Research Methodology
CHAPTER- III
RESEARCH METHODOLOGY

3.1 TYPE OF RESEARCH STUDY

Research Methodology is a way to systematically solve the research problem. It may be understood as the science of studying how the research is done scientifically.

“Exploratory research is intended only to provide greater familiarity with the phenomena (one) wants to investigate so that (one) can formulate more precise research questions and perhaps develop hypotheses. Such studies can be essential when (one) is investigating new phenomena or phenomena that have not been studied before”. In current research Exploratory Research Methodology was used as the aim of the research was to explore and describe the facts and developments related to the topic of the study. (Murthy C, 2009).

Therefore, the present research on – “A comparative study on Issues and Challenges regarding Green Banking in selected Public and Private Sector Banks” (With Special Emphasis to Jaipur City) is based to cover the following Research Methodology-
3.2 RESEARCH PROBLEM

JUSTIFICATION/ RELEVANCE /SIGNIFICANCE OF THE STUDY

Justification for undertaking the proposed research:

*Green banking* comes in many forms. It means promoting environment friendly practices for sustainable growth and reduces the carbon footprint from the banking industry. Using on line banking instead of branch banking, paying bills online instead of mailing them, opening online bank account. Green banking is comparatively new to the financial world.
**Green banking** is a step to change client habits in the banking sector for the sustainable development in future. Online banking is the easiest way to green banking. It is paperless banking which will reduce the cost of banking activities. In December 2007, RBI issued a circular (RBI 2007-2008, 1216) highlighting the importance for bank to act with responsibility and contribute to sustainable development so that the impact of global warming can be reduced with the help of banking industry. Green banking means to promote environment friendly practices and to reduce the carbon footprint from banking operation.

Banks, in India, has started various green banking initiatives. These initiatives bring easiness to the customers and also help the banks in reducing their cost of services. It is not possible to evaluate green banking initiatives taken by all the banks in state of Rajasthan. *Therefore, the current research study was focused to evaluate the perception and opinion of bank employees and customers of Selected Public and Private Sector Banks and to Comparatively Study on Issues and Challenges regarding Green Banking in aforesaid banks.*

### 3.3 OBJECTIVES OF STUDY

The primary objective was to evaluate the perception and opinion of bank employees and customers of selected Public and Private Sector Banks and to comparatively study the Issues and Challenges regarding Green banking in aforesaid banks.

**Secondary objectives were**

i. To study the evolution of the concept of Green Banking
ii. To compare the level of awareness of customers regarding green banking and identify the factors affecting adoption of green banking in selected banks.

iii. To study perception and perceived advantage of green banking from the viewpoint of bankers in selected banks.

iv. To examine various issues and challenges faced by public and private sector banks regarding green banking.

v. To suggest ways to banks and other stakeholders for promoting Green Banking in India.

3.4 HYPOTHESES

A supposition, a proposition or principle which is supposed or taken for granted, in order to draw a conclusion or inference for proof of the point in question; something not proved, but assumed for the purpose of argument, or to account for a fact or an occurrence as the Hypotheses that head winds detain an overdue steamer. A Hypothesis being a mere supposition, there are no other limits to Hypotheses than those of the human imagination. *(Nair Suja R, 2003)*

The following Hypotheses had been formulated for comparative study on Issues and Challenges regarding Green Banking in selected Public and Private Sector Banks (With Special Emphasis to Jaipur City)

**Null Hypothesis A**

\[ H_0 \]: There is no significant difference in initiative taken by Private and Public sector banks for Green Banking.
Alternate Hypothesis: A

$H_1$: There is a significant difference in initiative taken by Private and Public sector banks for Green Banking.

Null Hypothesis B

$H_2$: There is no significant difference in level of awareness among customers related to green banking in the selected Private and Public sector Banks.

Alternate Hypothesis B

$H_{1,2}$: There is a significant difference in level of awareness among customers related to green banking in the selected Private and Public sector Banks.

