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A Comparative study of Non-Performing Assets of Selected Public Sector and Private Sector Banks in India

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Abstract - Banking sector plays an important role in the socio economic development of the country. For played of this role banks extending credit to various deficits sectors for their growth and development. This credit creation process leads to credit risk which will lead to non performing assets. While the primary function of banks is to lend funds as loans to various sectors such as industry, agriculture, housing loans and personal loans etc. in recent times the banks have become very cautions in extending loans. Non-performing assets is an important parameter in the analysis of financial performance of a bank as it results in reducing margin and higher provisioning requirements for doubtful debts. NPA is a virus affecting banking sector. It affects liquidity, solvency and profitability in addition posing threat on quality of assets and survival banks. This paper tries to make an attempt to compare NPA's in public sector (PNB, BOB, and SBI) and private sector (ICICI, HDFC and Axis) banks. In This study use the annual reports of the banks for the period of five years from 2012-13 to 2016-17. For analysis the data is use ANOVA. We find in this study both sector (public or private) banks net profit are affected from net NPA but more show on public sector banks.

Keywords: Banking System, Bank, NPA, Sub-standard Assets, Doubtful Assets

I. INTRODUCTION

The main business of banking is to accept deposits for the purpose of lending, so it mobilizes funds by issuing claims against itself and lends this money to others in the form of loans which are assets for banks. The liabilities and assets of banks are in the form of claims unlike other forms of business. The mobilized money is lent in the form of loans which is major and main activity of banking and comprises the largest asset in the asset portfolio of the bank.

The money lent is called loans or advances which earn income for the bank in the form of interest, in addition to this bank invests a portion of money in securities (both debt and equity) and a minor portion of total funds is invested in real assets like land, building for carrying the operations of banking.

The money is advanced in the form of loans and invested in securities in expectation of income and repayment of principle at periodic intervals as per the contractual obligations between the lender and borrower. The assets which is performing as per the contractual obligations i.e. payment of interest and repayment of principal as and when it falls due, it is called performing asset or standard asset. The asset which fails to meet obligation of payment of interest and repayment of principal within a specified date from due date is called non-performing asset or non-standard asset.

Non-performing asset (NPA) is one of the major concern and problem for banks in India. NPAs reflect the degree of risk and quality of assets of bank and profitability of a bank. A high level of NPAs suggests high probability of a large number of credit defaults that affect the profitability and net-worth of banks and also erodes the value of the asset. The NPA growth involves reduced income from assets and the necessity of provisions, which reduces the overall profits and shareholders" value. The level of nonperforming assets is at the alarming rate in Indian banking comparatively to other countries. There commendations of Narasimham committee and Verma committee, some steps have been taken to solve the problem of old NPAs in the balance sheets of the banks. It continues to be expressed from every corner that there has rarely been any systematic evaluation of the best way of tackling the problem. There seems to be no unanimity in the proper policies to be followed in resolving this problem.

NON –PERFORMING ASSET

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 India, the definition of NPAs has changed over time. According to the Narasimham Committee Report (1991), those assets (advances, bills discounted, overdrafts, cash credit etc.) for which the interest and/or installment of

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principal remains due for a period of four quarters (180 days) should be considered as NPAs.

With an aim of moving towards the international best practices and ensuring greater transparency, a standard criterion of ‟90 days‟ overdue norm was fixed for identification of NPA from the FY ending March, 2004 in the Indian financial system. Thus, as per present convention, a non-performing asset refers to a loan or an advance where:

- Interest and/or installment of principal remain overdue for a period of more than 90 days in respect of a term loan,
- The account remains „out of order‟ for a period of more than 90 days, in respect of an Overdraft/Cash Credit (OD/CC),
- The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted,
- 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 purposes, and
- Any amount to be received remains overdue for a period of more than 90 days in respect of other accounts

As per Reserve Bank of India’s guidelines, income on loans is to be recognized on receipt basis (as against accrual basis) and if it has not been received for a specified period, the same asset is to be treated as non-performing. The basis for doing so is given below:

