CHAPTER 1

THE   RESEARCH   DESIGN

external sources of capital, viz., foreign aid, foreign investments and borrowings, the solution is to be found at the domestic-level. As a consequence, the existing savings should be mobilized on a large scale. This requires an adequate commercial banking system to channelise these savings to most suitable investment purposes. This requires that credit should be made available right from big industries down small business units and agriculture.

So, in order to break the vicious circles of poverty through the commercial banking system, savings should be increased to break the vicious circles on the supply side and investment be increased to break them on the demand side. This objective can be achieved only through a systematic policy of deposit mobilisation and an efficient system of credit management by commercial banks so as to ensure that bank credit flows to the various sectors of the economy in confirmity with the economic development policy of the Government. Therefore, in order to play more efficiently their roles in economic development, commercial bank should:

(i)   encourage savings through different schemes   and mobilize the existing savings in the hands of the public on a large scale ;-

(ii)   deploy bank funds efficiently and regulate credit without inflationary implications. This includes investments in legal securities, lending for economic purposes and keeping the required cash   to meet the demand arising from demand deposits   and other statutory measures, and

(iii)   assist the Government in raising public borrowings as well as in execution of its budgetary and fiscal policies. This needs an effective degree of

control over commercial banks by the Government/
Central Bank.

An analysis of the above roles reveals that :

(i)   deposit mobilisation is an exogenous factor for
        commercial banks. They cannot force the public
        to deposit their savings. Commercial banks can
        only develop some multi-innovative - incentive
        based saving schemes,

(ii)   helping the Government in raising public borrow-
        ings and being in line with its budgetary and
        fiscal policies emanates from the statutory aut-
        hority which is vested in the Central Bank. The-
        refore, this function is also an exogenous fact-
        or for commercial banks, and

(iii)   while using their resources, commercial banks
        have to decide among three things : investment,
        cash and balances, and advances. Even this de-
        cision is subject to some regulatory constrain-
        ts.

As a consequence, the only variable in which co-
mmercial banks have some control (after providing for
the legal/statutory measures) is their 'lending func-
tion'. Thus, the differences in the operational prof-
itability of different commercial banks depends to a
great extent on their efficiency in their credit or ad-
vances management.

In order to increase the efficiency of credit ma-
nagement, commercial banks should :

(i)   Use their funds efficiently by doing credit pla-
        ning at their own level and by assessing the wo-
        rking capital and term loans requirements of th-
        eir clients carefully :

(ii)   ensure disbursement of bank funds productively,
         and

(iii)   do follow-up and monitoring of advances includ-
         ing recovery systematically.

         With a view to perform the above activities, co-
mmercial banks must have an **efficient system of credit
management in their organization.**

         Thus, credit management function should include : -

(i)   optimum utilisation of resources ensuring the re-
         quired degree of liquidity while employing the
         funds in investment and advances and loans as pr-
         ofitably as possible within the given legal   and
         regulatory framework. This requires that credit
         planning be organised and performed by commercial
         banks, carefully and systematically,

(ii)   the execution of credit plans in relation to adv-
         ances and loans involving appraisal of proposals
         both for project finance and working capital ,
         post-sanction including disbursement of credit
         for the identified purposes and the recovery of
         advances, and

(iii)   in case of weak and sick units resulting in poor
         recovery of advances, the function of identifica-
         tion of such accounts and their rehabilitation
         becomes an integral part of credit management in
         commercial banks.

         In the above context, an attempt is being made to
         conduct a Research Investigation of the 'working
         of the present credit management system in comme-
         rcial banks in India, locate the gaps and develop
         a new system of credit management to fulfil   the

objective of improving operational profitability and the effectiveness of their role in the process of economic development.

Survey of the Existing Literature

Credit management in commercial banks has not yet attracted many researches in India or abroad.

A survey of the 'Bibliography of Doctoral Dissertations in Social Sciences accepted by Indian Universities' from 1857 to 1984 reveals that not a single thesis was related to credit management in commercial banks. Except some scarce and short articles on credit in some manuals and in the quarterly Journal of the National Institute of Bank Management (NIBM), no serious investigation on the problem has been done elsewhere in India at the academic level.

