Chapter-5

CSR Orientation of Selected Business Organisations: Empirical Results and Discussion
Research Methodology

5.1 Introduction

There are many techniques for investigating undefined research problems for which there are various research designs. This chapter describes the research methodology chosen for the present study. It describes the objectives, hypothesis, and sampling design and presents a background of the units/organizations chosen as the sample. It also defines the tools and techniques applied to measure the variables and their relationships.

Research is a structured enquiry that utilizes acceptable scientific methodology to solve problems and create new knowledge that is generally applicable. Scientific methods consist of systematic observation, classification and interpretation of data. Although we engage in such process in our daily life, the difference between our casual day-to-day generalisation and the conclusions usually recognized as scientific method lies in the degree of formality, rigorousness, verifiability and general validity of latter. The selection of research designs depends upon the purpose just as the plan of a building would depend upon the purpose for which it is intended to be used. Thus, the purpose, rather than the technique, determines the research design of a study.

Present study undertaken the exploratory and analytical research. Exploratory research is undertaken to explore an area where little is known or to investigate the possibilities of undertaking a particular research study (feasibility study/ pilot study). The purpose of this study was to describe the levels of corporate social responsibility in selected organizations and to determine the determinants and motives for which organizations are doing social responsibility.

An explanatory study is undertaken when not much is known about the situation at hand, or when no information is available on how similar problems or research issues have been solved in the past. In such cases, extensive preliminary work needs to be done to gain familiarity with the phenomena in the situation, and understand what is occurring, before we develop a model and set up a rigorous design for comprehensive investigation. Analytical research is primarily concerned with testing hypothesis and specifying and interpreting relationships, by analysing the facts or information already available. This thesis mainly have been an exploratory purpose since it aims to gain a deeper
understanding of CSR. As CSR is rather a complex phenomena an exploratory research can be used to clarify this complex subject. However, this thesis also be analytical as it answers the questions how companies engage in CSR. Moreover, the thesis have analytical approach also as it investigates the association between objectives and hypothesis.

5.2 Research Design

Research design is the conceptual structure within which research would be conducted. The function of research design is to provide for the collection of relevant information with minimal expenditure of effort, time and money. The preparation of research design, appropriate for a particular research problem, involves the consideration of the following:

a) Objectives of the research study.
b) Sample Design
c) Tools for Data collection
d) Data Analysis - qualitative and quantitative

5.3 Objectives & Hypotheses of the Research Study

Objectives identified to answer the research questions. The present study has the following objectives.

(a) To assess the corporate social responsibility levels of selected corporate organizations;
(b) to find out motives and determinants of corporate social responsibility;
(c) to conduct the cost-benefit analysis of corporate social responsibility;
(d) to suggest measures to raise the CSR standards of corporate organizations in the long run.

To guide the empirical parts of the work, the following hypotheses are set up for testing.

Hypothesis I Size of organization does not matter in adoption of the CSR.
Hypothesis II Innovative companies are more oriented towards the concept of CSR.
Hypothesis III Indian companies are more CSR oriented than foreign owned companies.
5.4 Sample Design

Researchers usually draw conclusions about large groups by taking a sample. A Sample is a segment of the population selected to represent the population as a whole. Ideally, the sample should be representative and allow the researcher to make accurate estimates of the thoughts and behaviour of the larger population.

5.4.1 Types of Samples

Probability samples: Sample members may be chosen at random from the entire population.

a) Simple random sample: Every member of the population has a known and equal chance of being selected.

b) Stratified random sample: Population is divided into mutually exclusive groups such as age groups and random samples are drawn from each group.

c) Cluster (area) sample: The population is divided into mutually exclusive groups such as blocks, and the researcher draws a sample of the group to interview.

Non-Probability samples: The researcher might select people who are easier to obtain information from

a) Convenience sample: It selects the easiest population members from which to obtain information.

b) Judgment sample: The researcher uses his/her judgment to select population members who are good prospects for accurate information.

c) Quota sample: The researcher finds and interviews a prescribed number of People in each of several categories.

To achieve the above-mentioned objectives and to test the hypothesis, data has been collected from the Haryana state. Data has been collected from the business organizations as well as respondents to judge the authenticity of study. For this purpose 60 companies and 100 respondents are taken as sample size. Companies taken into consideration are on the basis of product differentiation, ownership and size of organization. Companies selected for the present study are taken from automobile sector, real estate sector, banking sector, IT sector, FMCG sector, electronics based and pharmaceutical companies.
5.5 Research Tool

The underlying principle suggested below is to ensure the validity of instrument by making sure that questions relate to the objectives of study.

