Chapter-II

OBJECTIVES AND METHODOLOGY

This chapter is divided into two sections. In Section-A, need for the study, the hypotheses, specific objectives, methodology and database, tools of analysis, limitations inherent, concepts and terms used, and the chapter layout of the study are presented. In Section-B, a comprehensive review of literature is presented.

Section-A

NEED FOR THE STUDY

Banks have become an indispensable part of our economic system. The banking institution today forms the heart of the financial structure of the country. Indian banking has made a significant progress after nationalisation especially in three aspects viz., branch expansion, deposit mobilisation and loan maximisation. Among these, monitoring of loans took a back seat in an era of mass banking and social banking. In the changing scenario of the banking, Non-Performing Assets (NPAs/NPA) have been the most vexing problem faced by the banks. The Reserve Bank of India (RBI) and Government of India (GoI) have initiated various measures to curb NPA in the post-financial sector reforms. But PSBs are still unable to solve the problem. In the liberalised scenario, the continuation of the NPAs is a menace for the survival of the banks. Over a decade of implementation of financial sector reforms and prudential norms, there is a need for a systematic analysis of NPAs. In this context, this study is an investigation of the trends in NPAs, bank group-wise, sector-wise composition of NPAs, asset quality diagnosis, socio-economic conditions of borrowers and causes of NPAs from the borrowers’ perception.
The importance of this kind of study, which focuses its attention on the commercial banks in the country in general and the premier public sector banks, i.e., SBI need not be over emphasised. A study of this nature is essential at present when banks are facing various challenges in the face of far reaching reforms in the changing environment. The study seeks to offer specific suggestions to resolve the problems faced by commercial banks, which are highlighted in the present study so as to improve their performance in the country.

The study has a greater relevance and significance in the present context of financial sector reforms as earlier studies were not focussed on micro perspective of the macro level problem of NPAs in Banks.

**HYPOTHESES**

It is hypothesised that

(i) Socio-economic factors have significant influence on the amount paid by the borrowers.

(ii) There is significant difference in the response of respondents related to reasons for non-existence of Unit.

(iii) Financial constraints or non-financial constraints have significant influence on the existence of the unit.

(iv) There is significant difference in the response on reasons for failure of repaying the loan.

(v) The incidence of NPAs is due to the failure of borrowers or the policy deficiency of the banks and regulatory bodies.
OBJECTIVES OF THE STUDY

The major objective of this study is to examine and evaluate the performance of the scheduled commercial banks in India with reference to the problem of non-performing assets both at the All India level and the study at bank level.

The specific objectives of this study are enlisted as shown below:

a) to analyse the trends of NPAs related to scheduled commercial banks in India;

b) to assess the trends in the magnitude of non-performing assets and provisioning of asset quality in SBI in Krishna district;

c) to examine the socio-economic conditions of defaulting borrowers in the study area with a view to understand their correlation to the magnitude of the NPA menace;

d) to identify the factors responsible for NPAs in SBI Krishna district by analysing the perceptions of the defaulting borrowers;

e) to offer suggestions for policy issues in dealing with the problem of NPAs.

SCOPE OF THE STUDY

As far as the geographical coverage of the study is concerned, it is confined only to SBI bank branches of Krishna District, Andhra Pradesh. No study of this sort has been conducted so far in the district for a case study. The rationale behind selecting Krishna District in Andhra Pradesh for a focus study is that the district is of representative nature to the total state of Andhra Pradesh. The district is predominantly agriculture, prominently industrial and significantly commercial with buzzing trade and commerce. Though a very traditional and old district, Krishna District is one of the most prominent and centrally located districts of Andhra Pradesh.
Krishna District, besides agriculture, horticulture, sericulture, is the hub of small, medium and large scale industries and business units in addition to the location of agri export zone, food processing units and service sector enterprises. Thus the district represents the cross section of the state of Andhra Pradesh in various dimensions.

**SAMPLE SIZE**

A sample of 223 defaulters of Small Business Borrowing units has been taken for the study. A simple random sampling technique has been employed in selecting branches based on the strength of the units and even in selecting the units for the study. The information regarding the number of branches and selected units is presented population centre-wise. It is as follows:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of SBI Branch</th>
<th>Defaulters</th>
<th>Defaulter Respondents</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Urban Branches:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Gudivada</td>
<td>78</td>
<td>44</td>
<td>19.6</td>
</tr>
<tr>
<td>2</td>
<td>Machilipatnam</td>
<td>49</td>
<td>36</td>
<td>16.2</td>
</tr>
<tr>
<td>3</td>
<td>Vijayawada S.N. Puram</td>
<td>41</td>
<td>25</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td><strong>Semi-Urban Branches:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Gannavaram</td>
<td>52</td>
<td>34</td>
<td>15.2</td>
</tr>
<tr>
<td>2</td>
<td>Vuyyur</td>
<td>41</td>
<td>30</td>
<td>13.5</td>
</tr>
<tr>
<td>3</td>
<td>Nuzvid</td>
<td>36</td>
<td>24</td>
<td>10.8</td>
</tr>
<tr>
<td></td>
<td><strong>Rural Branches:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Gosaveedu</td>
<td>16</td>
<td>11</td>
<td>4.9</td>
</tr>
<tr>
<td>2</td>
<td>Hanuman Junction</td>
<td>14</td>
<td>11</td>
<td>4.9</td>
</tr>
<tr>
<td>3</td>
<td>Gampalagudem</td>
<td>11</td>
<td>8</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>338</td>
<td>223(65.97%)</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The sample size of 223 default borrowers is a convenient sample and the size of the sample is absolutely representative of the total number of reported default borrowers (338) among the chosen nine branches of the SBI for the study. The sample of 223 default borrower respondents constitute a sizeable 65.97 per cent of the total default borrowers of 338.

The survey of the borrowers is a personal interactive survey by the researcher and his trained representatives. The response rate is cent percent. Therefore, the issue of assessing the non response bias doesn’t arise.

To focus on the perceptions, to perceive the constraints and to throw light on the critical aspects in processing the loan applications and in collecting the loan payments. A schedule is also canvassed among the key banking personnel concerned with the sanctioning and recovery of the loans. For this purpose, a representative sample of 42 out of the 71 (59.15%) bank officials concerned have been randomly chosen with due representation of different categories of branches-urban, semi-urban and rural. A structured questionnaire is canvassed among the select sample of bank officials for eliciting their perceptions.

**STUDY PERIOD**

The secondary data pertaining to the trends of NPAs of all the scheduled commercial banks at the All India level and SBI at district level have been collected for a period of ten years from 1998 to 2007 for the purpose of analysis. The questionnaire among the defaulting borrowers has been canvassed and their perceptions have been elicited during 2007 about the NPAs pertaining to the period from 2003 to 2006.
SOURCES OF DATA

The database for the study are both primary and secondary. An elaborate questionnaire was designed, campaigned and responded by the defaulting borrowers which form the main source of primary data for this study. In addition, detailed committee reports of some banking experts, the Annual Reports of SBI in Krishna district for ten year period chosen, formed a major source for secondary data. Besides, the general information pertaining to the working of public sector banks, survey reports, Reserve Bank of India Bulletins, Annual Reports of State Bank of India, various special issues of Indian Banks Association (IBA) Bulletins, the journals of Indian Institute of Bankers (IIB), The Banker, Indian Banking Today and Tomorrow, Prajnan, SBI Monthly Reviews, PNB Monthly Reviews, RBI publications, Canara Bank Quarterly Journals, The Indian Journal of Commerce, NIBM publications etc., and from daily newspapers like Financial Express, The Hindu, The Economic Times, Business Standard and Business Line, etc.