1. Term Loan: Term Loan account will be treated as NPA if interest or installment of principal is in arrears for any two quarters out of four quarters, though the default may not be continuously for two quarters during the year. The default may be considered by applying the concept of past due i.e. if not paid within 30 days from the due date

2. Cash Credit and Overdrafts: A cash credit or overdraft account will be treated as NPA if the account remains out of order for a period of two quarters. An account should be treated as “out of order” if the outstanding balance remains continuously in excess of the sanctioned limit/drawing power. In case where the principal operating account is less than the sanctioned limit/drawing power but there are no credits continuously for six months as on the date of balance sheet or credit are not enough to cover the interest debited during the same period, these accounts should also be treated as “out of order”.

3. Bills purchased and discounted: The bills purchased/discounted account should be treated as NPA if the bill remains overdue and unpaid for a period of two quarters.

4. Other Accounts: Any other credit facility should be treated as NPA if any amount to be received in respect of that facility remains past due for a period of two quarters. An amount should be considered past due, when it remains outstanding for 30 days beyond the due date.

NORMS FORCLASSIFICATION OF NPA

a) Sub-standard Assets

Before 31 March 2001, sub-standard asset was classified as NPA for a period not exceeding two years but with effect from 31 March 2001, a sub-standard asset which has remained NPA for a period less than or equal to 18 months. With effect from 31 March 2005 the norms have been further squeeze and a sub-standard asset would be one, which has remained NPA for a period less than or equal to 12 months.

In such cases, the current net worth of the borrower/ guarantor or the current market value of the security charged is not enough to ensure recovery of the dues to the banks in full.

b) Doubtful Assets

Before 31 March 2001, doubtful asset was remained NPA for a period exceeding two years but with effect from 31 March 2001, it had remained NPA for a period exceeding 18 months. With effect from March 31, 2005, the norms have been further squeeze, and an asset would be classified as doubtful if it remained in the sub-standard category for 12 months.

c) Loss Assets:

A loss asset is one where loss has been identified by the bank or internal or external auditors or the RBI inspection but the amount has not been written off wholly. In other words, such an assets is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted although there may be some salvage or recovery value.

However, only those advances are classified as loss assets where no security is available. In accounts where some security / ECGC /DICGC cover is available, these accounts are not reported under loss assets.

Factors for rise in NPAs:

The factors behind the rising NPAs may be of two types, one internal factors and other external factors.

Internal factors:

1. Poor credit appraisal selects those who are not able to repay the loan.
2. Absence of regular industrial visit decreases the collection of interest and principals.
3. Lack of post credit supervision
4. Absence of sufficient securities

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5. Socio-political pressure on credit decision
6. Compulsory lending to priority sectors
7. Re-loaning to defaulters
8. Lack of effective NPA management.

External factors:

1. Natural calamities
2. Adoption of obsolete technology by the borrowed firm
3. Labour problems of borrowed firm
4. Lack of demand of the product of borrowed firm
5. Diversification of loans and not being used for the particular purpose
6. Willful default / fraud
7. Political pronouncements like debt relief
8. Lack of conducive legal system for loan recovery

II. Literature Review

Zahoor Ahmad and Dr. M. Jegadeeshwaran (2013), made a study on NPA management of nationalized banks. Five-year data is use for analysis and ANOVA, CAGR, mean is use for analysis. They found there is significant difference in the level of NPA's of nationalized banks which reflect their varied efficiency in the management of nonperforming assets.

Satpal (2014), made a study of non-performing assets in public and private sector bank in the new age of technology. Researcher analyzes the data from 2009 to 2013 and its trends. He analyzes public sector and private sector bank gross NPA and net NPA. He found the NPA is comparatively very high in public sectors banks as compared to private banks and he also found Indian banks NPA's level is still high as compared to the foreign banks.

