CHAPTER 1
INTRODUCTION

1.1. Introduction

The role of Banking system in the growth of economic development has always been praiseworthy and monitored with great caution. It is the strength and contribution of the banking system can have far-reaching implications on the development of the whole economy. The link between the financial sector and economic growth has been the subject of a large literature. Many researchers have concluded that there is strong empirical evidence today of that robust financial markets support economic growth. This is particularly relevant at the present time also when there is a lot of stress in the financial markets globally and consequently a slowdown in the momentum of economic growth. The GDP growth of the world was expected to be just about 3.3 per cent during 2012 and 2013, whereas, the growth of advanced economies was expected to be only 1.2 per cent compared to the 5.4 per cent growth expected in case of emerging and developing economies (World Economic Outlook Update, IMF, Jan 2012). This ‘two speed recoveries have thrown unique policy challenges for countries.

Keeping in view the essence of the banking system, policies are designed for proper regulation of banks. In India, after the nationalization of banks in 1969, the geographical presence of the banking system increased considerably but the profitability and economic viability of various branches were negatively impacted due to increased cost of maintenance and lending to masses at reasonable cost considering the social objective of banking sector in the growth of economy. Despite utmost care taken by Government and banking regulations, many assets or loans of the bank get converted into bad debts and stop generating any income for the bank. Such assets or loans are referred to as non performing assets (NPAs) or non performing loans (NPLs). Non-performing assets is the most widely and commonly used measure of the health and robustness of banks and financial institutions. Broadly speaking, any assets
generally turn into NPAs when they fail to yield income during certain period. NPAs form a substantial drag for individual banks as well as the banking system of a country. They represent the poor quality of the assets of the bank and have to be provisioned for using capital. Obviously they have a huge negative impact on a bank’s profitability and can lead to complete erosion of its asset base.

The recent trend in deterioration of asset quality is observed in case of some major banks of India, which has become a matter of concern. The NPAs of public sector banks grew by a percentage point to about 3.3% of the assets in 2011-12 as against 2.3% a year ago. Several companies are opting for corporate debt restructuring (CDR) to tide over the difficult financial situation in the backdrop of the slowdown. Aviation, state electricity boards, textiles, telecom, infrastructure and steel are among the sectors which are reporting stress. However, overall trends in NPAs do not indicate any systemic vulnerability. At a system level, the Gross NPA (GNPA) ratio of scheduled commercial banks increased marginally to 2.52 per cent by end-June 2011 from 2.35 per cent at end-March 2011 but still remainss low. Based on unaudited results of these banks, the Capital to Risk (Weighted) Asset Ratio (CRAR) based on Basel II was 13.86 per cent as at end-June 2011. Though this was lower than 14.19 per cent as at end-March 2011, it was well above the minimum requirement.

Due to the social banking motto of the Government, the problem of NPAs had not received due attention in India in the post nationalization (of banks) period. However, with the financial sector liberalization drive in the decade of 1990, this issue has been taken up seriously by introducing various prudential norms relating to income recognition, asset classification, provisioning for bad assets and assigning risks to various kinds of assets of a bank. Over time, though NPA as a percentage of total advances have reduced, it still remainss a concern for the Indian banking sector.

The origin of the problem of high level of NPAs could be due to two types of factors, viz., internal factors like, the extent of competition, total assets of a bank, size of operations, proportion of rural branches, investments etc., or external factors like the
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macroeconomic conditions which affect both the sides of loan transaction i.e. the one which give loans (more specifically banks) and the one who take loans i.e. the borrowers. The macro fundamentals are initially exogenous to the banking system, hit all banks simultaneously (though not necessarily symmetrically), and tend to become particularly important during stress times. The various factors like level of economic development, interest rates, inflation, unemployment condition, exchange rates, share price index, housing prices and foreign portfolio flows may impact the borrowers’ balance sheet and its paying capacity which may aggravate the situation of deteriorating asset quality. An economic slowdown normally sparks fears of a rise in non-performing assets of banks. GDP growth that averaged nearly 9 per cent during the past four years slipped to 6.5- 7 per cent this year. The drier-than-usual monsoons also increase the downside risk to agricultural production and the NPLs for the banking sector. In a weakening economy, where inflation is going up, business and household borrowers and even the government may find it difficult to service their existing loans. Financially and operationally fragile enterprises, with high debt, low profitability, and declining markets, would have reduced ability to service their loans and become responsive to interest rates. Consequently as bank lending rate increases the slippages in bank asset quality move upward. The exchange rate depreciation /appreciation also affect the default numbers.