The secondary data is also collected by visiting the libraries of R.B.I. Regional Office, Hyderabad; National Institute of Bank Management (NIBM), Pune; State Bank of India Staff College, Hyderabad; Centre for Economic and Social Studies (CESS), Hyderabad and some University Libraries in India. In addition to these, secondary data have drawn from unloading the website of RBI, SBI etc. Besides them, the views of banking authorities, experts, academicians, borrowers etc., have also been taken into consideration.
METHODOLOGY

During 2006-07, a total of 71 S.B.I. bank branches are existing in Krishna district. A sample of nine branches (i.e., 12.68%) representing three branches each from rural, semi-urban and urban centres have been chosen for the case study.

TOOLS OF ANALYSIS

For the purpose of analysis and to facilitate interpretation statistical tools like percentages, averages, compound annual growth rates, coefficient of Variance and Pearson Coefficient of Correlation are used.

Factor analysis, Multiple Regression Analysis and Chi Square test are used for testing the hypothesis on SPSS for Windows Version 11.0 are used for the purpose of extensive analysis. The formulae used for calculation of different statistical tools and measures are shown below:

(i) Simple Growth Rate: It merely gives the per cent increase over the previous year i.e.

\[ g = \left\{ \frac{K_i - K_{t-1}}{K_{t-1}} \right\} \times 100 \]

\( g = \) Growth Rate,

\( K_i, K_{t-1} \) are the values of variables, and

\( K \) in year’s t and t-1 respectively

ii) Compound Growth Rate: It works out change for a given period on the basis of the base year and the end year values, i.e,
\[ g = \left[ \frac{K_1}{K_0} \right]^{1/t} - 1 \times 100 \]

Where \( K_1 \) and \( K_0 \) represents the values of variables at the end and basic year respectively,

't' is the time period between the base year and end year, and

'g' represents the compound growth rate.

iii) **Mean (\( \bar{X} \)):** The mean value is obtained by adding together all the items and by dividing this total by the number of items.

\[ \bar{X} = \frac{X_1 + X_2 + X_3 + \cdots + X_N}{N} \]

Where,

\( \bar{X} \) = Arithmetic value

\( \sum X \) = Sum of all the variables

\( N \) = Number of variables

iv) **Standard deviation:** Standard deviation measures the absolute dispersion. A small standard deviation means a high degree of uniformity of the observations as well as homogeneity of series, a large standard deviation means just the opposite. It may be calculated as follows:

\[ \sigma = \sqrt{\frac{\sum x^2}{N}} \quad x = (X - \bar{X}) \]

v) **Co-Efficient of variation (C.V):** Co-efficient of variation is a situation where we want to compare the variability of two or more than two series. A high variation indicates less consistency and less variation indicates more uniformity.
\[ C \cdot V. = \frac{\sigma}{\sqrt{\overline{X}}} \times 100 \]

\( \sigma \) = Standard Deviations of the Variables

\( \overline{X} \) = Mean Value of Variables

vi) Co-Efficient of Correlation: It is a statistical device, which helps us in analyzing the co-variation between two or more series of variables. The co-efficient of correlation is denoted by the symbol 'r', The formula for computing 'r' which was practiced by *Karl Pearson* is:

\[
r = \frac{\sum xy}{N \sigma_x \sigma_y} \quad \text{where } x = (X - \overline{X}) \quad y = (Y - \overline{Y})
\]

\( \sigma_x \) = Standard Deviation of Series X

\( \sigma_y \) = Standard Deviation of Series Y

N = Number pairs or observations

r = The Correlation Co-efficiently.

The value of correlation co-efficient, which is obtained by the above formula, shall always lie between ±1, If \( r=+1 \) it means there is a perfect positive correlation between the variables. When \( r = -1 \), there is a perfect negative correlation between the variables. When \( r = 0 \) it means there is no relationship between the two variables.
**t-test of a correlation co-efficient:** It is assumed that the two series of variables originate from a bivariate normal distribution, and that the relationship is linear. To test the null hypothesis that the population value of 'r' is zero, the test statistic

\[ t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n-2} \]

is calculated and this follows students’ t-distribution with (n-2) degrees of freedom. The test will normally be two-tailed but in certain cases would be one tailed.

**vii) Factor analysis:** Factor analysis was applied to identify the underlying variables or factors that explain the pattern of correlations within set of observed variables. It is also often used in data reduction and grouping the original input variables into factors which underlie the input variables. Each factor will account for one or more input variables. The total number of factors in the study can be reduced by dropping the insignificant factors based on certain criterion. The criterion for extracting the factors was Eigen value of over 1.

**viii) Chi Square Test:** Chi Square is a test of agreement (or conformity or consistency) between a hypothetical and a sample distribution.

\[ \chi^2 = \sum_{i=1}^{k} \left( \frac{O_i - E_i}{E_i} \right)^2 \]

\[ \chi^2 = \text{Chi Square} \]

\[ O_i = \text{Observed frequency in the } i^{th} \text{ category.} \]

\[ E_i = \text{Expected frequency in the } i^{th} \text{ category.} \]
ix) **Multiple Regression Analysis:** It is a technique of analyzing the data, which simultaneously investigate the effect of two or more independent variables on a dependent variable.

The multiple regression takes the form of

\[ Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + \ldots + b_k X_k \]

Where \( Y \) is the dependent variable, which is to be predicted; \( X_1, X_2, X_3, X_4, \ldots, X_k \) are the K known variables on which the predictions are to be based and \( a, b_1, b_2, b_3, b_4, \ldots, b_k \) are parameters, the values of which are to be determined by the method of least squares.

The coefficient of multiple determination (\( R^2 \)) for the multiple regression can be calculated by the following formula.

\[
R^2 = 1 - \frac{\sum_{i} (Y_i - \hat{Y})^2}{\sum_{i} (Y_i - \bar{Y})^2}
\]

Where \( R^2 \) is coefficient of determination

\( Y_i = \) Value of \( i^{th} \) item in \( Y \) series.

\( \bar{Y} = \) mean of the \( Y \) series.

\( \hat{Y} = \) Computed value of \( i^{th} \) item in \( Y \) series on the basis of regression.

To overcome the problem of tedious calculations involved in multiple regression analysis, computers which support Statistical Packages such as SPSS, Statistica, Stat soft etc are generally used. The use of computers facilitate enormously as several independent variables can be handled. We can ascertain whether adding another independent variable
will improve results or not. We can see the magnitude of $R^2$, which indicates what proportion of the variation in the dependent variable is explained by the independent variables.

**xi) Correspondence analysis:** Correspondence analysis is a statistical visualisation method for picturing the associations between the levels of a two-way contingency table. In a two-way contingency table, the observed association of two traits is summarised by the cell frequencies, and a typical inferential aspect is the study of whether certain levels of one characteristic are associated with some levels of another. Correspondence analysis is a geometric technique for displaying the rows and columns of a two-way contingency table as points in a low-dimensional space, such that the positions of the row and column points are consistent with their associations in the table.

**Algorithm**

Let $X$ be an $(n \times m)$ matrix of observed frequencies of rank $q$ such that the row and column sums are nonzero. Let $1$ be a row vector of ones and $I$ be an identity matrix, each of appropriate order. Denote a matrix-valued function that creates a diagonal matrix from a vector by $\text{diag}()$.

