"The biggest problem facing commercial banking today is not the new competition but the old regulations."

Walter B. Winston, Citi corp. Chairman (1979)
CHAPTER II

DESIGN AND METHODOLOGY

2.1 Statement of the problem:

Commercial banks are the most important institutions in the Indian financial system. They form one of the core industries in the service sector and have enjoyed phenomenal growth in recent years. Commercial banks have been actively taking part in nation building activity and contributing in the survival and growth of various sectors of the economy like agriculture, industry, commerce, employment etc. Accompanying the rapid growth, the commercial banks along with many service industries have been exhibiting lagging productivity and poor quality of service. One of the important reasons attributed for the above causes has been too much growth, too soon, with too little application of sound marketing and other management techniques.

For successful marketing of two important products of commercial banks, viz., deposits and credits, the banker must recognize and implement the marketing concept. Bankers have traditionally been operations/rate oriented, but only very recently have they become customer oriented. That is, they have started realizing the importance of satisfying the needs and wants of target customers. If
marketing is doing its job, two values, viz., satisfaction to the customer and profit for the bank should be equally balanced. Hence in commercial banks, along with 'deposits' and 'credits', 'customer service' also plays a vital role. Therefore, the above three parameters have been referred to as 'Marketing Parameters' of commercial banks in the thesis.

Review of literature on marketing and other management functions in commercial banks in particular and service sector in general indicated that major volume of research has been conducted on theoretical aspects. Main areas that have been investigated are: various strategies for effective marketing and organization, improvements in productivity and quality of customer service, suggestions for the introduction of new systems, and techniques in bank operations etc. Very few field studies have been conducted in commercial banks. Worth mentioning are bank selection decisions using determinant attribute analysis, marketing activities in service sector, reorganization and re-design of marketing in Citi bank, effectiveness of bank premiums and introduction of Electronic Fund Transfer System in banking.
In the Indian context, major volume of research has been undertaken on the theoretical problems in commercial banks and include areas such as marketing strategies, customer service, information systems, deposit mobilization, credit planning using Service Area Approach etc. Very little work has been done in the service sector. It is clear from the above review that there is ample scope for research in the field studies on marketing parameters (deposits, credits and customer service) of commercial banks. Therefore, an attempt has been made to undertake attitude survey on deposit mobilization, customer service and also on the recently introduced 'Service Area Approach' of credit planning. For the first the studies, attitude survey of bank customers has been conducted, for the other study attitude survey on bank managers has been conducted. Review of literature indicated that credit planning, which is vital in the bank management has not been critically analysed. Also appropriate techniques have not been suggested for credit planning and for forecasting the deposits, which forms the basis for credit planning. Therefore an attempt has been made to examine the above issues. Literature survey also revealed that commercial banking development (structure, growth and performance) study at different levels has not been undertaken so far. An attempt has been made in this direction also.
2.2 Objectives of Research

The main objectives of research work are as follows:

* To critically analyse the commercial banking development (structure, growth and performance) at all India, Andhra Pradesh and Cuddapah District levels and to conduct a comparative study.

* To analyse and evaluate the opinions and attitudes of bank customers on various factors of deposit mobilization in commercial banks and to investigate the factors responsible for the selection of the type of bank (i.e., either a private sector bank or a public sector bank). To study the extent of deposit planning and forecasting in commercial banks and to suggest an appropriate model for deposit forecasting.

* To critically examine the existing method of credit planning in commercial banks at the district level and to suggest an effective model for credit planning. To critically analyse the recently introduced method of credit planning, 'Service Area Approach' for its effectiveness.
To analyse and evaluate the opinions and attitudes of bank customers on various parameters of customer service and to find out the determinants of bank selection decisions. To evaluate the opinions of bank staff on parameters of customer service and marketing functions and to make a comparative study between their opinions and customers' opinions on certain service.

NOTE: Detailed objectives and rationale for each study have been specified under each chapter.

2.3 Hypotheses:

Keeping in view the above objectives, the following hypotheses have been tested.

- Commercial banking development in terms of its growth and performance is not significant in Guntur district compared to other districts of the State, Andhra Pradesh State level and all India level due to its economical backwardness.
* There is no significant difference in the opinions of the customers on the satisfactory levels of various parameters of deposit mobilization. Customers are not serious about the selection of type of bank (either private sector bank or public sector bank) for their banking transactions. There is no association between the type of bank and categories of people.

