Abstract
NPA (non-performing assets) is related to banking and finance term. When bank or finance company is unable to recover its lent money from borrower in 90 days than that amount which have not been recovered will be treated as NPA. It represents bad loans, the borrowers of which failed to satisfy their repayment obligations. The most notable impact of NPA is change in banker’s sentiments which may hinder credit expansion to productive purpose. Banks may incline towards more risk-free investments to avoid and reduce riskiness, which is not conducive for the growth of economy. The researcher in the present study aims at measuring the relationship between profitability of NSE 50 banks as well its Non-Performing Assets. Further after determining the relationship the researcher also measures the impact of Non-Performing Assets on the profitability of NSE 50 banks.

Key Words: NSE 50 Banks, Gross Non-Performing Assets, Net Non-Performing Assets, Profit after tax

Introduction
With effect from March 31, 2004, a non-performing asset (NPA) shall be a loan or an advance where; Interest and/or instalment 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 instalment 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 with effect from 30.09.2004 following further amendments were issued by the Apex Bank, viz A loan granted for short duration crops will be treated as NPA if the instalment of principal or interest thereon remains overdue for two crop seasons, a loan granted for long duration crops will be treated as NPA if the instalment of principal or interest thereon remains overdue for one crop season, any amount to be received remains overdue for a period of more than 90 days in respect of other accounts. If any advance or credit facilities granted by banks to a
borrower become nonperforming, then the bank will have to treat all the advances/credit facilities granted to that borrower as non-performing without having any regard to the fact that there may still exist certain advances / credit facilities having performing status. 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. There are two types of Non-performing assets. (1) **Gross NPA**: It is an advance which is considered irrecoverable, for which bank has made provisions, and which is still held in banks' books of account. (2) **Net NPA**: It is obtained by deducting items like interest due but not recovered, part payment received and kept in suspense account from Gross NPA. This non-performing assets have notable impact of change in banker’s sentiments which may hinder credit expansion to productive purpose. Banks may be inclined towards more risk-free investments to avoid and reduce riskiness, which is not conducive for the growth of economy. Reduce the earning capacity of assets and badly affect the ROI. The cost of capital will go up. The assets and liability mismatch will widen. Higher provisioning requirement on mounting NPAs adversely affect capital adequacy ratio and banks profitability. The economic value additions (EVA) by banks get upset because EVA is equal to the net operating profit minus cost of capital. NPAs causes to decrease the value of share sometimes even below their book value in the capital market. NPAs affect the risk facing ability of banks. Thus it becomes important to measure whether there is significant impact of non-performing assets on profitability of the banks.

**Literature Review**

**Swamy (2001)** studied the comparative performance of different bank groups since 1995-96 to 1999-2000. An attempt was made by researcher to identify factors, which could have led to changes in the position of individual banks in terms of their share in the overall banking industry. He analyzed the share of rural branches , average branch size, trends in bank’s profitability, share of public sector assets, share of wages in expenditure, provision and contingencies, net non-performance assets in net advances, spread, has been calculated. He concluded that in many respects nationalized public sectors banks much better than private banks, even they are better than foreign banks.

**Rituparna Das (2002)** performed a research on Managing the Risk of Non-Performing Assets in The Small Scale Industries in India. In this article, the researcher tries to seek a solution to the problem of NPA in the small-scale industries under the present circumstances of banking and insurance working together under the same roof. What is stressed in this article is the pressing need of the small-scale entrepreneur for becoming aware and educated in modern business management holding a professional attitude toward rational decision-making and banks have to facilitate that process as a part of the credit policy sold by them.

**Amitabh Joshi (2003)** conducted a survey on “Analysis of Non-Performing Assets of IFCI Ltd”. The study found that Profitability and Viability of Development
Financial Institutions are directly affected by quality and performance of advances. The basic element of Sound NPA Management System is quick identification of Non-performing advances their containment at minimum levels and ensuring that their impingement on the financials is at low level. Excessive reliance on Collaterals has led Institutions to long drawn litigations and hence it should not be sole criteria for sanction. Banks should manage their exposure limit to few borrower(s) and linkage should be placed with net owned funds for developing control over high leverages of borrower level. Study also revealed that exchange of credit information among banks would be immense help to them to avoid possible NPAs. Management Information system and Market intelligence should be utilized to their full potential.

Tamal Datta Chaudhuri (2005) examined the “Resolution Strategies for Maximizing Value of Non-Performing Assets (NPAs)”. The article indicates that declining capital adequacy adversely affects shareholder value and restricts the ability of the bank/institution to access the capital market for additional equity to enhance capital adequacy. So, if a resolution strategy for recovery of dues from NPAs is not put in place quickly and efficiently, these assets would deteriorate in value over time and little value would be realized at the end except may be its scrap value. The purpose of this paper is to indicate the various considerations that one has to bear in mind before zeroing on a resolution strategy and provides a State - Resolution - Mapping (SRM) framework. However, the paper has not specifically discussed about the various resolution strategies that could be put in place for recovery from NPAs, and in particular, in which situation, which type of strategy, should be adopted.

