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A Relationship Analysis Between Loan & Advances And Non Performing Assets In Indian Banking Industry

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***Abstract:** There is a strong positive relationship between bank credits and economic growth. To accelerate the pace of economic growth, Indian banking sector has enjoyed a liberal credit policy over the years. But, Due to this liberal credit policy, Indian banks are now suffering from a negative side-effect in the form of NPAs. The present study has given an effort to analyze the level of NPAs in different banks and also in different years and tried to find out the relationship between NPAs and Loan & Advances. The study also tried to find out whether, there is any relationship between ownership of banks and NPAs level. The study found that, the NPAs level of all bank groups has increased over the year. Private ownership have significant role in NPAs management. Except old private sector banks, in all other bank groups, there are a high degree of association between loan & advances and NPAs. The study found a significant difference in the level of NPAs of different banks groups. The study strongly recommends to follow the policy and strategy of old private sector banks in dealing loan & advances and NPAs to have a check on increasing nonperforming assets.*

***Keywords:** NPAs, Loan & Advances, Economic Growth*

I. INTRODUCTION

Banks of a country plays a very important role in the financial stability and economic development of the country. Banks working in India have also been carrying out the said role since independence. During independence, Indian banking sector was dominated by private sector banks. Gradually public sector banks take the charge of major banking sector activities. After financial reform in the year 1991, the need of finance for trade & commerce and economic growth demand private sector participation. New private sector banks and foreign banks are allowed in the market. Presently there are mainly four categories of banks are working except Cooperative banks namely Public Sector Banks, Old Private Sector Banks, New Private Sector Banks and Foreign Banks. Plenty of opportunity and scope have been provided to all the said banks to follow a liberal credit policy to offer sufficient funds to the economy for speedup growth. This drug of liberal credit policy to cure the economic slowdown disease, now showing some side effect in the form of Non-Performing Assets (NPAs) which has become a big headache for banks and also for the economy. The present study has spent an effort to find out whether ownership of banks has an effect on controlling NPAs.

II. SIGNIFICANCE OF THE STUDY

Non Performing Assets of banks now became a huddle in the growth of banks and nation. There are several reasons of NPAs. Finding out all the possible reasons of NPAs may helps banks and policy makers to take necessary action to check further movement of NPAs. The present study tried to find out whether ownership of banks has any effect on the level of NPAs. If yes then, the policy, strategy and action of particular categories of bank can be an important clue for the reduction and management of NPAs in different banks.

III. OBJECTIVES OF THE STUDY

- ✓ To analyze the level of NPAs in different banks according to ownership.
- ✓ To find out the degree of association between loan & advances and NPAs in different group of banks.
- ✓ To find out whether there is a significance difference in NPAs of banks so far as ownership is concern.

IV. REVIEW OF LITERATURE

Laveena and Kulbir Singh Guleria (2016) has conducted a study named "A Study of Non Performing Assets of Public Sector Banks in India" and concluded that loan policy has a impact on NPAs and proper attention must be given before providing loans. Dr. Sonia Narul and Monica Sina (2014) has carried out a study on "Empirical Study on Non Performing Assets of Bank" and found a negative relationship between profitability and NPAs. Similar result has been found in the study conducted by Prof. Arvind Kumar and Usman Ghani (2015) named "An Analysis of Non Performing Assets and Profitability of Schedule Commercial Banks in India, Payel Roy and Dr. Pradip Kumar Samanta (2017) in a study "Analysis of Non Performing Assets in Public Sector Banks of India", Ms Asha Singh (2013) on a study "Performance of Non-Performing Assets (NPAs) in Indian Commercial Banks and Ravindra N. Sontakke and Mr. Chandan Tiwari (2013) on a study "Trend Analysis of Non Performing Asset in Scheduled Commercial Banks in India". Mayur Raoa and Ankita Patel (2015) has conducted a study On "A Study On "Non Performing Assets Management With Reference To Public Sector Banks, Private Sector Banks And Foreign Banks In India" and reported increasing Gross NPAs to Gross Advances ratio in Indian banking industry. Pinky Soni and Dr. B. L. Heda (2014) undertake a study on "NPA's Impact on Financial Performance of Public Sector Banks and reported a negative relationship between profitability and NPAs. The review of literature found rare study which tried to establish a relationship between NPAs and advances on the basis of ownership of banks which has provided sufficient cause to conduct the present study.