**Define**

i. as the sum of all elements in $X$;
ii. as the matrix of relative frequencies (the correspondence matrix);
iii. as the vector of row marginal proportions (row masses);
iv. as the vector of column marginal proportions (column masses);
v. a diagonal matrix of row masses; and
vi. a diagonal matrix of column masses
The generalised singular value decomposition (abbreviated SVD) of $P$ provides the required solution to the point coordinates of correspondence analysis:

$$P = AD_u B^1$$

Where

i. is an $(n \times q)$ matrix whose columns are the left generalised singular vectors;

ii. is a $(q \times q)$ diagonal matrix of generalised singular values;

iii. is an $(m \times q)$ matrix whose columns are the right generalised singular vectors; and

where

iv. $A^1 D^{-1}_r A = B^1 D^{-1}_c B = 1$

**LIMITATIONS OF THE STUDY**

This study is both secondary data based and also empirical in nature. It is for this reason, data are pooled both from the recorded sources and from the views and impressions of the borrowers. Studies of this nature, shall be reasonable and justifiable mostly when the inferences or observations are cross checked with the proper counterparts. Keeping such established rationalities of research in view the following limitations are identified for this study.

(a) Due to paucity of time and financial resources, the perceptions expressed by the defaulter-borrowers were not cross checked with the financing bankers.

(b) Only SBI is taken for the case study. No control Bank is chosen for the study to cross check the realities pertaining to the NPAs on comparative basis.
(c) For the purpose of the study only nine of the seventy one branches have been randomly chosen and the perception of the customers/default borrowers of these branches may be insufficient to be a representative sample.

CONCEPTS AND TERMS USED

Non-Performing Assets

An asset, becomes non-performing when it ceases to generate income for the bank. A Non-Performing Asset (NPA) is defined as a credit facility in respect of which the interest and/or instalment of principal amount has remained ‘overdue/out of order’ for a specific period of time.

Performing Assets

It is also called as standard assets. Assets which do not disclose any problems and which do not carry more than normal risk attached to the business.

Standard Assets

A standard asset is one, which does not disclose any problem and which does not carry more than normal risks attached to the business. Such an asset is not a NPA.

Sub-Standard Assets

An asset is classified as sub-standard when it remains an NPA for a period less than or equal to 12 months (with effect from 31st March 2005).

Doubtful Assets

An asset is classified as doubtful if it remains an NPA for more than 12 months (with effect from 31st March 2005).
Loss Assets

An asset is classified as loss asset where the value of security available is less than 10 per cent of the outstandings.

Gross Non-Performing Assets

Gross NPA is the amount of NPAs including their provision. The Narasimham Committee recommended reduction of gross NPA to 5 per cent by 2000 and 3 per cent by 2002. The gross NPA amount of public sector banks has been increasing over the years. The increase in Gross NPAs has direct relation to the behaviour of the economy as a whole.

Net Non-Performing Assets

Net NPA can be arrived at by deducting provisions held towards NPAs. Balance in interest syspac, part payments received in suit-filed accounts and kept in Sy. Susp and claims re claims received from GGC and kept in sy. susp account from gross NPA.

Up-gradation

Up-gradation means, the account in which recovery of a part amount will drive an account out of NPA to the status of performing and standard. Among the available four methods for reduction of NPA, the up-gradation method shall be preferred as the account continues to be the part of advance portfolios.

Provisioning

Provision should be made on the non-performing assets on the basis of classification of assets into prescribed categories. Taking into account, the time lag
between an account becoming doubtful of recovery, its recognition as such, the realisation of the security and the erosion over time in the value of security charged to the bank, the banks should make provision against sub-standard assets, doubtful assets and loss assets.

**Write-off**

It is the last resort for the bank for reduction of NPAs. After write-off, the accounts will not reflect in the books of the bank but the bank will continue to have its rights of recovery. Monitoring and follow-up of write-off accounts should not be neglected.

**Credit-Deposit Ratio (C.D. Ratio)**

The Credit-Deposit Ratio (C.D. Ratio) is an important index for analysing the role of banks in promoting productive sectors and contributing to economic growth of the country. In the bank-based financial system, the C.D. ratio assumes greater significance as an aggressive measure for gauging the effectiveness of delivery system. Higher C-D ratio implies greater credit orientation of banks.

**Priority Sector Lending**

One of the major objectives of the nationalisation of banks was to direct large volumes of credit flows on the banking sector into the priority sector comprising agriculture, small-scale industries, small traders, artisans, self-employed persons and similar other weaker sectors of society.
Small Business Finance Units (Direct and Indirect Finance)

Direct finance of small enterprises shall include all loans given to micro and small enterprises, engaged in both manufacturing (production, processing or preservation of goods) and service activities and whose investment in plant and machinery and equipment does not exceed the specified amounts. The micro and small (service) enterprises will include small road and water transport operators, small business firms, professional and self-employed persons and other Government sponsored schemes.

Indirect finance to small enterprises shall include finance to any person providing inputs to or marketing the output of artisans, village and cottage industries, handlooms and to cooperatives of producers in this sector. Later, it was incorporated in Small and Medium Enterprises (SME) category.

Private Sector Banks

Indian banking under the liberalisation process has recognised the significance of private sector banks in the market economy. The Banking Regulation (Amendment) Act, 1994 was passed to permit private sector to enter banking field. Accordingly, the RBI gave licence to 9 private banks to start their operations towards the end of April 1994.

Foreign Banks in India

The Narasimham Committee recommended that foreign banks be allowed to open offices in India either as branches or where the RBI considers it appropriate, as subsidiaries. However, they should be subjected to the same requirements as applicable to domestic banks.
CHAPTER LAYOUT

The study is presented in Seven chapters. Chapter one is Introduction which raises the curtain for the study with a focus on the Commercial Banks and their operating scenario and the changing policy framework and challenges in the reform regime.

Chapter two is Objectives and Methodology which articulates the Objectives, Hypotheses, Review of Literature, Database and Methodology and the chapter layout.

Chapter three presents a trend analysis of NPAs in scheduled commercial banks in India.

Chapter four enquires into the magnitude of NPAs and the associated provisioning for NPAs in SBI of Krishna district. As a backdrop to the study and for a better comprehension, the profile of the Krishna district and also the State Bank of India is also presented.

Chapter five is the primary data based and presents an analysis of the socio-economic conditions of the NPA stimulants i.e., defaulting borrowers.

Chapter six consists of two sections – A and B. Section-A is a perceptional analysis of borrowers in the direction of unearthing the causes of NPAs. And Section-B provides an analysis of the Bankers’ reflections.

Chapter seven, the last chapter, is Findings, Conclusions and Suggestions.
A brief review of the literature on the Non-Performing Assets is presented with a view to ascertain the coverage of issues related to the research problem, and thereby to identify the gaps in the area of research the need for the present study. The literature surveyed here include the research studies, enquiry reports, articles, and proceedings of the seminars. This literature has proved to be of immense value in understanding the problem of Non-Performing Assets, its consequences and the preventive strategies for reduction of NPAs. A bird’s eye-view of the existing literature absolutely reveals that a study parallel to the present study of the research is a rare phenomenon and an up to date one.

A brief sketch of the review of the literature on this specific topic is presented.

Joseph F. Sinkey¹ says, “Transformations of bank’s liabilities and equally into assets can be viewed as a production process. The quality of these assets determines the viability of the system.” In the recent past, the quality of advances has been deteriorating for which unprecedented rise in non-performing advances is an evidence.

Tandon Committee (1973)² underlined the need for proper qualitywise grading of advance portfolio. Income recognition as a criterion was not thought of. The committee recommended slotting of borrowed accounts into four bands as (a) excellent (b) good (c) average and (d) unsatisfactory / bad and doubtful.