Mayur Rao and Anrita Patel (2015), made a study on non-performing assets management with reference to public sector banks, private sector banks and foreign banks in India. Interpret and analyze the NPA management from the year 2009-13. They use least square method and ANOVA test to judge the presence of any significant difference between ratios of gross NPA to gross advances. They found reveals the percentage of gross NPA to gross advance is increasing for public banks, ratio of loss advances to gross advances are higher in foreign banks. They found does not have significant difference.

Harish Shetty and S.N. Sandesha (2016), made a comparative study on non-performing assets management of selected public-sector bank and private sector bank. They are study to assess NPA of SBI and Karnataka bank and its Impact on profitability and to see the relation between total advances, net profits, gross and net NPA. They use five-year data 2009-10 to 2013-14. They data have been analyzed by using tables and coefficient of correlation. They found a positive relation between net profit and NPA about SBI.

Neha Yadav (2017), made a comparative study of non-performing assets of public section private sector banks in India. Researcher analysis 5-year data 2012 to 2016, 5 public sectors and 5 private sector banks gross NPA and advances and also analyze trends. Researcher found NPA's would destroy the current profit, interest income due to large provisions of the NPA's also found public sector banks are more efficient than private sector and foreign bank with regard to the management of NPA.

Objectives

In the light of these studies, the researcher sought for answers of several questions such as:
What is the impact of NPA on profitability of banks?
What is the current trend of NPA?
Is there any difference of impact of NPA on private sector banks and public-sector banks?

Therefore, these objectives have been studied:

1. To analysis the impact of NPA on selected bank profitability.
2. To study NPA trend and compare the trend of public sector and private sector bank.

Hypothesis

Thus, researcher claims these hypotheses for testing:
H_O: There is no significant impact of NPA on bank profitability.
H_1: There is significant impact of NPA on bank profitability.

III. Research Methodology

Population

Banking industry is taken for the study, where aggregate data related to NPA for Public sector Banks, Private Sector Banks and Foreign Banks is used. At present scheduled public & private sector banks in India are 20 (19+1) & 23 respectively.

Sampling techniques

Convenient and random sampling techniques have been used to study. It includes quantitative and qualitative techniques.

Sample Size

In this study, researcher has selected following banks for study:
Public sector banks- Punjab National Bank, Bank of Baroda, State Bank of India
Private sector banks- ICICI, HDFC, Axis Bank

Data collection

Secondary sources of data have been used for this study. Data was collected from various published annual reports and various bulletin of banks.

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Period of study

The present study is carried out for a period of five financial year from 2012-13 to 2016-17.

Unit of Analysis

Independent variable (Average Net NPA)
For this study average Net NPA is calculated by following formula:
Net NPAs = (Gross NPAs – Provisions) / (Gross Advances – Provisions)
Dependent variable (Average Net Profit)
Net Profit excluded the operating expenditure, included the operating income of business from gross profit and after all taxes & provisions.
Net Profit = Gross Profit +Operating Income –Operating Expenditure.

IV. DATA ANALYSIS

This paper test the linearity and normality of time series data used in study regression models present below was used to test on the relationship between the variables of study

