CHAPTER – 4
RESEARCH METHODOLOGY

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CHAPTER – 4
RESEARCH METHODOLOGY

4.1 INTRODUCTION:

In the present study, the researcher tried to study on the occupational stress of the employees of technical and management educational institutes in Vadodara, Gujarat. This chapter is showing how the present research has been conducted. The chapter includes the research objectives, research hypothesis, the scope of present research, sampling for the research, method of data collection and tool for data analysis. Various aspects related to research methodology in this research study are as below.

4.2 RESEARCH OBJECTIVES:

The objectives of the research study are as under.

4.2.1 To find-out the level of occupational stress among the employees
4.2.2 To study the stressors for occupational stress
4.2.3 To study the impact of occupational stress on the employees' health, personal life, social life and performance at work-place
4.2.4 To study the strategies to manage occupational stress

4.3 RESEARCH HYPOTHESES:

The research hypotheses of the study are as under.

4.3.1 There will not be significant difference in the level of occupational stress between teaching and non-teaching employees.
4.3.2 There will not be significant difference in the level of occupational stress between male and female employees.
4.3.3 There will not be significant correlation between the level of Occupational stress and years of work-experience in the sample groups: ‘All Employees’, ‘All Teaching Employees’ and ‘All Non-teaching Employees’.
4.4 THE SCOPE OF PRESENT RESEARCH:

The Geographical scope of the research is Vadodara region of the State of Gujarat, India. The samples were collected from sixteen technical and sixteen management educational institutes.

In this research study, for the sampling from the technical educational institutes, the employees of the institutes running the educational courses like M.E. (Master of Engineering)/ M. Tech. (Master of Technology), B.E. (Bachelor of Engineering) / B. Tech. (Bachelor of Technology), M.C.A. (Master of Computer Application) / P.G.D.C.A. (Post Graduation Diploma in Computer Application), B.C.A. (Bachelor of Computer Application), Bachelor of Architecture / Bachelor of Design, Diploma Engineering / Diploma polytechnic, were considered as respondents. And for the sampling from the management educational institutes, the employees of the institutes running the educational courses like M.B.A. (Master of Business Administration), P.G.D.B.M. (Post Graduation Diploma in Business Management) and B.B.A. (Bachelor of Business Administration) were considered as respondents.

4.5 SAMPLING FOR THE RESEARCH:

4.5.1 Sampling method:

Sampling method remains different from research study to research study as one needs to consider the possibilities of getting responses from the respondents and one also needs to consider the research area to which the research belongs to. In this research study, the convenient sampling method has been followed.

4.5.2 Number of sample:

The number of sample which have been collected for the present research is as follow.
Table: 4.1

Showing the number of sample in the present research study

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Sample group</th>
<th>Number of sample in a group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All Teaching Employees</td>
<td>152</td>
</tr>
<tr>
<td>2</td>
<td>All Non-teaching employees</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>194</strong></td>
</tr>
</tbody>
</table>

Graph: 4.1

Showing the number of sample in the present research study
Here, the sample group ‘All Teaching Employees’ includes the employees belong to teaching job profile of both the technical and management educational institutes and the sample group ‘All Non-teaching Employees’ includes the employees belong to non-teaching job profile of both the technical and management educational institutes.

4.5.3 The sample groups in the present research study:

For this research study, the researcher has collected responses from the employees belong to either teaching job profile or non-teaching job-profile, serving to either technical or management educational institute or serving to both technical and management educational institutes at the same time as the case may be, belonging to either ‘Male’ or ‘Female’ category as gender.

The researcher has grouped the respondents in terms of ‘Job profile’ as well as in terms of ‘Gender’ for the present research study.

The sample groups on the basis of the ‘Job profile’ of the respondents as well as on the basis of ‘Gender’ of the respondents are depicted as under.

• The sample group on the basis of ‘Job profile’:

The sample group on the basis of ‘Job profile’ are as under.

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Sample group</th>
<th>Number of sample in a group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All Teaching Employees</td>
<td>152</td>
</tr>
<tr>
<td>2</td>
<td>All Non-teaching employees</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>194</td>
</tr>
</tbody>
</table>

The above mentioned sample groups are defined as follow.
The sample group ‘All Employees (N=194)’:

The sample group ‘All Employees (N=194)’ refers to the respondent employees belong to either teaching job profile or non-teaching job-profile, serving to either technical or management educational institute or serving to both technical and management educational institutes at the same time as the case may be, belonging to either ‘Male’ or ‘Female’ category as gender.

The sample group ‘All Teaching Employees (N=152)’:

The sample group ‘All Teaching Employees (N=152)’ refers to the respondent employees belong to teaching job-profile, serving to either technical or management educational institute or serving to both technical and management educational institutes at the same time as the case may be, belonging to either ‘Male’ or ‘Female’ category as gender.

The sample group ‘All Non-teaching Employees (N=42)’:

The sample group ‘All Non-teaching Employees (N=42)’ refers to the respondent employees belong to non-teaching job-profile, serving to either technical or management educational institute or serving to both technical and management educational institutes at the same time as the case may be, belonging to either ‘Male’ or ‘Female’ category as gender.

