CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The researcher has used both primary and secondary data. It was analysed with appropriate statistical tools.

The purpose of the study is to examine whether the difference in performance of public sector banks and private sector banks is due to the difference in customer retention rates and find why the customers are shifting from the existing bank. To find an answer to this question, a sample of customers of public and private sector banks from Erode district are selected and studied. The methodology used for the study is described below with universe for the study, sampling method, data collection and tools for analysis.

3.2 RESEARCH DESIGN

The research design is a descriptive one and it aims to study various factors contributing to customer retention among the customers of public sector banks and private sector banks in Erode district.
3.2.1 Universe for the Study

Erode District is purposively selected for this study. With the choice of Erode District as the study area, all the customers of selected public and private sector banks in the five taluks of Erode district constitute the universe for the study. A sample of the universe is selected for data collection and analysis.

Erode District came into being as a result of the bifurcation of Coimbatore District, through the G.O.Ms.No.1917, Revenue dated 31.08.1979. Bhavani, Erode and Sathyamangalam taluks were included in Coimbatore district which had a composite character, at the beginning of the century. Of these, Sathyamangalam Taluk was renamed as Gobichettipalayam taluk retaining Sathyamangalam as a sub-taluk. In 1975, Sathyamangalam sub-taluk was upgraded into a taluk. In 1979 Perundurai Sub Taluk was upgraded into taluk. These five taluks were grouped together to constitute the new district of Erode. Erode District consists of 5 taluks viz., Sathyamangalam, Bhavani, Gobichettipalayam, Perundurai and Erode [erode.nic]\(^{11}\).

3.3 PILOT STUDY

A pilot study was conducted to pre-test the enquiry schedule with a sample of respondents before finalization. Pre-test was done (1) to test whether the instrument would elicit response required to achieve the research

\(^{11}\) erode.nic.in/aboutdist.htm
objectives (2) to test whether content of the instrument was relevant and adequate (3) to test whether the wording of the questionnaire was clear and understandable to the respondents and (4) to test the structure and sequence of statement for their suitability for eliciting unambiguous and unbiased responses. For pre-testing, the instrument was administered to 48 respondents drawn from the selected samples of customers of public and private sector banks in Erode. Their response was the basis to make a few minor changes in the wording of the statements. These respondents were excluded from the sample selected for the study. Reliability of the questionnaire was tested using Cronbach Alpha test and was found to be satisfactory.

3.4 SAMPLE SIZE DETERMINATION

The aim of the calculation is to determine an adequate sample size to estimate the population prevalence with a good precision. It can be calculated using a simple formula (Daniel, 1999)

$$n = \frac{Z^2 \cdot P(1-P)}{d^2}$$

\[3.1\]

Where $n$ = sample size,

$Z$ = $Z$ statistic for a level of confidence,

$P$ = expected prevalence or proportion

(in proportion of one; if 50%, $P = 0.5$), and

$d$ = precision

(in proportion of one; if 5%, $d = 0.05$).

$Z$ statistic ($Z$): For the level of confidence of 95%, which is conventional, $Z$ value is 1.96. In the present study, researcher presents their results with 95% confidence intervals (CI). Investigators who want to be more confident (say 99%) about their estimates, the value of $Z$ is set at 2.58.
Expected proportion \( P \): This is the proportion (prevalence) that researcher estimates the study. We need to understand that the scale of \( P \) is from zero to one, and the sample size varies depending on the value of \( P \). Therefore, we have to get an estimate of prevalence \( P \) in order to calculate the sample size. In many cases, we can get this estimate from previous studies. In this study, \( P \) is in proportion of one, not using a percentage in all formulae.

Precision \( (d) \): It is very important for researcher to understand this value well. From the formula, it can be conceived that the sample size varies inversely with the square of the precision \( d^2 \).