Usha Arora, Bhavna Vashisht & Monica Bansal (2009) in the research on “An Analytical Study of Growth of Credit Schemes of Selected Banks” analyzed and compared the performance (in terms of loan disbursement and non-performing assets) of credit schemes of selected banks for the last five years. This paper is divided into two parts. In the first part, bank wise as well as year-wise comparisons are done with the help of Compound Annual Growth Rate (CAGR), mean and standard deviation; and in the second part, a positive relationship is found between total loan disbursement and total NPA O/S of selected banks with the help of a correlation technique. The study found a positive relationship between total loan disbursement and total Non-Performing Assets Outstanding (NPA O/S) of selected banks.

Selvarajan & Vadivalagan (2010) in A Study on Management of Non-Performing Assets in Priority Sector reference to Indian Bank and Public Sector Banks (PSBs) their research paper has studied that the growth of Indian Bank’s lending to Priority sector is more than that of the Public Sector Banks as a whole. Indian Bank has slippages in controlling of NPAs in the early years of the decade. Therefore, the management of banks must pay special attention towards the NPA management and take appropriate steps to arrest the creation of new NPAs, besides making recoveries in the existing NPAs. Timely action is essential to ensure future growth of the Bank.
Kaur and Singh (2011) in their study on Non-performing assets of public and private sector banks (a comparative study) studied that NPAs are considered as an important parameter to judge the performance and financial health of banks. The level of NPAs is one of the drivers of financial stability and growth of the banking sector. The financial companies and institutions are nowadays facing a major problem of managing the Nonperforming Assets (NPAs) as these assets are proving to become a major setback for the growth of the economy.

Khanna (2012) in her research paper entitled Managing NPA in commercial banks has said that the primary function of banks is to lend funds as loans to various sectors such as agriculture, industry, personal loans, housing loans etc., but in recent times the banks have become very cautious in extending loans. The reason being mounting non-performing assets (NPAs) and nowadays these are one of the major concerns for banks in India. NPAs reflect the performance of banks. 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.

Singh (2013) in his paper entitled Recovery of NPAs in Indian commercial banks says that the origin of the problem of burgeoning NPA’s lies in the system of credit risk management by the banks. Banks are required to have adequate preventive measures in fixing pre sanctioning appraisal responsibility and an effective post-disbursement supervision. Banks should continuously monitor loans to identify accounts that have potential to become nonperforming. Banks have to be given powers of inspection of the use of loans and the loan should be disbursed on the point of purchase by the borrowers to ensure proper utilization of deposits. Banks may also be given powers to recover loans from the guarantor of the borrower.

Gupta (2014) in her study A Comparative Study of Non-Performing Assets of SBI & Associates & Other Public Sector Banks had concluded that each bank should have its own independence credit rating agency which should evaluate the financial capacity of the borrower before than credit facility. An effective committee can be formed for management of NPA comprising of financial experts who have wide knowledge in this field. Banks can appoint professionals to identify the genuine borrowers & can analyze their profile. NPA can be considered as a crucial rating factor for any bank; it should continuously monitor the borrowers A/C to prevent NPA. The credit rating agencies should regularly evaluate the financial condition of the clients. Special accounts should be made of the clients where monthly loan concentration report should be made.

Bhatia (2015) in his research paper entitled, Non-Performing Assets of Indian Public, Private and Foreign Sector Banks: An Empirical Assessment explores an empirical approach to the analysis of Non-Performing Assets (NPAs) of public, private, and foreign sector banks in India. The NPAs are considered as an important parameter to judge the performance and financial health of banks. The level of NPAs is one of the drivers of financial stability and growth of the banking sector. This paper aims to find the fundamental factors which impact NPAs of banks. A model consisting of two types of factors, viz., macroeconomic factors and bank-specific
parameters, is developed and the behavior of NPAs of the three categories of banks is observed.

Balasubramaniam (2016) in Non-performing assets and profitability of commercial banks in India: assessment and emerging issues said that the level of NPAs is high with all banks currently and the banks would be expected to bring down their NPA. This can be achieved by good credit appraisal procedures, effective internal control systems along with their efforts to improve asset quality in their balance sheets. However, maintaining profitability is a challenge to commercial banks especially in a highly competitive era and opening up of banking business to NBFC and foreign banks in general.

Research Gap
From the above literature review, it has been identified that the research needs to be carried out with respect to relationship between non-performing assets and profitability of NSE 50 Banks. Further if there exists the relationship, the researcher will identify the extent of impact of nonperforming assets on profitability of NSE 50 banks.

Research Objectives
1. To examine whether there is significant relationship between the non-performing assets and profitability of NSE 50 banks for the period 2013-2017
2. To examine whether there is significant impact of the non-performing assets on profitability of NSE 50 banks for the period 2013-2017

Research Hypothesis
The researcher has deduced two hypothesis for the present study.