Step I: Clearly define and individually list all the specific objectives or research questions for study.

Step II: For each objective or research question, list all the associated questions that want to answer through study.

Step III: Take each research question listed in step II and list the information required to answer it.

Step IV: Formulate question(s) to obtain this information.

5.6 The Questionnaire

A questionnaire consists of a set of questions presented to a respondent for answers. The respondents read the questions, interpret what is expected and then write down the answers themselves. It is called an Interview Schedule when the researcher asks the questions (and if necessary, explain them) and records the respondent's reply on the interview schedule. Present study uses the Interview Schedule method for collecting the data from the respondents. There are many ways to ask questions, the questionnaire is very flexible. Questionnaire of present study was developed and tested carefully before being used on a large scale. There are three basic types of questionnaire:

a) Closed-ended Questionnaire: It includes all possible answers/prewritten response categories, and respondents are asked to choose among them. e.g. multiple choice questions, scale questions

b) Open-ended Questionnaire: It allows respondents to answer in their own words. Questionnaire does not contain boxes to tick but instead leaves a blank section for the respondents to write in an answer.

c) Combination of both

Begins with a series of closed-ended questions, with boxes to tick or scales to rank, and then finish with a section of open-ended questions or more detailed response. Present study uses both type of questionnaire i.e. open ended and close ended. Questionnaires are
enclosed in the annexure. Basically for this study two questionnaires have been
developed to collect the data from the business organisations as well as customers.
Questionnaire for business organisations classified into various levels which helps to get
the necessary data for analysis.

**Questionnaire Development**

On the basis of literature survey, a ‘questionnaire’ was developed for assessing levels and
find out the motives and determinants of CSR. The questionnaire consisting of 21
items/statements was developed. All the items of the questionnaire were worded in
behaviourally observable statement.

The negatively phrased statements were analyzed by reverse score to reduce bias
responses. A pilot study was conducted for testing the content validity of the
questionnaire.

**Content Validity**

Content validity measures the degree to which the test items represent the domain or
universe of the variables being measured. The content validity of the questionnaire used
for the study was tested by conducting a pre-testing survey. The Pre-testing survey was
conducted on a sample of 42 randomly selected employees. The pre-testing was
conducted with the following objectives:

- To assess the content validity of the items by obtaining experts opinion and
  feedback about them.

- To assess the reliability of the items in the questionnaire.

- To achieve comfort level of respondents in answering the questions.

Content validity was done by obtaining opinion and feedback from experts on the clarity
of the items constructed. Based on the response of the pre-testing survey, questions which
were confusing, amibiguous or gave skewed answers were removed or rewritten.

**5.7 Methods of Data Collection:**

The construction of a research instrument or tool for data collection is the most important
aspect of a research project because all findings or conclusions is based upon the type of
information collect, and the data collect is entirely dependent upon the questions that are asked from respondents. The research tool provides the input into a study and therefore the quality and validity of the output (the findings) are solely dependent on it. Having formulated the research problem, developed a study design, constructed a research instrument and selected a sample, then collect the data from which inferences and conclusions will be drawn for study.

This study is based on the data collected from both the sources. The data have been collected by means of survey through questionnaire, interview and personal observation. The data are original in character. The secondary data collected from the various books and journals, magazines, newspaper and through Internet to enhance the conceptual knowledge and to get a better understanding of the study. The main data collection methods for present study are interviews, questionnaire, observations and written sources. These methods can be used separately or together. However it is recommended to use more than one method in order to gain a better understanding of research area.

5.8 Processing and Analysing Data

It involves a number of closely related operations that are performed with the purpose of summarizing the collected data and organizing these in a manner that they answer the research questions (objectives). The Data Processing operations are Editing— a process of examining the collected raw data to detect errors and omissions and to correct these when possible and Classification— it involves a process of arranging data in groups or classes on the basis of common characteristics.

Present study classified the data according to these attributes, which can be descriptive such as workplace policies, environmental policies, marketplace policies, community policies and company policies. Such classification can be either Simple classification, where we consider only one attribute, and divide the universe into two classes—one class consisting of items possessing the given attribute and the other class consisting of items which do not possess the given attribute or Classification according to class—intervals: is done with data relating to income, age, weight, tariff, production, occupancy etc. Such quantitative data are known as the statistics of variables and are classified on the basis of class—intervals.
Tabulation- Tabulation is the process of summarizing raw data and displaying the same in compact form for further analysis. It is an orderly arrangement of data in columns and rows. Tabulation may also be classified as simple and complex tabulation. Simple tabulation generally results in one-way tables that supply answers to questions about one characteristic of data only. Complex tabulation usually results on two-way tables (which give information about two inter-related characteristics of data), three -way tables or still higher order tables, also known as manifold tables.

