Chapter I

INTRODUCTION
Credit Risk Management in Banks in India

Chapter I

1.1 Introduction:
In any economy, banks play a crucial role in the growth and sustainability of the economy. Banks are prime intermediaries in mobilizing resources and channeling the resources to various sectors of the economy. Free and adequate flow of bank credit has a positive impact on the growth of the sector and indirectly contributes towards increased national income, national production and employment. Therefore it is needless to emphasize that health of banks has a direct bearing on the health of economy.

Till a decade ago, in India health of the banks were generally measured by the growth of the bank and profits earned. Growth was computed in terms of assets (loans and advances made), liabilities (deposits mobilized from public) and geographic coverage (number of branches). However banking reforms initiated in the wake of Narasimham committee in the early 90s and the liberalization policy of the Government of India (GOI) have brought about a sea change in the banking industry in India as integration of Indian banking system with the global financial system has become inevitable. This integration has resulted in adopting best practices of global banks giving a positive slant to Indian banking. At the same time, the competitiveness from global banks and improved international trade and commerce has forced Indian banks to adopt practices acceptable to international institutions in accounting, disclosure and other management practices. International institutions have starred measuring the health of the banks in terms of capital adequacy, unimpaired tier one capital, level of provisions to total advances, share of non performing assets to total advances and the quality of advances etc.

This change in parameters to measure the banks' health came about due to various factors. Chief among them is the various financial crises that have plagued the global banking industry over a period of time. The devastation suffered by different nation’s economies as result of financial crisis and banking failures has resulted in global awakening to tighten the measures to ensure banks health.
The Mexican crisis of 1994, the financial crisis in Thailand during 1997-98, the debacle and cost of restructuring of the financial system in Indonesia, Russian banking debt burden and Brazilian crisis of 1998-99, The Argentinian banking crisis and the melt down of US and European banking systems had a telling effect on their economies and established that the real barometer of economic health is the soundness of the banking system.

It is not anybody's case that governments and financial institutions were not worried about the soundness of the banks but were only interested in profits. The efforts of Bank of International Settlement, (BIS) in ushering an era of prudential banking by Capital Adequacy Accord 1988 and their subsequent efforts at improving the health of the banks by various recommendations about risk measurement, management and supervision by individual banks and central banks is ample proof that the industry was seriously thinking about banking health.

In India too the changes in banking regulations has evolved over a period of time. In 1991, Government of India set up the Narasimham committee to initiate banking reforms. The committee aimed at

1. Improving the macro economic environment in which the banks were operating
2. Improving the financial health of the banks and their competitive position by introducing prudential norms and structural changes in banking sector
3. Building infrastructural support to improve banking supervision, auditing, technology and legal framework
4. To augment the level of managerial competence and improve the quality of human resources of the banks.

As a result, prudential norms for asset classification and income recognition and the concept of risk weighted Capital adequacy norm were introduced in 1992. First steps to deregulate interest rates and improvements in prudential norms for maximum non performing assets were introduced by 1993. A major structural and legal reform was made by the introduction of Banking Ombudsman Scheme in 1994. To improve competition the concept of Local Area banks were introduced. Shared payment network system and conditional autonomy were introduced in 1996. The second Narasimham committee report of 1997 speeded up the process of liberalization. The guidelines on
Risk Management were introduced by RBI in 1998 and that is actually the beginning of systematic modern credit risk management in Indian banks.

1.2 Need for credit risk management:
Reserve Bank of India has found that banks which were reporting profits till the adoption of prudential norms relating to income recognition, asset classification, provisioning and capital adequacy after the post reform year of 1990 have reported losses and some of them even had their capital eroded to a large extent. While, twenty-six out of twenty-seven public sector banks were reporting profits before 1992-93, the profitability of the public sector banks as a group took a turn for the worse and showed negative trend. As many as twelve nationalized banks were reporting net losses where UCO bank was incurring losses even before from 1989-90 itself. As at March 1996, the time by which banks were to maintain a capital adequacy ratio of 8%, as many as eight public sector banks were unable to reach the level of 8% capital adequacy.

The government felt that weak PSB banks may have to be supported with capital infusion in the form of recapitalization bonds to ensure the international image of the Indian banking system is not tarnished as few of the banks had international / overseas branches and in a liberalized set up the credibility of the banking sector is very important for international trade and commerce.

It was felt that the new norms on capital adequacy and prudential norms introduced for asset classification and provisioning norms would inflict severe pressure on the profitability of Public sector banks. The deregulation of interest rates on deposits and advances introduced as a result of liberalization and the entry of new banks into the sector has increased competition for the PSBs. A weak bank may not be able to withstand competition from not only from other public sector banks but also from old/new private sector banks, foreign banks and financial institutions. It was felt that the weakness could be latent in some other PSBs also and a spill over effect of such weakness on the banking system itself could cause serious consequences and therefore the health of banks and urgency to strengthen the system assumed serious proportions.