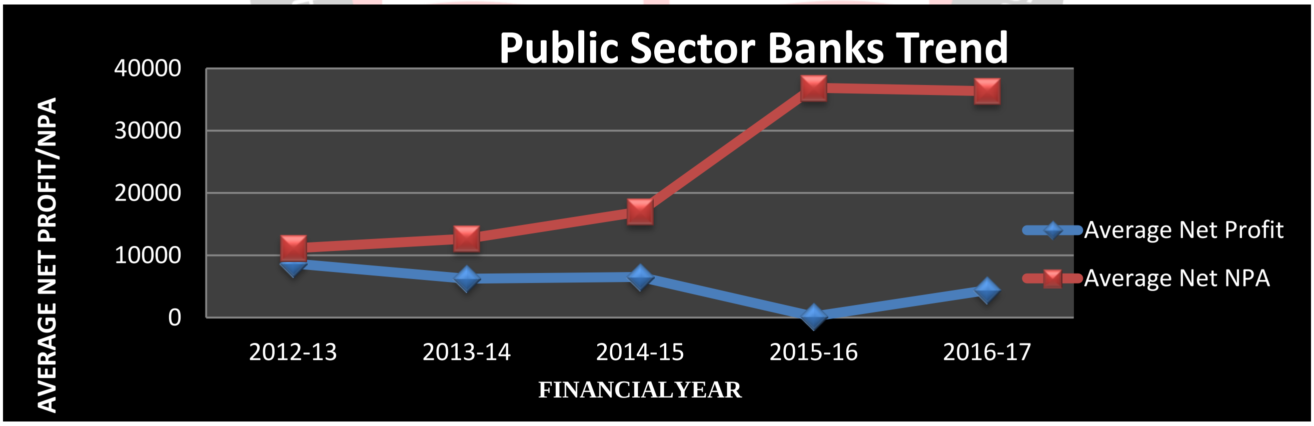
$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Y = Average Net Profit (Dependent)
β_0 = Intercept (constant) β_1= effect of Independent variable
X_1= Average Net NPA (Independent) ε = Error term
The confidence level for the present study has been taken as 95%.
R shows the correlation between independent and dependent variable. R square show the variation and we can predict the variation in profit. Adjusted R square to closely reflect the goodness of fit of the model. The higher R square is better for the model. T test used to test the individual sig. of the predictor variables use to the study.

Public Sector Banks

	Net Profit			(Crore)	Net NPA			(Crore)
YEAR	BOB	PNB	SBI	AVERAGE	BOB	PNB	SBI	AVERAGE
2012-13	4480.72	7448	14105	8677.91	4192.02	7236.5	21956	11128..17
2013-14	4541.08	3343	10891	6258.67	6025.22	916.99	31096	12679.40
2014-15	3398	3062	13102	6520.67	8069	15397	27591	17019
2015-16	-5396	-3974	9951	193.67	19406	35423	55807	36878.67
2016-17	1383	1325	10484	4397.33	18080	32702	58277	36353

Source: IBA publication, Annual reports of Banks 2012-13 to 2016-17



Hypothesis testing

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860[a]	.740	.654	1876.82750

a. Predictors: (Constant), PUBLIC SECTOR BANKS AVERAGE NET NPA

This table R shows the high correlation between Independent and Dependent variable but this relation is negative (-0.860). R square show the NPA predicts 74% variation in net profit in public sector banks

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ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30099864.452	1	30099864.452	8.545	.061[b]
	Residual	10567444.369	3	3522481.456		
	Total	40667308.821	4			

a. Dependent Variable: PUBLIC SECTOR BANKS AVERAGE NET PROFIT
b. Predictors: (Constant), PUBLIC SECTOR BANKS AVERAGE NET NPA

The regression result shows the significant level (p value) of F statistics. Show that Influence of Net NPA on Net Profit in public sector banks. The result of ANOVA is 8.545 at 1/3 degree of freedom and 5% Level of significant reveling that Net NPA Influence Net profit in public sector Banks. The table indicates the regression models predict dependent variable significantly because P value 0.061 is less than 0.05. So our Null Hypothesis rejected and alternate Hypothesis accepted.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10103.542	1872.799		5.395	.012
	PUBLIC SECTOR BANKS AVERAGE NET NPA	-.215	.073	-.860	-2.923	.061

