CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

The banking system in India has had to serve the goals of economic policies enunciated in successive five years development plan, particularly concerning equitable income distribution, balanced regional economic growth and the reduction and elimination of private sector monopolies in trade and industry.

In the post-independence period, the banking sector has played a catalyst and a commendable role in supporting the government to achieve its social and economic objectives through deposit mobilization, mass branch networking, and priority sector lending, employment generation etc. Achieving such societal objectives resulted in imposing extensive regulations by the government, which in turn hampered the productivity of Indian banking during the pre-liberalization era.

An evaluation of the Indian banking industry during the pre-liberalization era revealed the presence of several shortcomings which crept into the financial system over the years’ notably reduced productivity, deteriorated asset quality and efficiency and increased cost structure due to technological backwardness. Among these deficiencies, policy makers identified the erosion of asset quality as the most significant obstacle for the development of a sound and efficient banking sector.

In fact, The asset quality is a prime concern and impacts various performance indicators, i.e., profitability, intermediation costs, liquidity, credibility, income generating capacity and overall functioning of banks. The reduction in asset quality results in accumulation of Non-Performing Assets (NPAs).

The intermediation process is the principal function of a commercial bank. Since it involves counterparty risk, risk is inherent in banking. A banker should expect that not all loan portfolios’ would fetch returns/earnings in the normal course. The loans/advances are an important source of income for the banks. The strength and soundness of the banking system primarily depend on the quality and performance of the loan portfolio, i.e. the fulfillment of obligations by borrowers promptly.

The banking sector reforms in India during the post-liberalization period mostly focused on improving the efficiency of the banking sector by incorporating prudential
norms for income recognition, asset classification and provisioning and through integrating international standards.

The alarming level of NPAs is recognized as one of the major explanations for implementing structural changes and reform measures in the banking sector during this period. Banking reforms were initiated to upgrade the operating standards, health and financial soundness of banks to internationally accepted levels in an increasingly globalized market (Pathak, 2009). The reforms have been undertaken gradually with mutual consent and wider debate amongst the participants and in a sequential pattern that is reinforcing to the overall economy (Badola and Verma, 2006).

Two decades had completed since the banking sector initiated measures to uplift the banking sector in line with international standards and to improve productivity and efficiency of banks. Many researches on NPA illustrated the relationship between asset quality and financial distress and considered management of NPA as a major prerequisite to counter the recessionary pressures and foster economic development. Some of the major observations from previous researches indicate the severity of NPA across the countries, lending priority availability of fund for productivity purpose, etc. important finding of the research carried out by various researchers indicates the following.

Renaud, (1997) indicates that the problem of the NPA is severe in countries where severe government intervention had led to the institutional decay of banks or prevented their sound development (Renaud, 1997)

Batra, (2003) in his study suggests that NPA management assumes priority over other aspects of bank functioning (Batra, 2003)

Murinde and Yaseen, (2004) explains that the existing capital adequacy regulations tried to protect the interest of depositors (avoiding bankruptcy), but impacted availability of funds for productive purposes. (Murinde and Yaseen, 2004)

Pathak, (2009) in his study indicates that reduction in NPA ratios does not indicate a reduction of fresh NPA. For example, Banks have aggressively provided for their bad debts from the treasury profits during 2003-04 in order to show a better NPA picture, resulting a decline in NPA by 24.7% as against a decline of 8% in 2002-03. (Pathak, 2009) The NPA is a significant threat to Indian Banking Sector (Estrella et al,2000; Gopala Krishna, 2004; Ahmed et al, 2007; Heid and Kruger, 2011)Bock and Demyanets, (2012) indicated that slowdown in economic growth and rapid credit
growth are independently associated with higher levels of NPA (Bock and Demyanets, 2012)

Upon analyzing the banking sector in India, it is evident that the NPAs still pose a significant threat to the banking sector and remained hurdle in the profitability of the bank. This research is an attempt to examine the non-performing assets and their relationship with the profitability of banks.

4.2. Statement of Problem

The Indian banking sector is dominated by public sector banks (PSBs) that include SBI & its associates and nationalized banks. The post-liberalization period saw an upsurge of many private sector banks and foreign banks. One of the major objectives of banking sector reforms was to encourage operational self-sufficiency, flexibility and competition in the system and to improve banking standards in India to the international best practices.