Consequently, RBI constituted a working group on restructuring of weak public sector banks under the leadership of Shri. M.S. Verma to identify weak banks, various shortcomings in the functioning of the banks and to suggest remedial measure to
strengthen the health of the banking sector, more particularly of PSB and also other banks in general.
Committee on Banking Sector Reforms (CBSR). suggested that a weak bank would have accumulated losses and net NPAs would exceed the net worth of the bank and the operating profits would be less than the income from recapitalization bonds. However the working group adopted an additional seven parameters for identification process along with the obvious two suggested by CBSR.
(i) Capital adequacy ratio,
(ii) Coverage ratio,
(iii) Return on assets,
(iv) Net interest margin,
(v) Ratio of operating profit to average working funds,
(vi) Ratio of cost to income and
(vii) Ratio of staff cost to net interest income (NII) + all other income.
The findings and recommendations of the committee has laid the base for RBI intervention and in strengthening the banking system more particularly the credit risk management functions of banks.
The Causes of weakness identified by the working group has eventually led to better risk management practices in India. Incidentally they were also in line with what the BIS document on risk management elaborated.
The working group identified that weakness relate to three areas as follows:

1.2.1 Operations,
a) High level of existing NPAs and fresh generation of NPAs,
b) Poor and slow decision making regarding fresh sanction of advances and compromise proposals

c) Loss of fund-based advances and fee income.
d) Declining market share in key areas of operations
e) Limited product line and revenue stream,
f) Absence of cost control
g) Non-effective MIS and costing exercise,
h) Weak internal control and housekeeping,
i) Poor risk management
j) Insufficient customer acquisition due to mediocre service,
k) Low level of technology and
l) Non-competitive pricing

1.2.2 Human resources management

a) Overstaffing,
b) Low productivity and a high age profile
c) Restrictive practices in deployment of staff
d) Low level of skill in credit, risk management, foreign exchange, treasury management and other specialized areas
e) Inadequate training facilities to meet the requirements of the staff of the banks
f) Low motivation and morale of employees at all levels.

1.2.3 General management

a) Lack of succession planning,
b) Short tenures and frequent changes in top management,
c) Inadequate support from the Board of Directors

The high levels of NPS and fresh generation of NPAs are a natural result of poor and slow decision making regarding fresh sanction of advances and compromise proposals. They also result in loss of fund-based advances and fee income. Poor risk management and weak internal control and housekeeping aggravate the problem of poor credit quality. Absence of cost control results in non-competitive pricing.

Restrictive practices in deployment of staff, Low level of skill in credit, risk management, foreign exchange, treasury management and other specialized areas and inadequate training facilities to meet the requirements contributes poor efficiency in key areas like credit and risk management which in turn contributes to poor quality of credit and fresh NPAs. Short tenures for staff and frequent changes in staffing pattern of key departments like credit in no way mitigate the problem.
The non competitive pricing of advances on the high side deprive insufficient customer acquisition and very low prices reduce profits and will not be sufficient to sustain sufficient capital augmentation. This vicious cycle one factor leading to another clearly shows that many of the weaknesses of a bank are to a large extent, a direct result of poor credit and risk management practices.

Major portion of resources mobilized by banks is deployed as loan and advances. As much as 60% of the resources are lent. The following illustration will exemplify the point.

<table>
<thead>
<tr>
<th>Amount (in Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource mobilized by the bank</td>
</tr>
<tr>
<td>Less CRR to be kept with RBI</td>
</tr>
<tr>
<td>Less SLR to be maintained 25%</td>
</tr>
<tr>
<td>Less cash for operations</td>
</tr>
<tr>
<td>Amount available for lending</td>
</tr>
</tbody>
</table>

**Table 1 - All scheduled commercial banks - Business in India. Key Ratios.**

<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Deposit Ratio</td>
<td>13.3</td>
<td>6.7</td>
<td>6.1</td>
<td>6.9</td>
<td>6.0</td>
<td>5.8</td>
<td>5.9</td>
<td>5.8</td>
<td>5.9</td>
<td>6.0</td>
<td>5.6</td>
</tr>
<tr>
<td>Investment Deposit Ratio</td>
<td>39.0</td>
<td>28.8</td>
<td>29.4</td>
<td>30.2</td>
<td>29.9</td>
<td>29.8</td>
<td>29.9</td>
<td>30.7</td>
<td>30.8</td>
<td>30.0</td>
<td>30.8</td>
</tr>
<tr>
<td>Credit Deposit Ratio</td>
<td>60.4</td>
<td>75.7</td>
<td>78.0</td>
<td>73.7</td>
<td>76.2</td>
<td>76.6</td>
<td>76.4</td>
<td>75.3</td>
<td>75.0</td>
<td>75.3</td>
<td>75.4</td>
</tr>
</tbody>
</table>

(Source: RBI bulletin)

The above table clearly indicates that more than half the funds mobilized by banks are lent and therefore any impairment to the quality of these assets will adversely affect the health of the bank.