This kind of environment necessitated steps towards series of policy initiatives which were taken with the objectives of making gains through branch expansion undertaken by the banks .The tight regulation under which the system was operating was also relaxed. As a result of this measure, the number of scheduled banks increased from 264 in 1984 to 276 in 1990 whereas branch expansion of the banks slowed down. It happened for the first time that serious attention was paid to improvement of credit management, staff productivity, customer services, besides taking concrete steps towards rationalization of rates of bank deposits and lending. Around 90% of commercial banks were in the public sector and they were being closely regulated in terms of their parameters. Reserve Bank of India used to fix prices of assets liability
whereas prices of services were fixed uniformly by the Indian Banking Association (IBA).

Although, commercial bank acted as financial intermediaries between the savers and investors and performed an important role in the development of the economy but the move of nationalisation put their balance sheet under stress. In order to overcome the problems stated above and to bring about reform in the banking sector, a committee under M. Narsimham, Ex-governor of RBI, gave its recommendations in 1991 followed by BASEL norms for the regulation of banks.

The Indian Banking Industry has played a pivotal role in the socio-economic augmentation of the country. The financial sector reforms initiated in 1991 have commendably changed the visage of Indian banking. The banking industry has transmogrified in a phased manner from a regulated environment to a deregulated market economy. The recommendations of Narsimham Committee played a key role in bringing about the complete transformation of the banking system in India. Among the major suggestions and recommendations which are being followed nowadays by banks are gradual reduction of Statutory Liquidity ratio (SLR) and Cash reserve ratio, directed credit programme, issuing more banking licences, autonomy to banks, removal of banks from the concept of nationalization, facilitating foreign banks operations in India, liberalizing interest rate regime and structural issues of banks, etc. The reduction in SLR and CRR requirements enables banks to lend more as they are required to hold less cash to meet the mandatory requirement specified by Reserve Bank of India. It is estimated that 25 basis point reduction increases availability of money to the extent of Rs 30,000 crore in the system. The committee recommended allowing foreign banks to set up their own branches fully owned by them and not necessarily in alliance with banks in India. This facilitated banks like Citi Bank to start its operations in India and provided a competitive field to public sector and private sector banks in India. In order to ensure continuity of various rural industries like cottage industry, handlooms and textiles industry, the committee suggested lending under direct credit programme which has helped in protecting employment of various unskilled workers in rural parts of our
country. The committee suggested that the banks shall have the liberty to decide their lending and deposit rates and Reserve Bank of India shall provide the base rate. This suggestion has significantly enhanced the operations of the banks and ensuring their profitability besides adding competition among them. With regard to the autonomy of the banks in the recruitment process, the banks have not been given full autonomy as suggested by the committee as the tests are conducted in coordination with Government agencies to find suitable candidates for appropriate posts. One major development, however, in this regard has been appointment of directors in the boards of banks, which is now through the shareholders in the Annual General Meeting. The process of dual control on Banks through Ministry of Finance and the Reserve Bank of India was also recommended to be removed, since most of the time the directions issued by the Ministry of Finance were found inconsistent with the policies to be adopted by the Reserve Bank of India. Another noteworthy development that took place in the banking sector in India was the concept of Banking Ombudsman through a notification issued by the Reserve Bank of India under section 35A of the Banking Regulation Act, 1947. Under this provision if any customer has any complaint against the bank, he can directly approach the Banking Ombudsman for resolution of his complaint. However, before approaching the Banking Ombudsman, the complainant has to approach the concerned bank and submit his complaint in writing. In case the bank does not reply within one month of the receipt of complaint or the complainant is not satisfied with the solution given by the bank, he can then file his complaint before the Banking Ombudsman, who acts as Arbitrator between the concerned bank and the complainant. The Banking Ombudsman is either the Chief General Manager or General Manager of the Reserve Bank of India. Thus, various steps have been taken in the banking system to make it an attractive proposition for the general public to avail of its services through lending and deposit money and accessing other services. Apart from the recommendations of Narsimham Committee which tremendously changed the role of Banking system in India, another committee at the international level i.e. BASEL committee of Banking Supervision also led to a phenomenal change in the functioning and adding to the strength of the banks besides inculcating financial discipline habits in their lending
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norms. BASEL committee has issued three different norms at different point of time, the latest one in the year 2010. These norms are to be adhered to by all the banks in the world. The main focuses of these norms were to strengthen the capital adequacy of the banks and linking the same with the amount of risk being undertaken by the banks while granting loans for different purpose. As we know, banks earn their income from the spreads available on the deposit rate and lending rate. The higher the value of the spread or the difference between the deposit and lending rate more will be the income of the banks. Further, the risky proposals are financed at higher rate whereas less risky proposals are financed at lower rate. With these conditions in the background, banks are normally tempted to finance high risk areas so that their profitability will be more through higher difference in spreads. But in such a case, the banks are likely to add more Non Performing Assets if the proposal for which the loan has been granted gets into any kind of problem and the borrower fails to repay the interest or principal money. The Basel norm therefore divided loans of the banks in different categories and assigned risk weights to different loans ranging from 0% to 125% and so on. The banks are required to examine their assets in the form of loans, considering the risk weights and accordingly required to maintain 8% of the minimum capital, as per the first norms recommended by BASEL committee. Gradually, the norms were further improved to account for operating and market risk apart from credit risk as advocated in the first set of norms. Besides the minimum capital, the banks were also required to maintain capital conversion buffers so as to prevent themselves from any kind of unforeseen economic shocks or risks in the financial system. The procedure of stress test was also specified and conducted to examine the financial health of the banks at any given point of time and to check their ability to endure any kind of adverse economic event. Almost two decades had Passed since the banking sector initiated measures to uplift the banking sector in line with international standards and to improve productivity and efficiency of banks. But even today, NPAs still pose a significant threat to the banking sector and continue to damage it. Many researches on NPAs depicted the relationship between asset quality and financial distress and considered management of NPAs as a major prerequisite to counter the recessionary pressures and foster economic development.
With this backdrop, the current research attempts to conduct a study on reduction of non-performing assets in commercial banks. This research is an attempt to examine the impact of NPAs on bank performance with special reference to Alwar district and also to evaluate and understand in detail the intensity and propensity of NPAs in commercial banks. Initially a small survey study was conducted in Alwar district to examine the presence and utility of banking services in Alwar along with the customers’ profile and their perception towards the banking services.