Among the most representative studies available on credit, one can note 'credit management - appraisal, follow-up and supervision[2]'and 'Financial Analysis for Credit management in banks'[3] . These studies are purely descriptive and cover only a few points of credit management. For instance, S.P. Singh's study focusses mainly on credit appraisal. Therefore, there is no thorough investigation of 'Credit management' by these authors since no practical problems have been

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2. Simha, S. L. N. ''Credit Management (Planning, Appraisal and Supervision'', Institute for Financial Management and Research, Madras, 1974.

3. 'Singh Sampat P. and Singh S., ''Financial Analysis for Credit Management in Banks'', Vikas Publishing House, New Delhi, 1983.

identified and as a consequence no solution has been proposed to measure the performance of banks in their credit management function.

The Journal 'Prajnan'[4] has published a few articles on credit and over a period, they have been repeating the same with slight modifications, here and there. This does not help either the readers to understand properly the credit management function of commercial banks nor the bank credit managers to measure their own performances.

A recent study, 'Profitability of Commercial banks'[5] also deserves a mention at this point. The authors have analysed the behaviour of seven ratios, viz., spread, burden, interest paid, interest earned, manpower, other expenses and non-interest income. They have come to the conclusion that the profitability of commercial banks is declining because of the declining trend in profits, fluctuations in the interest rates and fluctuation in the burden ratio. What has not been sufficiently included in their analysis is the fact that since 1969, commercial banks have been assigned the role of financing priority sectors at a lower/concessional rate of interest and because of that also their profitability has been adversely affected. Another point not emphasised by them is that the non-recovery of advances, particularly in the agricultural sector, and the amount outstanding in sick industrial units have been continuously increasing. This

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4. 'Prajnan', issues from 1972 to June 1986.

5. Varsha Varde and Singh Sampat, ''Profitability of Commercial banks'' National Institute of Bank Management, Bombay, 1975.

also must have affected negatively the profitability of banks.

Though the above work is not exclusively on 'credit management in banks', its consideration by us has been necessary as it deals with aspects of credit management function performed by banks in India.

The I F M R[6], the RBI's Staff Training, and Staff Training Colleges of various other banks organise programmes on 'Credit Management' for bank Officers from time to time. These programmes help bankers to understand the RBI's policy relating to credit expansion, restriction, etc., say the recent developments in credit policy. They do not go generally beyond this limit.

At the International level, a survey has also been done through 'Dissertation Abstracts International' from 1970 to 1984 - the available volumes in Hansa Mehta Library of the M. S. University of Baroda. Here also not a single thesis relating to credit management in banks was registered.

Thus, a survey of the existing literature on 'Credit Management in banks' reveals that no one has developed a suitable model to measure the efficiency of credit management in banks ; The credit managers in banks are still working like blind men without sticks since there is no standard model/methodology to enable them to measure their own performances. One of the purposes

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6. Institute for Financial Management and Research , Private Issues on Credit Management from 1973 to May 1985.

of this study is to build such a model and therefore
fill up the gap in the existing knowledge.

The study thus, is going to be useful mainly
in the following two ways, (i) since at the academic
level, models and programs for performing credit ma-
nagement function in commercial banks capable of mee-
ting the typical requirements of large sized branch
banks located in developing countries are not availa-
ble, this study will meet this gap on the basis of
the analysis of the information and data pertaining
to the lending operations of commercial banks in India.
The study should also be able to identify the strong
and weak aspects relating to the organisation and ex-
ecution of credit management function in Indian comm-
ercial banks which will provide a new insight to the
academic community and the bankers in this area, and

(ii) the main findings of this study and the suggest-
ions offered will enable the bankers to improve their
credit management function which in the ultimate ana-
lysis will enable them to perform their role more ef-
ficiently as agents and intermediaries in the process
of economic transformation of a nation.

Objectives of the Study, Main and Sub-hypotheses

The main objectives of the study are :

(i)   to examine the existing organisation and the
        system of execution of credit management fun-
        ction in commercial banks in India,

(ii)   to identify the problems faced by commercial
        banks in credit management and make suggestio-
        ns accordingly, and

(iii)   to develop an appropriate model for measuring

the efficiency of credit management function in commercial banks.

The main hypothesis to be tested is given as $CME = F(PE, AE, RE, TE, DE)$ whereas CME means the degree of Credit Management Efficiency in a commercial bank, PE stands for the Profit Efficiency, AE means the Advances Efficiency, RE stands for the Recovery Efficiency, TE means Time Efficiency and DE stands for the Disbursement Efficiency.

To ascertain and test the main hypothesis, a number of subhypotheses related to the Profit Efficiency (PE) and Advances Efficiency (AE) have been formulated.