As the values are defined, sample size can be calculated. Our confidence level corresponds to a \( Z \)-score. This is a constant value needed for this equation. Here are the \( z \)-scores (normal distribution table) for the most common confidence levels:

- 90\% – \( Z \) Score = 1.645
- 95\% – \( Z \) Score = 1.96
- 99\% – \( Z \) Score = 2.58

We choose a 95\% confidence level, 5\% expected prevalence or proportion, and a margin of error (confidence interval) of +/- 5\%.

\[
= ((1.96)^2 \times .5(1-.5)) / (.05)^2
\]

\[
= (3.8416 \times .25) / .0025
\]

\[
= .9604 / .0025
\]

\[
= 384.16
\]

385 respondents are needed

385//10=38.5 respondents /bank (since there are 10 banks taken for study)

For a 5\% confidence interval every bank has approximately 39 respondents, but it is not sufficient to make a detailed study since we are studying 5
different taluks. It has been decided to collect data from 100 customers per bank. So sample size can be given as $100 \times 10 = 1000$ respondents.

3.5 SAMPLING METHOD

Multistage sampling method has been used.

- Stage 1

Two categories of banks are identified and selected for the study and in each category top five performing banks were selected for study based on the cash deposit ratio and also on the sum of deposit and advance (Appendix 3). This study has been confined to the public sector banks as well as private sector Banks operating in India. The banks selected for the studies are as follows:

Table No. 3.1 List of Public Sector Banks selected for Study

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PUBLIC SECTOR BANKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>State Bank of India</td>
</tr>
<tr>
<td>2.</td>
<td>Indian Overseas Bank</td>
</tr>
<tr>
<td>3.</td>
<td>Canara Bank</td>
</tr>
<tr>
<td>4.</td>
<td>Bank of Baroda</td>
</tr>
<tr>
<td>5.</td>
<td>Indian Bank</td>
</tr>
</tbody>
</table>

Table No. 3.2 List of Private Sector Banks selected for Study

<table>
<thead>
<tr>
<th>S.No.</th>
<th>NEW GENERATION PRIVATE SECTOR BANKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>ICICI Bank Ltd</td>
</tr>
<tr>
<td>2.</td>
<td>Axis Bank</td>
</tr>
<tr>
<td>3.</td>
<td>HDFC Bank</td>
</tr>
</tbody>
</table>

OLD PRIVATE SECTOR BANKS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>OLD PRIVATE SECTOR BANKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Karur Vysya Bank</td>
</tr>
<tr>
<td>5.</td>
<td>City Union Bank</td>
</tr>
</tbody>
</table>
The details about the performance of the entire private and public sector banks in Erode District have been shown below in Appendix 3.

- **Stage II**

  With the choice of Erode District as the study area, all the customers of selected public and private sector banks in the five taluks of Erode district constitute the universe for the study. Erode District consists of 5 taluks viz., Sathyamangalam, Bhavani, Gobichettipalayam, Perundurai and Erode [erode.nic.]

  The sample chosen for the study covers the customers of public and private sector banks in Erode district. Totally 1000 (100 per bank) questionnaires were circulated among the customers of public and private sector banks in the in different regions of study area. Out of these 975 respondents responded to the questionnaire in the completed form, the rest of questionnaires were found incomplete.

  Therefore the exact sample size of the present study is 975, which were selected on stratified random sampling method (as described below). The final sample included 100 customers from State Bank of India, 96 customers from Indian Bank, 96 customers from Bank of Baroda, 100 customers from Indian Overseas Bank, 96 customers from Canara Bank, 99 customers from HDFC bank, 97 customers from ICICI bank, 96 customers from Karur Vysya Bank, 98 customers from City Union Bank, and 97 customers from Axis Bank.

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12 erode.nic.in/aboutdist.htm
The population distribution is obtained from census (Directorate of Census Operations)\textsuperscript{13} is shown below.

\textbf{Table No. 3.3 Distribution of Population in the Study Area (Census 2001)}

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name</th>
<th>Total / Rural / Urban</th>
<th>Total Households</th>
<th>Total Population</th>
<th>Percentage of Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bhavani</td>
<td>Total</td>
<td>113149</td>
<td>423708</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Erode</td>
<td>Total</td>
<td>186637</td>
<td>706529</td>
<td>34</td>
</tr>
<tr>
<td>3</td>
<td>Gobi</td>
<td>Total</td>
<td>100751</td>
<td>361201</td>
<td>17</td>
</tr>
<tr>
<td>4</td>
<td>Perundurai</td>
<td>Total</td>
<td>89763</td>
<td>326782</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Sathy</td>
<td>Total</td>
<td>74582</td>
<td>287605</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: http://www.census.tn.nic.in/

Stratified random sampling method is used for this study. The size of the strata chosen among each taluk is decided based on the population distribution in each taluk. The detail of valid respondents in each taluk is shown below.