Banking has been prevalent in our country for the last few centuries. Earlier, indigenous bankers in the form of Shroffs, Seths, Mahajans, Chettis and Sahukars used to lend money to the common man against the assets in the form of gold, animals, house and land, etc pledged with them. Loan deeds in the form of Rnapatra and Rnalekhya were used by indigenous bankers. Even Arthashastra mentions the presence of banking in Mauryan times.

During the period of 1640s, East India Company started trade in India, using its ports and set up factories for using cheap labour in India. Realising the eminent need of proper banks, East India Company set up three presidency towns - Madras, Calcutta and Bombay. It was in these three cities that they established first three presidency banks in India. However, none of the three was considered as Central bank of India. The Bank of Calcutta was treated as Central bank by default because of large business concentration in Calcutta. Later, these three banks were merged to form Imperial bank of India in 1921. During the same, other banks like Punjab National Bank and Oudh Commercial Bank were also established. The new era in the banking reforms commenced in the year 1969 when fourteen public sector banks were nationalised by the then Prime Minister of India, the late Indira Gandhi, with the purpose of serving the social masses and removing their control from the clutches of few selected industrial houses. Since then Reserve Bank of India continuously monitored the progress of these banks and issued guidelines and regulations from time to time for the smooth and efficient functioning of banks. The period subsequent to the year 1991 also saw phenomenal changes in the entire banking sector of India in tune with the liberalisation and global move which set the Indian
economy on the new track. The regulations announced by Reserve Bank of India during this period takes into cognizance the various guidelines issued at international level so as to make Indian banks competitive with other banks of developed countries. The complete transformation in the banking and economic structure after Nationalisation in 1969 and liberalisation of economy in 1991 led to significant increase in banking activity. A need was felt to develop various sectors of economy which are imperative for the growth of various industries and increasing the consistent growth rate of GDP. The banks were required to lend for such activities and due to competition with their peers, lending activity was conducted at fast pace with minimal due diligence. This led to conversion of many loans into Non performing Assets.

The main function of Banks, as known to all, is to accept deposits and lending them for a specified purpose. In this way, they act as financial intermediaries between depositors having surplus funds and borrowers who have financial need. With the help of income generated from such advances, the operating expenses of banks are met. The banks use the deposits for the purpose of lending and investment. If the business for which the lending has been made by the banks does not perform well, the banks are also subject to risk simultaneously. In this background, the main role of the Government and the Reserve Bank of India (RBI) is to limit the risk & loss to depositors. This will help in maintaining public confidence besides averting the chances of collapse of the banking system. In view of this, the RBI as a regulatory authority issues guidelines to the banks and financial institutions for proper monitoring and management of credit system.

The assets of the banks which do not generate return are called Non Performing Assets (NPA) or bad loans. As already mentioned above, the bank’s assets are the loans and advances given to customers. In case the customers do not pay either interest or part of principal or both, the loan turns into bad loan. Reserve Bank of India specified that the terms loans on which interest or instalment of principal remains unpaid and overdue for a period of more than 90 days from the end of a particular quarter, it is called a Non-performing Asset. The concept relating to NPAs and various issues and terminologies related it would be understood from the following example:
Suppose a client was disbursed a loan on January 1, 2012 and its due date is June 1, 2012. The client, however, does not make a payment. In this case, it will be treated as Standard Asset from January 1, 2012 till June 1, 2012 (Due Date).