Based on the recommendations of various committees’ especially the Committee on Financial Sector Reforms under the chairmanship of Mr. M. Narasimham and according the Basel requirements, various measures were implemented to liberalize the banking sector and it include; Liberalizing rules for entry of more domestic and foreign banks, Infusion of government capital in PSB and permission to inject private equity, Deregulation of interest rate except for specific classes, Reduction of SLR and CRR requirements, Reduction in credit controls, Incorporation of broader definition of priority sector lending, Implementation of prudential measures for income recognition, asset classification and provisioning requirements, Implementing Basel based capital adequacy requirements, and Emphasis on performance, transparency and accountability and many more.

Despite the various prudential measures taken from the post-liberalization period, the non-performing assets still pose an important threat to the very existence of banking. From `636.09 billion in 2000-01, the total gross NPA (GNPA) has increased to `979.25 billion in 2010-11 and `1,423.26 billion in 2011-12. In percentage terms, Gross NPA increased to 45.3% in 2011-12, compared to 15.7% increase during the previous year. Similarly, from `314.63 billion in 2000-01, the total net NPA (NNPA) has increased to `418.15 billion in 2010-11 and `649.75 billion in 2011-12.

In percentage terms, the net NPA increased to 55.6% in 2011-12, compared to 7.7% in the previous year. On the other hand, from `5,407 billion in 2000-01, the total
loans and advances increased to `42,975 billion in 2010-11 and `50,746 billion in 2011-12. In percentage terms, the total loans and advances increased to 18.1% during 2011-12. Gross NPAs for banks, including restructured assets, now stand close to 12 percent -- a level seen in 2002-03.

The gross NPAs of 19 banks touched a high of Rs. 2.6 lakh crore in September (Rs 2.3 lakh crore in March 2015). Along with increase of NPA, there exists an increase in the level of loan restructuring in standard advances during the study period. The observation made by Reserve Bank of India in its annual report 2011-12 state that “In the period immediately following the global financial crisis, when asset quality of banks in most advanced and emerging economies took a beating, the asset quality of Indian banks was largely maintained, partly on account of the policy of loan restructuring”.

The restructured standard advances of public sector banks (PSBs) as a percentage of gross advances 5.07% in 2009-10, 4.2% in 2010-11 and 5.92% in 2011-12. The total NPA written off by banks in India during the last 13 years (2000 to 2013) is `100,000 crores. (Chakrabarthy, 2013).

The financial analysts and rating agencies that include Moody’s maintained a negative outlook on Indian banking and mentioned that the asset quality of banks would continue to deteriorate especially for Indian Public Sector Banks (Moody’s, 2013). It reiterated the fact that even though the post-liberalization period witnessed significant reforms in the banking sector, the asset quality explained by the level of NPA still worries Indian banking sector, its stability and growth.

Examination of published works on NPA in scheduled commercial banks (SCBs) in India showed that; (1). Most of the studies focused on NPA ratio’s (gross NPA ratio and net NPA Ratio) to assess the asset quality and effectiveness of credit risk management. (2). Very few studies were conducted examining the relationship between NPA and bank performance and macroeconomic indicators. The mediation or moderation effect of these variables on asset quality is not studied in depth. (3). the fresh NPA generated during a particular year, gross NPA generation rate and net additions to NPA were not emphasized in assessing the asset quality, (4). Only a few studies were conducted using banker’s perception on incidence, impact and management of NPA, and (5). Many measures were initiated since 2000 to effectively manage the menace of NPA. Further, limited studies have been done on the effectiveness of various measures taken from the post-millennium period, including
One Time Settlement/Compromise Scheme (2000), Debt Recovery Tribunals (originally established in 1993, significant amendment was carried out during 2003), Corporate Debt Restructuring (2001), SARFAESI (the act was passed during 2002) and Asset Reconstruction Company (ARC).

Thus, the review of literature available on NPA highlighted the necessity to study NPA since the post-millennium period with specific focus to examine

(1) Whether NPA is managed effectively in Indian banking sector particularly the public sector banks (PSBs) which holds significant share of deposits and advances of Indian banking sector.