* The existing method of credit planning by commercial banks is satisfactory in respect of recovery and overdues problems and also in terms of coordination by different agencies. The service area approach method of planning is effective in its design and implementation and does not need any modifications.

* There is no significant difference in the opinions of the customers on the satisfactory levels of various parameters of customer service. In bank selection decisions, customers do not follow any basis or criteria. Bank staff are not serious about either customer service or marketing function in the bank. There is no association between the opinions of Bank Staff and customers on the customer service.
2.4 **Methodology**

The present work used a marketing research method to achieve the stated objectives. Marketing Research according to American Marketing Association (AMA) is "The systematic gathering, recording and analysing of data about the problems relating to the marketing of goods and services".

Marketing Research involves the following steps: statement of objectives, development of Research Plan, data collection, processing and analysing of data, presentation of report.

2.5 **Research Plan**

As per marketing research terminology, a research plan involves the following elements.

- **Data Sources**: Primary data - Secondary data.
- **Research approach**: Observation - Survey.
- **Research instruments**: Questionnaire - Mechanical Instruments.
- **Sampling Plan**: Sampling unit, sample size, and sampling procedure.
- **Contact Methods**: Telephone, Mail and Personal.


2.5.1 Data Sources:

The present work used both primary data and secondary data. The investigations on deposit mobilization, customer service and service area approach are based on primary data. The data has been collected using carefully designed questionnaires. All other investigations and studies are based on secondary data. Various secondary data sources and publications used in the research are listed below:

0 Reserve Bank of India bulletins, Reserve Bank of India, Bombay.

0 Reports on Trend and Progress of Banking in India, Published by Reserve Bank of India, Bombay.

0 Report of Banking Commission, Government of India.

0 Banking Statistics published by Reserve Bank of India, Bombay.


0 Banking Statistics published by Andhra Pradesh State Level Bankers Committee, Andhra Bank, Central Office, Hyderabad.

0 Annual action plans for Cuddapah District, 1983 to 1990, prepared by Syndicate Bank, Lead District Office, Cuddapah.
0 District information centre, Department of Information and Public Relations, Government of Andhra Pradesh, Cuddapah.

0 District Central Library, Cuddapah.


0 District Gazettes, Published by Government of Andhra Pradesh, Hyderabad.

0 S.V. University Library, Tirupati.

0 Nagarjuna University Library, Guntur.

0 Andhra Pradesh State Level Bankers Committee, Central Office, Andhra Bank, Hyderabad.

0 Various public sector and private sector bank offices in Cuddapah town and district.

0 Syndicate Bank, Lead District Office, Cuddapah.


2.5.2 Research Approach:

The research approach used in the present study is exclusively a survey method using questionnaires for primary data collection.
2.5.3 **Research Instrument**

The main survey research instrument is the questionnaire. Keeping in view, the objectives cited, four questionnaires have been designed for personal administration. These include two questionnaire for Bank customers, and Bank staff, for the study on customer service and one each for studies on deposit mobilization and Service area approach. For the questionnaire response format both open-ended and closed-ended questions have been used. In closed ended questions, dichotomous questions, multiple choice questions and scored responses have been used depending upon the information desired from each question. The questionnaires have been designed following the principles of questionnaire design, such that they translate the research objectives into specific questions, the respondents can answer and also motivate the respondents to cooperate with the survey and furnish the information correctly. The questionnaires are shown in Appendices.

2.5.4 **Sampling Plan**

The study has been carried out in the Cuddapah District of Andhra Pradesh. The main reason for choosing this district is due to the fact that it is one of most

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backward districts of the State in terms of banking development. This district is backward agriculturally and industrially as mentioned in the profile of the district. In the Rayalaseema Zone of the State, Cuddapah District is having least number of bank offices, least amount of deposits and credits compared with other districts viz., Chittoor, Kurnool and Anantapur. Research studies conducted in underbanked and underdeveloped centres like Cuddapah district is of significant value to the policy makers at State and Central Governments, different public and private sector banks and Reserve Bank of India for taking right decisions to minimize regional and zonal disparities in banking development. Incidentally, other reasons for choosing Cuddapah district are convenience and proximity for the researcher since he is working as a faculty member in the Engineering College in this district.

