.85, OPvt.SBs has 0.73 and and NPvt.SBs has been 0.54 per cent; while during the same period the maximum variation (C.V.) has been observed in OPvt.SBs (67.74 per cent) as compare to NPvt.SBs (42.94 per cent) and PSBs (32.92 per cent). Table 3 reveals that New Private Sector banks are comparatively more efficient in handling their NPAs as their average Net NPAs (as Percent to Total Assets) is lowest in comparison to other categories of bank and Public Sector Banks are comparatively least efficient in handling their Net NPAs as their average Net NPAs (as Percent to Total Assets) is highest.

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[3] Net NPA is simply the total bad assets (actual) minus the provision left aside.

In addition, Figure 1 also illustrated the growth of NNPAs of all domestic bank groups. It can be observed from the Figure 2 that the growth has been minimum in OPvt.SBs (100 to 27.78 per cent) followed by the NPvt.SBs (100 to 37.50 per cent) and PSBs (100 to 100.00 per cent).

Table 4

Ranks of the Sample for the Raw Material of the Median Test

(NNPAs)

Year	Total Sample (30)			Rank (Ordered Smallest to Largest)		
	PSBs	OPvt.SBs	NPvt.SBs	PSBs	OPvt.SBs	NPvt.SBs
2003-04	1.3	1.8	0.8	27.50	30.00	22.00
2004-05	1.0	1.4	0.8	25.50	29.00	22.00
2005-06	0.7	0.9	0.4	18.50	24.00	6.00
2006-07	0.6	0.6	0.5	14.00	14.00	9.50
2007-08	0.6	0.4	0.7	14.00	6.00	18.50
2008-09	0.6	0.5	0.8	14.00	9.50	22.00
2009-10	0.7	0.5	0.6	18.50	9.50	14.00
2010-11	0.7	0.3	0.3	18.50	3.00	3.00
2011-12	1.0	0.4	0.2	25.50	6.00	1.00
2012-13	1.3	0.5	0.3	27.50	9.50	3.00
Total				203.50	140.50	121.00

Source: Researcher Calculations

To compare the position of domestic bank groups in contest of NNPAs I have been used again Kruskal Wallis Test. The calculations of the Test are given below:

Null Hypothesis: H_0: There is no significant difference in performance of three select categories of banks in handling their Net NPAs.

Alternative Hypothesis: H_1: There is significant difference in performance of three select categories of banks in handling their Net NPAs.

$$\left\{ \frac{12}{30\,(30+1)} * \frac{203.50\ \text{Square}}{10} + \frac{140.50\ \text{Square}}{10} + \frac{121.00\ \text{Square}}{10} \right\} - \left\{ 3\,(30+1) \right\}$$

$$H = \left\{ 12/930 * 41412.25/10 + 19740.25/10 + 14641.00/10 \right\} - \left\{ 93 \right\}$$

$$H = \left\{ 0.012 * 7579.35 \right\} - \left\{ 93 \right\}$$

H = 90.95 – 93.00

H = - 2.04

Calculated value of the Test Statistics is -2.04, while Tabulated value of χ^2 at 5% level and degree of freedom 2 is 5.991. Because calculated value is less than tabulated value, the null hypothesis is not rejected. So, the researcher concluded that there is no significant difference in performance of three select categories of domestic commercial banks in handling their Net NPAs.

Conclusion:

The Non-Performing Assets has been a major issue in Indian Banking system. The latest data on NPAs shows that total amount of Gross NPAs for Public and Private Sector Banks is around 6.00 Lakh Crore (The Hindu: November 21, 2016). The present study made an attempt to analyze the comparative position of different domestic commercial banks in concern of handling their bad loans. Average, C.V. and Kruskal Wallis test were applied to analyze the data. The results of the averages and C.V. showed that New Private Sector Banks are more efficient in handling their Gross and Net NPAs. But the results of Kruskal Wallis showed that the efficiency of all three categories of banks is same in handling their Gross and Net NPAs.

References

1. Karunakar, M., "Are non - Performing Assets Gloomy or Greedy from Indian Perspective, Research Journal of Social Sciences, 3: 4-12, 2008.

2. Taori K.J., "Problems and Issues relating to Management of Non Performing Assets of Banks in India" – The Journal of Indian Institute of Bankers– April June 2000, Volume 2, p.no – 21- 24.

3. Murthy C.R.K., "Branch Level Management of Non Performing Assets: Part III – Effective Management of Civil Litigation" – Vinimaya, Vol.XXI, No.2, 2000 – 2001 p.no: 5-11.

4. Kaveri V.S., Faculty, National Institute of Bank Management, Pune," Prevention of NPAs– Suggested strategies" - IBA Bulletin, August 2001.

5. Rajendra Kakker. "NPA Management – Role of Asset Reconstruction Companies" – IBA Bulletin– Volume 4 – p.no: 11- 14, 2004.

6. Bardia S.C., "Credit Efficiency in Banks: A Comparative Study", The ICFAI University Press, August 2004, p.no – 60-67, 2004.

7. Valasamma Antony, "Non Performing Assets – A menace to the Banking Industry." Southern Economist, p.no. 20 – 23, January 2004.

8. Satyanarayana, K. & Subrahmanyam, G. "Anatomy of NPAs of Commercial Banks." Applied Finance, Volume 6, No.3, July, 2000, pp 14-26.

9. Balasubramaniam, C.S., "Non-performing assets and profitability of commercial banks in India: assessment and emerging issues." Abhinav Journal, Vol.1,Issue no.7, ISSN 2277-1166.

10. Rajaraman Indira, Garima Vasishtha, "Non-performing Loans of PSU Banks- Some Panel Results", Economic and Political Weekly, Vol.27, pp.429-435, 2002.

11. Baiju, S. and Tharril, G.S. (2000), "Performance Banks with Non-performing Assets: An Analysis of NPAs, Yojna, March 2000, PP 5-9.

12. Chaitanya V Krishna (2004). Causes of Non-performing Assets in Public Sector Banks. Economic Research, 17 (1): 16-30.

13. King, R G and R Levine (1993). Finance and Growth: Schumpeter Might Be Right. Quarterly Journal of Economic, 108 (3): 717-37.

14. Mor N and B Sharma (2003). Rooting out Non-performing Assets. Paper presented at the 5th annual conference on Money and Finance in the Indian Economy, at IGIDR, Mumbai.

15. Sudhakar, V.K. (1998), "Managing NPA Menace in Banks", IBA Bulletin, April 1998, PP 27-30.