Null Hypothesis C

$H_3$: There is no significant difference in level of perception related to green banking among the selected Private and Public sector Banks.

Alternate Hypothesis C

$H_{1,3}$: There is a significant difference in level of perception related to green banking among the selected Private and Public sector Banks.

Null Hypothesis D

$H_4$: There is no significant difference in issues and challenges related to Green Banking faced by Private and Public sector Banks.
Alternate Hypothesis D

\[ H_{1-4} : \] There is a significant difference in issues and challenges related to Green Banking faced by Private and Public sector Banks.

Null Hypothesis E

\[ H_5 : \] There is no significant benefits to Customers as well as to employees of banks of green banking practices until then.

Alternate Hypothesis E

\[ H_{1-5} : \] There is a significant benefit to Customers as well as to employees of banks of green banking practices until then.

3.5 RESEARCH DESIGN

Research Methodology is a systematic way to solve the research problem. When we talk research methodology, we not only talk of research methods but also consider the logic behind the methods we use in the research study and try to explain why we are using a particular method or technique and why we are not using the other, so that research results are evaluated by the researcher himself or by others.

In short research methodology consists of these steps:

<table>
<thead>
<tr>
<th>Defining the research objective</th>
<th>Developing the research plan</th>
<th>Collecting the information</th>
<th>Analyzing the information</th>
<th>Presenting the finding</th>
</tr>
</thead>
</table>

The formidable problem that follows the task of defining the research problem is the preparation of the design of the research project, popularly known as the research design. Decision regarding what, where, when, how much, and by what means concerning an inquiry or a research study constitute a research design. Here an attempt has been made to present a clear picture of the research design.
formulated for the present study. Research design will include selection of problem, need and importance of the study, scope of the study, objectives of the study, hypotheses of the study, research methodology, sampling procedures, tools and techniques for analysis and interpretation of data. *(Patton, M. Q, 2002)*

The researcher included **qualitative and quantitative research design** which examined the perception of employees and customers of the selected Public and Private Sector banks of Jaipur, Rajasthan towards the green banking practices conducted by their respective banks and also to analyze the issues and challenges prevailing among green banking perspectives of public and private sector banks as general.

- **Research Gap**

  Green banking is an environmental friendly system that has the potential to increase customer satisfaction as well as performance of the banks. The review of literature reveals that various scholars at the national and international level have initiated different studies on different aspects of green banking. But at the national level, there are very few studies initiated towards green banking. Moreover, in Rajasthan there is hardly any study in this context. Therefore, it creates a need to study the issues and challenges prevailing in adopting concept of Green banking in India. Thus, the current research study was focused to evaluate the perception and opinion of bank employees and customers of selected Public and Private Sector Banks and to comparatively study on Issues and Challenges regarding Green Banking in aforesaid banks.
SAMPLE DETAILS

- **Population of the study**

  The population of the present study included the employees and customers of the selected Public and Private Sector banks of Jaipur, Rajasthan.

- **Sampling Method**

  The sample represented the target population acted as respondents of employees and customers of the selected Public and Private Sector banks of Jaipur, Rajasthan. Stratified and random sampling had been used to select an appropriate sample of respondents. The sample selection was randomized and due care had been taken to ensure representativeness of employees and customers of the selected Public and Private Sector banks of Jaipur, Rajasthan.

  The sample size was decided by the following formula, and then sample size, n, with 95% confidence level was given by:

  \[
  n = \frac{4*SD^2}{(0.025*M)^2}
  \]

  Where SD is the standard deviation and M is the mean (*Levin & Rubin, 2009*).

- **Sampling Unit**

  From the researcher’s point of view, only those people would be selected as sampling unit who were the customers of these six banks. As far as bankers were concerned, bank employees were elected who were serving at the main branch because information was available from the main branch only including lower, middle and upper management.
• **Sampling Size and Technique**

The total number of respondents were 307 out of which 207 were the customers of the banks and 100 respondents were the employees serving at the main branch because information was available from the main branch only, including lower, middle and upper management.