(i) $PE_1 = a_1 X_1$ whereas PE_1 is the Profit ratio arrived by 'Profit/working Funds (P/wF) and a_1 is the coefficient of correlation between X_1 and PE_1, and X_1 is the ratio of 'Interests and Discounts Earned/working Funds' (IDE/wF).

(ii) $PE_2 = - a_2 X_2$ whereas PE_2 is the Profit ratio and $(- a_2)$ is the coefficient of correlation between X_2 and PE_2, and X_2 is the ratio 'Interest paid/working Fund' (IP/wF).

(iii) $PE_3 = a_3 X_3$ whereas PE_3 is the Profit ratio and a_3 is the coefficient of correlation between X_3 and PE_3, and X_3 is the ratio 'Profit/Earnings' (P/E).

(iv) $PE_4 = - a_4 X_4$ whereas PE_4 is the Profit ratio and $(- a_4)$ is the coefficient of correlation between X_4 and PE_4, and X_4 is the ratio

'Priority Sectors Advances/Total Bank Credit' (PSA/TBC).

(v) $PE_5 = a_5 X_5$ whereas PE_5 is the Profit ratio and a_5 is the coefficient of correlation between X_5 and PE_5, and X_5 is the ratio 'Total Advances/working Funds' (TA/wF).

(vi) $PE_6 = - a_6 X_6$ whereas PE_6 is the Profit ratio and ($- a_6$) is the coefficient of correlation between X_6 and PE_6, and X_6 is the ratio 'Non-Recovery of Bank Advances/Total Bank Credit' (NRBA/TBC).

(vii) $PE_7 = - a_7 X_7$ whereas PE_7 is the Profit ratio and ($- a_7$) is the coefficient of correlation between X_7 and PE_7, and X_7 is the ratio 'Amount Outstanding in sick industrial units/Total advances (AOSIU/TA).

(viii) $AE_8 = a_8 X_8$ whereas AE_8 is the Advances Efficiency and a_8 is the coefficient of correlation between X_8 and AE_8, and X_8 is the total Bank Credit (TBC). The optimum coefficient of correlation would be .4 . In other words, $a_8 = .4$, the stipulated target for the priority sectors j and

if a_8 is more than .4 ,   it indicates Positive Advances Inefficiency (PAI)

if a_8 is less than .4 ,   it implies Negative Advances Inefficiency (NAI).

$$\text{if} \quad a_8 = .4 \text{ , it indicates Optimum Advances}$$
$$\text{Efficiency (OAE).}$$

Coverage and Methodology of the Study

This study is confined to the Indian commercial banks in the Public sector except the Regional Rural Banks (RRBs). They are the State Bank of India (SBI) and its 7 associates, the 14 commercial banks nationalised in July 1969 and the 6 other commercial banks nationalised in April, 1980.

The First step of this study consists in a approaching banks' officers at the Head Offices in order to find out the problems they are facing in coordinating , regulating and managing bank credit. Many Head Offices located in Baroda, Bombay, New Delhi, Madras, Bangalore and Calcutta have been visited and discussions organised with senior credit managers of these banks. Over and above the Head Offices, some branch, regional and zonal offices have also been visited for the same purpose.

It is only after this preliminary investigation that the problems have been identified and solutions proposed accordingly.

The second stage of the study consists of building a tool to measure the efficiency of credit management in commercial banks on the basis of the selected ratios. This is done on the basis of the PE, the AE, the RE, the TE and the DE since CME = F (PE, AE, RE, TE, DE). The matrix of correlation between the Profit ratio (or Profit Efficiency) and the other ratios obtained from computer programs helps in checking the

worthiness of the hypotheses.

AE = .4 X_8 , since in the ordinary course, com-
mercial banks meet the requirements of the traditional
sectors, the best tool to measure their Advances Eff-
iciency seems to be their ratio of priority sectors to
their Total Advances.

By financing the priority sectors, they fulfil
their statutory as well as their social responsibili-
ties.

The Recovery Efficiency can be measured by two
ratios : the Non-Recovery of Advances (NRA) (both
in priority and traditional sectors) and the Amount
Outstanding in sick Industrial Units (A O S I U).

Further, a commercial bank should not limit its
objective to making profits. It should fulfil its lar-
ge social responsibilities in achieving the target of
40 % of its total advances to the priority sectors.
It has to ensure that the recovery of its advances is
at its maximum and the time between the receipt of the
loan application and the disbursement of the required
bank finance is at its optimum. The bank has also to
be sure that the amount disbursed is fully utilised.