The Securities and Exchange Commission (1977)\(^3\) of the United States defined non-performing loans as “Loans which are contractually past due for 60 days or more as to interest or principal payments, and loans, the term of which has been renegotiated to provide a reduction of deferral of interest of principal. . .”

Chore Committee (1980)\(^4\) which also recognised the need for close watch on the quality of the loans portfolio, and this concern is reflected in its emphasis on regular annual review of all borrower accounts with credit limits of over Rs.10 lakhs. Pendharkar Committee’s (1981)\(^5\) recommendations were implemented in 1984, which recognised the need for classifying advances into different categories to index the overall quality of the assets portfolio. This was the starting point for the introduction of the health coding system of categorising bank loan portfolio by the Reserve Bank of India (RBI) in 1985. This eight band concept of health coding of advances accounts from health code 1 to 8 was followed in 1989 by a circular\(^6\) form the RBI to banks, specifying the need to define the practice of changing the interest on loans and advances by banks on new prudential criteria in line with international practices by ceasing to charge interest on non-performing advances. Accordingly, banks were advised to refrain from charging interest on borrowed accounts falling in health codes 6 to 8 (Suit filed; decreed, bad and doubtful and loss accounts) but to continue charging interest on accounts in health codes 4 and 5 accounts of 4 selective basis.

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\(^5\) “Pendharkar Committee Report”, RBI, 1981.

\(^6\) Reserve Bank of India’s Circular DBOD No. BP/BC/13/C-469(W)/89, dated 26-05-1989.
This was modified subsequently, from the accounting year 1990-91 stipulating that banks should not charge interest on accounts in health code 5, but charge interest on selective basis in accounts falling under health code 4 depending on the availability of security and the perception of banks about the individual accounts. In sum, a system of transparency and prudential norms was prevalent even prior to 1992-93, specifying non-recognition of interest income in accounts which had crossed the sickness stage to the recalled category upto bad and doubtful category. For the band of accounts which had crossed the satisfactory (Health Code 1) into different levels of irregularity and sickness, the criteria were found to be subjective. To elaborate, interest was charged though not recovered, whereas provisioning also was based on bank’s perception about security and prospects of recovery, even after recalling the advances. The health code system, therefore, had non-performance hidden in its layers.

The Narasimham Committee had studied the problems faced by banks in India in a detailed and practical manner and its recommendations were more or less an organic package. It was desired by the committee that for the success of the proposed reforms, a proper sequencing is essential like success in controlling fiscal deficit for successful deregulation of interest rates. For the problem with banks, asset reconstruction was a key ingredient of the package along with instituting capital adequacy, establishing prudential norms, with a good supervisory machinery, to be implemented in a properly sequenced and phased manner over the next three to four years. Of these, except for the proposal for setting up an Asset Reconstruction Fund (ARF), the other recommendations had already been proposed by some committee or the other.
Tiwari Committee (1983)\(^7\) made the proposal for setting up Special Recovery Tribunals. More than a year before the Narsimham Committee submitted its recommendations, the Governor, RBI had called for setting up of Special Tribunals to settle large claims of commercial banks. He also added that these tribunals should settle the claims in six months to one year as against eight to ten years taken by courts.\(^8\) The special tribunals are yet to be operationalised while the recommendation for Asset Reconstruction Fund has been given. M. Narasimham himself made the following observations in this regard:

“However, the reform of accounting practices and introduction of prudential norms and provisioning would have a much greater impact and effectiveness, if the books of the banks were cleaned up before this exercise was undertaken. This was the rationale for committee’s recommendation with respect to an Asset Reconstruction Fund (ARF) but, unfortunately, there has been no movement in this direction. The RBI has made out some arguments against ARF which to our mind are not convincing. The proposal for setting up of ARF together with the recommendation of setting up Special Recovery Tribunals (which recommendation, one is happy to see, has been accepted) was meant to wipe the slate clean and then put the onus on bank managements for conducting the affairs of the banks in the manner calculated to enhance the efficiency, productivity and in the final analysis, profitability, it is a matter of regret that the ARF proposal has not been accepted.”\(^9\)

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\(^7\) Committee to examine the legal and other difficulties forced by Banks and Financial Institutions in rehabilitation of sick units and find out measures including changes in law, the RBI, 1983.


Wadhwa (1982)\textsuperscript{10} study examined the future trends and problems in lending to priority sectors. He made suggestions in reducing the unhealthy trend of raising over-dues.

Gupta’s study (1983)\textsuperscript{11} on a sample of Indian companies financed by ICICI concludes that certain cash flows coverage ratios are better indicators of corporate sickness.

Mallya (1984)\textsuperscript{12} conducted a study on “Recovery of Bank Advances”. The study observed that the existing system of recovery, reasons for low recovery and offered suggestions for improvement.

Satya Sundaram (1984)\textsuperscript{13} analysed the causes for the falling profitability of the banks and stressed the need for recovery of loans and suggested rebate in interest to be offered for prompt payment to induce people to be regular.

Had the proposal for ARF been accepted, the problem of NPA management would have acquired an entirely different character. The discussion paper for Finance Minister’s meeting with Chief Executives of Public Sector Banks and Trade Unions prepared by the Ministry of Finance held out the contrary view that the banks which originated the credit should retain the responsibility for such recovery.\textsuperscript{14} While

recognising at the same time that, “there is no easy solution to the problem of enhancing recovery on existing bad advances.”

Rangarajan, C. Governor, RBI in a paper presented by him in January 1991 stated that “It is the responsibility of banking institutions to maintain the quality of their credit portfolio. Directed credit, per se, does not lead to non-performing assets; banks have a choice of borrowers. There is evidence to show that the proportion of non-performing assets among banks . . . can be effectively used in monitoring accounts and improving the overall quality of loan assets.”

Ramachandra Rao (1993) described the prudential norms for income recognition, asset classification, provisioning and accounting standards for investment, which made banks helpless and left them with no option but to reveal the actual financial position to be transparent to the public.

Gangadharan (1994) has studied variations in selected items of commercial banks. He says scheduled commercial banks have an impressive record in deposit mobilisation but failed to boost their advances portfolio for the year 1993-94. The scale of advances to commercial sector has been inadequate, as the banks have adopted a cautious policy with regard to lending operation due to stricter provisioning and capital adequacy norms.

15 Ibid., p. 19.
Varma (1994)\textsuperscript{19} in his study on corporate credit of State Bank of Bikaner and Jaipur has analysed the performance of scheduled commercial banks for a period of ten years during 1982-92. He has taken various parameters for measuring the performances like deposits, advances, investments, working funds, income, expenditure, profits, business per branch/office, business per employee, return on advances, return on working funds, market share etc.

Toor (1994)\textsuperscript{20} stated that recovery of non-performing assets through the process of compromise by direct talks rather than by the lengthy and costly procedure of litigation. He suggested that by constant monitoring, it is possible to detect, the sticky accounts, the incipient sickness of the unit in the early stages itself and an attempt could be made to review the unit but it went back on the road to recovery.

Shinde and Kaveri (1994)\textsuperscript{21} have studied about Non-Performing Assets and outlined a brief outcome of the programme conducted on “Management of Non-Performing Advances”, by National Institute of Bank Management. The outcome was to prevent any advance becoming non-performing assets and further suggested that it is necessary to identify early warning signals and take timely follow-up measures. Apart from legal remedies, the non-legal remedies include compromise proposals, role of BIFR in respect of Non-Performing Assets, encouraging mergers and acquisitions, debt


discounting exchange of debt for debt or swapping of debts, discounting of decrease, write off of loans, use of the state government machinery etc.