5.9 Analysis Techniques

Qualitative Data Analysis: Qualitative data analysis is a very personal process with few rigid rules and procedures. For this purpose, the researcher needs to go through a process called Content Analysis.

Content Analysis means analysis of the contents of an interview in order to identify the main themes that emerge from the responses given by the respondents. This process involves a number of steps:

Step 1. Identify the main themes. The researcher needs to carefully go through the descriptive responses given by respondents to each question in order to understand the meaning they communicate. From these responses the researcher develop broad themes that reflect these meanings People use different words and language to express themselves. It is important that researcher select wording of the theme in a way that accurately represents the meaning of the responses categorized under a theme. These themes become the basis for analyzing the text of unstructured interviews.

Step 2. Assign codes to the main themes: To count the number of times a theme has occurred in an interview, it needs to select a few responses to an open- ended question and identify the main themes. To identify these themes from the same question till a saturation point is reached. Write these themes and assign a code to each of them, using numbers or keywords.

Step 3. Classify responses under the main themes: Having identified the themes next step is to go through the transcripts of all the interviews and classify the responses under the different themes.
Step 4. Integrate themes and responses into the text of report: Having identified responses that fall within different themes, the next step is to integrate into the text of report. While discussing the main themes that emerged from their study, some researchers use verbatim responses to keep the feel of the response. There are others who count how frequently a theme has occurred, and then provide a sample of the responses.

5.9.1 Quantitative and Qualitative Data Analysis

This method is most suitable for large well-designed and well-administered surveys using properly constructed and worded questionnaire.

Manual Data Analysis: This can be done if the number of respondents is reasonably small, and there are not many variables to analyse. However, this is useful only for calculating frequencies and for simple cross tabulations. The easiest way to do this is to code it directly onto large graph paper in columns. Detailed headings can be used or question numbers can be written on each column to code information about the question. To manually analyse data (frequency distribution), count various codes in a column and then decode them.

Present study used both methods to achieve the objectives of the study and find association between variables of hypothesis. Quantitative method is used to assess the levels of CSR and find the motives and determinants for which corporates are doing CSR activities. Qualitative method is used to conduct the cost-benefit analysis of corporates for CSR.

5.9.2 Chi Square Test

For testing the hypothesis the two-way Chi Square is a convenient technique for determining the significance of the difference between the frequencies of occurrence in two or more categories with two or more groups. This is called a two-way classification.

Expected frequencies (Fe) for each cell are determined by the following formula.

\[
Fe = \frac{(\text{Row Subtotal} \times \text{Column Subtotal})}{\text{Total}}
\]
\[ \chi^2 = \text{Basic Computational Equation} \]

\[
\chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}
\]

\[= \sum \frac{(F_o - F_e)^2}{F_e}\]

Degrees of Freedom

A value of \( \chi^2 \) cannot be evaluated unless the number of degrees of freedom associated with it is known. The number of degrees of freedom associated with any \( \chi^2 \) may be easily computed.

If there is one independent variable, \( df = r - 1 \) where \( r \) is the number of levels of the independent variable.

If there are two independent variables, \( df = (r - 1)(s - 1) \) where \( r \) and \( s \) are the number of levels of the first and second independent variables, respectively.

If there are three independent variables, \( df = (r - 1)(s - 1)(t - 1) \) where \( r, s, \) and \( t \) are the number of levels of the first, second, and third independent variables, respectively.

Assumptions

Even though a nonparametric statistic does not require a normally distributed population, there still are some restrictions regarding its use.

1. Representative sample (Random)

2. The data must be in frequency form (nominal data) or greater.

3. The individual observations must be independent of each other.
4. Sample size must be adequate. In a 2 x 2 table, Chi Square should not be used if \( n \) is less than 20. In a larger table, no expected value should be less than 1, and not more than 20% of the variables can have expected values of less than 5.