2.5.4.1 Study on Customer Service: Sample size and sampling Procedure.

In this study 3 banks have been selected at random. Among these, two are public sector banks and one is a private sector bank. The target population in this study is customers of all the three banks and the sampling unit is an individual bank customer. All the account holders
(i.e., savings bank, current account, recurring deposit, fixed deposit and kiddy bank) have been considered for sampling. A random pilot study has been conducted by administering a pilot questionnaire (shown in Appendix-7(VIII)) in all the above three banks. Three important customer service parameters have been covered in the questions with dichotomous responses. The other two open-ended questions are for classification purpose when the need arises. The questionnaire has been administered personally to 50 customers in each bank. The responses from pilot questionnaires have been analysed and the actual sample sizes have been arrived by assuming the distribution of population as Binomial. The names of the banks have been kept anonymous at the request of bank authorities and have been coded as Bank X, Bank Y and Bank Z.

**Illustration of sample size calculation for Bank X:**

\[
\text{Total number of accounts } n = 2793 \\
\text{Satisfactory level } p = 0.96 \\
\text{Dissatisfactory level } q = 0.04 \\
\text{Level of confidence } z = 1.96 \\
\text{Allowable tolerance of variation } e = 0.05 \\
\text{Sample size } n = p.q.(z/e)^2 \\
\text{Substituting the above values} \\
n = 60
\]
Adjusted sample size
(to the total population)

\[ n_{adj} = \frac{n \cdot z^2 (p \cdot q)}{n \cdot e^2 + z^2 (p \cdot q)} \]

Substituting the values

\[ n_{adj} = 58 \]

In a similar manner the sample sizes have been calculated for the other two banks and are as follows:

<table>
<thead>
<tr>
<th>Bank</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank X</td>
<td>58</td>
</tr>
<tr>
<td>Bank Y</td>
<td>154</td>
</tr>
<tr>
<td>Bank Z</td>
<td>232</td>
</tr>
</tbody>
</table>

The sample random sampling technique has been chosen for administering the main questionnaires to the customers. As in queuing theory, it has been assumed that customers arrive to the bank by following a random pattern. This technique is one of the accurate and widely used probability sampling techniques. With regard to the field procedures, the questionnaires have been personally administered, i.e., questionnaire has been personally presented to a customer explaining to him briefly the objectives and requesting his/her cooperation for the success of the study. It has been strongly felt that administering the questionnaire personally would help in achieving the objectives in
an effective manner. It will also ensure complete coverage of the sample size and will also reduce various errors which usually creep in during the field work. The main questionnaire for bank customers is shown in Appendix-7 (IX).

2.5.4.2 **Sample size of Bank Staff**: Since the bank staff of all three banks put together is 20, which is quite small, the questionnaires have been administered for all the staff, to get an accurate picture of their attitudes and opinions on the parameters of customer service and bank marketing. The questionnaire for bank staff is shown in Appendix-7.

2.5.4.3 **Study on Deposit Mobilization**: Sample size and Sampling Procedure

In this study 3 banks have been selected at Among the three banks, two are public sector banks and the other is a private sector bank. The target population in this study is the customers of all the three banks and the sampling unit is an individual bank customer. All account holders have been considered for sampling. A random pilot study has been conducted by administering a pilot questionnaire (shown in Appendix 5 (VI)) in all the above three banks. Three important parameters of deposit
mobilization have been covered in the questions with dichotomous responses. The questionnaires have been personally administered to 50 customers in each bank. The responses from pilot questionnaires have been analysed and the actual sample sizes have been arrived by assuming the distribution of population as Binomial. The names of the banks have been kept anonymous at the request of the bank authorities and have been coded as Bank A, Bank B and Bank C.

Illustration of sample size calculation for Bank A.