It is worth-mentioning, however, that the RBI came out with a series of clarifications on a number of issues, and further revisions of earlier clarifications. To list a few:

(a) After creating a new category of loans with outstanding balance below Rs.25,000 as per recommendations of the Tarapore working group, retargeted vide RBI DBOD circular dated December 17, 1992, further relaxations in provisioning norms vide circular dated March 23, 1993 were given, allowing 30 per cent of requisite provisions as on March 31, 1993 and balance 70 per cent in the year ending March 31, 1994.

(b) Clarification on provisioning loans backed by government guarantees.

(c) Initial modifications of the recommendations of the Narsimham Committee by allowing a grace period of 30 days for considering an account as past due and later restoring the same vide DBOD circular dated 17 December, 1992.

(d) Different clarifications on provisioning norms for loans backed by ECGC/DICGC guarantees.

(e) Clarification on seasonal approach in agricultural advances and for following the leader’s classification in consortium accounts.

(f) Clarification on loans backed by security of NSCs, LIC Policies, etc.

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K. Satyanarayana\textsuperscript{23} has suggested that, despite all the hiccups, income recognition and provisioning are absolutely essential steps for Indian banking system though delayed for long by the RBI. The RBI perhaps is trying to compensate the delay by pushing it in haste.

Bhaskara Rao (1992)\textsuperscript{24} has attempted to define a non-performing asset as ‘an asset which does not directly contribute to a bank’s profitability’. Following are some of the non-performing assets in banks:

(i) Excess holding of cash balances;
(ii) Mounting overdues and sticky loans;
(iii) Bad and doubtful debts, and
(iv) Deteriorating productivity of employees

He further states that non-performing assets are essentially loans and advances, interest on which is doubtful to be realised. While banks have always had ‘bad loans’ or ‘problem loans’ on the other, the concept of non-performing assets in its present form gained currency with the default of sovereign loans made by Western banks to Latin American nations. In his ‘Dictionary of Finance’ Fitan A.A. Aveneyou (1988)\textsuperscript{25} described non-performing assets as “... loans for which no interest is paid for a specific period . . . often ones made to foreign countries.”

More than two years later, in a speech delivered on 18 October, 1993, Rangarajan C.\textsuperscript{26} categorically stated: “As regards NPAs, so long as these sterile assets remain on the

\textsuperscript{23} Satyanarayana, K. “Income Recognition and Provisioning in Banks, Hasty, Essential and Delayed step” \textit{Banking and Finance}, November 1993, pp. 3-6.
\textsuperscript{26}Rangarajan, C. \textit{op. cit.}, 1991, p. 756.
books, it will be difficult for banks to raise their profitability to the desired level. The drawback of a centralised nationwide Asset Reconstruction Fund (ARF) in the Indian environment is the lack of geographic reach for a new institution to a large country, such as India, as well as concerns that releasing commercial banks from their recovery obligations would weaken them. This could also encourage such accounts themselves going sick. In addition, there is the issue of how to finance the capital shortfall, created by cutting down an even greater part of the assets portfolio than is required by the minimum provisioning requirements. No single solution can resolve the problem of NPAs. We have opted to go in for a decentralised approach, under which work-out units are created in each bank. Individual banks will have to take a range of initiatives taking into account the circumstances specific to them.”

The imperatives for banks in tackling the problem will, therefore, have to be: (a) removal of as many bottlenecks as is practically possible to improve recoveries, (b) importance of credit appraisal and administration, specially monitoring to cover existing as well as fresh borrowed accounts.

In a study of loan losses of US banks, McGoven (1993) argued that ‘character’ has historically been a paramount factor of credit and a major determinant in the decision to lend money. Banks have suffered loan losses through relaxed lending standards, unguaranteed credits, the influence of the 1980s culture, and the borrowers’ perceptions. It was suggested that bankers should make a fairly accurate personality-morale profile

assessment of prospective and current borrowers and guarantors. Besides considering personal interaction, the banker should:

(i) try to draw some conclusions about staff morale and loyalty.
(ii) study the person’s personal credit report,
(iii) do trade-credit reference checking,
(iv) check references from present and former bankers, and
(v) determine how the borrower handles stress. In addition, banks can minimise risks by securing the borrower’s guarantee, using Government guaranteed loan programs, and requiring conservative loan-to-value ratios.

**Dimensions of the Problem**

The Banker, London, had reported that the proportion of problem loans of the Indian banking system was 10 per cent, ranging from 3.8 per cent in Punjab National Bank, between 12 per cent and 15 per cent in State Bank of India. Estimates have varied widely as to the extent of non-performing assets in the portfolio of banks in India.”

Bhagwat, T.T.K., the former Chairman and Managing Director, Bank of Maharashtra stated, “One may not be very much off the mark in estimating the non-performing assets of commercial banks at 30 per cent of overdues / stickly loans or about 5 per cent of the total outstanding advances. In absolute terms, this dimension could be about Rs.5,000 crores. The estimate as on 31st March 1992 (Domestic) for the public sector banks covering health codes from 4 to 8 was reported as under:30

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<table>
<thead>
<tr>
<th>Health Code No.</th>
<th>Rs. crores</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4,955.00</td>
</tr>
<tr>
<td>5</td>
<td>1,756.85</td>
</tr>
<tr>
<td>6</td>
<td>3,478.75</td>
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<tr>
<td>7</td>
<td>813.85</td>
</tr>
<tr>
<td>8</td>
<td>6,384.57</td>
</tr>
</tbody>
</table>

Though based on the health code system rather than the present criteria of income recognition, the figures above give an idea of the distribution of the problem at various health code categories. Subsequently, based on the standards of income recognition applied as on March 31, 1993 the total non-performing advances of public sector banks for limits above Rs.25,000 are estimated at about Rs.37,000 crores.\(^{31}\) This works out to about 21 per cent of outstanding advances.

Mallya (1995)\(^ {32}\) identified an urgent need to create a conducive recovery climate and the borrowers should be made to understand the philosophy that the funds borrowed from the banks are to be repaid in the time and in full. He dealt precisely with problems relating to non-performing assets in banking industry and the steps to be taken by the bankers to reduce the same if not fully eradicate this cancerous disease which if spread will run the banks.

Badar Alam Iqbal (1995)\(^ {33}\) in his study compared the aggregate deposits of scheduled commercial banks, in terms of working estimates and actual achievement. He examined the trends in deposits and investment portfolio of scheduled commercial banks.

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\(^{31}\) Public Sector Banks & Financial Reforms etc., \textit{op. cit.}, (b) p. 13.

In the end, he identified the trends in loss-making nationalised banks and gave suggestions for better performance.

Shivpuje and Kaveri (1997)\textsuperscript{34} in their study suggested various measures for reducing non-performing assets and improving recovery performance of a bank.

Pannirselvam Committee (1998)\textsuperscript{35} constituted committee identified the main causative factors responsible for NPAs in banks have been broadly classified under three heads: (a) cases attributable to units (b) causes attributable to the banks (c) causes beyond the control of units and banks. The study advised that as per existing RBI guidelines, an asset where the terms of the loan agreement regarding interest and principal have been rescheduled after commencement of commercial production, should be classified as “sub-standard” and should remain in such category for at least 2 years of satisfactory performance under the rescheduled terms, IBA and RBI must play effective role to ensure State/Central Governments to honour guarantee (Government guaranteed accounts) when invoked by banks.

Naik (1999)\textsuperscript{36} analysed that one factor that had been common to all countries facing economic turmoil had been a weak banking system contributing to NPAs. He explained the various factors both internal and external which caused mounting of NPAs in public sector banks.