Any impairment in the health of the banks has a two fold impact on the bank itself and on the economy. Firstly, under the current rules of prudential norms for recognizing income if an account becomes sub standard then the interest income can not be
accounted in the books as interest earned. This reduces the return on the funds deployed.

Secondly the bank has to make a provision for the outstanding balance in the loan account from out of the income earned from other sources. This reduces the overall profitability. Thirdly the risk weighted assets are critical for computation of capital adequacy and the impaired asset increases the capital requirement without any contribution. Therefore it is imperative that banks ensure that loan accounts do not become non-performing and even the non-performing account do slip down from sub-standard to Doubtful or to Loss category.

The economy is also a loser as the funds locked in a non-performing asset does not generate any profits to add to the national income and some times if the unit is closed results in loss of production of goods are services and results in unemployment.

The stakeholders of a bank have multiplied in the modern era. It is not merely the customer who has put in his money in the bank. The employees, shareholders, technology partners, partners for co-branded products like Insurance products, international and domestic partners for various joint ventures all have a stake in the soundness of the bank. The government as owner in the case of PSB will also loses if the banks perform badly by loss of revenue by way of dividends and tax.

If a bank is perceived as weak, depositors may demand to withdraw their deposits and it can result in a financial nightmare of a run on the bank which could erode the very confidence in the system as a whole. That is why banks are very keen to ensure that the credit risk is managed efficiently in order to stay healthy.
1.3 Development of credit risk management practices in Indian banks:

The Working Group chaired by Shri. M.S. Verma quoted with approval as very good and concise statement of operational restructuring requirements, the key elements of operational restructuring identified by Gillian Garcia, one of the contributors, of a well-researched document published by the IMF in 1997.

Gillian Garcia has identified the following as key elements of operational restructuring:

a. Formulating a business plan that focuses on core products and competencies.

b. Reducing operating costs by cutting staff and eliminating branches where appropriate, ceasing unprofitable activities, and disposing of unproductive assets.

c. Implementing new technology and improving systems of accounting, asset valuation, and internal controls and audit.

d. Establishing and enforcing internal procedures for risk pricing, credit assessment and approval, monitoring the condition of borrowers, ensuring payment of interest and principal and active loan recovery.

c. Creating internal incentive structures to align the interests of directors, managers, and staff with those of the owners.

The relevant element for the present study is, of course, point d, which is establishing and enforcing internal procedures for risk pricing, credit assessment and approval, monitoring the condition of borrowers, ensuring payment of interest and principal and active loan recovery.

Credit risk management is two pronged: One of increasing income by improving interest income on good loan assets and the other of is reducing costs associated with non performing assets like provisioning and bad debts.

The growth of credit portfolio should be broad based and should have a fair share of non fund based business. This can be achieved by a proper credit culture which ensures a good assessment of requirements and appraisal of risks, identification and implementation of risk mitigating strategies and continuous monitoring. The other aspect of good credit risk management system is NPA management.

Management of NPAs will become a vexing problem if additions to NPAs outstrip recoveries or if a significant portion of the NPAs are chronic and/or tied up in BIFR
cases. The problem requires special handling if there are also loans given to state and central public sector units which have failed to repay.

Taking these factors into consideration, RBI has introduced over a period of time, by way of directives, suggestions and advice to banks, various credit risk mitigating measures encompassing both the aspects of lending afresh, monitoring existing credit portfolios and recovery of delinquent loans.

RBI has issued in 1997 guidelines on risk management system covering, single risk management committee for integrated management of risks, Portfolio approach to credit risk management and Switch over to appropriate risk modeling and building of data base. In 2002 banks were advised to prepare for risk based supervision including effective risk management architecture and adequate internal control process. Again on October 2002, RBI suggested by a guidance note on credit risk management to use portfolio models for scientific risk analysis and advised banks to upgrade their credit risk management systems to optimize the use of capital. By a letter dated 29.1.2003 banks were advised to adopt integrated risk management system for a smooth changeover to the New Capital Accord.

Periodically RBI was initiating structural parameter changes to bring Indian banking in line with international standards.

In respect of assessment and deployment of credit RBI has advised banks on various parameters and issues to ensure that good quality asset are financed. Some of such measures initiated by RBI and followed by banks are:

KYC (Know your Customer) norms are to be complied with for borrowers and guarantors. Internal credit rating has to be made and below a cut of rating finance has to be denied. Wherever required external rating from rating agencies like ICRA, CRISIL, CARE, SAMERA may be obtained.

Credit Information Bureau of India Ltd. has been established. Banks and FI inform to CIBIL about sanction, delinquency and status of their customers and an industry level a data base is maintained. Banks can obtain the credit history of a borrower from CIBIL before granting any facility to a borrower.
RBI keeps updating the list of willful defaulters and the same is shared with SEBI also to ensure that willful defaulter are denied access to capital market too. In addition to this ECGC watch list provides information on delinquent exporters to the banks. These measures help in bank’s due diligence of their customers.

