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INTRODUCTION AND DESIGN OF THE STUDY

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CHAPTER - I
INTRODUCTION AND DESIGN OF THE STUDY

1.1 INTRODUCTION

The world has experienced remarkable number of banking and financial crises during the last few decades. Though most of those were experienced in the developing countries, the majority of the crises coincided with the deregulatory measures that led to excessively rapid credit extension. In the long run, continuous increases in asset prices created bubble. At some point, the bubble burst and the asset markets experienced a dramatic fall in asset prices coupled with disruption. Finally, widespread bankruptcies accompanied by Non Performing Loans, Credit losses and acute banking crises were observed\(^1\). Subsequently, the global financial market is going through a turbulent situation. This has necessitated a close examination of the numerous issues related to the operation of financial markets to identify the root of the problem. Various issues such as the capital adequacy levels in the banking system, the role of rating agencies in financial regulation and the fair value assessment of banking assets are the most debated ones. In response to the banking crises, significant reformations have been carried out in the banking regulatory system.

In new economic policy in 1991, the financial (particularly banking) sectors received special attention in improving their financial strength and functional efficiency and thereby bring them to international standards.

The modern banking operations have greater impact on the economic development of our country. The financial institutions are important constituents of financial system in an economy. The banking industry is operating in a liberalized and global environment, which is highly competitive and uncertain. Banks are offering innovative products and initiating steps to computerize their offices to improve the speed of their operations and provide prompt services to their customers, who are becoming highly demanding. The foreign exchange business and cross-border activities are increasing at a fast pace. The above developments have caused various types of banking risks, which can be broadly related to market environment and their business control functions. This risk may include credit risk, interest rate risk, liquidity risk, foreign exchange risk, group risk, technology risks etc.

1.2 IMPORTANCE OF CREDIT RISK

The importance of credit risk has been presented in the following paragraph;

Risks are the uncertainties that can make the banks lose and become bankrupt. According to the Basel Accord, risks can be classified as credit risk, market risk and operational risk. Credit risk is the risk of loss due to an obligator's non payment of an obligation in terms of a loan or other lines of credit\(^2\).

Credit risk is defined as “the risk of loss arising from outright default due to inability or unwillingness of the customer or counter party to meet commitments in relation to lending, trading, hedging, settlement and other financial transaction of the customer of counter party to meet commitments”\(^3\).


Credit risk is the possibility that a borrower or counter-party will fail to meet its obligations in accordance with agreed terms. It is the probability of loss from a credit transaction.

1.2.1 Forms of credit risk

Forms of credit risk are:

- Non-repayment of the principal of the loan and/or the interest on it.
- Contingent liability like letters of credit or guarantees issued by the bank on behalf of the client and upon crystallization – amount not deposited by the customer.
- In the case of treasury operations, default by the counter-parties in meeting the obligations. For example, in case of derivatives dealing, on the due date the contract is not settled.
- In the case of security trading, settlement not taking place when it is due. For example, due to non-availability of funds or due to short selling, on the due date the claim is not settled.
- In the case of cross-border obligations, any default arising from the flow of foreign exchange due to restrictions imposed on remittances out of the country. For example, the counter party might have made the payment but the country in which the counter party is residing does not allow the settlement.

The Reserve Bank of India came out with its first set of guidelines on risk management during 1999. In these guidelines, it has been suggested that the banks should put in place proper credit risk management system. Some banks initiated the process of formulating credit risk policies in the year 2000 and have implemented these policies while a few are still in the process of developing such policies. It has been emphasized in credit risk management guidelines that while the credit risk strategy of a bank should give recognition to the goals of credit quality, earnings and growth, it is also essential that the lender must determine the acceptable risk/reward trade off for its activities, factoring in the cost of capital.
The Bank for International Settlements (BIS) says that “Granting Credit involves accepting risk as well as producing profits”. The credit operations in banks, by nature involve an element of credit risk. But if such risks are within predetermined ceilings, properly assessed and calculated ones, loan loss to the bank can be restricted.

1.2.2 Sources of risk of loss under Credit Risk

The risk of loss arises from three sources. They are;

- **Borrowers/ counterparty defaults** – Bank loses both the principal and the interest.
- **Deterioration in borrowers’ credit quality** – Bank takes a hit if loan is not repriced for the higher risk.
- **Improvement in borrowers’ credit quality** – borrower can refinance his loan at a lower rate. In simple words, it means that they may close the accounts to benefit from the lower interest rate in offer.