• **Sampling Technique**

To analyze the data of the customers, *Stratified Random sampling technique* was applied including various graphs, tables and simple statistical technique, so that sample should be representative to the universe. For the selection of bankers, judgmental sampling technique was applied.

**SOURCES OF DATA**

**Primary Data**

Instrument of collecting primary data was a structured questionnaire including open and close ended questions. A sample questionnaire was filled personally by the researcher, so that there is no possibility of misinterpretation of questions and the possibility of non receipt of the questions and incomplete information was also removed. Two separate questionnaires were designed for the purpose of present study one for the bankers and another for the customers. Before execution of final questionnaire researcher conducted a pilot study to check the reliability and validity. On the bases of this test, final questionnaire was modified. On the bases of questionnaire, response was collected on 5 point liker's scale. Basically the study was based on primary data but secondary data was also used as per the requirement of the study. Secondary data was collected from various
Research Methodology

journals, magazines, internet and books. Primary data was collected through a structured Questionnaire and researcher studied three major banks of both Public and Private sector, which were as follows-

<table>
<thead>
<tr>
<th>Private Banks</th>
<th>Public Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICICI Bank</td>
<td>SBI Bank</td>
</tr>
<tr>
<td>Axis Bank</td>
<td>PNB Bank</td>
</tr>
<tr>
<td>HDFC Bank</td>
<td>BOB Bank</td>
</tr>
</tbody>
</table>

For preliminary survey, data from 307 respondents was collected. The above mentioned six banks was taken for the survey in order to make the study more valuable as these banks were the leaders in terms of market share and also these were the only banks where green banking initiatives were majorly taken.

- **Time Frame**

  For secondary data, time frame for data collection was of 3 years from 2012-2015 because, in India, major Green banking initiatives were taken by banks during this time frame only. The data was collected from annual reports, magazines, newspapers etc.

**Secondary Data**

The major sources of secondary data were published research studies in various national and internal journals mostly accessed through academics data bases like EBSCO, Emerald, Sage and Springer. Data was also collected from the newspaper article on Green Banking initiatives and Practices adopted by various banks in India and around the Globe.
Variables

The study includes various variables. The control variable selected for this study were age, gender, qualification, experience, etc. the control variables was determined by a single question on the survey instrument. Other variables and parameters of current study were as follows:-

<table>
<thead>
<tr>
<th>S. No</th>
<th>Variable</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Awareness Towards Green Banking</td>
<td>Q No 2,3,4,5,6,7</td>
</tr>
<tr>
<td>2.</td>
<td>Perception Towards Green Banking</td>
<td>Q No 8,9</td>
</tr>
<tr>
<td>3.</td>
<td>Issues of Green Banking</td>
<td>Q No 10,11,12</td>
</tr>
<tr>
<td>4.</td>
<td>Challenges for Green Banking</td>
<td>Q No 13,14,15</td>
</tr>
</tbody>
</table>

Respondents - Employees

<table>
<thead>
<tr>
<th>S. No</th>
<th>Variable</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Awareness towards Green Banking</td>
<td>Q No 1,2,15,17,18</td>
</tr>
<tr>
<td>2.</td>
<td>Perception towards Green Banking</td>
<td>Q No 3,4,5,6,7,8,16</td>
</tr>
<tr>
<td>3.</td>
<td>Issues of Green Banking</td>
<td>Q No 9,10,11,12</td>
</tr>
<tr>
<td>4.</td>
<td>Challenges for Green Banking</td>
<td>Q No 13,14</td>
</tr>
</tbody>
</table>

VALIDITY OF TOOL

Validity is defined as the extent to which a test measures what it claim to measure. A measure is valid if it is supposed to measure, and does so cleanly – without accidently including other factors. Validity of content, in Questionnaire for customers as well as for bank employees framed for analysis in current research study, was done using content validity. To access the content validity the primary tool as framed with references from other studies in literature review was send to twenty experts (five high rank bank employees, ten management experts and five
statisticians). However, only eleven experts reverted back with comments. After the opinion from experts, various questions in tools which were not directly correlated with the objectives and hypotheses of research were modified or removed and final shape of toll was evolved, which was further undertaken for pilot study.