V. RESEARCH METHODOLOGY

The present study has taken secondary data for analysis. Data on Loan and Advances and NPAs of different banks working in India has been collected from reliable sources such as official web site of RBI and Annual report of banks. The time periods taken under the study are 13 years from 2003-2015. To fulfil the second objective Karl Pearson coefficient of correlation is used. To fulfil the third objective one way ANOVA has been used. To find out the movement of NPAs with the movement of loan advances regression technique is used. The model used is:

NPAs = $\beta_1 + \beta_2$ Loan & Advances + u

Where β_1 = Intercept, β_2 =Slope coefficient (A unit change in NPAs with a unit change in Loan and Advances), u = Error (Effect of other factor on NPAs)

Bar diagram and graph chart are used to show the data diagrammatically.

VI. RESULTS AND DISCUSSION

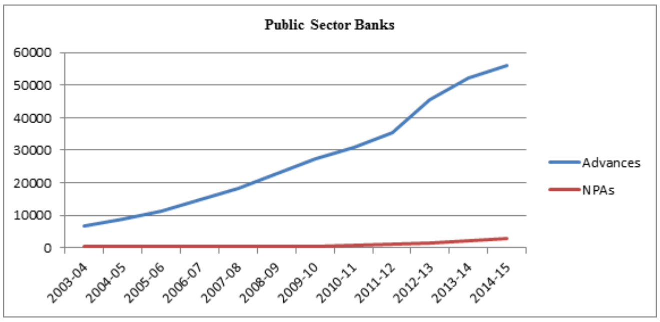
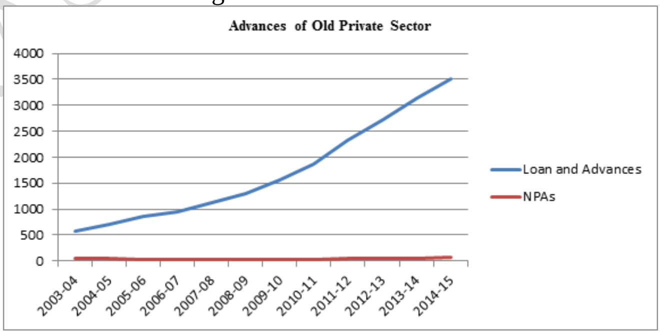


Figure 1: Degree of association between loans and advances and NPAs of public sector banks. Source: Author, Amount in Billion Rupees

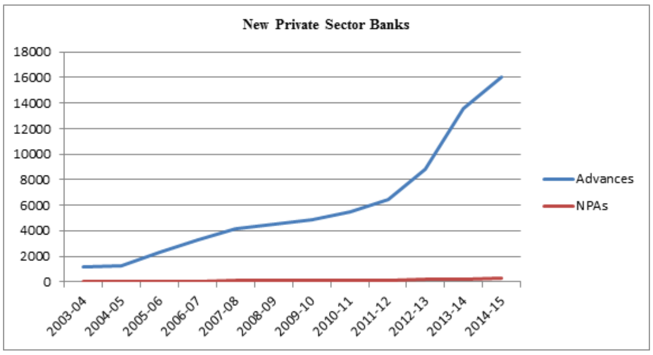
Fig 1. Shows the degree of association between loans and advances and NPAs of public sector banks. The loans and advances have increased sharply after 2011. However NPA of public sector banks was low up to 2009. But, after 2010 it has increased slightly. The average increase in NPA in public sector is 19 %. The average percentage of gross NPAs to gross loans and advances is 4 %. The correlation coefficient between loans and advances in public sector banks is 0.920 which shows a strong association between the two variables.