Hypothesis 1: To measure the relationship
H0: There is no significant relationship between the non-performing assets and profitability of NSE 50 banks for the period 2013-2017
H1: There is significant relationship between the non-performing assets and profitability of NSE 50 banks for the period 2013-2017

Hypothesis 2: To measure the impact
H0: There is no significant impact of the non-performing assets on profitability of NSE 50 banks for the period 2013-2017
H1: There is significant impact of the non-performing assets on profitability of NSE 50 banks for the period 2013-2017

Research Methodology
The researcher has considered Top 4 Banks among NSE 50 (S & P CNX Nifty) companies which have average market capitalization of 5 billion rupees or more
during last six months. These banks are State Bank of India, Axis Bank, HDFC Bank and ICICI Bank Ltd. The research is based on the secondary information derived from the annual reports for the period 2013-2017 of NSE 50 banks.

Research Analysis
It includes the study of profit after tax as a dependent variable and gross as well as net non-performing assets as independent variables. The hypotheses are tested on the basis of the correlation and regression tests conducted through SPSS software.

Hypothesis Testing
Table No.1: Correlation and Regression Statistics Indicating the Impact of NPA’s on Profitability of NSE 50 banks

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Value of R</th>
<th>Value of R Square</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Bank of India</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Profit After Tax</td>
<td>Gross Non-Performing Assets</td>
<td>0.801</td>
<td>0.642</td>
<td>High Correlation and Insignificant Impact</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Net Non-Performing Assets</td>
<td>0.565</td>
<td>0.319</td>
<td>Moderate Correlation and Insignificant Impact</td>
</tr>
<tr>
<td>Axis Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Profit After Tax</td>
<td>Gross Non-Performing Assets</td>
<td>0.646</td>
<td>0.417</td>
<td>Moderate Correlation and Insignificant Impact</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Net Non-Performing Assets</td>
<td>0.627</td>
<td>0.393</td>
<td>Moderate Correlation and Insignificant Impact</td>
</tr>
<tr>
<td>HDFC Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Profit After Tax</td>
<td>Gross Non-Performing Assets</td>
<td>0.985</td>
<td>0.970</td>
<td>Very Strong Correlation and Significant Impact</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Net Non-Performing Assets</td>
<td>0.984</td>
<td>0.968</td>
<td>Very Strong Correlation and Significant Impact</td>
</tr>
<tr>
<td>ICICI Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Profit After Tax</td>
<td>Gross Non-Performing Assets</td>
<td>0.952</td>
<td>0.906</td>
<td>Very Strong Correlation and Significant Impact</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Net Non-Performing Assets</td>
<td>0.912</td>
<td>0.832</td>
<td>Very Strong Correlation and Significant Impact</td>
</tr>
</tbody>
</table>
Source SPSS Output

**Findings**

From the above table no. 1 following findings are identified

1. In case of State bank of India, there is significant relationship between the gross non-performing assets and profitability of State bank of India. However there is insignificant impact of the gross non-performing assets on profitability of State bank of India.

2. In case of State bank of India, there is moderately significant relationship between the net non-performing assets and profitability of State bank of India. Further there is insignificant impact of the net non-performing assets on profitability of State bank of India.

3. In case of Axis Bank, there is moderately significant relationship between the gross non-performing assets and profitability of Axis Bank. Further there is insignificant impact of the gross non-performing assets on profitability of Axis Bank.

4. In case of Axis Bank, there is moderately significant relationship between the net non-performing assets and profitability of Axis Bank. Further there is insignificant impact of the net non-performing assets on profitability of Axis Bank.

5. In case of HDFC Bank there is very significant relationship between the gross non-performing assets and profitability of HDFC Bank. Further there is significant impact of the gross non-performing assets on profitability of HDFC Bank.

6. In case of HDFC Bank, there is very significant relationship between the net non-performing assets and profitability of HDFC Bank. Further there is significant impact of the net non-performing assets on profitability of HDFC Bank.

7. In case of ICICI Bank there is very significant relationship between the gross non-performing assets and profitability of ICICI Bank. Further there is significant impact of the gross non-performing assets on profitability of ICICI Bank.

8. In case of ICICI Bank, there is very significant relationship between the net non-performing assets and profitability of ICICI Bank. Further there is significant impact of the net non-performing assets on profitability of ICICI Bank.

**Suggestions**

1. **For State bank of India**
   Overall Moderate correlation is seen between the profit after tax and nonperforming assets covered under study. The impact is also insignificant. Hence the financial ratios such as liquidity ratios, market test ratios or activity test ratios may be considered which might also affect the performance of the bank.
2. **For Axis Bank**
   Overall Moderate correlation is seen between the profit after tax and nonperforming assets covered under study. The impact is also insignificant. Hence the financial ratios such as liquidity ratios, market test ratios or activity test ratios may be considered which might also affect the performance of the bank.

3. **For HDFC Bank**
   Gross Non-performing Assets as well as Net Non-Performing Assets are very important for the bank. Any deviation in these ratios will affect the profit after tax of the bank. Hence they should be considered wisely by the bank.

4. **For ICICI Bank**
   Gross Non-performing Assets as well as Net Non-Performing Assets are very important for the bank. Any deviation in these ratios will affect the profit after tax of the bank. Hence they should be considered wisely by the bank.

**Conclusion**
Thus it can be concluded that 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. Therefore, NPA does not 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. Thus level of NPA’s should be wisely monitored by NSE 50 banks.

**References**