5. Distribution basis must be decided on before the data is collected.

6. The sum of the observed frequencies must equal the sum of the expected frequencies.
5.10 Analysis and Interpretation

Objectives and Hypothesis:

1. $H_0$ - Levels of CSR does not depend on size of company

<table>
<thead>
<tr>
<th>Levels of CSR</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Row Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of Company</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Medium</td>
<td>5</td>
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<td>8</td>
</tr>
<tr>
<td>Large</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Column Subtotal</td>
<td>16</td>
<td>25</td>
<td>19</td>
<td>60</td>
</tr>
</tbody>
</table>

$\chi^2 = \text{Basic Computational Equation}$

\[
\chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}} = \sum \frac{F_0 - F_e}{F_e}
\]

\[
= \frac{(22 \times 16)}{60} = 6
\]

\[
\chi^2 = 0 + 1/9 + 1/7 + 0 + 1/8 + 1/6 + 0 + 0 + 0 + 0
\]
\[ = 0.11 + 0.14 + 0.125 + 0.167 = 0.542 \]

\[ \chi^2_4 = 0.542 \text{ (observed)} \]

\[ \chi^2_4 = 9.488 \text{ (tabulated)} \]

\[ \chi^2_{(\text{obj})} < \chi^2_{4(\text{tab})} \]

H_0 is accepted

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( X^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between levels of CSR and size of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that large companies do corporate social responsibility on large scale and vice-versa.

2. H_0 - Levels of CSR does not depends upon ownership of company

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Levels of CSR</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian</td>
<td>Low</td>
<td>8</td>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>MNC</td>
<td>Low</td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13</td>
<td>28</td>
<td>19</td>
</tr>
</tbody>
</table>
$\chi^2 = \text{Basic Computational Equation}$

$$
\chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}
$$

$$
= \sum \frac{(F_o - F_e)^2}{F_e}
$$

$$
\chi^2_2 = 4/10 + 4/21 + 1/14 + 4/3 + 4/7 + 1/5
$$

$$
= 0.4 + 0.2 + 0.07 + 1.3 + 0.6 + 0.2
$$

$$
= 2.77
$$

$$
\chi^2_2 = 5.991
$$

$\chi^2_{(obj)} < \chi^2_4(\text{tab})$

$H_0$ is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(2 - 1) = 2

Table value of $\chi^2_{0.05}$ with 2 degrees of freedom = 5.991

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between levels of CSR and ownership of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that levels of CSR depend upon the ownership (Indian/MNC) of companies.
3. H₀ - Levels of CSR does not depend on innovativeness of company

<table>
<thead>
<tr>
<th>Levels of CSR Innovation</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>5</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
<td>7</td>
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<td></td>
<td>7</td>
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</tr>
<tr>
<td></td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less Innovative</td>
<td>6</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td></td>
<td>5</td>
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<td>5</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
<td>5</td>
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<td>5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|               | 16  | 27   | 17   | 60  |

\[ \chi^2 = \text{Basic Computational Equation} \]

\[ \chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}} \]

\[ = \sum \frac{(F_o - F_e)^2}{F_e} \]

\[ \chi^2 = \frac{4}{7} + \frac{4}{11} + 0 + \frac{1}{5} + \frac{1}{9} + 0 + \frac{1}{4} + \frac{1}{7} + 0 \]

\[ = 0.6 + 0.4 + 0 + 0.2 + 0.1 + 0 + 0.25 + 0.14 \]

\[ = 1.33 \]

\[ \chi^2 = 9.488 \]

\[ \chi^2_{(\text{obj})} \leq \chi^2_{(\text{tab})} \]
H₀ is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of $X^2_{0.05}$ with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between levels of CSR and Innovativeness of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that if company is highly innovative (using latest technology and ideas for their working) and technical do corporate social responsibility on large scale and vice-versa.

4(a). H₀ - Motives of CSR does not depends on size of company

<table>
<thead>
<tr>
<th>Size of Company</th>
<th>Motives of CSR</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>Yes</td>
<td>11</td>
<td>12</td>
</tr>
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<td>12</td>
</tr>
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</tr>
<tr>
<td>Medium</td>
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<td>10</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>13</td>
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<td>23</td>
<td></td>
</tr>
<tr>
<td>Large</td>
<td>Yes</td>
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<td>6</td>
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<tr>
<td></td>
<td>No</td>
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<td></td>
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<td>31</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>
\( \chi^2 = \text{Basic Computational Equation} \)

\[
\chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}
\]

\[
= \sum \frac{(F_0 - F_e)^2}{F_e}
\]

\( \chi^2_4 = \frac{1}{12} + \frac{1}{12} + \frac{1}{11} + \frac{1}{12} + \frac{4}{6} + \frac{4}{7} \)

\[
= 0.08 + 0.08 + 0.09 + 0.08 + 0.66 + 0.57
\]

\[= 1.56 \]

\( \chi^2_4 = 9.488 \)