This will become Special Mention Account from June 2, 2012 till August 29, 2012 (90 days).

It will be Sub-standard from August 30, 2012 till August 29, 2013.

It will be doubtful from August 30, 2013 till August 29, 2014. It may remain doubtful Asset for a period of 3 years, beginning from 12 months of being an NPA. Once the auditors identify this asset as a loss, it will be designated as a loss asset. However, the period could be anything above 3 years.

The NPA in case of Agriculture / Farm Loans has been defined separately.

- In case of short duration crop agriculture loans, for example, paddy, Jowar, Bajra etc. if the loan (installment / interest) is not paid for 2 crop seasons, it will be treated as NPA.
- In case of Long Duration Crops, if the loan (installment / interest) is not paid for 1 crop season from the due date, it will treated as NPA.

**Gross NPA and Net NPA**

The NPAs figures are normally given in terms of Gross NPAs and Net NPAs. It is necessary to understand the difference between them before proceeding further in this area. Gross NPAs is the amount which has been lent by the bank and is remaining outstanding regardless of any interest recorded and debited. In contrast to this, Net NPA is achieved when interest is debited to borrower account and not recovered or recognized as income. According to guidelines issued by RBI, every bank is required to make “provision” for NPAs. For example, if a bank has lent Rs. 100 and it estimates that it can recover Rs. 98 out of this then there is need to create “provision” for the other Rs. 2 which the bank expect to become “bad assets”. As a result of this when a default would occur, it would not surprise the user of financial statements and the bank as well.
Therefore, NPAs are measured in two ways – gross and net. Gross NPAs are simply the total assets lent by banks and cannot be recovered. Net NPAs are gross NPAs less provisioning. For example, if a bank expects that in a particular financial year Rs. 2 out of Rs. 100 will not be recovered and it manages to collect Rs. 98, then its Net NPA are zero because it has already “provisioned” for the Rs. 2 of assets which went bad. In case, the provisioning has been done for Rs 2 out of Rs. 100 and the bank manages to collect only Rs. 97, then “Net NPA” is Re. 1.

Therefore, in simple terms, Gross NPAs is an advance which is considered irrecoverable, for bank has not made provisions, and which is still held in the banks books of account.

**Classification of the NPAs**

The non performing assets of the banks are classified into three main categories

a) Sub- Standard Asset

b) Doubtful Asset

c) Loss Asset

The above categorisation is based upon the time for which the loan or interest due on the loan remainss unpaid by the borrower to the bank. In the normal course, if the borrower does not pay interest or loan for a period exceeding ninety days from the due date, it is termed as ‘Special Mention Account’. Nowadays, with the help of technology, alerts are automatically issued for such accounts and such accounts can be easily monitored by banks.

Once the loan comes under the category of special mention account, they are followed up and given more attention by the banks. In case the borrower meets the due requirements of the banks, no action is required in such cases. However, if this loan continues to be under special mention account for a long period of time, it may be classified as sub standard, doubtful or loss assets depending upon the time for which it continues to be under special mention account. The banks are according required to make provisions for the same, as briefly stated below:
**Sub Standard Assets**

In case a loan has been transferred to Special Mention Account and it remains in the same for a period less than or equal to 12 months then it is termed as Sub-standard Asset.

**Provisioning Requirement**

In this case, banks are required to make provisioning in accordance with the following norms

- 15% of outstanding amount in case of Secured loans
- 25% of outstanding amount in case of Unsecured loans.

**Doubtful Asset**

When an asset has been in the sub standard category for a period of 12 months or more, but not beyond three years, it is termed as ‘Doubtful asset’.

**Provisioning Requirement**

The bank, in this case, is required to make provisions in accordance with the following norms:

If the asset remains in sub standard category up to one year:

- 25% of outstanding amount in case of Secured loans
- 100% of outstanding amount in case of Unsecured loans

If the asset remains in sub standard category for a period of 1 – 3 years:

- 40% of outstanding amount in case of Secured loans
- 100% of outstanding amount in case of Unsecured loans

If the asset remains in sub standard category for a period exceeding 3 years:

- 100% of outstanding amount in case of Secured loans
- 100% of outstanding amount in case of Unsecured loans
Loss Asset

In case the loan which has been there in the sub standard category for a period of more than 3 years and it has been examined by internal as well as external auditors, then it is placed in the loss asset category. It is essential for the banks to take the view of auditors before classifying any asset as Loss Assets. The criteria of non payment of dues for a period exceeding three years is not sufficient to place the asset in the loss category. Auditors’ view is essential in this regard.