PILOT STUDY

A pilot study was conducted to test the reliability of the questionnaire. Before going for pilot study, the researcher held a series of in-depth interviews with the departmental heads and other employees of the selected banks (Singh and Rathore, 2014). To check the reliability of the scale pilot testing was done. The sample size for the pilot study was 17 employees and 18 customers of banks. The findings of the pilot study revealed various items in questionnaire, comprising five dimensions in order to assess the perception of impact of Green Banking in Public and private Sector Banks.

Cronbach's Alpha was designed as a measure of internal consistency of items in the questionnaire. It varied between zero and one. The closer alpha was to one, the greater the internal consistency of the items in the questionnaire. In the last phase, pilot testing was performed with the sample size of 50 respondents. Nunnally (1978), has suggested that an acceptable alpha score for reliability needs to be higher than 0.7. The results of the pilot testing were as follows:-

<table>
<thead>
<tr>
<th>Table 3.2 Cronbach’s Alpha Reliability Coefficients of Employees and Customers of Public and Private Banks under Study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of items</strong></td>
</tr>
<tr>
<td>Employees of Banks</td>
</tr>
<tr>
<td>Customers of Banks</td>
</tr>
</tbody>
</table>

Source: Primary Data
The results of the pilot study were carefully studied and necessary changes were incorporated in the questionnaire. The total numbers of statements in the questionnaire were reduced. Then the final questionnaire was ready to administer to the respondents. Primary data was collected from 200 customers of the banks and 100 respondents were the employees serving at the main branches because information was available at the main branches only; including lower, middle and upper management. The data collected through the face to face interactions with the respondents on the basis of scheduled meetings.

**Inference:** Cronbach’s alpha test was performed to check the reliability of questions or items. The pervious table displays the results. The Cronbach’s alpha test was performed and it resulted in an overall score indicating internal consistency of the items.

**Normality tests**

Kolmogorov-Smirnov test and Shapiro-Wilk test: These tests were used to measure the sampling normality analysis. After a positive test, inferential analysis was performed. Subsequently several tests of Hypotheses were performed using correlation analysis, regression analysis, crosstab and chi-square test.
TABLE 3.3: KOLMOGOROV-SMIROV AND SHAPIRO-WILK

<table>
<thead>
<tr>
<th>Variables</th>
<th>GROUP</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Awareness towards Green banking</td>
<td>Customers</td>
<td>0.235</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>Employees</td>
<td>0.165</td>
<td>42</td>
</tr>
<tr>
<td>Perception towards Green banking</td>
<td>Customers</td>
<td>0.249</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>Employees</td>
<td>0.129</td>
<td>42</td>
</tr>
<tr>
<td>Issues of Green Banking</td>
<td>Customers</td>
<td>0.258</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>Employees</td>
<td>0.152</td>
<td>42</td>
</tr>
<tr>
<td>Challenges for Green Banking</td>
<td>Customers</td>
<td>0.251</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>Employees</td>
<td>0.178</td>
<td>42</td>
</tr>
</tbody>
</table>

Reliability Analysis

Cronbach’s coefficient of reliability was computed for all dimensions to verify the internal consistency of the items that constitute dimensions. Scale reliability was the ratio of true score variance to observed score variance. If there was less error inherent within the scale, then the scale would yield consistent results across observations and research settings. In other words, reliability of an instrument was the degree to which it yields a true score of the variable under consideration. Reliability was also defined as the extent to which any measuring instrument yields the same results on repeated trials.

Several methods of reliability were used to establish the reliability of a measuring instrument. These include test-retest method, equivalent forms, split-halves method and internal consistency method. The internal consistency measure was the most preferred one because it requires a single administration and
consequently was supposed to be most effective in field studies. Internal consistency was concerned with the homogeneity of the items comprising a scale.