In respect of management of non-performing assets also RBI has introduced many initiatives and actively liaised with government in bringing about changes in legal frame work for recovery of NPAs.

The norms for asset classification have been changed from eight level health codes system to four categories of Standard, Sub standard, Doubtful and Loss assets. The movement of one category of asset to another was calibrated carefully with an eye on the special conditions of Indian economy. The duration of past due, introduction of a new class called “Special Mention Accounts”, reduction of the period to 90 days from 180 days to classify a delinquent asset as sub standard are all right steps in this direction.

Provisioning requirements, income recognition norms have been periodically revised to ensure that profits of banks are realistic and fully realized and the norms followed are in line with international practices.

Registration of mortgage with sub –registrar of assurances and reflection of the same in the encumbrance certificate is a very important step to avoid multiple lending against the same asset.

Enactment of “The Securitization And Reconstruction of Financial Assets and Enforcement of Security Interest Act (SARFAESI Act) in 2003 and Asset Reconstruction companies are tow major initiatives by RBI in management and recovery of stressed assets.

Therefore there is a well developed system of risk assessment and risk mitigation and recovery management practices in Indian banking sector comparable to international standards.

1.4 Statement of the problem:
Since first capital accord of BIS in 1988 and the financial crises over the later part of 20th century and the early decade of the 21st century, Indian banks have been following systematically many risk management measures for risk assessment, risk measurement,
risk mitigation and recovery of risky loans. This in normal course should have resulted in very low total non performing assets and also a minimum addition on fresh NPAs. However the gross NPA position of the bank for the period from 2007 -2012 indicates that the NPAs have been more or less at the same level with out any reduction and in fact that for the year 2012 there has been a steep increase.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total advance</th>
<th>Gross NPA</th>
<th>% share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>13723.21</td>
<td>384.25</td>
<td>2.8</td>
</tr>
<tr>
<td>2008</td>
<td>17220.00</td>
<td>396.06</td>
<td>2.3</td>
</tr>
<tr>
<td>2009</td>
<td>20967.62</td>
<td>440.32</td>
<td>2.1</td>
</tr>
<tr>
<td>2010</td>
<td>24910.0</td>
<td>572.93</td>
<td>2.3</td>
</tr>
<tr>
<td>2011</td>
<td>30904.34</td>
<td>710.80</td>
<td>2.3</td>
</tr>
<tr>
<td>2012</td>
<td>35152.8</td>
<td>1124.89</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Table 3 - Gross NPAs of All scheduled commercial banks (Amount in Rs. billions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total advance</th>
<th>Gross NPA</th>
<th>% share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>19275.38</td>
<td>501.16</td>
<td>2.6</td>
</tr>
<tr>
<td>2008</td>
<td>23207.92</td>
<td>556.99</td>
<td>2.4</td>
</tr>
<tr>
<td>2009</td>
<td>28422.08</td>
<td>682.13</td>
<td>2.4</td>
</tr>
<tr>
<td>2010</td>
<td>32722.00</td>
<td>818.05</td>
<td>2.5</td>
</tr>
<tr>
<td>2011</td>
<td>39215.42</td>
<td>941.17</td>
<td>2.4</td>
</tr>
<tr>
<td>2012</td>
<td>47274.48</td>
<td>1370.96</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Source: RBI
Reserve bank of India in their economic analysis for the year 2011 stated, “The asset quality of banks is one of the most important indicators of their financial health. It also reflects the efficacy of banks’ credit risk management and the recovery environment. It is important that the signs of distress in all stressed accounts are detected early and those which are viable are also extended restructuring facilities expeditiously to preserve their economic value. During annual financial inspection (AFI's), it has been
observed that the restructuring facilities are not readily extended to small accounts. To improve the banks’ ability to manage their non-performing assets (NPAs) and restructured accounts in an effective manner and considering that almost all branches of banks have been fully computerized, it is proposed:

- to mandate banks to put in place a robust mechanism for early detection of signs of distress, and measures, including prompt restructuring in the case of all viable accounts wherever required, with a view to preserving the economic value of such accounts; and

- to mandate banks to have proper system generated segment–wise data on their NPA accounts, write-offs, compromise settlements, recovery and restructured accounts.

Commenting of Non-Performing Assets (NPAs) and Restructuring of Advances in their report for the year 2012 RBI observed

“NPAs and restructured loans of banks have been increasing significantly. A major reason for deterioration in the asset quality of banks is the lack of effective information sharing among them despite specific instructions issued in September and December 2008 “

Deputy Governor of RBI Mr. K.C. Chakrabarty in a recent function remarked “Public sector banks must learn to manage their non performing assets more efficiently. The banks have forgotten the art of saying “no”, except to the small borrowers. In reality NPAs are because of big loans. He wondered “how come all NPAs come to public sector banks”. Private sector banks are doing better in this respect. Public sector banks must significantly improve their risk assessment capability. He advised the PSBs “you must learn to identify the good and bad customers and lend accordingly”.