1.2.3 Credit Risk Management Indicators

In response to recent corporate and financial disasters, regulators have increased their examination and enforcement standards. In banking sector, Basel II has established a direct linkage between minimum regulatory capital and underlying credit risk, market risk and corporate risk exposure of banks. This step gives an indication that Capital management is an important stage in risk mitigation and management. However, development of effective key risk indicators and their management pose significant challenge. Some readily available sources such as policies and regulations can provide useful direction in deriving key risk indicators and compliance with the regulatory requirement can be expressed as risk management indicators. A more comprehensive capital management framework enables a bank to improve profitability by making better risk-based product pricing and resource allocation.
The purpose of Basel II is to create an international standard about how much capital banks need to put aside to guard against the types of risk banks face. In practice, Basel II tries to achieve this by setting up meticulous risk and capital requirements aimed at ensuring that a bank holds capital reserves appropriate to the risk the bank exposes itself to. These rules imply that the greater the risk a bank is exposed to, the greater the amount of capital a bank needs to hold to safeguard its solvency. The soundness of the banking system is important because it limits economic downturn related to the financial anxiety. Prudential regulation is expected to protect the banking system from these problems by persuading banks to invest prudently. The introduction of capital adequacy regulations strengthen bank and therefore, enhance the resilience of negative shocks. However, these rules may cause a shift of providing loans from private sector to public sector. Banks can comply with capital requirement ratios either by decreasing their risk weighted assets or by increasing their capital.

1.2.4 Non Performing Loans/Assets

Nonperforming loans occurs due to poor risk management and plain bad luck because of external independent factors. The inflation, deregulation and special market conditions can lead to poor credit lending decision which in turn leads to nonperforming loans⁴.

Ongoing financial crises suggest that Non Performing Loans amount is an indicator of increasing threat of insolvency and failure. However, the financial markets with high Non Performing Loans have to diversify their risk and create portfolio with NPLs along with performing loans, which are widely traded in the financial markets. Non Performing Loan Ratios act as a strong economic indicator. Efficient credit risk management supports the fact that lower Non Performing Loan Ratio (NPLR) is associated with lower risk and deposits rate. However it also implies that in the long run, relatively high deposit rate increases the deposit base in order to fund relatively high risk

⁴World Bank Policy, Research working paper3769, November 2005.
loans and consequently increases possibility of Non Performing Loan Ratio (NPLR). Therefore, the allocation of the available fund and its risk management heavily depend on how the credit risk is handled and diversified the NPL amount.

Nonperforming loans/assets is a probability of loss that requires provision. Provision amount is “accounting amount” which can be further, if the necessity rises, deducted from the profit. Therefore, high NPLs amount increases the provision which in turn reduces the profit. It proves that Non Performing Loan Ratio and Capital Adequacy Ratio are reasonably considered as credit risk management indicators.

1.2.5 Credit Risk Management in Banks

Bank loan is a debt, which entails the redistribution of the financial assets between the lender and the borrower. The bank loan is commonly referred to the borrower who got an amount of money from the lender, and need to pay back, known as the principal. In addition, the bank normally charges a fee from the borrower, which is the interest on the debt. The risk associated with loans is credit risk.

Credit risk is perhaps the most significant of all risks in terms of size of potential losses. Credit risk can be divided into three risks; default risk, exposure risk and recovery risk. As extension of credit has always been at the core of banking operations, the focus of banks’ risk management has been credit risk management. It applied both to the bank loan and investment portfolio. Credit risk management incorporates decision making process before the credit decision is made, follow up of credit commitments including all monitoring and reporting process. The credit decision is based on the financial data and judgmental assessment of the market outlook, borrower, management and shareholders. The follow up is carried out through periodic reporting reviews of the bank commitments by customer. Accordingly, warning systems signal the deterioration of the condition of the borrowers before default whenever possible. Loans that are in default or close to being default become NPLs. The terms of the default rate in loans are defined by each
bank. Usually, loan becomes non performing after being default for three months but this can depend on contract terms. NPLR shows the proportion of the default or near to default loans to the actual performing loans. It indicates the efficiency of the credit risk management employed in the bank. Therefore, the less the ratio the more effective the credit risk management.

Capital is needed to cover the risks of such losses. Banks have an incentive to minimize capital they hold since reducing capital frees up economic resources that can be directed to profitable investment. In contrast, the less capital a bank holds, the greater is the likelihood that it will not be able to meet its own debt obligations, that is, the losses in a given year will not be covered by profit plus available capital, and that the bank will become insolvent. Accordingly, banks must carefully balance the risks and rewards of holding capital. A number of approaches exist to determine how much capital a bank should hold.