A scale was internally consistent to the extent that its items were highly inter-correlated. This method was also considered as the most general form of reliability estimation. In this method, reliability was operationalized as internal consistency, which was the degree of inter-correlation among the items that constitute a scale (Nunnally, 1978). It also presented the level of homogeneity of items in a scale. Internal consistency was measured using a reliability coefficient of Cronbach’s alpha (Cronbach, 1951).

Reliability Measures

Above points highlighted the reliabilities of the scales used in this study. The standardized Cronbach’s alpha had been calculated for each measure. Cronbach’s alpha measures the internal consistency of a scale. It represented the degree to which instrument items were homogeneous and reflect the same underlying constructs (Stevens, 1995). Bohrnstedt and Knoke (1994) suggested that researchers should strive for alphas of 0.70 or higher. As the data below highlights that all the scales were reliable and coherent. The data collected from all filled in questionnaires had been analyzed through SPSS 18.0 and results of data analysis are presented.

Reliability Testing

Each Hypothesis was tested and validated. To prepare the contextual questionnaire, it required operationalizing the list of items to measure the concepts involved in the study.
3.6 DEMOGRAPHIC ANALYSIS OF CUSTOMERS OF VARIOUS BANKS AS RESPONDENTS

Demographic study means study of both quantitative and qualitative aspects of selected human population. Quantitative aspects include composition, age, gender, size, and structure of the population. Qualitative aspects are the research specific factors such as bank details, etc.

In the current research study Jaipur (Rajasthan) is chosen as the Universe of the study. Customers from both Public and Private sector banks (viz. SBI, PNB, BOB and ICICI, HDFC, AXIS Bank respectively) were analyzed in research. Demographic details of respondents are analyzed in table 3.4 below:-

**TABLE 3.4 DEMOGRAPHIC DETAILS OF CUSTOMERS AS RESPONDENTS**

<table>
<thead>
<tr>
<th>Sample characteristic</th>
<th>Category</th>
<th>Frequency (No. of respondent)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Respondents</td>
<td></td>
<td>207</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>142</td>
<td>68.59%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>65</td>
<td>31.41%</td>
</tr>
<tr>
<td>Age Group (Years)</td>
<td>18-28</td>
<td>24</td>
<td>11.59%</td>
</tr>
<tr>
<td></td>
<td>28-38</td>
<td>54</td>
<td>26.08%</td>
</tr>
<tr>
<td></td>
<td>38-48</td>
<td>49</td>
<td>23.67%</td>
</tr>
<tr>
<td></td>
<td>Above 48</td>
<td>80</td>
<td>38.64%</td>
</tr>
<tr>
<td>Family Income (Rs in Laks)</td>
<td>200000-300000</td>
<td>58</td>
<td>28.01%</td>
</tr>
<tr>
<td></td>
<td>300000-400000</td>
<td>64</td>
<td>30.91%</td>
</tr>
<tr>
<td></td>
<td>400000-500000</td>
<td>39</td>
<td>18.84%</td>
</tr>
<tr>
<td></td>
<td>Above 500000</td>
<td>46</td>
<td>22.22%</td>
</tr>
<tr>
<td>Bank of Respondents (Private Sector)</td>
<td>Axis Bank</td>
<td>34</td>
<td>16.42%</td>
</tr>
<tr>
<td></td>
<td>HDFC</td>
<td>33</td>
<td>15.94%</td>
</tr>
<tr>
<td></td>
<td>ICICI</td>
<td>40</td>
<td>19.32%</td>
</tr>
<tr>
<td>Bank of Respondents (Public Sector)</td>
<td>PNB</td>
<td>33</td>
<td>15.94%</td>
</tr>
<tr>
<td></td>
<td>SBI</td>
<td>33</td>
<td>15.94%</td>
</tr>
<tr>
<td></td>
<td>BOB</td>
<td>34</td>
<td>16.42%</td>
</tr>
</tbody>
</table>
CHART 3.1 DEMOGRAPHIC DETAILS OF CUSTOMERS AS RESPONDENTS