This phenomenon is not particular to India alone. To quote the words of Anthony M. Santomero (Commercial Bank Risk Management: an Analysis of the Process - Wharton financial institutions center) “The past decade has seen dramatic losses in the banking industry. Firms that had been performing well suddenly announced large losses due to credit exposures that turned sour, interest rate positions taken, or derivative exposures that may or may not have been assumed to hedge balance sheet risk. In response to this, commercial banks have almost universally embarked upon an upgrading of their risk management and control systems.”
The fact is that banks keep updating their systems and introducing new risk management measures and mechanisms. Still the problem of poor quality of credit persists, bad loans recur and recovery is slow and delayed. Both the aspects of credit risk management namely credit granting and loan recovery suffer from inefficiencies. Therefore it becomes necessary to analyze whether Indian banks have robust risk management practices installed in their systems and if so, to find out the reasons why the credit risk management practices are not helpful in reducing NPAs and preventing further generation of NPAs.

1.5 Objectives of the study

1.5.1 To review the exiting practices of risk management in Indian banks

Banks lend to a variety of borrowers namely Micro, small, medium enterprises (MSME Sector) and also to large corporates. Their lending spans a spectrum of diversified activities like agriculture, manufacturing and service sectors. Banks lend to governments (sovereign entities) as also to government controlled entities. Their lending covers both domestic transactions as well as export and import transactions. Banks lend to individuals under housing loans, educational loans, vehicle loans and personal loans all of which are classified as retail loans due the ticket size (value of transaction). Banks undertake fund based lending as well non fund based name lending like guarantees or letter of credits.

The credit risk in each of these different loan transactions is not uniform. The risks of corporate loans are distinctly and radically different from a personal loan or an agricultural loan. To assess these distinct and divergent risks banks adopt a basic appraisal followed by a sector and transaction specific appraisal. The object of the study is to find out the existing common appraisal approach and the application of specific methods by review of the exiting practices of risk management in Indian banks.

1.5.2 To find out recurring common risk incidents and the causes for the same

There are many procedures which are not followed for various reasons but result in credit default later. To quote an example obtaining monthly stock statement and verifying the same every month is one procedure that is often observed in breach.
Similarly, obtaining balance confirmatory for outstanding balances is another procedure which is often neglected. Periodic visits to the factory or unit is yet another example.

General reasons for non-adherence of procedures include

- Pressure of work
- Lack of staff to carry out
- Perception that these omissions may not pose any danger
- Lack of appreciation of the importance of the procedure
- Pressure of business development
- Ignorance about the procedure
- Compliance of the procedure is time consuming and tedious.

The study aims to find out the various lapses that occur in risk assessment, (appraisal of loans) risk acceptance (sanction and documentation of facilities) and risk monitoring (follow-up of loans). The study further attempts to find out whether the perceived reasons for the lapses are genuine and suggest suitable solutions.

1.5.3 To find out constraints in implementation of effective credit risk management system

While credit risk management is dynamic the systems established to mitigate risk are static. The changes in the market dynamics, the tax and other laws, changing economic conditions pose new challenges in managing the risk. There is always a time lag between any new risk appearance and the measure to manage the same incorporated in the system. To cite an example, factoring receivables was a new method of credit dispensation in the Indian scenario. Banks were unable to prevent the same receivables being financed by private parties resulting double finance. It took a while for the banks to devise monitoring methods to avoid double financing. Similarly banks are yet to utilize the risk mitigating tools of credit insurance policy.

To implement credit risk management system effectively, constant updating of market information and changing trends, analysis of the impact of changes, understanding of new risks and devising method to mitigate the same have to be done on a continuous basis. Communicating the new risk management measures, training the staff and monitoring are areas where banks face constraints.
The study aims to find out the constraints faced by banks in effective designing and implementation of risk management systems and suggest ways to overcome the same.

1.5.4 To find out whether banks have realized the importance of human factor in building credit risk management systems

No matter what the systems are and how they are built, the success of it ultimately depends upon the human being who operates it. A best designed motor car will not start if the driver does not switch on the ignition. Banks have built various risk management systems both technically and conceptually, but it is human beings who operate and use the same. Their knowledge of the systems in respect of its strengths, functions and limitations is a key factor in success of the system to deliver the desired results. If people do not understand what the system is capable of or what is the purpose of a particular procedure or operation then it will result in failure of the system which many times has been simply ascribed as human error to explain away the risk occurrence. Therefore it is important to test the systems to find out whether the people who handle it, uses it are familiar with it and aware of it capabilities and the reasons for each process of the system, be it a procedure or a computer Programme. It is also important to analyze and understand the time and effort needed by the employees to operate is successfully, the training they require and the constraints of the systems in actual operations.