\( \chi^2_{(\text{obj})} < \chi^2_{4(\text{tab})} \)

\( H_0 \) is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( \chi^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and size of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that large companies do corporate social responsibility on large scale and vice-versa.
4(b). $H_0$ - Motives of CSR does not depend on size of company

<table>
<thead>
<tr>
<th>Motives of CSR</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of Company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Medium</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Large</td>
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<td>11</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>18</td>
</tr>
</tbody>
</table>

$\chi^2 = \text{Basic Computational Equation}$

\[
\chi^2 = \frac{\sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}}{\sum \left(\frac{\text{Fo} - \text{Fe}}{\text{Fe}}\right)^2}
\]

\[
\chi^2 = \frac{1/20 + 1/9 + 0 + 0 + 1/10 + 0}{0.05 + 0.11 + 0.1} = 0.26
\]

\[
\chi^2 = 5.991
\]

$\chi^2_{(obj)} < \chi^2_{4(tab)}$
$H_0$ is accepted.

Degrees of Freedom = $(\text{Rows} - 1)(\text{Columns} - 1) = (3 - 1)(3 - 1) = 4$

Table value of $X^2_{0.05}$ with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and size of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that large companies do corporate social responsibility on large scale and vice-versa.

4(c). $H_0$ - Motives of CSR does not depend on size of company

<table>
<thead>
<tr>
<th>Motives of CSR</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of Company</td>
<td></td>
<td></td>
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<tr>
<td>Small</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Medium</td>
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<tr>
<td>Large</td>
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<td>11</td>
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<tr>
<td></td>
<td>41</td>
<td>19</td>
</tr>
</tbody>
</table>

158
\[ \chi^2 = \text{Basic Computational Equation} \]

\[
X^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}
\]

\[
= \sum \frac{(F_o - F_e)^2}{F_e}
\]

\[
\chi^2 = \frac{1}{18} + \frac{1}{9} + 0 + 0 + \frac{1}{11} + \frac{4}{4}
\]

\[
= 0.05 + 0.11 + 0.09 + 1
\]

\[
= 1.25
\]

\[
\chi^2 = 5.991
\]

\[
\chi^2_{\text{obj}} < \chi^2_{\text{4(tab)}}
\]

\( H_0 \) is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( X^2_{.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and size of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that large companies do corporate social responsibility on large scale and vice-versa.
4(d). H₀ - Motives of CSR does not depend on size of company

<table>
<thead>
<tr>
<th>Size of Company</th>
<th>Motives of CSR</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
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<td>23</td>
<td>21</td>
<td>6</td>
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<td>Medium</td>
<td>11</td>
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</tr>
<tr>
<td></td>
<td>44</td>
<td>16</td>
<td>60</td>
</tr>
</tbody>
</table>

\[ \chi^2 = \text{Basic Computational Equation} \]

\[ \chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}} \]

\[ \chi^2 = \sum \frac{(F_o - F_e)^2}{F_e} \]

\[ \chi^2 = \frac{4}{21} + \frac{4}{8} + \frac{1}{12} + \frac{1}{4} + \frac{1}{11} + \frac{1}{4} \]

\[ = 1.36 \]

\[ \chi^2 = 5.991 \]

\[ \chi^2_{(obj)} < \chi^2_{4(tab)} \]

H₀ is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

160
Table value of $X^2_{0.05}$ with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and size of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that large companies do corporate social responsibility on large scale and vice-versa.

4(e). $H_0$ - Motives of CSR does not depends on size of company

<table>
<thead>
<tr>
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<th>Yes</th>
<th>No</th>
</tr>
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<tbody>
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<td>8</td>
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<tr>
<td>Large</td>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

$\chi^2 = \text{Basic Computational Equation}$

$$
\chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}
= \sum \frac{(F_o - F_e)^2}{F_e}
$$

$$
\chi^2 = \frac{16}{15} + \frac{16}{14} + \frac{478}{16} + \frac{4}{8} + \frac{4}{8} + \frac{4}{7}
$$

161
\[ = 1.06 + 1.14 + 0.5 + 0.5 + 0.5 + 0.6 \]
\[ = 4.33 \]
\[ \chi^2 = 5.991 \]
\[ \chi^{(obj)}^2 < \chi^{(tab)}^2 \]

H₀ is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( X^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and size of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that large companies do corporate social responsibility on large scale and vice-versa.