Total number of accounts \( n = 40,000 \)

Satisfactory level \( p = 0.88 \)

Dissatisfactory level \( q = 0.12 \)

Level of confidence \( z = 1.96 \)

Allowable tolerance of variations \( e = 0.05 \)

Sample size \( n = p \cdot q \cdot (z/e)^2 \) .... III

Substituting the above values

\[
N = \frac{N \cdot z^2(p \cdot q)}{N \cdot e^2 + z^2(p \cdot q)}
\]

Adjusted sample size
(to the total pop)

Substituting the values \( n \)
In a similar manner, the sample sizes have been computed for the other two banks and are as follows:

<table>
<thead>
<tr>
<th>Bank</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank A</td>
<td>102</td>
</tr>
<tr>
<td>Bank B</td>
<td>67</td>
</tr>
<tr>
<td>Bank C</td>
<td>110</td>
</tr>
</tbody>
</table>

The sampling procedure and field procedure used in this study are exactly same as that used in the study on customer service and therefore, the same reasoning given for previous study holds good for this study also. The main questionnaire is shown in Appendix-5 (VII).

2.5.4.4 Study on Service Area Approach: Sample size and the procedure.

There are 150 bank offices in Cuddapah district. Out of this a 'convenient sample' of 40 bank offices covering all the major towns and villages of the district and all types of commercial banks has been selected for the study. The main reason for choosing a 'convenient sample' is to take care of uniform representation of all types of commercial banks and almost all the blocks of Cuddapah district. The questionnaires have been personally administered by visiting each bank office and explaining to the branch manager the objectives of the study and seeking his cooperation. The idea behind administering the questionnaires personally is to ensure complete filling
of the questionnaire and to reduce any errors that may creep in during the field work. The questionnaire on service area approach is shown in Appendix-6.11 (I).

2.5.4.5 Study on commercial banking development:

The above study has been carried out by analysing the data from secondary sources, mentioned under data sources (Section 2.6.1). Various indicators have been calculated from this data. The linear, compound and exponential growth rates have been computed using a software.

2.5.4.6 Study on deposit forecasting:

The secondary data used for illustrating the deposit forecasting model has been obtained from various sources mentioned in the section 2.6.1.

2.5.4.7 Study on credit planning

The data required for illustrating the credit planning model has been obtained partly through personal discussion with the bank managers and partly from secondary data sources mentioned in the section 2.6.1.

2.6 Tools of Analysis:

The following Tools of analysis have been used at the appropriate sections of the chapters: Kolmogorov-Smirnov one sample test, Median test, Mann-Whitney U test,
Spearman's Rank correlation coefficient, Pearson's correlation coefficient, Percentages, Ratios, Kruskal - Wallies test or H-test, Coefficient of Contingency test, Multiple regression model, F-test, t-test, Linear Programming model, Frequency distribution, linear growth rate, Compound growth rate, Exponential growth rate, Coefficient of variation, Measures of central tendency, and Measures of dispersion.

2.7 Limitations of the work:

* Studies on customer service and deposit mobilization have been restricted to commercial banks in Gudapah town, in view of the following reasons. Many questions on the above topics in the questionnaires can only be understood by literate customers who are well aware of the bank environment and transactions and also various developments that are taking place in banks. Respondents are also expected to offer their own opinions and suggestions on certain open-ended questions. Majority of such respondents are generally available in Gudapah town, which is a district head-quarters and also having maximum number of bank offices in the district.

* Bank groupwise performance study on commercial banks in the district has been restricted to 8 years i.e., (1983-1990), since consistent and reliable data was available from the year 1983 onwards.
* Despite the personal care taken in the field procedure for the attitude surveys, some errors might have crept in the responses elicited from the subjects.

2.8 Chapter scheme of the thesis:

Chapter I deals with the review of literature on marketing and other management aspects in banking industry and service sector.

Chapter II is concerned with the design and methodology adopted in the thesis. Limitations of the study are also included.

Chapter III furnishes the socio-economic profile of the Cuddapah district.

Chapter IV critically examines commercial banking development at three levels in terms of structure, growth and performance. Detailed finding and conclusions are included.

Chapter V presents a study on the deposit mobilization in commercial banks. It also discusses the application of an appropriate forecasting model to deposit forecasting. Detailed results, findings and conclusions are included.
Chapter VI: investigates the present method of credit planning in commercial banks at the district level and examines the application of an effective planning model to credit planning. This chapter also covers a study on the Service Area Approach to credit planning. Detailed results, findings and conclusions are included.

Chapter VII: furnishes a study on the customer service in commercial banks conducted on bank customers. It also includes a comparative study between bank customers and bank staff on service parameters. Detailed results, findings and conclusions are presented.

Chapter VIII: presents the summary of findings and conclusions. It also covers implications and scope of further research.

* Appendices and bibliography are also included, towards the end.