Economic downturn cycles further aggravated the problem of NPAs. The issue of NPAs not only holds importance for respective banks but also become a major area of concern for Reserve Bank of India and area of research for academicians. Reserve Bank of India entrusted and formed many committees to look into the issue closely and suggested suitable guidelines for overcoming the problems of NPA. The branches of banks which are located in the area where trade and business are more prevalent such as Mumbai, Delhi, Chennai, Calcutta, etc are more prone to risk of NPAs as most of the funds are lent through bank branches located in these metropolitan states. The branches of different banks in Alwar, being a district in Rajasthan, are presently not exposed to such kinds of risk. However, the area is gradually picking up in terms of economic activity and it would be a good lesson for professionals as due to their post in bank branches in Alwar, they would get a full understanding of the causes and management of NPAs. With this objective in the background, the topic of study was selected.

1.2. Objective(s) of the Study

In the light of the above facts, this study has been conducted with the following objectives:

a) To examine the present state of banking system along with their historical perspective and its presence in Alwar district (Rajasthan).

b) To highlight the level of NPAs and their trend in banking sector.

c) To understand the causes of NPAs in Indian banking system.

d) To study the modus operandi of extending loan by banks.

e) To study the regulatory framework and recovery mechanism of NPAs being followed by banks in India.
1.3. Research Hypotheses

On the basis of review of literature, the following hypotheses were postulated:

**Hypothesis 1**

H₀: The problem of NPAs has arisen due to social motive of banking sector.

**Hypothesis 2**

H₀: There is significant difference in level of NPAs among Public sector banks, Scheduled Commercial banks, Old private sector banks and New private sector banks.

**Hypothesis 3**

H₀: There is significant difference in strategies of recovery of NPAs among Public sector banks, Scheduled Commercial banks, Old private sector banks and New private sector banks.

**Hypothesis 4**

H₀: The level of NPAs is related to various macro economic parameters such as Growth rate in GDP, interest rate, inflation rate, etc.

1.4. Research Methodology

In order to have in-depth understanding of the subject under study and achieve the objectives stated above, both primary and secondary sources of data were used. NPA being a major threat to the survival and existence of commercial banks in India, it was necessary to understand in detail the intensity and propensity of NPA on commercial banks for which a primary data analysis was carried out by using the survey tool - questionnaire. A questionnaire was prepared to be responded to by bankers as they are the best judge to evaluate the various facets of NPAs because they are closely involved in lending/advances and its follow-up on a day to day basis. Therefore, for this purpose, primary data was collected from the staff of the banks, with special reference to officers working with State Bank of India(SBI).
The data collected using a structured questionnaire was analyzed using various statistical tools and techniques and packages like Microsoft Excel and SPSS.

The main objective of this analysis was to explore the banker’s perceptions on NPAs and their suggestions to further strengthen the NPA management in the Indian banking sector. The questionnaire was designed with the intention of obtaining information on the following aspects relating to NPAs:

a) Various causes of NPAs and their validation with the details given in review of literature relating to the study. In order to test their significance, Z-test would be employed.

b) Impact of NPAs on banks, particularly on parameters such as profitability, liquidity, loan growth, cost of funds, etc.

c) The effectiveness of various NPA management measures as being employed by bankers in India.

d) The responses of bankers were used to study the significance of various observations on bank’s NPAs, found during the conduct of this research.

In order to have better insight into the problem, data was also collected through various secondary sources, such as RBI Annual reports for different years, existing literature, research papers and articles related to the study. Both descriptive and inferential statistical analysis tools were used. The study aimed to achieve the twin objective of describing the statistics of variables on the one hand and analyzing and drawing inferences on the other. While doing secondary data analysis, an attempt was made to analyse data both across time and across variables separately. Firstly, for analysing data across variables, one-way ANOVA was employed to see if there is any significant difference between various NPA measuring variables amongst different categories of banks over a period of 12 years. In order to analyse data across time, a trend line analysis was carried out to examine the trend of various categories of banks for each NPA measuring variable over a period of 12 years starting from 2002 to 2013. Further, a multivariate regression analysis was carried out to see the impact of macroeconomic
variables i.e. inflation, industrial production and gross domestic production (GDP) on NPAs of various categories of banks.

**Data and its Sources**

Data plays a very important role in the conceptualization and understanding of any subject. The entire present study was based on secondary data and primary data, and enquiry.

**Primary Data:** Primary data was collected directly by interview method and review of concerned banks literature. A questionnaire was prepared to obtain relevant information from professionals in banking sector. The officials were asked about cause of non performing assets and impact of NPA’s on the working of commercial banks. Review of different banks’ literature was a good source of comparison of NPAs in commercial banks. Also this process revealed what the present norms are and what are their policies.