Chart 3.1 (a) Gender of Customers of Bank as Respondents

Chart 3.1 (b) Age Group of Customers of Bank as Respondents
Chart 3.1 (c) Family Income of Customers of Bank as Respondents

- 200000-300000: 28%
- 300000-400000: 31%
- 400000-500000: 19%
- Above 500000: 22%

Chart 3.1 (d) Bank of Customers as Respondents

<table>
<thead>
<tr>
<th>Bank of Respondents of Private Sector Bank</th>
<th>Bank of Respondents of Public Sector Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNB</td>
<td>SBI</td>
</tr>
<tr>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>34</td>
<td>34</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis Bank</td>
<td>34</td>
</tr>
<tr>
<td>HDFC</td>
<td>33</td>
</tr>
<tr>
<td>ICICI</td>
<td>40</td>
</tr>
<tr>
<td>PNB</td>
<td>33</td>
</tr>
<tr>
<td>SBI</td>
<td>33</td>
</tr>
<tr>
<td>BOB</td>
<td>34</td>
</tr>
</tbody>
</table>
INTERPRETATION

Demographic study means study of both quantitative and qualitative aspects of selected human population. Quantitative aspects include composition, age, gender, size, and structure of the population. Qualitative aspects are the research specific factors, such as bank details, etc. Both Male and Female customers of Public and Private sector banks were analyzed as respondents of current study. 68.59% of respondents were male and 31.41% of respondents were female. This is also roughly representative of the fact that number of Male customers utilizing bank services is comparatively higher than female customers.

Another parameter was the age group of customers and it was found that maximum respondents 38.64% were above 48 years of age and the minimum respondents 11.59% were between 18-28 years of age. The remaining 26.08% respondents were between 28-38 years and 23.67% were between the ages of 38-48 years.

One more important demographic parameter which correlates with current research study is Family Income of respondents. 28.01% of respondents were from family income range of Rs 2 lakhs to Rs 3 lakhs. 30.91% of respondents which have the maximum percentage of respondents in one family income group were from average income of Rs 3 lakhs to Rs 4 lakhs. No. of respondents in family income category of Rs 4 lakhs to Rs 5 lakhs and Rs 5 lakhs and above were 18.84% and 22.22% respectively.

To comparatively analyze the objective of research, respondents were analyzed from three public sector and three private sector banks. Frequency analysis of these
respondents with respective to bank was roughly a uniform distribution, i.e. 15% to 16% in most of the banks except 19% respondents from ICICI bank.

3.7 DEMOGRAPHIC ANALYSIS OF EMPLOYEES OF VARIOUS BANKS AS RESPONDENTS

Demographic study means study of both quantitative and qualitative aspects of selected human population. Quantitative aspects included composition, age, gender, size, and structure of the population. Qualitative aspects were the research specific factors, such as bank details, etc.

In the current research study, Jaipur (Rajasthan) was chosen as the Universe of the study. Employees from Public and Private sector banks (Viz SBI, PNB, BOB and ICICI, HDFC, AXIS bank respectively) were analyzed in research. Demographic details of respondents were analyzed in Table 3.6 below:-

<table>
<thead>
<tr>
<th>TABLE 3.5 DEMOGRAPHIC DETAILS OF EMPLOYEES AS RESPONDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sample characteristic</strong></td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td><strong>Total Respondents</strong></td>
</tr>
<tr>
<td><strong>Age Group (Years)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Bank of Respondents</strong></td>
</tr>
<tr>
<td>(Private Sector)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Bank of Respondents</strong></td>
</tr>
<tr>
<td>(Public Sector)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
CHART 3.2 DEMOGRAPHIC DETAILS OF EMPLOYEES AS RESPONDENTS

Chart 3.2 (a) Age group of Employees of Bank as Respondents

Chart 3.2 (b) No of Employees of Banks as Respondents
INTERPRETATION:

Both Male and Female customers of Public and Private sector banks were analyzed as respondents of current study. Important demographic parameter which correlates with current research study is age group of employees as respondents. 34% of employees which were maximum in category of employees as respondents were of age group 40 to 50 years. 16% were of young age group i.e 20 to 30 years, 29% were of 30 to 40 years and remaining 21% were of age group of above 50 years.