Source: Author, Amount in Billion Rupees

Figure 2: Degree of association between loans and advances and NPAs of old private sector banks

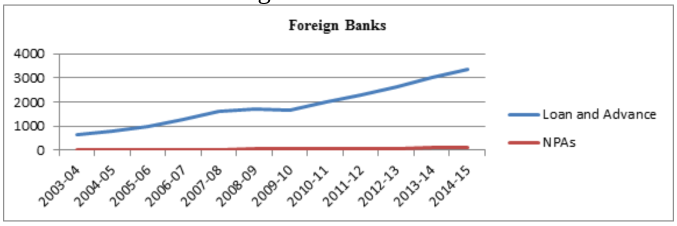
Fig. 2 clearly shows that NPAs in old private sector banks is very low. Though the graph for loan and advances has increased sharply, the graph for NPAs remains constant over the years. The degree of association between loan & advances and NPAs is 0.76 which comparatively low. The average increase in NPAs is 4 % and the average % of NPAs to loan advances is 2%.



Source: Author Amount in Billion Rupees

Figure 3: Association between loans and advances and NPAs of new private sector banks

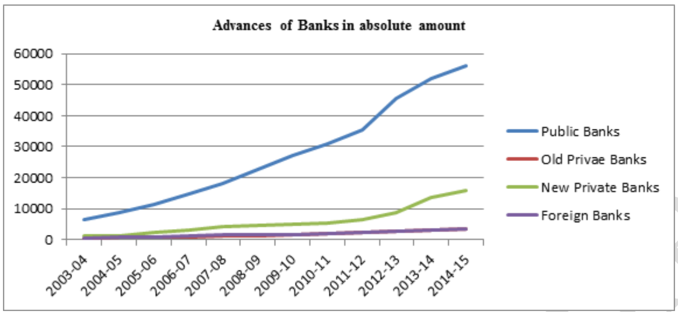
The mean percentage of increase in nonperforming assets in new private sector banks is 20 and the mean percentage of nonperforming assets to loan and advances is 3. The coefficient of correlation between the said two variables is 0.97 which indicate a high level of association.



Source: Author, Amount in Billion Rupees

Figure 4: Degree of association between loans and advances and NPAs of foreign sector banks

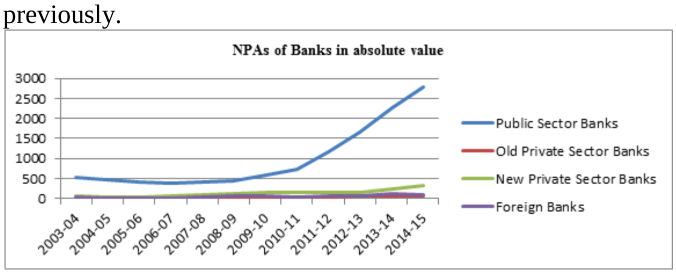
Fig .4 reflects the data on foreign banks. In this case the degree of correlation between loan &advances and NPAs is 0.91 which is high enough to interpret about a high degree of correlation. The mean % increase in NPAs is 19. NPAs to loan & advances ratio is 3%.



Source: Author, Amount in Billion Rupees

Figure 5: Advances of different banks

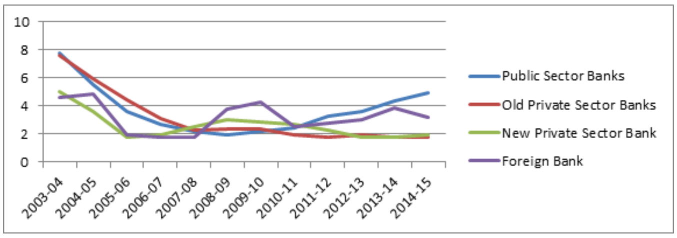
Fig. 5 shows the data on advances of all categories of banks. Loan and advances of public sector banks are very high as compare to other categories of banks. The movement of advances in all banks increased gradually over the years. After 2012, it has increased sharply in public sector banks and new private sector banks. However the pace of growth of old private banks and foreign banks continued as it was previously.