The sample group on the basis of ‘Gender’:

The sample group on the basis of ‘Gender’ are as under.

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Sample group</th>
<th>Number of sample in a group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>117</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>194</td>
</tr>
</tbody>
</table>
The above mentioned sample groups are defined as follow.

- **The sample group ‘All Male Employees (N=117)’:**
  
The sample group ‘All Male Employees (N=117)’ refers to the respondent employees belong to ‘Male’ category as gender, serving on either teaching job-profile or non-teaching job-profile, serving to either technical or management educational institute or serving to both technical and management educational institutes at the same time as the case may be.

- **The sample group ‘All Female Employees (N=77)’:**
  
The sample group ‘All Female Employees (N=77)’ refers to the respondent employees belong to ‘Female’ category as gender, serving on either teaching job-profile or non-teaching job-profile, serving to either technical or management educational institute or serving to both technical and management educational institutes at the same time as the case may be.

4.5.4 THE TECHNICAL AND MANAGEMENT EDUCATIONAL INSTITUTES FROM WHERE THE SAMPLES WERE COLLECTED:

For the present research, the samples from the following Technical and Management Educational Institutes of the Vadodara region were collected.

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Name of Technical Educational Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sigma Institute of Engineering, Vadodara</td>
</tr>
<tr>
<td>2</td>
<td>School of Engineering &amp; Technology, Navrachana University, Vadodara</td>
</tr>
<tr>
<td>Sr.</td>
<td>Name of Management Educational Institute</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>C. K. Shah Vijapurwala Institute of Management, Vadodara</td>
</tr>
<tr>
<td>2</td>
<td>Parul Institute of Management, Vadodara</td>
</tr>
<tr>
<td>3</td>
<td>Parul Institute of Engineering and Technology [M.B.A. (Master of Business Administration)], Vadodara</td>
</tr>
<tr>
<td>4</td>
<td>Parul Institute of Management &amp; Research (Formerly: Dr. J. K. Patel Institute of Management), Vadodara</td>
</tr>
<tr>
<td>5</td>
<td>Post-Graduation Diploma In Management, Parul University, Vadodara</td>
</tr>
<tr>
<td>6</td>
<td>Indu Management Institute [M.B.A. (Master of Business Administration)], Vadodara</td>
</tr>
</tbody>
</table>

Table: 4.3

**Showing the management educational institutes included in survey for the present research study**
<table>
<thead>
<tr>
<th>7</th>
<th>Faculty of Management Study [M.B.A. (Master in Business Administration)], (Regular Program), Maharaja Sayajirao University, Vadodara</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Faculty of Management Study [M.B.A. (Master in Business Administration)], (Evening Program), Maharaja Sayajirao University, Vadodara</td>
</tr>
<tr>
<td>9</td>
<td>Faculty of Business, Finance &amp; Law, School of Business and Law [M.B.A. (Master of Business Administration)], Navrachana University, Vadodara</td>
</tr>
<tr>
<td>10</td>
<td>One year Post Graduate Diploma in Business Management, School of Science &amp; Engineering, Navrachana University, Vadodara</td>
</tr>
<tr>
<td>11</td>
<td>Parul Institute of Business Administration [B.B.A. (Bachelor of Business Administration)], Vadodara</td>
</tr>
<tr>
<td>12</td>
<td>Faculty of Management Study, Maharaja Sayajirao University, [B.B.A. (Bachelor of Business Administration)], Vadodara</td>
</tr>
<tr>
<td>13</td>
<td>School of Business and Law [B.B.A. (Bachelor of Business Administration)], Navrachana University, Vadodara</td>
</tr>
<tr>
<td>14</td>
<td>Bachelor in Business Administration [B.B.A. (Bachelor of Business Administration)], TeamLease Skill University, Vadodara</td>
</tr>
<tr>
<td>15</td>
<td>Takshashila College, [B.B.A. (Bachelor of Business Administration)], Vadodara</td>
</tr>
<tr>
<td>16</td>
<td>Indu Management Institute, [B.B.A. (Bachelor of Business Administration)], Vadodara</td>
</tr>
</tbody>
</table>

### 4.6 METHOD OF DATA COLLECTION:

In this research study, a survey method was followed to collect data. The researcher visited the respondents personally and handed over the questionnaire to them to record their response.

#### 4.6.1 Tool for data collection:

For this research, questionnaire was used as a tool to collect data. The questionnaire in a hard copy was filled by the respondents. The questionnaire was containing total four sections e.g. Section: I: ‘Socio- Demographic Information’, Section: II: ‘Occupational Stress Index’, Section: III: ‘Occupational Stress- Impact Inventory’, and Section: IV: ‘Inventory of Occupational Stress Management Techniques’. The sections except Section:
II: ‘Occupational Stress Index’ were made by researcher in consultation with the research guide.