\textsuperscript{35} Pannirselvam, A.T. “\textit{Report on Non-Performing Assets of Public Sector Banks}”, Committee Constituted by Government of India.

Indira Rajaraman, Sumon Bhaumick and Namita Bhatia (1999) revealed that the Indian commercial banking sector is characterised by both a high average non-performing share in total bank advances and a high dispersion between banks. This paper presents the findings of a formal attempt to explain inter-bank variations in NPAs for the year 1996-97. They felt no sustainable improvement in the performing efficiency of domestic banks is possible without prior improvement in the enforcement environment in difficult regions of the country. Another finding of some importance is that it is not foreign ownership in and of itself so much as the banking efficiency and technology correlates of the country of origin of the foreign bank which determine NPA performance in the Indian environment. The academic literature has mostly dealt with determinants of banking crisis, which is the most severe consequence of bad loans in a banking system.

Gonzalez-Hermosillo (1999) analysed the role of microeconomic and macroeconomic factors in five episodes of banking system problems in the US. The paper found that low capital equity and reserve coverage of problem loans ratio are the leading indicators of banking distress and failure.

Talwar, S.P. (1999), Deputy Governor, RBI, at a seminar on “Harmoning the Role and operations of development financial institutions and Banks” has recommended for the adoption of prudential norms relating to capital adequacy, income recognition, asset classification, provisioning standards for impaired assets, and classification and

valuation of investment portfolio almost on par with global practices. One of the two main areas of divergence from international norms in this regard is our sticking to 2 quarters (+ one month) default status for reckoning a borrowal account as NPA. Another area of divergence is in bringing down the time lag for classification of doubtful category (which is to be brought down from 24 to 18 months by March 2001 and will be gradually reduced to 12 months). provisioning norms reduction in time frame classification of doubtful category (24 to 18 months), provisioning for advances covered by State Government guarantee which are involved in provisioning for standard assets at 0.25 per cent at end of March 2000.

Pati (1999)\textsuperscript{40} has analysed the improving recovery mechanism and recovery as (i) organising recovery camps with the help of local revenue authorities and gram panchayats can also yield results. (ii) the borrower meetings can also be well organised at the panchayat office to save the time of recovery officials to locate or identify the borrowers, (iii) strengthening the Debt Recovery Tribunals (DRT) with adequate staff and legal support can be considered as another major area of improvement (iv) Recognising that weakness in the legal framework has been a major case of delay in recovery of bank loans, and (v) to improve the quality of lending which has a significant bearing on the recovery of loans.

RBI has conducted another study (1999),\textsuperscript{41} it has been carried out using the RBI inspection reports of banks, information/data obtained from public sector banks, six

\textsuperscript{40} Pati, A.P. “Non-Performing Assets – Causes, Consequences and Cures, The Management Accountant, November 1999, p. 856.

private sector banks and a few state financial corporations were selected and the files relating to their borrowal accounts and find out the reasons for sickness and the factors leading to NPA include: (i) diversion of funds (ii) time-cost over run while implementing the project (iii) external factors like raw material shortage, power shortage, etc., (iv) business failure like product failing to capture the market (v) Government policies (vi) wilful default (vii) deficiencies on the part of the banks. The study advised that reduction of NPAs in banking sector should be treated as a national priority team to make the Indian banking system more strong, resilient and geared to meet the challenges of globalisation.

A study conducted by Shete (1999)\textsuperscript{42} found that bankers are not paying adequate attention to the pre-sanction requirements of gathering market information on the entrepreneurs seeking bank loans, particularly for commercial agricultural projects. If one carefully analyse the causative factors responsible for the mounting NPAs in large agricultural projects and other activities, it would reveal that the project or activity perse have rarely failed, but other factors such as lack of integrity and honest of the borrowers; his inexperience and managerial incompetency, etc., are largely responsible for advances becoming NPAs. The man behind the project most often appears to be main reason for the success or failure of the activity.

Verma Working Group (1999)\textsuperscript{43} constituted by RBI identified seven more parameters to evaluate banks. They are: (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 costs to net interest income plus all other income.

The Verma Working Group observed that the coverage ratio of 11 public sector banks out of 27 was reported negative which means that the bank net owned funds together with the provisions held was inadequate even to cover the NPAs. For the balance of parameters, the working group used the median as the minimum threshold for identifying a weak bank. On the basis, the working group identified Indian Bank, UCO Bank, and United Bank of India to be the weakest. The Verma Working Group did not recommend closure or privatisation of banks. Instead, it recommended the reduction of employees and reiterated the need to set up an asset Reconstruction Company, which would take over all loan assets in the doubtful and loss categories and issue swap bonds to the banks in lieu of the realisable value of assets.

The Confederation of Indian Industry (CII) (1999)\textsuperscript{44} National Task Force Report on “Non-Performing Assets in the Indian Financial System” recommended the closure of three weak banks, they are the Indian Bank, UCO Bank and the United Bank of India, and the privatisation of four banks, namely State Bank of India, Bank of Baroda, Corporation Bank, and Oriental Bank of Commerce. Though CII recommended the

\textsuperscript{43} Report on the working group on Restructuring of weak public sector banks (Verma Committee) RBI, Mumbai, 1999.

closer and privatisation of banks, it is time for the industry chambers to recognise that in a majority of nationalised banks and public financial institutions such as the IDBI, ICICI, IFCI and State Financial Corporations, the problem of NPAs has been caused by the corporate defaulters. The major defaulters on bank loans are the industrialist from large industries.

The Annual Report of RBI (1999-2000)\(^45\) stressed that banking sector reforms in line with the recommendations of the second Narasimham committee and the mid-term Review of the monetary and credit policy of October 1999 announced a gamut of measures to strengthen the banking system.

Baiju and Gabriel Simon Thattil (2000)\(^46\) have raised that managing NPAs is one of the most significant and complex tasks which the Indian Banking industry is facing. The high level of NPAs calls for high provisioning for severally affected, this makes further lending increasingly difficult. The most crucial factor that governs the performance of banks is spotting their NPAs. Bankers are now required to recognise such loans faster and then classify them as problem assets.

Demirgüç-Kunt and Detragiache (2000)\(^47\) employed a multivariate logit framework to develop an early warning system for banking crisis and a ratings system for bank fragility.

Beck, Demirguc-Kunt, and Levine (2005)\textsuperscript{48} examined the inter-linkage between bank concentration and banking system fragility. The paper concluded that higher bank concentration is associated with lower probability of banking crisis. Moreover, institutions and regulations that facilitate bank competition are associated with less banking system fragility. Some papers have also specifically looked at the aspect of banking system fragility which we are focusing on, viz., NPAs.

Fernandez de Lis, Martinez-Paes, and Saurina (2000)\textsuperscript{49} found that GDP growth, bank size, and capital had negative effect on NPAs while loan growth, collateral, net interest margin, debt-equity, market power, and regulation regime had a positive impact on NPAs.

Krishnamurthi’s study (2000)\textsuperscript{50} on Non-performing Assets in banks and Financial Institutions characterized NPA’s as playing critical role in national economy. The legal and recovery aspects of debts are analysed critically.