**Secondary Data:** The secondary data was collected from annual reports of RBI, economic survey, economic review, Indian Banking Association Bulletin, district industrial reports, periodicals and by different newspapers like Economic Times, Financial Express, Business Standard, etc.

**Sampling Technique:** A multistage stratified random sampling technique was used to select the block and borrowers.

**Analysis of Data:** Analysis of data is a very important part to get the result of the research. For this purpose, firstly the data collected was tabulated. Secondly, advanced statistical and econometric tools like ANOVA, Multiple regression analysis, Friedman test, Cochran Q test, etc. were used for the purpose of analysis.

**Analytical Tools:** The data, collected from primary as well as secondary sources was analyzed and treated with certain statistical techniques for the interpretation of the facts, these have been discussed below.
(i) **Tabular Analysis**: Tabular analysis can be used to compare the value of non-performing assets in different banks and also used to compare with different years. We can also use tabular analysis to compare between gross NPAs and net NPA's in different banks.

(ii) **Percentage**: We can find out gross NPA & net NPA in percentage, with help of the following formulas:

1. Gross NPAs as % of Gross advances = \( \frac{\text{Gross NPAs}}{\text{Gross Advances}} \times 100 \)

2. Net NPAs as % of Gross advances = \( \frac{\text{Net NPAs}}{\text{Gross Advances}} \times 100 \)

3. Gross NPAs as % of total assets = \( \frac{\text{Gross NPAs}}{\text{Total Assets}} \times 100 \)

4. Net NPAs as % of total assets = \( \frac{\text{Net NPAs}}{\text{Total Assets}} \times 100 \)

### 1.5. Chapter Scheme of the Study

This study is organized in six chapters including this introductory chapter. The remaining chapters are summarized as follows:

**Chapter 2** provides a review of previous studies on various issues of Non-performing assets such as their causes, linkages between nonperforming assets and macroeconomic conditions in Indian and International context, documentation and due diligence used by banks in sanctioning of loan along with a reference to banking sector functioning at Alwar district (Rajasthan). The chapter also contains facts regarding customer profile in banking services in Alwar district which has been obtained through the analysis of questionnaires responded to by customers and bankers in Alwar district. Separate questionnaires were designed to be responded to by bank employees/professionals and customers of Alwar district with the objective of examining the convergence in the services being rendered by bankers and the expectations of customers of Alwar district. The study also holds importance as it clearly indicates that the contribution of customers towards deposits and lending facility of banks is very insignificant when
viewed in the light of total assets and liabilities of banks. The risk of NPAs due to borrowings made from borrowers is negligible as most of the borrowers are individual and not corporate as revealed by the study.

**Chapter 3** describes the historical perspective of Indian banking sector and its proliferation since the beginning of banking system in India. It was realized that despite the existence of banking sector, the objective of equitable and inclusive growth of the country could not be met. Therefore, the step towards nationalization of banks was taken in the year 1969. Before Nationalization, the major Banks in India were either directly or indirectly owned or controlled by big business houses, which were channelizing the deposits of the banks for their own business needs. As a result of this, the role of Banks was limited to extending credit only to big corporate and industrial houses. The credit needs of the common people in essential areas such as agriculture, small scale industries, etc. were ignored. The common people, therefore, continued to remain dependent on local money lenders for their various financial needs. This phenomenon was observed by the then Government and it was felt that the banking sector had failed to play its role and justify its creation as its benefits were largely enjoyed by only few large business and industrial houses and the people living in urban areas. The number of bank branches was not enough to cater to the needs of large sections of population living in rural India. The banking culture also needed to be developed by eluding the risk involved in keeping money in the bank. With these objectives in the background, the then Prime Minister Indira Gandhi announced the Nationalization of 14 major private Banks in July 1969, by an Ordinance, which was later ratified as an Act by Parliament.

The Indian Banking sector has undergone phenomenal changes in the light of financial sector reforms started during the early 1990s. Many banks took innovative approach towards banking with the objective of creating more value for customers. The Reserve Bank of India continued its approach towards providing conducive regulatory framework for the sustainable growth and development of banks with the development of technological and institutional infrastructure. Continuous and constant efforts were
made towards the adoption of International standards keeping in view Indian conditions. This chapter focuses on phases of development of Banking in India, trends and progress of Indian banking, new trends in Indian banking sector and transformation in the Indian Banking system. The chapter also highlights the concept, evolution and problems of Non Performing Assets in Banks.