The study aims to analyze whether banks have realized the importance of human factor in building credit risk management systems

1.5.5 To find out whether adoption of risk management systems has resulted in better credit management

The age old saying is that proof of the pudding is in eating. Not withstanding the various practices of risk management introduced if the objectives of such system are not realized the entire effort is not worth pursuing any longer. The study attempts to find out whether introduction of credit risk management systems have resulted in

- Improved compliance of regulatory reporting
- Improved early detection of asset quality deterioration
- Protecting margins by risk based pricing of loans
- Change in the approach to lending and improving quality of loan assets
1.6 Research Methodology

The area of research was specific to banking industry. Banks are very sensitive about customers' perception and value secrecy of customer information. Therefore the research has to be carried out keeping in mind that these sentiments are not violated. The research was carried out in two parts. A study of the systems and practices existing in banks was undertaken by observation and referring their internal rules, procedures and guidelines issued and also the directions of Reserve bank of India. During such a study in depth discussion were held with heads of departments / divisions to correctly understand and express the import of the systems. This was done to establish what risk management practices are in place. A structured questionnaire was distributed to the banking personnel directly involved in implementing risk management measures to empirically validate the objectives of the research. This study involved a lot of theoretical and statistical research.

1.6.1 Choice of Universe

The subject of research was credit risk management in banks in India. Necessarily, the target population has to be from the banking Industry and that too from among those employees who are working or worked in credit and risk related areas.

The employment structure in nationalized banks is segregated on different scales indicating their ranks.

**Table 4 - The scale model and rank of officer employees in nationalized banks:**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Cadre</th>
<th>Scale</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Manager</td>
<td>Top Executive</td>
<td>VII</td>
<td>Head of Department at HO/ Regional Head</td>
</tr>
<tr>
<td>Deputy General Manager</td>
<td>Top executive</td>
<td>VI</td>
<td>Head of divisions in HO/ Regional head/ Head of Extra large Branches</td>
</tr>
<tr>
<td>Assistant General Manger</td>
<td>Senior Management</td>
<td>V</td>
<td>Head of divisions in Regional office/ HO/ Regional head/ Head of Extra large Branches</td>
</tr>
<tr>
<td>Chief Manger</td>
<td>Senior Management</td>
<td>IV</td>
<td>Head of Branches of very large size. Head of</td>
</tr>
<tr>
<td>Position</td>
<td>Level</td>
<td>Division in Regional Office</td>
<td></td>
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<td>---------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Senior Manager</td>
<td>III</td>
<td>Head of branch of big size</td>
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<tr>
<td></td>
<td></td>
<td>Head of particular Desk at regional office</td>
<td></td>
</tr>
<tr>
<td>Managers</td>
<td>II</td>
<td>Head of branch of medium and small size. Desk in charge in branches</td>
<td></td>
</tr>
<tr>
<td>Assistant Managers</td>
<td>I</td>
<td>Desk in charge in branches</td>
<td></td>
</tr>
</tbody>
</table>

Board of Directors, called the management of the bank, Managing Director who is the chairman of the Board and Executive Directors, all of whom are appointed by the Ministry of Finance, Government of India on contractual basis are not covered by the survey. Like wise officers in the top management category was also excluded. From among the above cadres leaving Scale I officers, officer employees from other cadres were chosen for the survey. Similarly employees other than officers (workmen) were not covered in the survey.

1.6.2 Choice of respondents:

It was important to choose officers who are working or have worked in departments like Credit, Credit Administration, Risk Management, Audit & Inspection, Legal, Recoveries / Stressed Assets Management department and also Staff Training Colleges so that they would be able to contribute purposefully to the objectives of the survey. The choice of respondents covered mainly officers who have worked in at least in any one of the above departments for a period of at least 2 years. However people who have worked as branch heads were also chosen since the origination, administration of credit, recovery initiatives were all done by branches and therefore they would be exposed to these types of transactions.

Respondents were also chosen from recently retired bank employees. The main logic for their choice was that they had worked till recently and were aware of the functioning of the system as much as working officers. Large number of officers has gone out of the system due to voluntary retirement schemes and natural superannuation. The bank offices are manned by very limited number staff due to computerization and
for reasons of cost efficiency. Many of them were working in other organizations like Chartered Accountants office for the purpose of bank audit, in private banks, non banking financial institutions. Therefore it was thought prudent and acceptable to utilize recently retired officers for the purpose of survey. It was also felt that having come out of the bank, the officers would be forthright and truthful in their opinions and would not have the fear to be defensive of the management. However it was decided to restrict the number of retired personnel to not more than 25% of the total respondents. While banking qualification like CAIIB and other post graduate qualifications or professional qualifications like Law do matter, the very nature of structured systems and procedures in the bank ensures that attitude towards credit and experience are a major factor in credit administration. Therefore in the choice of respondents their experience was the main criteria. For the purpose of the survey no distinction was made between retired and serving officers and similar treatment was made.