Another parameter was designation of employees and it was found that all designations of employees, i.e. Assistant manager, Assistant Business Manager, Business Manager, Cashier, Manager, Chief Manager, Head Cashier, Officer, R.O, Sr. Manager, Sales Officer and all other variable category, acted as respondents of current research study.

To comparatively analyze the objective of research, respondents were analyzed from three public sector and three private sector banks, frequency analysis of these respondents with respective to bank is equally distributed, i.e. 16% to 17% in all the selected banks.

3.8 STATISTICAL TESTS EMPLOYED

The Hypotheses had been formulated and tested using SPSS software and the results had been arrived at. The total analysis was carried out by using SPSS 18.1 software package. Various other statistical tools and tests used for analysis included reliability analysis, reliability testing, Cronbach's Alpha, Kaiser-Meyer-Olkin measure of sampling adequacy, tabulation of data, descriptive statistics, means,
averages, factor analysis, total variance analysis, correlation analysis, regression analysis, crosstab, chi-square tests, probability techniques, etc.

**Descriptive Analysis:**

Statistical methods were used to summarize or describe the collection of data. Various descriptive statistical tool such as frequencies, charts and graphs, Percentages, Arithmetic Averages; correlation and Standard Deviations etc. were used according to the data.

**Influential Analysis:**

**Classification, presentation and analysis of data:** - The researcher classified the raw data into some purposeful and usable categories. Tabulation was a part of the technical procedure wherein the classified data was put in the form of tables. Analysis work after tabulation was generally based on the computation of various percentage, ratios and coefficient, etc by applying various well defined formulae. In the process of analysis, relationships or differences, supporting or conflicting with original Hypotheses it determined with what validity data said to indicate conclusion.

**Tools for Testing Hypotheses:**

The data collected from the questionnaire was used to check the Hypotheses. For Hypotheses testing, the following statistical techniques had been used on the tabulated data.

- **Normality test**

  To check the reliability of the questionnaire Normality test (Cronbach’s Alpha) had been applied with the help of SPSS software.
• **Likert’s Scale**

Depending on the requirement of scaling / ranking for questionnaire Four Point/ Five Point Likert’s scale had been applied on various questions and score sheet was formulated.

• **Students “t” test**

Among the most commonly used statistical significance tests applied to small data sets (population’s samples) was the series of Student's tests. One of these tests was used for the comparison of two means, which is commonly applied to many cases. The outcome of these tests was the acceptance or rejection of the null Hypotheses (H₀). The null Hypotheses generally stated that: "Any differences, discrepancies, or suspiciously outlying results are purely due to random and not systematic errors". The alternative Hypotheses (Hₐ) stated exactly the opposite.

• **Chi-Square Test (A Goodness Of Fit)**

Hypotheses tests were performed on contingency tables in order to decide whether or not effects were present. Effects in a contingency table were defined as relationships between the row and column variables that were the levels of the row variable differentially distributed over levels of the column variables. Significance in this Hypotheses test meant that interpretation of the cell frequencies is warranted. Non-significance meant that any differences in cell frequencies could be explained by chance.

Hypotheses tests on contingency tables were based on a statistic called Chi-square. The sampling distribution of the Chi-squared statistic was then presented, preceded by a discussion of the Hypotheses test.
The chi-square test of significance was useful as a tool to determine whether or not it was worth the researcher's effort to interpret a contingency table. A significant result of this test meant that the cells of a contingency table should be interpreted. A non-significant test meant that no effects were discovered and chance could explain the observed differences in the cells. In this case, an interpretation of the cell frequencies was not useful.

• ANOVA (Analysis of Variance)

ANOVA, generally called an F test, was related to the t test. The noteworthy difference was that, where the t test measured the qualification between the systems for two totals, an ANOVA tested the differentiation between the strategies for two or more get-togethers.