The IRB approach adopted by Basel II focuses on the frequency of bank insolvencies arising from credit losses that supervisors are willing to accept. Through IRB approach, the Basel Committee intended to develop a framework which is credible, prudentially sound and reflect healthy risk management practices. Banks have made use of internal rating system for very long time as a means of categorizing their exposure into broad, qualitatively differentiated layers of risk.

### 1.2.6 Increased trust on Banking Supervision and Risk Management

To strengthen banking supervision, an independent Board for Financial Supervision (BFS) under the RBI was constituted in November 1994. The board is empowered to exercise integrated supervision overall credit institutions in the financial system, including select Development Financial Institutions (DFIs) and Non Banking

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6Basel II IRB Risk weight functions: http://www.bis.org/bcbs/irbriskweight.
7Internal Rating Based Approach: http://www.bis.org.
Financial Companies (NBFCs) relating to credit management, prudential norms and treasury operations.

A comprehensive rating system based on the Capital adequacy, Asset quality, Management, Earnings, Liquidity, Systems and Control (CAMELS) methodology has also been instituted for domestic banks, for foreign banks the rating system is based on Capital adequacy, Asset quality, Liquidity, Compliance and System (CALCS). This rating system has been supplemented by a technology enabled quarterly off-site surveillance system.

To strengthen the Credit Risk Management process in banks, in line with proposed Basel I and Basel II accord, the RBI has issued guidelines for managing the various types of risks that banks are exposed to make Credit Risk Management an integral part of the Indian banking system, the RBI has also issued guidelines for Risk Based Supervision (RBS) and Risk Based Internal Audit (RBIA).

These reform initiatives are expected to encourage banks to allocate funds across various lines of business on the basis of their risk adjusted return on capital. These measures would also help banks be in line with the global best practice of risk management and enhance their competitiveness.

The Indian Banking industry has come along way since the nationalization of banks in 1969. The industry has witnessed great progress, especially over the past 12 years and is today a dynamic sector. Reforms in the banking sector have enabled banks explore new business opportunities rather than remaining confined to generating revenues from conventional systems. A wider portfolio, besides the growing emphasis in consumer
satisfaction, had led to the Indian banking sector reporting robust growth during past few years.

1.3 STATEMENT OF THE PROBLEM

The Indian financial system consists of Financial Institutions, Financial Markets, Financial Instruments and Financial Services. The Commercial Banks are the major constituents of the Indian Financial System, Which plays a major role by transacting the money from the surplus units to deficit units. The Commercial banks are functioning in the competitive environment where one bank competes with another for its survival and its success. The survival of the Financial Institution in general and banks in particular is largely depending upon their performance and the profit earning capacity. The profit earning capacity of banking business is influenced by a number of factors; one of the important factors which have a bearing on the profitability of the banks is Credit risk.

A strong banking sector is important for a flourishing economy. The failure of the banking sector may have an adverse impact on other sectors also. Credit Risk is the inability of the borrowers to meet their dues or commitments, which is one of the major concerns for banks in India. Credit Risk is one of the major issues for banking sector.

Granting Credit for economic activities is the prime duty of banking apart from raising resources through fresh deposits, borrowing and recycling of funds received back from borrowers constitute a major part of funding credit dispensation activity. Lending is generally encouraged because it has the effect of funds being transferred from the system to productive purposes, which results in economic growth. However, lending also carries a risk called Credit Risk, which arises from the failure of borrower.

The risks to which banks are exposed broadly classified as credit risk, liquidity risk, interest risk, market risk, operational risk and management/ownership risk. While each of these risks contributes to the total risk to which a bank is exposed, it is perhaps
the credit risk which stands-out as the most dreaded one. The nature and extent of credit risk therefore, depend on the quality of loan assets and soundness of investments⁸.

Generally the day to day operations of the banking units are subject to a number of risks. The total amount of risks faced by the banking units can be classified into two types; controllable and uncontrollable. The banks have proper mechanism to identify, measure and control the risk factors. The availability of proper risk monitoring and controlling system helps the banking units to manage the risk factors in an efficient manner and helps the bank to reduce their level of Non Performing Assets.

Non Performing Assets reflect the performance of banks. A high level of Non Performing Assets 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 assets. The large volume of Non Performing Assets growth involves the necessity of provisions which reduce the overall profits and shareholders value.