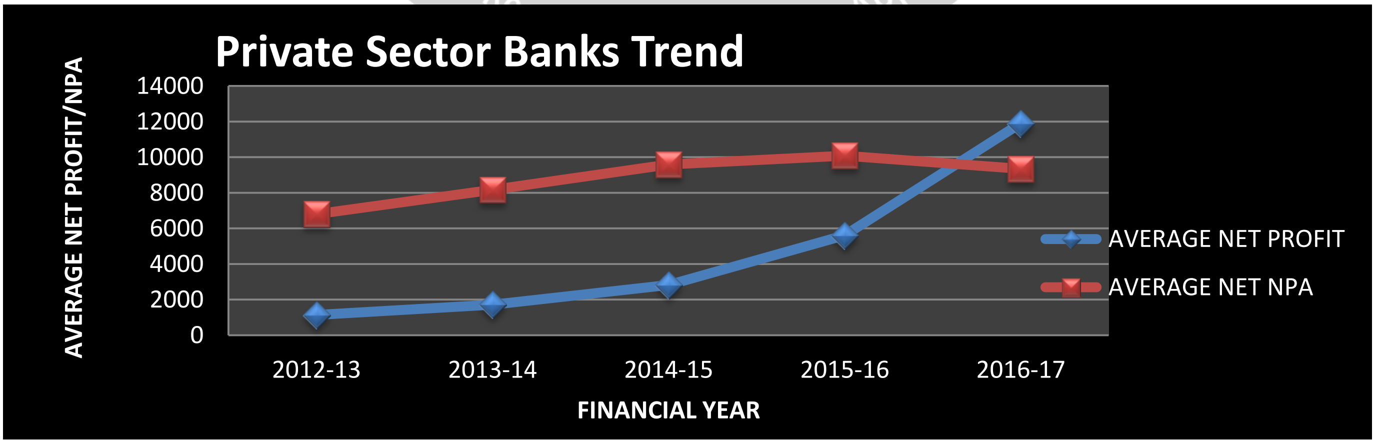
a. Dependent Variable: PUBLIC SECTOR BANKS AVERAGE NET PROFIT

The coefficient table provides the necessary information to predict Net Profit from Net NPA, as well as determine whether Net NPA contribute statistically significantly to the model.
Average Net Profit = 10103.542 – 0.215 (Average Net NPA) + ε
The beta coefficients in the regression show that Net NPA has negative relationship with Net profit in these banks provided by coefficient value of -0.860. The findings show Net NPA is statistically significant with p-value less than 0.05.

Private Sector Banks

	Net Profit (CRORE)				Net NPA (CRORE)			
YEAR	ICICI	HDFC	AXIS	AVERAGE	ICICI	HDFC	AXIS	AVERAGE
2012-13	2230.56	491.01	704	1141.857	8325.47	6900.28	5179	6801.583
2013-14	3297.96	820.03	1024.62	1714.203	9810.48	8478.38	6217.67	8168.843
2014-15	6255.53	896.28	1316.71	2822.84	11175.35	10215.92	7357.82	9583.03
2015-16	12963.08	1320.37	2522.14	5601.863	9726.29	12296.23	8223.66	10082.06
2016-17	25216.81	1843.99	8627	11895.93	9801.09	14549.66	3679.27	9343.34

Source: IBA publication, Annual reports of Banks 2012-13 to 2016-17



Hypothesis testing

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

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1	.542[a]	.294	.059	1278.44442

a. Predictors: (Constant), PRIVATE SECTOR BANKS AVERAGE NET NPA

This table R shows the moderate correlation between independent & dependent variable this relationship is positive (0.542). R square show the Net NPA predicts 29.4% variation in Net Profit in Private Sector Banks.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2040710.299	1	2040710.299	1.249	.345[b]
	Residual	4903260.386	3	1634420.129		
	Total	6943970.685	4			

a. Dependent Variable: PRIVATE SECTOR BANKS AVERAGE NET PROFIT

b. Predictors: (Constant), PRIVATE SECTOR BANKS AVERAGE NET NPA

The regression result shows the significant level (P value) of F statistics. Show that Influence of Net NPA on Net Profit in private sector banks. The result of ANOVA is 1.249 at 1/3 degree of freedom and 5% Level of significant revealing that Net NPA influence Net Profit in private sector banks. The table indicates the regression models predict dependent variable significantly because p value 0.345 is higher than 0.05. So our null hypothesis (H_0) rejected and alternative hypothesis (H_1) accepted.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8044.430	882.614		9.114	.003
	PRIVATE SECTOR BANKS AVERAGE NET NPA	.162	.145	.542	1.117	.345

a. Dependent Variable: PRIVATE SECTOR BANKS AVERAGE NET PROFIT

The coefficient table provides the necessary information to predict Net profit from Net NPA, as well as determine whether Net NPA contribute statistically significantly to the model.