A fixed ANOVA, or possibly a single part ANOVA, exams differentiated involving get-togethers which could be not long ago masterminded on a single free varied. You'll be able to with like approach employ unique self-governing parameters as well as examination with regard to participations utilizing factorial ANOVA (see underneath). “This taking part in purpose of utilizing ANOVA as opposed to unique t-tests is usually it diminishes the particular chances of the kind-I pass”. Generating various exams diminishes the likelihood of finding a thing simply by chance-creation a kind-I oversight (Allen Paul, 2008). “Why don't you consider all of us employ socioeconomic status (SES) as and summarize. I have 8 degrees of SES as well as I've got to check out in the event that the 8 accumulations are not the exact same since each one in return on their ordinary satisfaction. To help difficulty the entire with the strategies along with each one in return, you might need to
manage capital t values. About the value of probability that your alpha dog is usually established on significance confidence interval 0.05 for any just one examination, instances exams, the brand new r is usually 1. 4—you are usually fundamentally ascertained of getting a kind in both. Thus, people around the many previously expressed exams you could possibly run across a few discriminating complexity involving sociable activities; however, you can find very likely because of discontent. A good ANOVA controls the particular commonly overlook examining every one of the 8 methods next to the other simultaneously, simply put alpha dog stays on 0.05”.

ANOVAs is usually reactive with regard to the two parametric (score data) as well as non-parametric (ranking/ordering) data.

Types of ANOVA

- **One-Way Between Groups (Ambastha, C.K, 2001)**

  There is emerge collecting (last audit) that you are applying in order to represent the social situations. This can be a tiniest complicated model associated with ANOVA. Moreover, this sort of ANOVA can easily be taken to remain in correlation issues among different social extramarital affairs - exercise execution coming from different snack bars.

- **One-Way Duplicated Procedures**

  A new kept repetitive procedures ANOVA is needed once you have a singular celebration upon that you've scored a thing repeatedly. Chances are you'll utilize one-way reiterated procedures ANOVA to evaluate in case specialist execution on the test out altered later.
• **Two-Way Between Groups**

A new two-way among get-togethers ANOVA is needed to check out complicated grouping. Every one of the concept consequences are kept checks. This letters impact is actually in essence asking "is at this time there any kind of big accomplishment within execution when you consider last study and overseas/local performing together".

• **Two-Way Duplicated Procedures**

This type of ANOVA one on one make use of the reiterated procedures construction and fuses an association way.

• **Non-Parametric along with Parametric**

ANOVA is actually approachable for credit score or maybe among occasion facts because parametric ANOVA. This can be a style of ANOVA one does on the common selection choices in a very true cluster. This non-parametric version is normally discovered under the going "Nonparametric test". It really is employed once you have get ranking or maybe facts.

• **Available Software (Essa, E. L,1987)**

*(a) SPSS:* - The ANOVA routines in SPSS are OK for simple one-way analyses. Anything more complicated gets difficult. All statistical packages (SAS, Minitab etc.) provide for ANOVA. Correlation and Regression analysis are also run on SPSS.

*(b) Excel:*-Excel allows you to ANOVA from the Data Analysis Add-on. The instructions are not good.
3.9 LIMITATIONS OF THE STUDY

The scope of study is limited due to the following reasons:

i. In the proposed research study, the analyses was conducted on Employees and Customers of selected Public and Private sector banks in Jaipur. So it cannot be said to be complete in its owing to several limitations such as biased responses, inaccurate information etc. These limitations may spring out from failure of employees and customers to respond correctly, honestly and many other latent factors.

ii. A limitation of the study was to use short form of Instruments and technical terms.

iii. By testing the results on three public and three private sector banks of Rajasthan the results cannot be generalized to other banks of the world.

iv. Self Report risk taking measure was used in this study (without giving respondents an actual task). This raised the general concern and limitation for validity and reliability of results.
REFERENCES