4(f). H₀ - Motives of CSR does not depends on size of company

<table>
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<tr>
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<th>No</th>
</tr>
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<tbody>
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<td>5</td>
</tr>
<tr>
<td>Large</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

19  41  60
\[ \chi^2 = \text{Basic Computational Equation} \]

\[ \chi^2 = \sum \frac{(O \text{bserved frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}} \]

\[ \chi^2 = \sum \frac{(O - E)^2}{E} \]

\[ \chi^2 = \frac{1}{9} + \frac{4}{19} + \frac{1}{5} + \frac{1}{11} + 0 + 0 \]

\[ = 0.11 + 0.21 + 0.2 + 0.09 \]

\[ = 0.61 \]

\[ \chi^2 = 5.991 \]

\[ \chi^2_{(\text{obj})} < \chi^2_{(\text{tab})} \]

H0 is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( \chi^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and size of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that large companies do corporate social responsibility on large scale and vice-versa.
4(g). $H_0$ - Motives of CSR does not depend on size of company

<table>
<thead>
<tr>
<th>Motives of CSR</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Size of Company</td>
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<tr>
<td>Small</td>
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<td>19</td>
</tr>
<tr>
<td>Medium</td>
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<td>8</td>
</tr>
<tr>
<td>Large</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

$\chi^2 = \frac{\sum (\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}$

$\chi^2 = \frac{\sum (F_o - F_e)^2}{F_e}$

$\chi^2 = \frac{1/11+1/18+4/6+2/10+1/6+1/9}{1/11+1/18+4/6+2/10+1/6+1/9}$

$= 0.09 + 0.05 + 0.66 + 0.2 + 0.16 + 0.11$

$= 1.27$

$\chi^2 = 5.991$
\[ \chi^2_{(obj)} < \chi^2_{(tab)} \]

\( H_0 \) is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( X^2_{.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and size of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that large companies do corporate social responsibility on large scale and vice-versa.

5(a). \( H_0 \) - Motives of CSR does not depends on ownership of company

<table>
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<th>Motives of CSR</th>
<th>Yes</th>
<th>No</th>
<th></th>
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<tbody>
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<td>Ownership of Company</td>
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<td>Indian</td>
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<td>9</td>
<td>11 9 17</td>
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<td>30</td>
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<td></td>
</tr>
</tbody>
</table>
\( \chi^2 \) = Basic Computational Equation

\[
\chi^2 = \sum \frac{(Observed \ frequencies - Expected \ frequencies)^2}{Expected \ frequencies}
\]

\[
\chi^2 = \sum \frac{(F_o - F_e)^2}{F_e}
\]

\[\chi^2 = \frac{9}{21} + \frac{4}{21} + \frac{9}{9} + \frac{4}{9} = 1.06 + 1.14 + 0.5 + 0.5 = 4.33\]

\[\chi^2 = 5.991\]

\[\chi^2_{(obj)} < \chi^2_{4(tab)}\]

\( H_0 \) is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( \chi^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and ownership of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that motives of CSR depend upon the ownership (Indian/MNC) of companies.
5(b). H₀ - Motives of CSR does not depend on ownership of company

<table>
<thead>
<tr>
<th>Ownership of Company</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Indian</td>
<td>37</td>
<td>7</td>
</tr>
<tr>
<td>MNC</td>
<td>11</td>
<td>5</td>
</tr>
</tbody>
</table>

\[
\chi^2 = \sum \frac{(O_{\text{observed}} - E_{\text{expected}})^2}{E_{\text{expected}}}
\]

\[
\chi^2 = \frac{4/35+4/9+4/13+4/3}{5/35+5/9+5/13+5/3}
\]

\[
= 0.11+0.44+0.30+1.33
\]

\[
= 2.18
\]

\[
\chi^2 = 3.84
\]

\[
\chi^2_{\text{(obj)}} < \chi^2_{4\text{(tab)}}
\]

H₀ is accepted.
Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of $X^2_{.05}$ with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and ownership of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that motives of CSR depend upon the ownership (Indian/MNC) of companies.

5(c). $H_0$ - Motives of CSR does not depends on ownership of company

<table>
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<th>Motives of CSR</th>
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<td>15</td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>

$\chi^2 = \text{Basic Computational Equation}$

$$X^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}$$

$$= \sum \frac{(F_o - F_e)^2}{F_e}$$
\[ \chi^2 = \frac{1}{33} + \frac{1}{11} + \frac{1}{12} + \frac{1}{4} \]

\[ = 0.03 + 0.09 + 0.08 + 0.25 \]

\[ = 0.45 \]

\[ \chi^2 = 3.84 \]

\[ \chi^2_{(obj)} < \chi^2_{(tab)} \]

\( H_0 \) is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( \chi^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and ownership of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that motives of CSR depend upon the ownership (Indian/MNC) of companies.

