CHAPTER 3

RESEARCH METHODOLOGY
3.1 RESEARCH METHODOLOGY-INTRODUCTION

Research simply means a search for facts-answer to questions and solutions to problems [O. R. Krishnaswami and M. Ranganatham [20]]. “Research methodology is a systematized effort to gain new knowledge” [N Sujeeth kumar Yadav [162]].

Research is a continuous process. One piece of the research thrusts the other researchers to investigate further, into the same or similar issue. One research opens the avenues for the other problems to research further. Understanding research methods helps in solving decision based problems. However, research must be done scientifically [S. Lalaitha [163]]. Methodology tells us which methods, techniques, or tests are applicable in certain situations [Anand Sharma [164]]. Research methodology also includes reasons and logic behind how and why every step of the research process is followed.

3.2 OBJECTIVES OF THE STUDY

1. To develop a CRM model on both customers and employees perspective.
2. To study the customer perception on CRM practices in banks.
   a) To study the impact of CRM factors (interaction, customisation, dissatisfaction, switchover) on trustworthiness
   b) To study the impact of retention and trustworthiness on long-term relationship
   c) To study the effect of SERVEQUAL factors, interaction, customisation on Switchover
3. To study the employee perception on CRM practices in banks.
   a) To study the impact of retention, trustworthiness, dissatisfaction and switchover on long-term relationship
   b) To study the impact of CRM factors (interaction, customisation, and switchover) on trustworthiness
   c) To study the effect of interaction and communication on retention.

3.3 HYPOTHESES OF THE STUDY

The hypotheses for the study are prepared based on customers and customer contact people’s perceptions on the factors affecting their level of transactions which include preferences for customer relationship to be maintained and the factors which are
considered as part of relationships which can affect their present and future level of transactions.

In order to achieve the above stated objectives, the following hypotheses have been proposed and tested in this study.

3.3.1 Hypotheses for Customer Perspective

To examine the influence of exogenous variables: communication, customisation, interaction, SERVEQUAL factors, on endogenous variables: retention, dissatisfaction, switchover, trustworthiness and long-term relationship. The effect of the above factors is studied in customer perspective through testing of the following hypotheses.

$H_1$: There is significant influence of trustworthiness on long-term relationship with customers

$H_2$: There is significant influence of customer retention on long-term relationship with customers

$H_3$: There is significant influence of customer switchover from one bank to another bank on trustworthiness

$H_4$: There is significant influence of customer dissatisfaction on trustworthiness

$H_{5a}$: There is significant influence of SERVEQUAL factors on switchover of customers from one bank to another bank

$H_{5b}$: There is significant influence of SERVEQUAL factors on retention of customers

$H_{6a}$: There is significant influence of interaction between employees and customers on switchover.

$H_{6b}$: There is significant influence of interaction between employees and customers on trustworthiness.

$H_{7a}$: There is significant influence of customisation of transactions on switchover of customers from one bank to another bank.

$H_{7b}$: There is significant influence of customisation of transactions on trustworthiness.

$H_8$: There is significant influence of communication between employees and customers on dissatisfaction of the customers

3.3.2 Hypotheses for Employee Perspective

The effect of the factors is studied in employee perspective through testing of the following hypotheses.
H₁: There is significant influence of trustworthiness on long-term relationship with customers
H₂: There is significant influence of customer retention on long-term relationship with customers
H₃a: There is significant influence of customer switchover from one bank to another bank on trustworthiness
H₃b: There is significant influence of customer switchover from one bank to another bank on long-term relationship with customers
H₄: There is significant influence of customer dissatisfaction on long-term relationship
H₅: There is significant influence of SERVEQUAL factors on switchover of customers from one bank to another bank
H₆a: There is significant influence of interaction between employees and customers on trustworthiness
H₆b: There is significant influence of interaction between employees and customers on customer retention
H₇a: There is significant influence of customisation of transactions on customer retention
H₇b: There is significant influence of customisation of transactions on trustworthiness.
H₈: There is significant influence of communication between employees and customers on customer dissatisfaction

3.4 RESEARCH METHODOLOGY

The core objective of this study is to examine and identify the study process for CRM with performance indicators of banks. Factual material is scattered throughout the complex, dynamic, social and educational reality. For the collection of these facts scientific and logical order have been established in connection with the diverse objectives under investigation.

"If scholar cannot clearly describe his method, the chances are that it is too vague and general to yield satisfactory results". Though people consider method and procedure one and the same thing, yet these terms seem differently when one conducts research and investigation. Data can be obtained from many sources, directly or indirectly [Dipak kumar bhattacharya-[165]].
It is necessary to adopt or evolve a systematic procedure to collect essential data. It should be sufficient, reliable and valid. Primary data was collected using a questionnaire cum interview methods and was analysed using different techniques. In addition to that research is focused on the working styles, structure of banking sector.

Further, focus is on these factors / barriers for successful implementation of CRM. At last focus will be, to suggest a model of CRM and assessment of customer loyalty towards bank. For collecting new and unknown data required for the study of any problem, one may use various devices. For each and every type of research [C. R. Kothari [166]], certain instruments are used to gather the new facts or to explore new fields. The instruments thus employed as means are called tools. The selection of a suitable tool is of vital importance for successful research. Various tools are required for collecting different kinds of information for varied purposes [R. Paneerselvam [167]]. The research worker may use one or more of the tools for his research purposes.

3.4.1 Research Design

The research design is the plan according to the objectives framed and data assembled. It provides the empirical and logical basis for drawing conclusions and gaining knowledge. The descriptive survey research is considered suitable for the present study. The reason for selecting the descriptive method of research was that it would help in generalization to a greater extent than the experimental research design. Descriptive research was conducted to study the dimensions of CRM in select banks in Chittoor District.