1.6.3 Area covered:
For the purpose of this survey it was decided to confine the area of coverage to the city of Chennai. There were specific reasons for choosing Chennai as representative geographic area.

1.6.4 Branch network and presence of multi functional controlling offices
Reserve bank of India has their office here. NABARD, ECGC have their offices also. All the 19 nationalized banks, State Bank of India (SBI) and associated banks, major foreign banks, both the old and new private sector have their branches in Chennai. Indian Overseas Bank, Indian Bank and Repco Bank have their Head office in the city. State Bank of India has their Local Head Office. Controlling offices like Zonal office/ circle/ regional office of following banks operate from Chennai city.

1.6.5 Controlling offices of nationalized banks:
1.6.6 Controlling offices of New private sector bank:
Axis bank, HDFC Bank Limited, ICICI Bank Limited, IDBI Bank Limited,

1.6.7 Controlling offices of Old private sector bank
Specialized branches handling corporate credit, foreign exchange, small scale industries, Agricultural credit and policy making departments and training colleges of many banks including RBI are situated in Chennai.

Table 5 - Branch network in Chennai city
In terms of branch network, Chennai has around 1600 branches.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SBI and associates</td>
<td>225</td>
</tr>
<tr>
<td>Public sector banks</td>
<td>829</td>
</tr>
<tr>
<td>Old Private sector banks</td>
<td>186</td>
</tr>
<tr>
<td>New Private sector branches</td>
<td>158</td>
</tr>
<tr>
<td>Foreign banks</td>
<td>19</td>
</tr>
<tr>
<td>Co-operative banks</td>
<td>183</td>
</tr>
<tr>
<td><strong>Total branch network</strong></td>
<td><strong>1600</strong></td>
</tr>
</tbody>
</table>

A combination of branches, controlling offices, risk management departments, support function departments like Staff training colleges and Audit departments and other financial institution are all present in Chennai and sufficient number of officers of different cadres is available for survey.

1.6.8 Pan–India nature of representative sample
We were very keen to have a representative sample which reflects Pan India experience. It was initially thought that one city may not represent the entire India. However on deeper reflection, it was felt that the head office of a bank has jurisdiction over all branches in entire India. Controlling offices of some the banks have jurisdiction over multiple states like Pondicherry, Kerala etc. Normally people who work in controlling offices and in metropolitan branches would have completed their rural and semi urban assignments and hence the sample will cover all types of small, agricultural,
retail, and corporate loan exposures and would also have sufficient exposure to the issues in credit in rural, semi urban, urban and metropolitan areas. Due to all India nature of transfer and promotion policies of the banks, officers from different zones/states with multiple state exposure and experience work at Chennai branches and controlling offices. More over the Credit management policies, procedures and practices, rules and system are common to the entire bank and are applicable at all branches throughout India. Therefore, it was decided that a selection of sample from such environment would represent Pan-India in nature.

_Therefore the metropolitan city of Chennai was chosen for the study._

### 1.6.9 Choice of Banks:

The Indian Banking Industry is dominated by nationalized banks. More than 50% of the business is transacted by Public Sector Banks. If State Bank of India and their associates are taken together with nationalized banks then the percentage of business will exceed 70%. Therefore it was decided to concentrate on the Public sector banks to study the risk management practices of nationalized banks. Ten banks were chosen at random form out of 27 banks in this category.

### 1.6.10 Sample size

The officers of Scale II and III are from the same middle management group. However, the functional experience and levels of participation in decision making differs. Taking into account the training received and postings handled by officers of the different levels, it was felt that knowledge levels to appreciate the true import of the risk measures would not be uniform. Keeping this in mind the number of respondents was chosen.

It was decided that a minimum of 10 banks were to be chosen from among the public sector/nationalized banks including State Bank of India. A total of around 7300 bank officers work in the 1600 branches and controlling offices of banks in Chennai city. Among them the number of officers in scale II and above in SBI and other nationalized banks were around 3500. It was felt that 10% of the total number of officers from the chosen banks would represent an adequate sample size for the purpose of study. Therefore the sample size for the questionnaire was fixed at 350. Since, officers may hesitate to mention the name of the bank in which they are/were working, it was made
optional. However, at the time of distribution of questionnaire, number of offices responded bank wise was separately tabulated by me. Similarly, data was separately collected for retired officers.