5(d). \( H_0 \) - Motives of CSR does not depends on ownership of company

<table>
<thead>
<tr>
<th>Motives of CSR</th>
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<th>No</th>
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<tbody>
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<tr>
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<td>50</td>
<td>10</td>
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</tbody>
</table>
\[ \chi^2 = \text{Basic Computational Equation} \]

\[ \chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}} \]

\[ = \sum \frac{(F_o - F_e)^2}{F_e} \]

\[ \chi^2 = \frac{4}{37} + \frac{4}{7} + \frac{4}{13} + \frac{4}{3} \]

\[ = 0.10 + 0.57 + 0.30 + 1.33 \]

\[ = 2.27 \]

\[ \chi^2 = 3.84 \]

\[ \chi^2 (\text{obj}) < \chi^2 (\text{tab}) \]

\[ H_0 \text{ is accepted.} \]

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \[ \chi^2 \] with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and ownership of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that motives of CSR depend upon the ownership (Indian/MNC) of companies.
5(e). \( H_0 \) - Motives of CSR does not depends on ownership of company

<table>
<thead>
<tr>
<th>Motives of CSR</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
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<td>27</td>
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<td></td>
<td>60</td>
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</tbody>
</table>

\[ \chi^2 = \text{Basic Computational Equation} \]

\[
\chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}
\]

\[
\chi^2 = \sum \frac{\left(\text{Fo} - \text{Fe}\right)^2}{\text{Fe}}
\]

\[ \chi^2 = \frac{1}{24} + \frac{1}{20} + \frac{1}{9} + \frac{1}{7} \]

\[ = 0.04 + 0.05 + 0.11 + 0.14 \]

\[ = 0.34 \]

\[ \chi^2 = 3.84 \]

\[ \chi^2 (\text{obj}) < \chi^2 (\text{tab}) \]

\( H_0 \) is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4
Table value of $X^2_{0.05}$ with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and ownership of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that motives of CSR depend upon the ownership (Indian/MNC) of companies.

5(f). $H_0$ - Motives of CSR does not depends on ownership of company

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<tr>
<th>Motives of CSR</th>
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<tbody>
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<td>11</td>
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<tr>
<td></td>
<td>10</td>
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</tbody>
</table>

$\chi^2 = \text{Basic Computational Equation}$

$$X^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}$$

$$= \sum \frac{(F_o - F_e)^2}{F_e}$$

$\chi^2_i = \frac{4}{7} + \frac{4}{37} + \frac{4}{3} + \frac{4}{13}$
\[ \chi^2 = 0.57 + 0.11 + 1.3 + 0.31 = 2.29 \]

\[ \chi^2_{0.1} = 3.84 \]

\[ \chi^2_{(obj)} < \chi^2_{4(tab)} \]

\( H_0 \) is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( \chi^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and ownership of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that motives of CSR depend upon the ownership (Indian/MNC) of companies.

5(g). \( H_0 \) - Motives of CSR does not depends on ownership of company

<table>
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<th>No</th>
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<tr>
<td></td>
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<td>43</td>
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</tbody>
</table>
\[ \chi^2 = \text{Basic Computational Equation} \]

\[ \chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}} \]

\[ \chi^2_1 = 0 + 0 + 0 + 0 \]

\[ \chi^2_1 = 0 \]

\[ \chi^2_1 = 3.84 \]

\[ \chi^2_{(obj)} < \chi^2_{4(\text{tab})} \]

\[ \text{H}_0 \text{ is accepted.} \]

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( \chi^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and ownership of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that motives of CSR depend upon the ownership (Indian/MNC) of companies.
6(a). $H_0$ - Motives of CSR does not depend on Innovativeness of company

<table>
<thead>
<tr>
<th>Motives of CSR Innovation of Company</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Less</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>26</td>
</tr>
</tbody>
</table>

$\chi^2 = \text{Basic Computational Equation}$

$$\chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}$$

$$= \sum \frac{(F_o - F_e)^2}{F_e}$$

$$\chi^2 = \frac{2}{18} + \frac{2}{13} + \frac{1}{6} + \frac{1}{4} + \frac{2}{11} + \frac{4}{8}$$

$$= 0.11 + 0.15 + 0.16 + 0.25 + 0.18 + 0.5$$

$$= 1.35$$

$$\chi^2 = 5.991$$

$$\chi^2_{(obj)} < \chi^2_{(tab)}$$
H₀ is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of $X^{2.05}$ with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and Innovativeness of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that if company is highly innovative (using latest technology and ideas for their working) and technical do corporate social responsibility on large scale and vice-versa.