3.4.2 Data Collection

The data for the study was collected from both primary and secondary sources. 

**Primary source**: Customers and employees of the select banks constitute the primary source. **Secondary source**: Reports of the Government of India, banks annual reports, publications and books are the secondary source of data collection.

3.4.3 Selection of Banks

The present study is confined to select banks in Chittoor District of Andhra Pradesh based on business volume.

3.4.4 Sampling and Sample Size

Stratified random sampling method is used for this study. The respondents are stratified into two groups: bank customers and bank employees. In each bank the
respondents are selected randomly and the study instrument is administered with the help of a questionnaire and data was collected.

The present study evaluates the opinion of the bank customers and employees on CRM practices implemented in the Chittoor district of Andhra Pradesh. The following table 3.1 presents list of select banks and number of respondents from each bank in Chittoor district

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the Bank</th>
<th>No. of Customers</th>
<th>No. of Employees</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Allahabad Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>Andhra Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>Andhra Pradesh State Co-operative Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>4</td>
<td>AXIS Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>5</td>
<td>Bank of Baroda</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>6</td>
<td>Bank of Maharastra</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>7</td>
<td>Canara Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>8</td>
<td>Central Bank of India</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>9</td>
<td>City Union Bank Ltd</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>10</td>
<td>Corporation Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>11</td>
<td>HDFC Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>12</td>
<td>ICICI Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>13</td>
<td>IDBI Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>14</td>
<td>Indian Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>15</td>
<td>Indus Ind Bank Ltd</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>16</td>
<td>KarurVysya Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>17</td>
<td>Lakshmi Vilas Bank Ltd</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>18</td>
<td>Oriental Bank of Commerce</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>19</td>
<td>Punjab National Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>20</td>
<td>State Bank of India</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>21</td>
<td>Syndicate Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>22</td>
<td>Union Bank of India</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>23</td>
<td>Vijaya Bank</td>
<td>25</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>575</strong></td>
<td><strong>230</strong></td>
<td><strong>805</strong></td>
</tr>
</tbody>
</table>

**Bank customers**

Bank customers were approached in their respective bank premises for collection of data. Questionnaire schedule method is adapted for the collection of data from them to study their opinion on CRM practices of banks.
According to Hill (1998), in multivariate research the sample size required should be 5 to 10 time of variables for 10% and 5% margin error respectively. In the present study, the number of variables included in the questionnaire is 48 and therefore the minimum sample should be in between 456 to 504 at 5% margin error. So a total of 575 questionnaires were distributed to bank customers, 565 were replied (10 applicants were not replied), out of 565, 5 questionnaires were rejected 560 questionnaires were considered finally after eliminating the remaining that is 15 questionnaires, due to insufficient data.

**Bank employees**

Bank employees were met in their corresponding banks for collection of data. Questionnaire framed for the employees is distributed to the bank employees to provide their opinion on CRM practices of banks. Later the filled in questionnaires were collected by the researcher. Size of the sample is identified using the following formulae.

$$n = \frac{Z^2 \times P \times q \times N}{e^2 (N-1) + Z^2 \times P \times q}$$

Where  

- $n =$ sample size,  
- $Z =$1.96 (as per table of area under normal curve for the confidence level at 95%),  
- $P =$0.5 sample proportion of defectiveness in the universe,  
- $q =$0.5,  
- $N =$ Total Population=approximately 5000 employees (as per the personnel interviews made with the bank managers),  
- $e =$ 0.07 acceptable error.

Approximately system lead to $n=189$ which can be taken as the minimum sample size needed. A total of 230 questionnaires were distributed, 218 were replied (12 were not replied). Finally 210 (8questionnaires were rejected due to insufficient data) were considered for study. At the end 560 customers and 210 employees were selected. 25 customers and 10 employees, total 35 respondents from each bank were considered. These respondents are limited to the geographical region of Chittoor district of Andhra Pradesh state.

**3.5 PILOT STUDY**

For the present research a pilot study was conducted to redesign the questionnaire to reduce ambiguity in the instrument if necessary. Respondents were
asked to suggest potential tribulations with the questionnaire design, in order to obtain feedback for improving the survey questionnaire.

In the process of pilot study, the researcher conducted survey by visiting three banks one in each town namely Madanapalle, Chittoor and Tirupathi in Chittoor district. The researcher has distributed 35 questionnaires (25 for the customers and 10 for the bank employees) and explained the need and the contents of the questionnaire for the research. Respondents were asked to suggest potential changes (if required) with the questionnaire design.

The respondents had shared their opinions to modify some options in the scale items in the questionnaire design to decrease ambiguities. The modifications were made in this process. The process of pilot study was completed by receiving some important feedback from the respondents and the same was modified to get the final instrument.

3.6 PERIOD OF THE STUDY

The data for the present study was collected from 23 banks in Chittoor district of Andhra Pradesh from August 2014 to January 2015.

3.7 TOOLS FOR ANALYSIS

The computation is done for the total sample taking into consideration of different categories like age, gender, education, income and experience. Mean, standard deviation, skewness and kurtosis are used to examine the normality of the data collected from the respondents. Confirmative factor analysis is used to analyse data. Hypotheses testing are conducted using structural equation model.

3.8 LIMITATIONS OF THE STUDY

The study covers a rigorous analysis over the concept of CRM and its implementation in banking sector in Chittoor district. As the study is very comprehensive in nature, it is subjected to certain limitations as mentioned below.

1. The study is limited to Chittoor district of Andhra Pradesh.
2. The study is carried out through the banks of Chittoor district so the findings may not represent the entire banking sector.
3. There is unwillingness on the part of some of the respondents to spare time, due to their busy schedule.