Taon, K.J. (2000)\textsuperscript{51} rightly points to the fact that the surest way of containing NPAs is to prevent their occurrence. The tenets of this policy lie in the following: (1) proper risk management system be put in place in the banks, (ii) strong and effective credit monitoring; (iii) an open and cooperative working relationship between banks and

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{49} Fernandez de Lis, S., Martinez-Paes, J. and Saurina, J. Credit Growth, Problem Loans and Credit Risk Provisioning in Spain, Working Paper No.0018, Banco de Espana, 2000.
\item \textsuperscript{51} Taon, K.J. “Management of NPAs in Public Sector Banks”, Banking Finance, August 2000, p.11.
\end{itemize}
\end{footnotesize}
borrowers that would allow exchange of confidence and initiation of corrective action early.

But to manage effectively the existing NPAs, the bank must adopt a structured NPA management policy for guidance of operating functionaries. An effective legal framework is needed to bring recovery suits to their logical conclusion and effect recoveries, within a reasonable time frame. Compromise settlements should be explored as an effective non-legal option for recovery.

The Annual Report of RBI (2000-2001)\(^{52}\) emphasized building the health of banks and financial institutions improving their asset quality, strengthening prudential norms and supervision and monitoring developments with a view to securing the soundness and stability of the Indian banking system comparable to international standards. Further stated that general provision of 0.25 per cent on standard assets was required.

According to Bloem and Gorter (2001),\(^{53}\) NPAs may be caused by wrong economic decisions or by plain bad luck. He suggested that a more or less predictable level of non-performing loans, though it may vary slightly from year to year, is caused by an inevitable number of ‘Wrong Economic Decisions’ by individuals and plain bad luck (inclement weather, unexpected price changes for certain products, etc.). Under such circumstances, the holders of loans can make an allowance for a normal share of non-performance in the form of bad loan provisions, or they may spread the risk by taking out


insurance. Enterprises may well be able to pass a large portion of these costs to customers in the form of higher prices. For instance, the interest margin applied by financial institutions will include a premium for the risk of non-performance on granted loans. At this time, banks’ non-performing loans increase, profits decline and substantial losses to capital may become apparent. Eventually, the economy reaches a trough and turns towards a new expansionary phase, as a result the risk of future losses reaches a low point, even though banks may still appear relatively unhealthy at this stage in the cycle.

In the Indian context too, a few papers have looked at the determinants of NPAs. Rajaraman, Bhaumik, and Bhatia (1999) and Rajaraman and Vasishtha (2002) explained variations in NPAs across Indian banks through differences in operating efficiency, solvency, and regional concentration.

The Annual Report of RBI (2002-2003)\textsuperscript{54} stated that the financial sector reforms were carried forward during 2002-2003 with the announcement of measures for streamlining banking operations and upgradation of risk management systems. Further stated that operationalisation of consolidated accounting practices, enactment of a new act to improve the recovery of non-performing loans and extending the capital adequacy standards to urban cooperatives.

Sumant Batra (2003)\textsuperscript{55} observed that NPAs have affected the profitability, liquidity and competitive functioning of public and private sector banks and finally the


psychology of bankers in respect of their disposition towards credit delivery and credit expansion.

Rajendra Kakkar (2004)\textsuperscript{56} in his article stated that in the last decade, several countries, especially in Asia, experienced crisis in their economy and consequently in banking and financial sectors. This has led to widespread financial sector reforms in most of the countries. One of the major crisis associated with the financial sector is growth of non-performing loans in the banking sector. Quality and performance of the advances has a directly bearing on profitability and viability of banks. Problem often manifests itself in an accretion to the stock of NPAs. In several countries, NPA assumed alarming large proportion of their aggregate loans and also of their GDP.

The Annual Report of the RBI (2004-05)\textsuperscript{57} stated that the thrust of the RBI’s financial sector policies continued to be on strengthening the health of financial institutions as well as on improving the efficiency of financial markets. The RBI intensified its efforts to ensure that UCB’s emerge as a sound and healthy network of jointly owned, democratically controlled and ethically managed banking institution providing need-based quality banking services essentially to the middle and lower middle classes and marginalized sections of the society. RBI stressed the need to improve customer services by banks to ensure that the benefits of financial liberalization percolate to the widest sections of the society.

\textsuperscript{57} \textit{Ibid.}, 2004-2005.
Leeladhar, V. (2005)\textsuperscript{58} on the Indian banking challenges ahead stated that in pursuance of the financial sector reforms introduced since 1991 and in order to bring about meaningful disclosure of the true financial position of banks, to enable the users of financial statements to study and have a meaningful comparison of their positions, a series of measures were initiated. The disclosure requirements broadly covered the following aspects: Capital adequacy; Asset quality; Maturity distribution of select items of assets and liabilities; Profitability; Country risk exposure; Risk exposure in derivatives; Segment reporting; and Related partly disclosures.

Das and Ghosh (2005)\textsuperscript{59} studied the association between risk-taking and productivity using data from public sector Indian banks over the period 1995-96 to 2000-2001. They documented that capital to risk-asset ratio and loan growth have a significant negative effect on NPAs. However, the advances to priority sector do not increase NPAs.

Ramakrishnaiah and Sudhakar Chetty\textsuperscript{60} in their seminar paper, “Management of Non-Performing Assets in Public Sector Banks – A Case Study of Andhra Bank” paper aims at analysing the trends of NPAs in relation to total advances in Andhra Bank for a five year period from 1994-95 to 1998-99. Further, the strategy of Andhra Bank for reducing the magnitude of NPAs has also been analysed. The conclusion that the public sector banks shall tone up and adopt their system of functioning, operations and services in tune with the sweeping changes taking place in the socio-economic and technological

\textsuperscript{58} Leeladhar, V. Indian Banking – Challenges Ahead, \textit{RBI Bulletin}, December, 2005.
The environment of the country has received recognition. The Andhra Bank realised this early and accordingly evolved an effective system of NPAs management which is crucial to resurrect its profitability over the past half a decade.

In another exercise, Das and Ghosh (2003)\textsuperscript{61} studied the determinants of NPAs in Indian public sector banks and identified macro-economic factors such as GDP growth and micro-economic factors such as real loan growth, operating expenses, and size as the main factors associated with NPAs.

In addition to these findings, Ranjan and Dhal (2003)\textsuperscript{62} found that terms of credit and different measures of bank size also affect the level of NPAs. In this paper, we explicitly try to examine the impact of recent policy initiatives on NPAs after controlling for both bank-specific and macroeconomic variables.

A synoptic review of the literature brings to the fore insights into the determinants of NPL across countries. A considered view is that banks’ lending policy could have crucial influence on non-performing loans (Reddy, 2004).\textsuperscript{63} He critically examined various issues pertaining to terms of credit of Indian banks. In this context, it was viewed that ‘the element of power has no bearing on the illegal activity. A default is not entirely


an irrational decision. Rather a defaulter takes into account probabilistic assessment of various costs and benefits of his decision’.

Bhattacharya (2001)\textsuperscript{64} rightly points to the fact that in an increasing rate regime, quality borrowers would switch over to other avenues such as capital markets, internal accruals for their requirement of funds. Under such circumstances, banks would have no option but to dilute the quality of borrowers thereby increasing the probability of generation of NPAs.

Ramachandra Reddy (2001)\textsuperscript{65} in his article stated that RBI has to publish the names of the defaulters of big loans and advances of banks. Unless the wilful defaulters who have the means to repay are compelled to do so with the threat of social exposure, confiscation of properties and imprisonment, the NPAs cannot be recovered. In the process of globalisation, the Indian public sector banks will have to equip themselves to meet the challenges of competition from within the country as well as from outside.

Meera Sharma (2001)\textsuperscript{66} suggested that legislative reforms are needed both to contain the level of existing NPAs and to prevent building up of large NPAs in future. Besides that, infrastructural reforms are also needed to make DRTs, effective.