A bank which has an optimum Profit Efficiency,
Advances Efficiency, Recovery Efficiency, Time Effici-
ency and Disbursement Efficiency is managing efficien-
tly its credit function.

The last step of the study consists in building
an Index of Credit Management Efficiency (ICME). The
ICME is worked out on the basis of the Index of Profit

Efficiency (IPE), the Index of Advances Efficiency
(IAE), the Index of Recovery Efficiency (IRE) ,
the Index of Time Efficiency and the Index of Disbu-
rsement Efficiency.

After having studied those ratios meaningful-
ly correlated in the correlation matrix, an equation
is worked out for the PE on the basis of the ratios
mentioned in the sub-hypotheses such that,

$$PE = PE_1 + PE_2 + PE_3 + PE_4 + PE_5 + PE_6 + PE_7$$

OR

$$PE = a_1 X_1 - a_2 X_2 + a_3 X_3 - a4 X_4 + a_5 X_5$$

$$- a_6 X_6 - a_7 X_7$$

Taking into consideration the Mean Value ($\overline{X}$) of the
statistically significant variable (s), a cut-off po-
int is to be determined by giving marks to those banks
having a PE above, equal or less than the cut - off
point.

Since AE = .4 X_8, 0.4 is considered to be the
cut-off point of the AE and the same logic as menti-
oned in the above case is adopted.

ICME = IPE + IAE + IRE + ITE + IDE and there-
fore on the basis of the ICME, commercial banks are cl-
assified into five groups. The ICME also helps in loc-
ating the factors responsible for a poor CME and may
enable the bankers to monitor and improve their per-
formance in credit management.

Scheme of Presentation

The Thesis has been presented in three parts :

Part I - Credit Management Function

In this part, an attempt has been made to deal with the first two objectives of the study, viz., (i) to examine the existing organisation and the system of execution of credit management function in commercial banks in India, and (ii) to identify the problems faced by them in these areas and make suggestions accordingly.

Credit management function includes mainly the following activities at the bank level:

- Credit planning.

- Delegation of lending powers.

- Credit appraisal, and
- Credit monitoring.

In the First Chapter of this part, the methods of credit planning have been examined and the problems faced by banks in performance budgeting have been identified and solutions proposed at the end of the Chapter.

In the Second Chapter of the part, the delegation of lending powers delegated to various banks' officials have been examined. The practical problems faced by commercial banks in this area have been identified and suggestions offered accordingly.

Chapter three of the part deals with the techniques for credit appraisal both for working capital and term loan. But, due to the legal restrictions on commercial banks in providing terms loans, the main attention has been focussed on the appraisal of working capital with reference to the Tandon and Chore study groups.

In Chapter Four, an attempt has been made to study the credit monitoring system. Here, the disbursement, supervision and recovery of bank credit have been covered and the main focus has been on the area of follow-up and supervision of bank credit. Some problems have been identified and solutions proposed accordingly.

Part II - Credit Management and Industrial Sickness

The increasing trend in the number of sick industrial units as well as the total bank credit outstanding in these units is causing considerable concern at all levels in the Banking Industry.

The bankers, the industrialists, the Government, the workers, the financial institutions and the consumers are all concern about industrial sickness.

Therefore, due to the dimension of the problem, an attempt has been made firstly to study the existing system of identification, rehabilitation and nursing of sick industrial units, and secondly work out the practical problems faced by bankers in this area and suggest a new approach towards industrial sickness.

Part III - Index of Credit Management Efficiency

In this part, the last objective of the study, viz., to develop an appropriate model for measuring the efficiency of credit management function in commercial banks has been dealt with.

The First Chapter of this part deals with the nature of the data, the components of Credit Management Efficiency, viz., Profit Efficiency, Advances

Efficiency, Recovery Efficiency, Time Efficiency, Disbursement Efficiency and the methodology adopted.

The second chapter of the part deals with the test of the hypotheses and the analysis of the results. It includes also the methods of calculation of the Index of Profit Efficiency, the Index of Advances Efficiency, the Index of Recovery Efficiency, the Index of Time Efficiency and the Index of Disbursement Efficiency and finally the Index of Credit Management Efficiency.

The Concluding Chapter No. 10 contains the summary of main findings and suggestions.