\textbf{Table No. 3.4 Details of valid respondents from each taluk}

<table>
<thead>
<tr>
<th>Taluk Name</th>
<th>SBI</th>
<th>IB</th>
<th>BOB</th>
<th>IOB</th>
<th>CANARA</th>
<th>HDEC</th>
<th>ICICI</th>
<th>KVB</th>
<th>CUB</th>
<th>AXIS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhavani</td>
<td>20</td>
<td>19</td>
<td>19</td>
<td>20</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>20</td>
<td>19</td>
<td>155</td>
</tr>
<tr>
<td>Erode</td>
<td>34</td>
<td>32</td>
<td>32</td>
<td>34</td>
<td>32</td>
<td>99</td>
<td>67</td>
<td>32</td>
<td>33</td>
<td>33</td>
<td>428</td>
</tr>
<tr>
<td>Gobi</td>
<td>17</td>
<td>16</td>
<td>30</td>
<td>17</td>
<td>16</td>
<td>0</td>
<td>17</td>
<td>16</td>
<td>30</td>
<td>0</td>
<td>159</td>
</tr>
<tr>
<td>Perundurai</td>
<td>16</td>
<td>15</td>
<td>15</td>
<td>16</td>
<td>15</td>
<td>0</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>122</td>
</tr>
<tr>
<td>Sathy</td>
<td>13</td>
<td>14</td>
<td>0</td>
<td>13</td>
<td>14</td>
<td>0</td>
<td>14</td>
<td>14</td>
<td>0</td>
<td>30</td>
<td>111</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>96</td>
<td>96</td>
<td>100</td>
<td>96</td>
<td>99</td>
<td>97</td>
<td>96</td>
<td>98</td>
<td>97</td>
<td>975</td>
</tr>
</tbody>
</table>

\textsuperscript{13}Directorate of Census Operations • Tamil Nadu , Primary Census Abstract – Census 2001
• Stage III

3.5.1 Randomising the selection of customers

The method of randomized selection of the customer (Jo Ann M. Duffy et al, 2006) is explained below. Randomization is done on the basis of time of visiting the bank. Let the number of working hours of the banks in a week be 5x5 + 1x3 = 28 hours. If the sample size is x for that location, then this may be randomised in the following manner. The interval time between two visits should be 28/x hours. The time of the first visit may be chosen at random using random number table. (say t₁) All subsequent visits should be at intervals of 28/x hours. For example, let x = 14. Then time between 2 visits = 2 hours. Let the first visit be at 10.30 hrs on Monday, next visit will be at 12.30 hrs, 3rd visit will be at 14.30 hrs, 4th visit will be at 11.30 hrs on Tuesday etc.

3.6 DATA COLLECTION

The study made use of both primary data and secondary data.

3.6.1 Primary Data

Primary data was the main source of information for the study. The sample of 1000 customers was selected by the method described above. They were personally contacted and the required information was collected by personal interview method with a well designed questionnaire.
3.6.2 Secondary Data

Secondary data was collected from multiple sources. The primary sources adopted to collect secondary data were

- Internet
- Books
- Journals
- Reports and publications.
- Magazines etc.,

Secondary data were collected from the records of the Taluks and population size has been collected from the internet (Erode.nic.)\(^1\). The details of banks and their branch details were collected from the lead bank (Canara bank) head office Erode.

3.7 STATISTICAL TOOLS USED

3.7.1 Chi - Square Test

\( \chi^2 \) is a family of probability distributions, differentiated by their degree of freedom. It is used to test a number of different hypotheses about variances, proportions and distributional goodness of fit.

\[
\text{Chi-square test (} \chi^2 \text{)} = \sum \frac{(O-E)^2}{E} \quad \text{-------------------(3.2)}
\]

\[
\text{Degrees of freedom } = (R-1) (C-1) \quad \text{-------------------(3.3)}
\]

Where as,

\begin{align*}
O & = \text{observed frequency} \\
E & = \text{expected frequency} \\
R & = \text{number of rows} \\
C & = \text{number of columns.}
\end{align*}

\(^{1}\)http://erode.nic.in/dist_profile_201112.pdf
In the present study it is used to test the significance of association between the categorical variations. In this study, this test has been used to examine whether there is a significant difference in “customer satisfaction” or “intention to stay” between customers of public sector banks and private sector banks. It has also been used to examine whether there is any association between “customer satisfaction” and “intention to stay”. The test has been used in other related analysis also.