The magnitude of Non Performing Assets has a direct impact on the profitability of banks as legally they are not allowed to book income on such assets as per the RBI guidelines. Credit risk management system to oversee the management of Non Performing Assets is an important parameter in the analysis of financial performance of banks⁹.

Risk management as a discipline is being taken seriously now a days. Nevertheless, the financial storm teaches several key lessons which can assist to improve the risk management in future. As a result, risk has become a very challenging area of

This motivated the researcher to take up research on Credit Risk Management in Commercial Banks.

Non recovery of loans along with interest forms a major hurdle in the process of credit cycle. Thus, these loan losses/assets affect the banks profitability on a large scale. NPAs have emerged since over a decade as an alarming threat to the banking industry in India sending distressing signals on the sustainability and endurability of the banks affected.

Despite various correctional steps administered to solve and end this problem, concrete results are eluding. It is a sweeping and all pervasive virus that has confronted universally the banking and financial institutions.

The non performing assets make a drastic impact on working of the banks. The efficiency of a bank is not always reflected only by the size of its balance sheet by the level of return on its assets. Non Performing Assets do not generate interest income for the banks, but at the same time banks are required to make provisions for such Non Performing Assets from their current profits. It is to be noted that the stock of Non Performing Assets does not add to the income of the bank while at the same time, additional cost is incurred for keeping them on the books.

To help the banking sector in clearing the old stock of chronic Non Performing Assets, RBI has announced one time non discretionary and non discriminatory compromise settlement schemes in 2000 and 2001. Though many banks tried to settle the old Non Performing Assets through this transport route, the response was not to the extent anticipated as the banks had been bogged down by the usual fear psychosis of being averse to settling dues where security was available.

\[10\] http://www.aefeldman.com

\[11\] http://www.scribd.com/doc/1857573/non-performing-assets
Loan loss provisioning and write off go to reduce the capital available for further asset creation. Gross NPAs do not, however disclose the entire picture of the over dues from borrowers. These exclude unpaid interest including any penal interest accrued on NPAs and as a prudential measure not recognized as income in the banks financial statements.

A write-off of the Non Performing Assets involves foregoing of the accrued interest. Hence, the magnitude of such interest dues assumes importance in accessing the likely losses, a bank may suffer because of Non Performing Assets.

The tightened RBI norms for reckoning assets as Non Performing Assets and for non recognition of income from such assets (by reducing the minimum period of debt servicing default from 12 months to 90 days ), effective from the quarter ended march 2004, would presumably have resulted in significant additions to Non Performing Assets during the financial year 2004.

The high level of Non Performing Assets in banks is a matter of grave concern to the Public as well as to the Government. Since the bank credit is a catalyst to the economic development of the country and any bottleneck in the smooth flow of credit due to the mounting Non Performing Assets is bound to create an adverse repercussion for the Economy of the Country.

Credit Risk Management has emerged as a big challenge for the Indian banking system. Therefore, it is attempted to make a study of Credit Risk Management in Commercial Banks to evaluate the credit efficiency by analyzing Credit deposit ratio, Capital adequacy ratio, Management of Non Performing Loans/Assets and branch managers’ perception of Credit Risk Management System to oversee the management of non performing loans/assets of sample branches.
It is in this context, the researcher has undertaken a study of Credit Risk Management in Commercial Banks.

1.4 REVIEW OF LITERATURE

In view of the seriousness of the problem of Non Performing Assets in banks and financial institutions regarding Credit Risk Management System, a number of research studies have been conducted earlier by researchers and research organizations in India and abroad on different issues relating to the Non Performing Assets of bank.

Similarly, a number of research papers have been published by academicians and practioners in India and abroad highlighting the credit risk due to problem of non performing assets in the banking sector. It is also noted that, a large number of research projects / studies have also been undertaken in this area by the National Institute of Bank Management, Pune, Indian Banks Association, Mumbai and RBI. Besides, a number of papers have been presented on the topic under study by the eminent academicians and practicing bankers in the Conferences, National and International seminars.

In this way, an attempt has been made to review a few of the above studies and papers as a starting point for the present study.

V.S.Kaveri and K.V.Patel (1997) have concluded that improper selection of borrowers, under-financing/ delays in financing, social political pressure for financing, lack of income generation due to natural calamities, mismanagement of fund, lack of proper follow up, willful defaults etc., are responsible for an account becoming Non Performing Assets\(^\text{12}\).