Source: Author, Amount in Billion Rupees

Figure 6: NPAs in all categories of banks

Fig. 6 indicates the movement of NPAs in different sector of banks. As it is shown in the fig. 5 that the loan and advances of public sector has increased sharply after the year 2012, exactly the NPAs of public sector banks has increased sharply after 2012. NPAs of new private sector banks have increased slightly after the year 2013. However NPAs of old private sector and foreign banks remained comparatively low.



Source: Author, Amount in Billion Rupees

Figure 7: NPAs to Loan & Advances of Banks

Fig.7 shows the movement of ratio of NPAs to loan & advances. The ratio has sharply decreased up to 2007 for all categories of banks. After 2007 the ratio of new private sector banks has increased sharply up to 2010. In that time period ratio of public sector banks remained minimum. After 2012 NPAs of foreign banks and public sector banks has increased gradually. But, the ratio of old private sector bank and foreign banks has decreased continuously after 2008.

		Loan and Advances of different Sectors of Banks			
NPAs		Public	Old private	New private	Foreign
	Public	0.92	-	-	-
	Old private	-	0.76	-	-
	New private	-	-	0.97	-
	Foreign	-	-	-	0.91

Table 1: Correlation analysis findings between Loan & Advances and NPAs

	Public	Old private	New private	Foreign
Goodness of Fit(R Square)	0.847	0.577	0.938	0.831
Adjusted R Square	0.832	0.535	0.931	0.813
Intercept	-232.1	26.72	31.77	-8.28
Slope coefficient	0.004	0.0084	0.017	0.035

Table 2: Regression Analysis findings between Loan & Advances and NPAs

	Public	Old private	New private	Foreign
Mean Advances	27498.35	1721.48	6004.82	1824.42
Standard Deviation	16211.11	949.8	4484.67	826.62
Mean % increase in Advances	22	18	28	17
Mean NPAs	991.15	41.20	133.41	56.10
Standard Deviation	783.48	10.51	78.37	32
Mean % increase in NPAs	19	4	20	19
Mean NPAs to Advances Ratio	4	2	3	3

Table 3: Other statistics

Variations	SS	DF	MS	F Value	P Value	F Crit.
Banks	64.37	11	5.85	6.21	0.0002	2.09
Years	7.63	3	2.54	2.69	0.062	2.89
Error	31.10	33	0.94			
Total	103.10	47				

Table 4: ANOVA table for NPAs in different banks and year

The above ANOVA table shows that the P value of different banks is 0.0002 which is less than the level of significance (.05). Thus, it can be concluded that there is a significant difference in NPAs in different categories of banks. The P value for years is 0.062 which is more than the level of significance. So, it can also be concluded that, there is no significant difference in NPAs of different years.

VII. CONCLUSION AND SUGGESTIONS

The study found that the absolute value of both Advances and NPAs of public sector banks are far ahead from other categories of banks. Absolute value advances is lowest in foreign banks and NPAs is lowest in old private sector banks. The study clearly shows that, there is a sharp increase in loans and Advances over the years in all the said categories of bank. But, NPAs has not increased in the same direction which indicate that, Indian banking industry has kept NPAs under control over the years the credit of which goes to restriction by policy makers and policy of banks in dealing with NPAs. Old and new private sector banks are able to reduced NPAs to a great extend. In dealing with NPAs, public sector banks have reduced their NPAs to the minimum during the year 2008-10. But after that it has increased sharply. It is the private sector which has lowest association between NPAs and Advances which clearly shows that, NPAs management is encouraging in old private sector banks. The slope coefficient of regression model is lowest in old private sector banks. It indicate that increase in NPAs is lowest with a unit increase in loan and advances in old private sector banks which shows a good signal of NPAs management. The average increase in NPAs is outstanding in old private sector banks which are 4% as compare to other sectors which are at on an average 19 %. The average NPAs to Advances ratio is minimum in old private sector banks and highest in public sector banks. The study strongly suggests that the old private sector banks have a distinct policy towards dealing NPAs and their strategy and policy can be used as an instrument to control NPAs of the whole industry which provide further scope for the study.

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