6(b). H₀ - Motives of CSR does not depends on Innovativeness of company
\[ \chi^2 = \text{Basic Computational Equation} \]

\[ \chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}} \]

\[ = \sum \frac{(F_o - Fe)^2}{Fe} \]

\[ \chi^2 = \frac{1}{21} + \frac{1}{9} + \frac{4}{7} + \frac{4}{3} + \frac{1}{14} + \frac{1}{6} \]

\[ = 0.04 + 0.11 + 0.57 + 1.33 + 0.07 + 0.16 \]

\[ = 2.28 \]

\[ \chi^2 = 5.991 \]

\[ \chi^2_{(\text{obj})} < \chi^2_{(\text{tab})} \]

\[ \text{H}_0 \text{ is accepted.} \]

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( \chi^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and Innovativeness of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that if company is highly innovative (using latest technology and ideas for their working) and technical do corporate social responsibility on large scale and vice-versa.
6(c). H₀ - Motives of CSR does not depend on Innovativeness of company

<table>
<thead>
<tr>
<th>Motives of CSR Innovation of Company</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Yes</td>
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\[ \chi^2 = \text{Basic Computational Equation} \]

\[
\chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}
\]

\[
\chi^2 = \sum \frac{(F_o - F_e)^2}{F_e}
\]

\[
\chi^2 = \frac{4/22 + 1/7 + 4/3 + 0}{22 + 7 + 3} + \frac{0.18 + 1 + 0.57 + 1.33 + 0}{7 + 3} = 3.08
\]

\[
\chi^2 = 5.991
\]

178
\( \chi^2_{(obj)} < \chi^2_{4(\text{tab})} \)

H_0 is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( \chi^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and Innovativeness of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that if company is highly innovative (using latest technology and ideas for their working) and technical do corporate social responsibility on large scale and vice-versa.

6(d). H_0 - Motives of CSR does not depends on Innovativeness of company

<table>
<thead>
<tr>
<th>Motives of CSR</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Innovation of Company</td>
<td>25</td>
<td>23</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>No</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Less</td>
<td>15</td>
<td>15</td>
<td>5</td>
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<td></td>
<td>45</td>
<td>15</td>
<td>60</td>
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</tbody>
</table>
\[ \chi^2 = \text{Basic Computational Equation} \]

\[ \chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}} = \sum \frac{(F_o - F_e)^2}{F_e} \]

\[ \chi^2 = 4/23+9/8+9/8+4/3+0 = 0.17+1.125+1.125+1.33 = 3.75 \]

\[ \chi^2 = 5.991 \]

\[ \chi^2_{\text{(obj)}} < \chi^2_{4\text{(tab)}} \]

H_0 is accepted.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( X^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and Innovativeness of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that if company is highly innovative (using latest technology and ideas for their working) and technical do corporate social responsibility on large scale and vice-versa.
6(e). H₀ - Motives of CSR does not depend on Innovativeness of company

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</tr>
</thead>
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<tr>
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<tr>
<td>No</td>
<td>5</td>
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<tr>
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<td>6</td>
</tr>
<tr>
<td></td>
<td>19</td>
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</tbody>
</table>

\[ \chi^2 = \text{Basic Computational Equation} \]

\[ \chi^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}} \]

\[ \chi^2 = \sum \frac{(F_o - F_e)^2}{F_e} \]

\[ \chi^2 = \frac{16}{10} + \frac{64}{16} + \frac{4}{3} + \frac{4}{7} + \frac{4}{6} + \frac{4}{14} \]

\[ = 1.6 + 4 + 1.3 + 0.57 + 0.66 + 0.28 \]

\[ = 8.41 \]

\[ \chi^2 = 5.991 \]
\( \chi^2_{\text{obj}} > \chi^2_{4(\text{tab})} \)

H₀ is rejected.

Degrees of Freedom = (Rows - 1)(Columns - 1) = (3 - 1)(3 - 1) = 4

Table value of \( \chi^2_{0.05} \) with 4 degrees of freedom = 9.488

Therefore, reject null hypothesis.

Results of chi square test clearly indicate that there is no significant relationship between motives of CSR and Innovativeness of the company. The observed value is less than from the tabulated value means null hypothesis is rejected. It is not necessary that if company is highly innovative (using latest technology and ideas for their working) and technical do corporate social responsibility on large scale and vice-versa.