Joel Bessis (1998) in his research paper “Risk Management in Banking” points out the fact that credit risk is perhaps the most significant of all risks in terms of size of potential losses. Credit risk can be divided into three; default risk, exposure risk and recovery risk. As extension of credit has always been at the core of banking operation, the focus of banks’ risk management has been credit risk management. It applies both to the bank loan and investment portfolio. Credit risk management incorporates decision making process before the credit decision is made, follow up of credit commitments including all monitoring and reporting process\textsuperscript{13}.

In a study conducted by RBI(1999) by analyzing 800 top NPAs accounts in 17 banks, it reveals that “the higher proportion of NPAs in Priority Sector Advances was attributed to the directed and pre-approved nature of loans sanctioned under sponsored programmes, absence of any security, lack of effective follow-up due to large number of accounts, ineffective legal recovery measures, vitiation of repayment culture consequent to loan waiver schemes, etc\textsuperscript{14}.

Usha Arora (2000) has observed that more and more borrowers are turning to be willful defaulters taking the benefit of mainly inherent deficiencies in our legal system. The problem of recovery has been further aggravated by the external factors like the Government loan waiver scheme\textsuperscript{15}.

Taori (2000) has suggested that the surest way of containing Non Performing Assets is to prevent their occurrence through introduction of proper risk management system and effective credit monitoring\textsuperscript{16}.

Bhattacharya (2001) rightly pointed to the fact that in an increasing rate regime, quality borrowers would switch over to other avenues such as capital markets, internal accruals for their requirements of funds. Under such circumstances, banks would have no option but to dilute the quality of borrowers and thereby increasing the probability of generation of Non Performing Assets\(^\text{17}\).

Prashant K. Reddy (2002) in his research paper “A comparative study of Non-Performing Assets in India in the global context-similarities, dissimilarities and remedial measures” has stressed the importance of a sound understanding of the macro economic variables and systematic issues pertaining to banks and the economic for solving the Non Performing Asset problem along with the criticality of a strong legal frame work and legislative frame work\(^\text{18}\).

Muniappan (2002) has identified that NPAs have two components: the overhang component and the incremental component. The overhang component arises due to infirmities in structural and institutional environment while the incremental component arises from factors internal to banks’ management and credit culture\(^\text{19}\).

Misra (2003) has emphasized that the high rise in Gross Net NPAs of the banking sector in recent past is at an exponential rate giving an indication that the present ongoing recession is taking a heavy toll on corporate credit discipline and is further supported by recovery climate, legal system, approach of the lenders towards lending and many other factors\(^\text{20}\).


Malydri and Sirisha (2003) have observed that, loan assets constitute a real economic cost since they reflect the application of scare capital and credit funds for unproductive use\textsuperscript{21}.

In a similar manner, largely from lender’s perspective, Das and Ghosh (2003) empirically examines non-performing loans of India’s Public Sector Banks in terms of various indicators such as asset size, credit growth and macro economic condition, and operating efficiency indicators and suggested that besides supporting policy environment, banks have to devise appropriate lending terms taking into account the cost of credit, cost of funds, maturity of loans and credit orientation among other factors so as to induce lower defaults on borrowers \textsuperscript{22}.

Rajan & Dhal (2003) have dealt with the various reasons behind assets turning Non Performing and have also analyzed their macro economic implications\textsuperscript{23}.

Due to accumulation of NPAs in banks, they not only lose their income but also incur heavy expenditure to maintain such poor quality assets in their books. Apart from the internal and external complexities, increase in NPAs directly affect banks’ profitability, sometimes even their existence\textsuperscript{24}.

Valasmma Antony (2004) has argued that willful default must be treated as a criminal offence and is to be dealt with seriously. She has also suggested that arrangements should be made for the exchange of credit information with respect to

defaulting customers amongst the banks so that further NPAs with other banks can be averted\(^25\).

Muninarayanappa and Nirmala (2004) outlined the concept of Credit Risk Management in banks. They highlighted the objectives and factors that determine the direction of banks polices on credit risk management. The challenges related to internal and external factors in credit risk management are also highlighted. They concluded that success of credit risk management requires maintenance of proper credit risk environment, credit strategy and policies. Thus the ultimate aim should be to protect and improve the loan quality\(^26\).