(2) the moderating and/or mediating effect of bank performance and macroeconomic indicators on NPA, and (3) the major causes of NPAs and the various measures to be taken to enhance the credit risk management system in Indian banking.

Indian banking industry, which was in glory phase once upon a time, has been facing a lot of challenges on non-performing assets at present scenario. Many banks have kept their NPAs under the control but some banks are not able to control their NPA levels. They are facing many problems. There can be various reasons behind this NPA. Non-performing assets has been hitting the profitability of the banks or it can be said that due to NPA, the profitability of the banks are going down day by day. In spite of various measures, NPA level of the Bank are increasing year on years.

Problem need to be analyzed and investigated. The substance of the Banks will be threatened depending upon the level of NPA. If banks have many accounts that are turning out to NPA, the existence of the bank would be difficult. The banks, which have higher, NPA, can lose the confidence of the customer and it would affect the liquidity, profitability and solvency position of the bank.

4.3 Research Gap

Most of the researches in the literature related to NPA are being carried out to analyse the different aspects of literature related to Non-Performing Assets of researchers over the years but there is a huge time gap existing for the comprehensive research on quality aspects of Non-Performing Assets. Most of the research and studies are being done on causes, impact and management aspects of NPAs. Present research is being taken up to fill this gap by analyzing NPA trend, factors contributing to NPA,
important reasons that asset becomes NPA, NPA and banking profitability and its relationship with capital adequacy ratio.

4.4 Objectives of the Study

Following are the major objectives of this study

i. To examine the NPA Trend and to identify the factors that contributes to the NPA.

ii. To analyze the causes for assets to become Non-performing assets and remedies for non-performing assets in Indian public sector banks in selected public sector bank as well as private sector banks.

iii. To establish relationship between NPAs and profitability of selected public and private sector banks

iv. To analyze the impact of NPAs on Capital Adequacy Ratio.

4.5 Hypothesis Testing:-

“A hypothesis is a special proposition formulated to be tested in a certain given situation as a part of research which states what the researcher is looking for.” Hypothesis formulated under the study are as follows:

For the present study, the researcher has formulated two hypothesis viz. Null hypothesis and Alternative hypothesis. Both hypotheses were tested with the help of statistical tools. The statements of hypothesis were as under:

Null (H₀) Hypotheses are:

Hypothesis # 1

The NPA trend and the factors that contribute to NPA does not differ significantly across public and private sector banks in India.

Hypothesis # 2

a) Causes for assets to become NPA of public and private sector banks do not differ significantly.

b) Remedies for NPA of public and private sector banks do not differ significantly.

Hypothesis # 3

NPAs and its impact on profitability of public and private sector banks does not differ significantly.
Hypothesis # 4

The impact of NPAs on Capital Adequacy Ratio of Public and Private sector bank does not differ significantly.

Alternative Hypothesis:

Hypothesis # 1

The NPA trend and the factors that contributes to NPA differ significantly across public and private sector banks in India

Hypothesis # 2

a) Causes for assets to become NPA of public and private sector banks differ significantly.
b) Remedies for NPA of public and private sector banks differ significantly.

Hypothesis # 3

NPAs and its impact on profitability of public and private sector banks differ significantly.

Hypothesis # 4

The impact of NPAs on Capital Adequacy Ratio of Public and Private sector bank differ significantly.

4.6 Research Methodology

In order to realize the stated objectives, the researcher utilized a combined approach that embraces features of both descriptive and analytical research designs. Though several research studies on NPA in Indian banking sector are available, the studies on a closer look validated NPA problem using secondary data and most often depended ratio analysis to identify whether NPA is managed efficiently.

A closer look into the studies highlighted insufficient analytical studies on the interaction between different bank specific performance indicators and macroeconomic indicators on incidence of NPA of banks. The methodology for this research is designed considering the above aspects; to evaluate asset quality of public and private sector banks explained using the trend in movement of non-performing assets.
4.6.1 Descriptive Research

This research largely is descriptive in nature. A descriptive study used to “make descriptions of the phenomena or the characteristics associated with a subject population: who, what, when, where and how of a topic” (Cooper and Schindler, 2003). The methods typically used in a descriptive study could be surveys, panels, observations or secondary data analyzed in a quantitative manner (Malhotra, 2004).