3.7.2 Kruskal–Wallis Test

The Kruskal–Wallis is a non-parametric method for testing whether samples originate from the same distribution. It is used for comparing more than two samples that are independent, or not related. The parametric equivalent of the Kruskal-Wallis test is the one-way analysis of variance (ANOVA). When the Kruskal-Wallis test leads to significant results, then at least one of the samples is different from the other samples. The test does not identify where the differences occur or how many differences actually occur. It is an extension of the Mann–Whitney U test to 3 or more groups. The Mann–Whitney would help analyze the specific sample pairs for significant differences.

It has been used to test whether the level of satisfaction is significantly different among customers of the best branches each public sector and private sector bank. Mann–Whitney U test has been used to select best performing branch among all public sector bank branches.
3.7.3 Logistic Regression

Logistic regression (sometimes called the Logistic Model or Logit model) is used for prediction of the probability of occurrence of an event by fitting data to a logistic curve. Like many forms of regression analysis, it makes use of several predictor variables that may be either numerical or categorical. Frequently "logistic regression" is used to refer specifically to the problem in which the dependent variable is binary—that is, the number of available categories is two (satisfied and dissatisfied customers).

This mathematical model has been constructed using logistic regression to estimate the probability of a customer being a satisfied customer based on his responses to the different questions. To make the study more convenient the eight factors which the researcher thought that it would contribute to customer satisfaction were classified into three categories and the factors were coded as shown below.

- Branch level satisfaction
  \( X_1 \)
  - Branch attributes
- Bank level satisfaction
  \( X_2 \)
  - Customer friendly policies
  \( X_3 \)
  - Image about the bank
- Customer service satisfaction
  \( X_4 \)
  - Account handling
  \( X_5 \)
  - Customer handling
  \( X_6 \)
  - Staff
  \( X_7 \)
  - Handling complaints
  \( X_8 \)
  - Responsiveness
3.7.4 Binomial Test

The binomial test is used when there is dichotomous data - that is, when each individual in the sample is classified in one of two categories (Customer satisfaction and intention to stay) and to know if the proportion of individuals falling in each category differs from chance or from some pre-specified probabilities of falling into those categories. The binomial distribution is the basis for the popular binomial test of statistical significance.

It has been used to verify whether the customer being satisfied or not is equally portable (50%). It has also been used to verify whether the customer’s “intention to leave” and “intention to stay” are equally probable.

3.7.5 Wilcoxon – Mann-Whitney U Tests

The Mann-Whitney U test is used to compare differences between two independent groups when the dependent variable is either ordinal or interval/ratio, but not normally distributed.

It has been used to examine whether the percentage of satisfied customers is significantly different between the best performing branches of public sector and private sector banks.

3.7.6 Pivot Table

A pivot table is a data summarization tool found in data visualization programs such as spreadsheet. A pivot table can automatically sort, count, total or give the average of the data stored in one table or spreadsheet. It displays the results in a second table (called a pivot table) showing the summarized data.
Pivot tables have been constructed for each factor of customer satisfaction for all the bank branches covered by the study. This has been used to identify the areas where each branch has scored poorly so that corrective actions can be initiated.

3.8 CONCEPTUAL FRAMEWORK

![Diagram of conceptual framework]

**Figure No. 3.1 Conceptual framework of the study**

Hypothesis

Bank related

1. H₀: Customer retention is independent of customer satisfaction.

Customer related

2. H₀: Customer retention is independent of customer’s age.
3. $H_0$: Customer retention is independent of customer’s gender.

4. $H_0$: Customer retention is independent of customer’s income.

5. $H_0$: Customer retention is independent of customer’s educational qualification.

6. $H_0$: Customer retention is independent of customer’s employment.

7. $H_0$: Customer retention is independent of the customer’s perception about competitor.