There is a considered view that the lending policy of banks could have crucial influence on Non Performing Loans (Reddy, 2004). He critically examines various issues pertaining the terms of credit of Indian banks and argues that “the element of power has no bearing on the illegal activity. A default is not entirely an irrational decision rather a defaulter takes in to the account probabilistic assessment of various costs and benefits of his decision”. He raises various initial issues pertaining to credit delivery mechanisms of the Indian banking sector. The study focuses on the terms of credit such as interest rate charged to various productive activities and borrowers, the approach to risk management and portfolio management in general\(^27\).

Arunkumar, Rekha and Kotreshwar.G (2005), in their 9\(^{th}\) capital market conference paper “Risk Management in Commercial Banks -A case study of Public and Private Sector Banks” submitted to the Indian Institute of Capital Markets has examined and compared the trends in Non Performing Assets level, CRM practices of Commercial Banks, the response to reforms under Basel Accord II and Risk Based Supervision as

between Public Sector Banks and Private Sector Banks. The study found a strong relationship between NPAs level and Credit portfolio diversification\(^28\).

Non Performing Loans occurs due to poor risk management and plain bad luck because of external independent factors. The inflation, deregulation and special market conditions can lead to poor credit lending decision which in turn leads to nonperforming loans\(^29\).

Charanjit Singh and Mohammad Farook Khan (2005) have observed that DRTs are effective in recovery of bank dues albeit to a certain extent and concluded that the passing of DRT Act and establishment of DRTs has brought definite changes in recovery suits of banks\(^30\).

Non Performing Loan Ratio (NPLR) act as a strong economic indicator. Efficient Credit Risk Management supports the fact that lower NPLR is associated with lower risk and deposit rate. However it also implies that in the long run, relatively high deposit rate increases the deposit base in order to fund relatively high risk loans and consequently increases possibility of Non Performing Loan Ratio (NPLR). Therefore, the allocation of the available fund and its risk management heavily depend on how the credit risk is handled and diversified the Non Performing Loan amount\(^31\).

Janardhan G Naik (2006) has observed that going by Basel II norms and other international best practices in our banks are expected to manage NPAs quite efficiently.

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Surely the reforms in the legal system in the recent years such as SARFAESI Act, 2002 will help in faster recovery of NPAs\(^\text{32}\).

Annual Survey on the “Status of Indian Banking Industry: Progress and Agenda Ahead-2005” report that substantial progress made by banks in cleaning up the NPAs from their balance sheet, was largely attributed to SARFAESI Act and increases provisioning on Doubtful debts by majority of survey respondents. Absence of secondary market for the trading of security receipt issued by ARCs was identified as one of the major problem in Indian model of NPA management. Majority of the survey respondents recommend separate NPA norms for the farm and SME sectors\(^\text{33}\).

B.M.Mishra and SaratDhal (2008) have made an analysis of pro-cyclicality of bank indicators with a focus on the Non-performing loans of Public Sector Banks in India. The empirical analysis demonstrates that banks’ Non Performing Assets are influenced by three major sets of factors, i.e., terms of credit, bank specific indicators relating to asset size, credit orientation, financial innovations (non interest income), and regulatory capital requirement and the business cycle shocks. Using panel regression model, the study found that the terms of credit variables such as interest rate, maturity and collateral and bank specific variables had significant effect on the banks on performing loans in presence of macro economic shocks. The empirical findings support the policy approach to the banking in the Indian context\(^\text{34}\).

M.Karunakar, K.Vasuki and S.Saravanan (2008) have made an analysis “Are non-performing assets gloomy or greedy from Indian perspective” points out that the Non Performing Assets have a deleterious effect on the return on assets in several ways. The


\(^{34}\)http://www.bis.org/repoffice pub/asp research 201003.08.pdf?no
following are to cite a few such effects: the interest income of banks will fall and it is to be accounted only on receipt basis; Bank’s profitability is affected adversely because of the providing of doubtful debts and consequent to writing it off as bad debts; Return on Investment (ROI) is reduced; the Capital adequacy ratio is disturbed as Non Performing Assets are entering into its calculation; the cost of capital will go up, the Assets-Liability mismatch will widen; the Economic Value Addition (EVA) by banks gets upset because EVA is equal to the net operating profit minus cost of capital; Non Performing Assets require provisioning requirements affecting profits and accretion to capital funds and capacity to increase good quality risk assets influence and It limits recycling of funds; set in asset liability mismatches etc. Though RBI has taken a number of measures to reduce the level of Non Performing Assets, the result is not up to the expectations35.