Average Net Profit = 8044.430 +0.162 (Average Net NPA) + ε

The beta coefficients in the regression show that Net NPA has profit (Private Sector bank) provided by coefficient value of 0.542. The findings show Net NPA is statistically significant with p value higher than 0.05.

V. Finding

1. The average NPAs in the public sector banks and the average net profit decreased in 2012-13 and 2013-14. On the other hand, the average NPAs of private sector banks are on the rise and profit also increase.
2. Between 2013-14 and 2015-16, the average NPAs of both the sectors have increased, but the average net profit in public sector banks is declining and the average net profit in the private sector banks has been steadily rising.
3. Between 2015-16 and 2016-17, the average NPAs in both sectors have come down, and the trend of growth in the average profit has been observed.
4. We saw in this study that NPA does not particularly affect profitability in private sector banks, but in public sector banks, NPAs have huge impact on profitability.

VI. Conclusion

Finally, it can be concluded that the bank should adopt some measures to avoid providing loans to non-qualified borrowers. The banker can continuously monitor the borrower to do so that the approved valid amount is utilized appropriately for the purpose for which the approval has been given. If NPA is not maintained in the right way, the profitability of the bank and the country's economy also has a serious effect. A high level of NPAs suggests high probability of affect the profitability and liquidity of banks. Locked money in NPAs has a direct impact on the profitability of the bank because Indian banks are heavily dependent on income from interest on borrowing.

In this paper we analysis the trend of Net NPA and Net Profit in public and private sector banks. Through the trend we find net NPA and net profit difference level in public sector bank increases continuously in other hand (in private sector) this difference is reducing. After testing the hypothesis we found in both sector banks Net NPA affects their net profit level. But we found significant effect of net NPA on net profit in private sector banks (0.345) but in public sector banks it is only 0.061.This difference of significance is because of recovery of bad debt in private banks is better than public sector banks. It is suggested for public sector banks that they should modify or review their loan and NPA recovery policy.

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VII. Suggestion

1. Proper selection of borrowers and follow-up compliance is necessary for repayment on time.
2. For predictor of defaulter, it is necessary to analyze data of non-recoverable or bad debt at regular intervals.
3. Under the Surfasi Act 2002 (Enforcement of Security and Reconstruction of Financial Assets and Enforcement of Security Interest Act), which was amended in May 11, 2016, bankers should take necessary action on non recoverable debt or bad debt to reduce the percentage of non-performing assets.
4. Public sector bakers need to know the procedures of private sector banks to deal with rapidly growing annual non-performing assets.
5. To revive the stressed assets, the sale of NPAs to property reconstruction companies (ARCs) or asset management companies.

VIII. Future Scope

This study helps the public and private sector banks to understand their NPA and profit status during the study period and warns them to take appropriate action. On this study topic, other researchers can study for different study periods and with various variables such as gross NPAs, advances etc.

Limitations of Study

1. For the purpose of the study only data of 5 financial years (2012-13 to 2016-17) has been taken.
2. The data would be collected only 6 banks that is 3 public sectors (Punjab National Bank, Bank of Baroda, and State Bank of India) and 3 private sector banks (ICICI, HDFC, Axis Bank).
3. The data which is used for this study is based on annual report of the banks and secondary data collected from RBI and IBA bulletin published from time to time.
4. All other factor like gross NPA and advance are not considered in this study because these factors are included in net NPA.
5. We saw in this study that NPA does not particularly affect profitability in private sector banks, but in public sector banks, NPAs have huge impact on profitability.

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