Muniappan, 2002\textsuperscript{67} stated that the problem of NPAs is related to several internal and external factors confronting the borrowers. The internal factors are diversion of

funds for expansion / diversification / modernisation, taking up new projects, helping / promoting associate concerns, time/cost overruns during the project implementation stage, business (product, marketing, etc.) failure, inefficient management, strained labour relations, inappropriate technology / technical problems, product obsolescence, etc., while external factors are recession, non-payment in other countries, inputs/power shortage, price escalation, accidents and natural calamities.

For sliding of bank assets to non-performing zone the causative factors are: (1) Internal and (2) External to the bank and the borrowing unit. Moreover, both in internal and external contributing factors there are controllable and uncontrollable factors which need be identified and dealt with accordingly. The various internal and external causes are:

(1) **Internal causes**

- Improper assessment of returns or weak credit appraisal
- Under financing or over financing
- Lack of proper follow-up
- Delay in sanctioning
- Diversion of funds
- Inefficiency of management
- Lack of motivation in staff
- Lack of proper guidelines
- Target fulfilling

(2) **External causes**

- Wilful default
- Natural calamities
• Product failure due to lack of demand or quality
• Obsolescence (product/technology)
• Government policy (excise, import duty, etc.)
• Political interference and loan waivers
• Raw material and power shortage
• Strikes, lockouts and labour problems
• Environmental factors
• Heavy market competition
• Lack of proper legal system for recovery of bank dues
• Low morale and ethics

The internal causes like the weak credit appraisal, lack of proper follow-up, delay in sanctioning, target fulfilling in the case of banks are controllable, whereas lack of proper guidelines, inevitability of financing of Government sponsored schemes, non-cooperation of Government agencies in recovery directed lending to priority sector and socio-political forces are controllable from the side of the banks. In the case of the borrowing units, with respect to the internal causes contributing to the NPAs, diversification, mismanagement of funds, inefficiency of the management are uncontrollable from the side of the banks.

With regard to the external forces contributing to the intensity of the NPAs, natural calamities, product/technological obsolescence, environmental factors, market competition are controllable by the banks. But to some extent they can be taken care with a sense of rational intuition and forecast. However, the external factors like willful default by the borrower, Government policy, political interference, lack of proper legal
system for recovery of bank dues with proper sensitisation of the borrowing unit and the Government are uncontrollable.

In addition to the above, some of the behavioural causes are identified for NPAs i.e., (1) ‘If it is my money I may be more cautious and rigid. If it is our money, I may be a little bit liberal and if it is your money I may be free”. A banker belongs to the last category. The Banker is lending public money. So the responsibility is not whole hearted. (2) Indian borrowers are most obedient and appear to be sincere while getting loans. Once loan is sanctioned, they are irregular in repaying it. The Indian legal system is individual oriented and safeguards the interest of the defaulting borrower instead of the losing bank.

In the Indian context, Rajaraman and Vasishtha (2002) in an empirical study provided an evidence of significant bivariate relationship between an operating inefficiency indicator and the problem loans of public sector banks. In a similar manner, largely from lenders’ perspective.

Sandeep K. Bhatt (2002) in his article stated that credit risk is a term used to refer to non-payment of dues to the banks. It is a default risk. Defaults can be due to bankruptcy, deficiencies in production / marketing areas, cash flow deficiencies and off balance sheet forces such as economic recession, etc. Thus credit risk itself is the result of bankruptcy risk, business risk, financial risk, and off-balance sheet risk.

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Samal (2002)\textsuperscript{70} in his article stated that it is not possible to eliminate totally the non-performing assets in the banking business but can only be minimised. It is always-wise to follow the proper policy appraisal, supervision and follow-up of advances to avoid NPAs. For reduction of NPAs, though there is a greater need of political threat and effective enactment of laws to recover NPAs, the bank should also take advantage of Debt Recovery Tribunals, Lok Adalat, the legislations enacted by the State Governments and one-time settlement schemes. The banks should not only take steps for reducing present NPAs, but necessary precaution should also be taken to avoid future NPAs.

Gopal Singh and Manjula Tyagi (2003)\textsuperscript{71} argued that NPAs can be better avoided at the initial stage of credit sanction by putting in place rigorous and appropriate credit appraisal mechanism. In this context, the mind-set of the borrowers need to change so that a culture of proper utilisation of credit and its timely repayment is developed. One of the main reason for corporate default is diversion of funds.

In another study, Mohan (2003)\textsuperscript{72} observed that lending rates of banks have not come down as much as deposit rates and interest rates on Government bonds. While banks have reduced their Prime Lending Rates (PLRs) to some extent and are also extending sub-PLR loans, effective lending rates continue to remain high. This development has adverse systemic implications, especially in a country like India where


\textsuperscript{72} Mohan, R. \textit{op. cit.} 2003.
interest cost as a proportion of sales of corporates are much higher as compared to many emerging economies.

Parekh (2004)\(^{73}\) on investing in NPAs will investors bite? stated that the SARFAESI Act is an appropriate first step for driving in investments in NPAs. Going forward, an appropriate set of consequential financial sector regulation clarity, including changes in tax laws has become an imperative. This will enable the banking system to get rid of their NPAs and investors can capitalise on the attractive investment opportunity.

Vijaya Ratnam and Evangelin (2006)\(^{74}\) have conducted an evaluation study in Krishna district of Andhra Pradesh. A case study of Andhra Bank, only Machilipatnam zone is chosen for the study during 1997-2001 with the following objectives: (1) to evaluate the management of non-performing assets of Andhra Bank in Krishna district (Andhra Pradesh), (ii) to analyse the trends on the magnitude of non-performing assets of Andhra Bank, (iii) to analyse the extent of reduction in non-performing assets of the Andhra Bank, and (iv) to recommend such measures that will improve the management of NPAs in Andhra Bank based on the findings of the study.

The following observations have been made in the study under reference. It is observed that the progress of gross NPA and Net NPA of Andhra Bank, Machilipatnam Division’s showing a mixed picture, agriculture sector has occupied major position in


terms of NPAs of compared to other sectors and doubtful assets have grown a rather fluctuating tendencies.

The study noted that NPA reduction is a task which could be achieved only by full involvement of all the staff and staff incentive scheme is to be proposed for recovery of small loans involving an outstanding amount upto Rs.1 lakh.

Kausik Chaudhari (2008) has conducted a study on the “Non-Performing Assets in Indian Banking”. The observations of the study are the impact of priority sector lending on NPA levels is ambiguous while rural branching is associated with higher NPAs. Later banks exhibit better credit risk management demonstrated by lower NPAs and more profitable banks also have lower NPAs. The study advised that while the policies that have been implemented to address the NPA problem may have been largely successful, there are further steps that can be taken by the RBI as well as by the banks themselves to tackle the problem of NPAs.

CONCLUSION

The major objective of the study is to examine the performance of the SCBs with reference to the management of NPAs during a period of 10 years from 1998 to 2007. The scope of the study is restricted to the public sector commercial banks i.e., SBI in the Krishna District of Andhra Pradesh. Besides the secondary data, the study is based on the primary data collected from a sample of 223 defaulters belonging to small business

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borrowing units and 42 managerial personnel of the SBI bank branches in the district and the sample is selected on random sample basis.

The need and significance of the present study can be more articulated through a peep into the existing literature on the issue and its peripherals in brief. No doubt, ever since the banking sector reforms are initiated the thought and inquisitiveness into the concept and aspect of NPAs had been kept rolling and gathered mass. A good number of academic and research studies have been conducted and a mountain of literature on the subject gathered for an analytical feast.

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