Dong (2008), in his paper resolving “Non Performing Assets of the Indian Banking System” submitted to the International Monetary Fund had reviewed the nature of Non Performing Assets in the Indian Banking System and discussed the key design features that would be important for the Assets Reconstruction Companies to play an effective role in resolving Non Performing Assets. The analysis draws upon recent regional and cross-country experiences in dealing with impaired assets during periods of financial crises36.

R.K.Uppal (2009) clearly indicates that “Non Performing Assets were more in Public Sector Bank groups while the least was in Foreign Bank groups, because advances by Public Sector Bank groups to the priority sector advances were also high. Non Performing Assets in the Public and Private Sector Bank groups were high mainly due to increase in NPAs in the agricultural sector37.

36http://mpra.ub.uni-muenchen.de/9758/1/mpra-paper-9758.pdf.
Muniswaran.S (2010) rightly points out that, the profitability and viability of banks are directly affected by quality and performance of advances. A sound NPAs management system is used for quick identification of Non Performing advances, their containment at minimum level and ensuring that their impingement on the financials is minimal\textsuperscript{38}.

The researcher has analyzed the various studies relating to the risk management in banks. In such studies the policy aspects of risk management in general and management of non performing assets in particular are only discussed. So far no study has been conducted on the Credit Risk Management in Commercial Banks. Hence, the study has been undertaken to evaluate the credit efficiency of Commercial Banks in India through Credit Deposit Ratio, Capital Adequacy of banks to manage credit risk and the management of Non Performing Assets-a component of Credit Risk Management in Commercial Banks.

1.5 SCOPE OF THE STUDY

The Scheduled Commercial Banks command control over two thirds of the total assets of the financial sector with a network of more than 80,000 branches across the country and constitute the most significant segment of the financial sector. Hence, the present study is confined to SCBs coming under Public Sector, Private Sector and Foreign Banks. The study has excluded the Regional Rural Banks (RRBs) which forms a part of the Indian Scheduled Commercial Banks. The banks’ credit efficiency can be measured by Credit risk management system employed by the banks. The areas covered under the study are the proportion of credits with deposits, measure of capital base through Capital adequacy ratio, Credit Risk Management System to see the Management

of Non Performing Assets in different bank groups, such as levels of Non Performing Assets of different bank groups, assets quality of different bank groups, recovery of Non Performing Assets of these banks through various measures, and perceptions of branch managers on issues related to Non Performing Assets management. All the above issues have been identified by the researcher for detailed analysis and interpretations.

1.6 OBJECTIVES OF THE STUDY

The present study has the following objectives;

1. To study the practices of Credit Risk Management System in the Indian Banking Sector with regard to Basel Accord,
2. To study the concept of Non Performing Assets and Prudential norms regarding management of NPAs and Risk Weighted Assets,
3. To appraise the Credit Risk Management System employed by SCBs,
4. To examine Credit Deposit Ratio, Capital Adequacy Ratio, Gross NPAs to Gross Advances Ratio, Net NPAs to Net Advances in measuring credit efficiency of banks,
5. To study the perceptions of branch managers of the study units towards Credit Risk Management System and
6. To offer summary of findings, suggestions and conclusion of the study.

1.7 METHODOLOGY OF RESEARCH

The present study is based on both analytical and descriptive methods. The study is primarily analytical in the sense that it analyses various financial variables based on secondary data. It also adopts descriptive methodology in order to ascertain the views of bankers to know their opinion on the Credit Risk Management system adopted to evaluate loan assets quality and ensure the profitability in their respective banks. For this, it was considered important to undertake a detailed study of Credit Risk Management System based on primary data collected through field survey of branch managers of both Public and Private Sector Bank groups and make an in-depth analysis of data to arrive at feasible solutions for the problem. In this respect, it is considered a descriptive study. The methodology adopted for the study is presented in the following paragraphs.

1.7.1 Sources of Data

The required data for the present study are collected from both primary and secondary sources.

Primary data are collected with the help of structured interview schedule questionnaire designed for bank managers.

The secondary data relevant to the study have been gathered from published sources like the RBI publications such as reports on trends and progress of banking in India, statistical tasks relating to banking in India, RBI Annual Report, RBI Bulletins and Report on Currency and Finance, besides Books, Annual Reports of Commercial Banks, Reports of various Committees appointed by RBI and articles published in various Standard textbooks, Journals and Magazines. The papers presented by experts in various conferences have also been reviewed for the purpose of analysis and suggestions.
1.7.2 Sampling design

The present study attempts to analyze the Credit Risk Management practices followed by selected SCBs functioning in the major cities of Tamilnadu namely, Chennai, Trichy, Madurai, Coimbatore and Salem. The present study has employed the judgement sampling techniques. The criteria considered for selecting the sample units include more population, industrial cities, the number of branches, loan extended, credit deposit ratio and the like. A sample of 50 bank branch managers i.e. ten from each district has been selected. All the branch managers have been interviewed personally with the help of structured interview schedule.