The trends of bank credit and asset quality across different sectors of banks along with cross country comparisons have also been discussed. The chapter also provides insight to the latest developments in the Indian banking system to meet the global challenges and their preparation in competing with other major banks across the world. All the three BASEL norms have been dealt with in detail with the help of examples and their implementation and impact in India has been discussed. Different types of capital, quantification of risk – credit, market and operating has been explained along with the strategies being followed by banks in mitigating them.

Chapter 4 describes and explains the concept of Non Performing Assets and highlights their trend, causes, management, regulatory framework being employed by banks in recovering NPAs, which includes One Time settlement scheme, Debt recovery tribunals (DRTs), Lok Adalats and SARFASEI Act.

The role of the banking sector has become very challenging in the light of the fast-changing environment nowadays. The need of information technology to keep the banks updated with their customers and also to meet the requirements of customers has become extremely important. In the early stages of computerisation of banking systems, information technology was being used only for back offices. Gradually, with the increase of penetration level of IT in society and availability of technology via internet, mobiles and computers among general public, the use of IT in banking sector needs to be tremendously increased in order to meet the customers’ requirements. Besides offering a number of benefits to banks in the form of increasing customer base, lowering cost of operation and expeditiously completing a job, information technology offers a lot of scope for curtailing problems of non-performing assets. According to one of the news
items published in PTI on Oct 8, 2013, the newly appointed SBI chairman expressed the importance of information technology in overcoming the NPA problem. She expected to fully utilise the available IT resources with the bank in dealing with NPA problems.

The use of information technology in banks has mainly helped them in the following ways:

(i) **Substantial Reduction in Administrative Cost:** The use of computers has enabled the banks in reducing the workforce required for operating their branches. As a result of this, the salary bill as well as space required for operating a branch office has reduced.

(ii) **Increase in Geographical Expansion of Banks:** The linkages of various computer terminals through a common server help in the growth of banking system in almost all areas of country – rural, hilly as well as backward. The financial inclusion programme has further provided momentum to this aspect. The numbers of accountholders have substantially increased over the last two decades.

(iii) **Increase in Business/Entrepreneurship:** The reach of banking services to the masses not only provides the benefit of depositing and withdrawing money but also provides other related banking services. Therefore, the expansion of banking has helped in increasing financial literacy and promoting entrepreneurship. Due to easy transfer of money without any hassle and wastage of time, business transactions have also increased particularly through E-commerce sites.

Keeping in view the above aspects, one can easily estimate that the future of Public Sector Banks would be largely determined by their capability in continuously constructing good quality assets amidst competitive environment and also maintaining capital adequacy and stringent prudential norms during the same course. Technology is also being used for having control on the NPA related problems. Nowadays, many banks are following Early Warning Systems (EWSs) which facilitate in recognizing probable non-performing assets (NPAs). However, the actual procedure being followed varies from bank to bank.
A study conducted by Reserve Bank of India highlighted the major benefits of the information technology for the banking system which includes the following:

a) Generation of Early Warning Signals enable banks to focus on specific accounts where the chances of default are high.

b) Various parameters like preparation of know your client profile, Credit rating system, identification of special mention category accounts, monitoring of early warning signals are considered in this process.

c) The use of technology in managing NPA was considered as a welcome change as it has reduced the human interference and the subjective assessment which has always been under criticism particularly in the banking sector.

d) The software will help in quick identification of defaulting accounts as an NPA thereby eliminating the prerogative of Bank Managers to classify the same. At present, Indian Bank and SBI have started calculating NPA under the technological platform called the Core Banking Solution system. The other PSU banks are also in the process of adopting the same technique and calculating NPAs under the CBS system.

The use of Information exchanges is made using IT to examine the creditworthiness of borrowers. The information in these exchanges is contributed by financial institutions, various business entities, association of bankers, etc. Whenever there is an application from the borrower for loan, bank can assess the credit worthiness of the borrowers using these centers of information.

Chapter 5 presents analysis of primary data collected through questionnaire which was responded by more than fifty executives working in banks. Among the category of respondents, more than 50% were from top level management and the remaining from middle and low level management. The views of these executives regarding reasons for creation of Non Performing Assets and the suggestion to overcome the problems relating to NPAs were sought. Majority of the respondents had experience of 5 to 10 years in banking service. The chapter covers the analysis of demographic profile of the
respondents and examining their views with regard to various causes of NPAs. The various causes identified through literature review are validated and their significance has been assessed using Z-value. The impact of NPAs on banks; profitability, liquidity, loan growth, cost of funds, etc along with the appraisal of the effectiveness of various NPA management measures has also been discussed in this chapter. This chapter also explains the bankers’ views on the best practices to manage NPAs. Various statistical tests to ensure survey reliability and validity have been employed, like Friedman test, Cochran Q test, etc.