3.9 THE QUESTIONNAIRE FORMAT

The aim of the study was to find out the retention in banks, so in order to find customer retention it is necessary to find out whether the customers are satisfied and delighted with the present banks services and products.

3.9.1 Construct development

Even though there are several factors that have an impact on the customer retention, the study is confined only to

- Branch
- Account handling
- Customer handling
- Staff
- Handling complaints
- Responsiveness
- Customer friendly policies
- Image about the bank
- Facilities

The final format of the schedule consisted of those 54 statements, covering all the nine factors mentioned above. There were twelve statements relating to branch attributes, three statements relating to account handling, four statements relating to customer handling, seven statements relating to staff, five statements relating to handling complaints, five relating to responsiveness, six statements relating to customer friendly policies, five relating to image about the bank, and seven relating to the facilities. The questionnaire consists of dichotomous questions, multiple choice questions and graded (5 point scale) response where the respondents were asked to tick their preferences.

3.9.2 Reliability test

The test was conducted to verify that the variables included in the questionnaire are reliable enough for analysis.
Table No. 3.5 Reliability test statistics for constructs

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Factors</th>
<th>Number of Variables</th>
<th>Cronbach Alpha score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Branch</td>
<td>12</td>
<td>0.8564</td>
</tr>
<tr>
<td>2.</td>
<td>Account handling</td>
<td>3</td>
<td>0.7563</td>
</tr>
<tr>
<td>3.</td>
<td>Customer handling</td>
<td>4</td>
<td>0.8747</td>
</tr>
<tr>
<td>4.</td>
<td>Staff</td>
<td>7</td>
<td>0.9137</td>
</tr>
<tr>
<td>5.</td>
<td>Handling complaints</td>
<td>5</td>
<td>0.8941</td>
</tr>
<tr>
<td>6.</td>
<td>Responsiveness</td>
<td>5</td>
<td>0.8840</td>
</tr>
<tr>
<td>7.</td>
<td>Customer friendly policies</td>
<td>6</td>
<td>0.8899</td>
</tr>
<tr>
<td>8.</td>
<td>Image about the bank</td>
<td>5</td>
<td>0.8743</td>
</tr>
<tr>
<td>9.</td>
<td>Facilities</td>
<td>7</td>
<td>0.6621</td>
</tr>
</tbody>
</table>

Though the constructs used in the questionnaire were adopted from the earlier studies, appropriate modifications have been made in the questionnaire to suit the requirements of the present study.

3.10 CODIFICATION

3.10.1 Customer satisfaction

The customer’s level of satisfaction with each of the 45 variables under eight different factors viz.,

Table No.3.6 Factors relating to customer satisfaction

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Factor</th>
<th>Number of Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Branch</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>Account handling</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>Customer handling</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Staff</td>
<td>7</td>
</tr>
<tr>
<td>5.</td>
<td>Handling complaints</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>Responsiveness</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>Customer friendly policies</td>
<td>6</td>
</tr>
<tr>
<td>8.</td>
<td>Image about the bank</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td></td>
</tr>
</tbody>
</table>

has been measured using 5 point Likert Scale, where

“1” Represents “highly dissatisfied”
“2” Represents “dissatisfied”
“3” Neutral
“4” Represents “satisfied” and
“5” Represents “highly satisfied”

If the customer has rated any one of the 45 variables as “Highly dissatisfied” or “Dissatisfied” he is categorized as a Dissatisfied customer and is coded as ‘0’. On the other hand, if the customer has rated all the 45 variables as “neutral”, “satisfied” or “Highly satisfied”, he is categorised as a satisfied customer and is coded as 1.