Table 6 - The choice of respondents:

<table>
<thead>
<tr>
<th>Bank</th>
<th>Scale of executives Chosen</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>State Bank of India</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Syndicate Bank</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>Canara Bank</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Allahabad Bank</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>Bank of India</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Dena Bank</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Punjab National Bank</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Indian Overseas Bank</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Indian bank</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Union bank of India</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>155</strong></td>
<td><strong>155</strong></td>
</tr>
</tbody>
</table>

1.6.11 Data Collection

Both primary and secondary data were used for analysis in the study. The Secondary data was collected from the published balance sheet, RBI reports, speeches of RBI governor, deputy governor and speeches of Chairmen of banks etc., of the selected banks pertaining to period beginning 2007 and also from press reports, articles in professional journals etc... Primary data was collected by a sample survey using a structured questionnaire and a sample size of 350, from the various officer cadres. Copy of the questionnaire is given in Annexure-2.
1.6.12 Controls exercised to obtain a true representative random sample:
The choice of the bank and the respondent were randomly made. In order to ensure that a truly representative random sample is obtained the following control measure was introduced in selecting the respondents.
Since samples are from a homogeneous group of bank officers, normal quotas of population groups such as sex, age and income etc. are not very relevant. In all the selected banks the same employee cadre classification prevails. Therefore grade and area of experience of officers were used to select the respondents.
In almost every study no response for some of the questions will be obtained from certain part of the sample respondents selected. Some respondents for various reasons like perceived confidentiality may refuse to answer some of the questions in a questionnaire. These may significantly affect the results of the analysis. To overcome this Random sampling with replacement is used that to select the required number of responses.

1.6.13 Analysis:
The collected data was statistically treated as appropriate and required for the study like determination of relationship between variables, effect of components on the overall value, to test the independence of attributes, to compare performances, identification of moist sensitive variables, etc., The researcher has used following statistical tools in the analysis:
1. Simple percentage analysis
2. Ranking analysis
3. T test
4. Cluster analysis
5. Non parametric Chi – Square
6. Analysis of variance
7. Multiple regression analysis

1.6.14 Pilot study
A preliminary investigation was done to conduct the reliability under the pilot study findings. Since the researched framed the research instruments as the basis of the literature reviews, it is very important to check its reliability for writing the thesis. Therefore the researcher segregated the variables in the questionnaire in two broad
categories namely optional type questions and Likert 5 point scale questions. The researcher applied normal distribution method to check the distribution of optimal type variable and Cron Bach Alpha method was applied to check reliability and validity of the instrument. In these two tests the researcher is gratified by the formation of normal distribution for the optimal question and Cron Bach Alpha value of 0.897 for all Likert 5 Point scale statements. This shows that the research instrument is highly reliable to obtain the responses and that results can be used to write the findings of the thesis.

From the analysis inferences were drawn and conclusions were arrived at. Based on the conclusions of the statistical analysis and the result of in depth interviews, suggestions are also made.

Qualitative risk analysis, which is used more often, does not involve numerical probabilities or predictions of loss. Instead, the qualitative method involves defining the various threats; determining the extent of vulnerabilities and devising countermeasures should an attack occur are also used.

1.6.15 Limitations of study

Banks are particular about maintaining secrecy of customer transaction details. Except for compulsions of law or at the request of the customer they do not reveal any information about the customer or his transaction details. Banks are also very sensitive about their reputation. They would not like to reveal any information which may in the minds of the public create an impression that the bank is weak or not run professionally, for fear of losing customers and business. Because of this twin imperatives, the bankers participated had made it a condition that the name of the bank should not be disclosed in respect of any analysis of adverse findings or any system deficiency mentioned in the study. Therefore the study could not name any specific bank for any practices it has analyzed. Though it a major limitation, it has not affected the usefulness of the study.

The study has not analyzed except credit risk management, any other risks areas or their management like market risk management, liquidity risk management, operational risk management, legal risk management etc., which are equally responsible for a bank being financially sound.
With high level of computerization, many functions of risk management are now automated. It has been frequently voiced during the study that programmes designed for risk management are not complete and many parameters and factors are either not covered in the system or covered only partially. The discretion to analyze such factors independently and take a decision is not clearly defined resulting in poor credit analysis. The study has not covered this area of risk management.

While some banks were open and permitted the researcher to read through their internal guidelines / circulars and study the processes, many functionaries for fear of rebuke by higher ups cited confidentiality and only orally explained the system. Therefore the study had to depend upon the guidelines of Reserve bank of India mainly since the same was applicable or all banks.

Despite these shortcomings, the study throws light on the deficient areas of credit management and offers suggestions to improve the same. Acceptance of the suggestions of the study entirely depend upon the internal control system each bank practices and requires each bank’s board approval.

1.6.16 Presentation:

The entire survey is presented in numbered chapters.

The first chapter is introduction. It covers the need for the study and the statement of the problem also. Objectives, hypothesis, research design and methodology are also presented in chapter I. The literary research is presented in chapter II. Chapter III deals with risk management concepts, existing risk management systems in bank. The findings of survey and results of analysis are presented in chapter IV and V. Summary of findings, inferences from the analysis and conclusion drawn as well as suggestions made are presented in Chapter VI.

Paragraphs in each chapter are numbered indicating first the chapter number followed by the paragraph number and then the sub-Para number like 1.1.1, making location reference to any paragraph in the study easy.

Cross-references have been provided wherever required. The works of other authors/ researchers or publications used have been duly acknowledged.