NPA appears to be a significant threat to the survival and existence of commercial banks in India. To understand in detail the intensity and propensity of NPAs on commercial banks, a primary data analysis is carried out by using a survey tool - questionnaire. Since the bankers are the best judge to evaluate the various facets of NPAs as they are closely involved in lending/advances and its follow-up on a day to day basis, therefore, for this purpose, primary data has been collected from the staff of the banks, with special reference to officers working with State Bank of India (SBI).

The data collected using a structured questionnaire has been analyzed using various statistical tools and techniques and packages like Microsoft Excel, SPSS.

The main objective of this analysis is to explore the bankers’ perceptions on NPAs and their suggestions to further strengthen the NPA management in the Indian banking sector.

The remainder of the chapter is organised as follows. The chapter is divided into five sections. The first section briefs the analysis of the demographic profile of the respondents. The second section examines the various causes of NPAs. The various causes identified through literature review are validated and their significance is assessed using Z-value. The third section briefs the various impacts of NPAs on banks’ profitability, liquidity, loan growth, cost of funds, etc. The fourth section appraises the effectiveness of various NPA management measures. This section also explains the
bankers’ views on best practices to manage NPAs. The last section verifies the significance of various observations on banks’ NPA recorded during the conduct of this research.

Validity tests of survey instruments aims at mapping the degree with which the survey (or a subset of a survey) is measuring what it intends to be measuring. Validity can be measured using different types of validity checks such as face validity, content validity or construct validity.

Content validity of the current survey was also checked by administering the questionnaire to a set of experts and seeking their advice regarding measurement intensity of the questions. On expert opinion, the questionnaire was reframed and re-structured. The analysis points towards the need to incorporate more and more proactive measures for managing and controlling NPAs. No doubt, the regulatory authorities have introduced significant measures in the post-millennium period but still lot needs is to be done to have favorable results.

Chapter 6 focuses on the secondary data obtained through various RBI annual reports. Various descriptive and inferential statistical techniques and econometric tests were employed to draw meaningful conclusions regarding the trend of NPAs for the period 2002 to 2013 of Public Sector banks, Scheduled Commercial banks, Old Private Sector banks and New Private Sector banks. While doing secondary data analysis, an attempt was made to analyse data both across time and across variables, separately. Firstly, for analyzing data across variables, one - way ANOVA were used to see if there was any significant difference between various NPA measuring variables amongst different categories of banks over a period of 12 years. Secondly, for analysing the data across time, a trend line analysis has been carried out to see the trend of various categories of banks for each NPA measuring variable over a period of 12 years starting from 2002 to 2013. Finally, a multivariate regression analysis was carried out to see the impact of macroeconomic variables, i.e. inflation, industrial production and gross domestic production (GDP) on NPAs of various categories of banks.
For the purpose of inferring on the basis of ANOVA, the following chronological steps were taken:

1. Checking assumptions - The very first thing to do is to check whether data satisfies the underlying assumptions of ANOVA analysis. There are two assumptions:
   i. Assumption of normality - For ANOVA analysis, it is presumed that the distribution is normal. Normality of data in the current study has been checked using K-S test.
   ii. Assumption of homogeneity of variances - This assumption is checked using Levene's test.

2. Data analysis - Once the data satisfies both the assumptions, the analysis is carried out using one-way ANOVA. The p-value will reveal if there is any difference between the mean NPA indicators of the 4 categories of the banks.

3. If there is no significant difference then the analysis ends there was no significant inference can be drawn. But if there is a significant difference then further digging into information is done using:
   i. Post-hoc analysis tells us that where the difference is and which all categories of banks significantly differ from each other vis-a-vis NPA indicators.
   ii. Mean plot - Mean plot graph will reveal the category of bank is significantly higher or lower than other categories of banks with respect to each individual NPA indicator.

Drawing inference - finally, inferences can be drawn for the population and suggestions may be made.

Chapter 7 summarizes the research findings, limitations and presents recommendations for further research.

1.6. Limitations of the Study

The researcher is very much aware of the following limitations of the study:

a) The researcher has contacted bankers of Alwar, Delhi, Noida and Greater Noida to collect information through questionnaire with a majority of them from State Bank of India, thus, the conclusion of primary study may not necessarily be the representative of the entire population.
b) The study has focussed on NPA issues of Commercial banks and Private Sector banks. As a result of this, the problem of NPAs and their management in case of Cooperative Banks could not to be covered.

c) The reliability of the information could not be fully ensured as the researcher has collected some of the information through mailed questionnaires, which lacks in personal contact and its available benefits.

d) The exact procedure of granting loan and its recovery process varies from one bank to another. Since many issues related to this aspect are considered confidential by banks, the information provided during the course of interaction with the bankers is available in secondary sources.

e) The researcher has also faced the problem of specific cases of non performing assets from the bank records.