3.10.2 Pivot Table

The analysis has indicated that proportion of satisfied customers is significantly different between different banks and also among different branches of the same bank. It is necessary to identify the causes for dissatisfaction at branch level so that remedial actions can be initiated. The analysis is done for each of the eight attributes viz

- Branch
- Account handling
• Customer handling
• Staff
• Handling complaints
• Responsiveness
• Customer friendly policies
• Image about the bank

The methodology of analysis is described below taking the “Branch” attribute as an illustration. Satisfaction with the “Branch” has been measured through the following variables.

a. Convenient Location
b. Access
c. External Appearance
d. Parking Space
e. Working Space
f. Cleanliness
g. Comfort
h. Illumination
i. Working hours
j. Weekly holiday

The customer’s level of satisfaction with each of the variables has been measured using 5 point Likert Scale, where
“1” Represents “highly dissatisfied”
“2” Represents “dissatisfied”
“3” Neutral
“4” Represents “satisfied” and
“5” Represents “highly satisfied”
For the purpose of analysis, if the customer has indicated 1 or 2, it is coded as ‘0’ – Dissatisfied. If the customer has indicated as 3 or 4 or 5, it is coded as ‘1’ – satisfied. Based on this method of coding, the number of who have responded with 3, 4 or 5 for each of the variables has been counted. The total number of customers who are either neutral or are satisfied has been tabulated. From this, the average number of customers who are neutral or satisfied is calculated for each Bank / branch.

Since the total number of respondents in each Bank / Branch combination is known, the value when 90% of the customers are satisfied and the value when 50% of the customers are satisfied have also been calculated. If a Bank / Branch has a score less than 50% for any variable, it is identified by a grey field. Similarly if a Bank / Branch has a score more than 90% of any variable, it is identified by a light grey field. Where the level of satisfaction is between 50% and 90% no special identification has been done.

By this process, we are able to identify the Bank / branch
- Which has achieved less than 50% satisfaction level for any variable.
- Which have achieved better than 90% satisfaction level for any variable.

This helps in identifying the Bank / Branches with poor level of satisfaction and also the specific areas requiring improvement.

3.10.3 Customer Retention:

The likelihood of customer staying with the bank was measured using the construct customer intention to stay and leave (How long will the
customers maintain their account in the present bank) which was measured with 5 different options viz.,

- will never close the account
- will maintain for at least 10 years
- will maintain for 5 to 10 years
- will maintain for 1 to 5 years
- may close the account soon

The customer who had marked any of the first three options (intention to stay) was marked as “1” - “intention to stay” and those who marked the last two options was marked as “0” - “intention to leave”.

3.10.4 Perception about competitor

The likelihood of customer staying with the present bank or he is willing to move to the other (competitor’s) bank is measured using the 7 different variables viz.,

- Physical appearance and facilities
- Convenience (location)
- Use of latest technology
- Accuracy and reliability of service
- Courtesy and helpfulness of employees
- Fair and consistent method of setting fees
- Customer related policies

There are 7 variables. The value of the variables is 1 if the present bank is preferred and the value of the variables is 2 if he rates the other bank / previous bank as better. If the customer rates a simple majority (4 out of 7) variables in favour of the present bank, then the sum of variables would be
4 \times 1 + 3 \times 2 = 10. Any total figure higher than 10, would mean that the customer considers the other bank to be better in a majority of the variables and hence the customer’s intention to move to the other bank is more.

3.11 CONCLUSION

The data for the study has been collected from the customers of 5 public sector and 5 private sector banks. All the 5 taluks of Erode district have been covered. A sample of 975 respondents has been used for the study. The respondents were identified on the basis of stratified random sampling method. The data was collected using a structured questionnaire.

The data has been analysed using a number of statistical tools. Chi-square tests have used to test the existence of association between different categorical variables such as “dissatisfied customers” and “intention to leave” and “customer of public sector / private sector” and “satisfied/dissatisfied customer” and so on.

Mann–Whitney U test has been used to examine whether the percentage of satisfied customers is significantly different between the best performing branches of public sector and private sector banks. The Kruskal–Wallis test has been used to test whether the level of satisfaction is significantly different among customers of the best branches each public sector and private sector bank. Mann–Whitney U test has been used to select best performing branch among all public sector bank branches.
A mathematical model has been constructed using logistic regression to estimate the probability of a customer being a satisfied customer based on his responses to the different questions. Binomial test has been used to verify whether the customer being satisfied or not is equally portable (50%). It has also been used to verify whether the customer’s “intention to leave” and “intention to stay” are equally probable.

Pivot tables have been constructed for each factor of customer satisfaction for all the bank branches covered by the study. This has been used to identify the areas where each branch has scored poorly so that corrective actions can be initiated.

The appropriate methodology has been chosen so that statistically valid conclusions can be made and useful suggestions can be made based on the findings.