In order to collect the required data from the sample respondents, a structured interview schedule was developed by reviewing the research works carried on the present topic. A pilot study was conducted among the ten bank executives and finally the interview schedule was modified based on the feedback received from the respondents. Further, a number of discussions were made with the top executives of some of the banks in order to make suitable corrections in the interview schedule.

1.7.3 Tools and Techniques

The data are analyzed by using appropriate statistical tools and techniques like;

- Percentages and averages
- Tables
- Weighted Average Method
- Ratio analysis
- ‘t’ Test
- ‘f’ Test
- Chi-square Test
- Correlation
- Compound growth rate
Diagrams

All the analyses have been done by using SPSS for windows release 20 statistical packages.

1.7.4 Frame work of analysis

In the present study, some mathematical and statistical tools have been applied in order to realize the objectives of the study. The tools applied and the relevance of its application is described below:

The technique of ratio analysis has been used to study the magnitude and trend of Credit deposit ratio, Capital adequacy ratio and Non-performing assets of banks during the study period.

Correlation analysis has been used to establish the relationship between macro economic variables as well as micro economic variables

Regression analysis has been used to examine the influence of Non Performing Assets variables on other macro economic and micro economic banking variables.

‘t’ test, ‘f’ test, Chi square test have been applied to test the significance of differences between the bank groups, branch locations with regard to perceptions of branch managers on the various aspects of Management of Credit Risk on Non Performing Assets.

Compound Growth Rate (CGR) for Gross NPAs, Net NPAs, Standard Assets, Substandard Assets, Doubtful Assets and Loss Assets of different bank groups have been computed on the basis of the semi log or exponential functions with the help of SPSS packages.
1.7.5 Processing of data

All the data have been classified, tabulated for better comprehension and analysis. The data have been analyzed with the help of computers. Simple mathematical tools like high level ratios, percentages and averages and statistical tools such as correlation analysis, Chi-square test, ‘f’ test, ‘t’ test, Compound growth rate have been applied for analysis of data. All the analyses have been done by using SPSS for windows release 20 statistical packages.

1.8 PERIOD OF STUDY

The study has attempted to analyze the Credit Risk Management practices of the Indian SCBs in general and that of the SCBs’ financing in the major cities of Tamilnadu in particular.

For the purpose of analyzing the Credit Risk Management practices, the study has considered a number of variables which are very essential to understand the Credit Risk Management System. The required data regarding all those variables have been collected from the secondary sources for a period of 10 years i.e. from 2001-02 to 2010-11.

The primary data required for the present study have been collected from the study area during the year 2010.

1.9 CHAPTER SCHEME

The present study has been organized in to five Chapters. A sincere attempt has been made to arrange the chapters in a structured manner from the point of content developments. They are;

The introduction chapter deals with the introduction and design of the study. It presents the statements of problem, scope of the study, objectives of the study, review of
earlier studies and literature, methodology, sources of data, tools and techniques of analysis and division of chapters.

The second chapter relates to the conceptual frame work of Credit Risk Management with regard to Basel I and Basel II and Management of Non Performing Assets, recommendations of various committees dealing with the problem of Non Performing Assets, prudential norms of RBI and Government for resolution of NPAs.

The third chapter examines the magnitude of Credit deposit ratio, Capital Adequacy Ratio, Credit Risk and Non Performing Assets of SCBs, Sector-wise NPAs and Loan asset quality of different bank groups and recovery of Non Performing Assets by SCBs in India.

The fourth chapter analyses the perceptions of branch managers on the various issues relating to Credit Risk Management on Management of Non Performing Assets at branch level and the recovery of Non Performing Assets by SCBs in India.

The fifth chapter summarizes the major findings of the study and offers suggestions for effective management of credit risk.

CHAPTER -II
A CONCEPTUAL FRAME WORK OF CREDIT RISK MANAGEMENT

2.1 Introduction
2.2 Significance of Risk Management in Banks
2.3 Basel
   Basel I Accord
   Basel II Accord