This research used both primary and secondary sources in order to explain the non-performing assets of public sector banks in India. Statistics on NPA and various NPA indicators during post-millennium period (from 2004-05 to 2014-15) along with selected bank performance indicators and macroeconomic variables were utilized in order to study the trends in movement of NPA, its relationship with selected variables, and efficiency of management of NPA during post-millennium period. In order to examine the magnitude and dimensions of NPAs of banks, the relevant literature such as articles, published books and reports including RBI sources were consulted.

The analysis of NPAs as also its dimensions, obviously, will be at-the aggregate industry level. However in order to get insights into the various dimensions of NPAs, a comparative analysis of NPAs of commercial bank and private sector banks will be attempted. The study is descriptive research based on collection of secondary data. The information relating to details of various aspects of NPA and management of it, it will be collected from web sites and other secondary sources.

The present study is designed to be a narrative study with appropriate analytical discussions presented in tune with the proposed objectives. For the present purpose, four banks from public sector and four from the private sector have been selected purely considering the bank’s profitability based on the current performance figures of the banks. In each sector, one bank from the high performing group and the other from the low performing group has been picked up on random basis. Accordingly, SBI, UBI, PNB and IOB from the public sector, while ICICI, South Indian Bank, HDFC, and AXIS bank from the private sector have been selected and performance figures of these four banks have been used for the comparative analysis.

4.6.2 Data Sources

Information needed for the present study is to be obtained from secondary sources. Data from the secondary sources have been obtained for a period of eleven years from 2004-05 to 2014-15. The data were collected from Annual Reports and
accounts of Public Sector Banks and Private Sector Banks, Newsletters of Banks, Proceedings of Bank Economists, conferences, published and unpublished Doctoral Dissertations on Banking and Bank management, RBI bulletins, RBI Reports on Trend and Progress of Banking in India, RBI Annual Reports, RBI Reports on statistical Tables Relating to Banks in India, RBI Reports on Currency and Finance, RBI Reports on Hand book of statistics on Indian Economy, RBI Report on Hand book of Indian economy, RBI Report on hand book of monetary statistics of India, RBI Reports on Bank statistical returns of scheduled commercial Banks in India. RBI Report on Quarterly statistics on Deposits and credit of Scheduled commercial Banks, RBI Report on Banking statistics; Basic statistical returns, RBI report on Branch Banking statistics; RBI Press Release, RBI speeches RBI notifications. The secondary data were also collected from IBA publications – IBA Bulletin (Monthly) IBA Indian Banking year books, Special Annual Issues and IBA publications on Performance highlights of Public Sector Banks and Private Sector Banks. Secondary data were also collected from different journals on banking, economics and Finance; Database of Indian Economy Financial Express, Publications and Websites of Industry Associations (IBA, CII and ASSOCHAM); Publications of Bank Management Institutes (NIBM, IIBF) Annual Reports of Ministry of Finance (Government of India), Publications of World Bank (IBRD); Asian Development Bank (ADB) and Board for International Settlement (BIS).

The primary emphasis of this research focused on analyzing non-performing assets of public and private sector banks in India during the period 2004-05 to 2014-15. In specific terms, it includes (a) analyzing the trend in the movement of NPA variances during the study period, (b) the moderating role of bank performance variables on the relationship between advances and NPA, (c) the moderating role of NPA on the relationship between income and profitability of banks, and (d) the mediating role of macroeconomic indicators on the relationship between advances and NPA of banks.

To achieve the stated objectives, data are collected from various sources and include;

1. Research reports, published articles, news reports and conference proceedings available in both national and international level related to NPA. The information obtained from these sources is used for critical evaluation of the subject and identify research gap in the area of study. These secondary sources are part of different chapters in this report.
2. Statistical Data on NPA, bank-specific and economic indicators during 2000-01 to 2011-12, collected mainly from RBI website, Indian Banks Association, Indian State and Ministry of National Economy. In addition to the above, information is obtained from individual bank websites.


4.7 Period of the Study

Present study covers the period of last 11 years i.e. 2004-2005 to 2014-2015. This period covers the reform process, banking reforms, major components of reforms like modifying the policy framework, improving the financial soundness of banks strengthening the institutional framework, new challenges and corporate governance. Thus, the selection period provides a base for study.