The Section II: ‘Occupational Stress Index’ was adopted from the Manual of Occupational Stress Index constructed by A. K. Srivastava and A. P. Singh to include as a part of the questionnaire which was used for the research. The questionnaire consists forty six statements that employees sometimes feel or say about various components of their jobs. ‘Occupational Stress Index’ contains ‘five-point-scale’ to indicate the extent to which someone agrees with each statement to describe one’s own job and the experiences or feelings about own job.

The questionnaire which was used to collect data was made in such a manner that no respondent finds it difficult to understand it. As apart of this approach to make the questionnaire easily understandable, the researcher depicted some sentences and terms in the vernacular language ‘Gujarati’ also on questionnaire.

4.6.2 Division of the Forty Six statements of Occupational Stress Index (OSI) into Twelve Sub-scales (Occupational Stressors):
The Twelve Occupational stressors as mentioned on Occupational Stress Index comprises the following items under them. On the other way, The Forty Six statements mentioned on Occupational Stress Index are divided among Twelve Occupational stressors as under.

<table>
<thead>
<tr>
<th>Sub Scales (Occupational stressors)</th>
<th>Serial number of the items in the schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Role Overload</td>
<td>1, 13, 25, 36, 44, 46</td>
</tr>
<tr>
<td>2- Role ambiguity</td>
<td>2, 14, 26, 37</td>
</tr>
<tr>
<td>3- Role conflict</td>
<td>3, 15, 27, 38, 45</td>
</tr>
<tr>
<td>4- Unreasonable group &amp; political pressures</td>
<td>4, 16, 28, 39</td>
</tr>
<tr>
<td>5- Responsibility for Persons</td>
<td>5, 17, 29</td>
</tr>
<tr>
<td>6- Under participation</td>
<td>6, 18, 30, 40</td>
</tr>
</tbody>
</table>
As mentioned above the Occupational stressors are given sub scale number (Sub Scale 1 to 12).

Now, following are the details regarding the items on Occupational Stress Index belonging to particular Occupational Stressor (Sub Scale).

**Occupational stressor (Sub Scale: 1): Role overload**

- I have to do a lot of work in this job.
- Owing to excessive workload I have to manage with insufficient number of employees and resources.
- I have to dispose off my work hurriedly owing to excessive workload.
- Being too busy with official work I am not able to devote sufficient time to my domestic and personal problems.
- I have to do such work as ought to be done by others.
- I am unable to carry out my assignments to my satisfaction on account of excessive load of work and lack of time.
### Occupational stressor (Sub Scale: 2) : Role ambiguity

- The available information relating to my job-role and its outcomes are vague and insufficient.
- The objectives of my work-role are quite clear and adequately planned.
- I am unable to perform my duties smoothly owing to uncertainty and ambiguity of the scope of my jurisdiction and authorities.
- It is not clear that what type of work and behavior my higher authorities and colleagues expect from me.

### Occupational stressor (Sub Scale: 3) : Role conflict

- My different officers often give contradictory instructions regarding my work
- Officials do not interfere with my jurisdiction and working method.
- I am not provided with clear instructions and sufficient facilities regarding the new assignments entrusted to me.
- Employees attach due importance to the official instructions and formal working procedures.
- It becomes difficult to implement all of a sudden the new dealing procedures and policies in place of those already in practice.

### Occupational stressor (Sub Scale: 4) : Unreasonable group & political pressures

- Sometime it becomes complex problem for me to make adjustment between political/group pressures and formal rules and instructions.
- I have to do some work unwillingly owing to certain group/political pressure.
- In order to maintain group-conformity sometimes I have to do/produce more than the usual.
- I am compelled to violate the formal and administrative procedures and policies owing to group/political pressures.
### Occupational stressor (Sub Scale: 5) : Responsibility for Persons

- The responsibility for the efficiency and productivity of many employees is thrust upon me.
- I am responsible for the future of a number of employees.
- I bear the great responsibility for the progress and prosperity of this organization.

### Occupational stressor (Sub Scale: 6) : Under participation

- Most of my suggestions are heeded and implemented here.
- My co-operation is frequently sought in solving the administrative or industrial problems at higher level.
- My opinions are sought in framing important policies of the organization/department.
- My opinion is sought in changing or modifying the working system, implements and conditions.

### Occupational stressor (Sub Scale: 7) : Powerlessness

- My decisions and instructions concerning distribution of assignments among employees are properly followed.
- My suggestions regarding the training programmes of the employees are given due significance.
- Our interest and opinion are duly considered in making appointments for important posts.

### Occupational stressor (Sub Scale: 8) : Poor peer relations

- I have to work with persons whom I like.
- Some of my colleagues and subordinates try to defame and malign me as unsuccessful.
- My colleagues do co-operate with me voluntarily in solving administrative and industrial problem.
There exists sufficient mutual cooperation and team-spirit among the employees of this organization/department.

**Occupational stressor (Sub Scale: 9) : Intrinsic impoverishment**

- My assignments are of monotonous nature.
- I get ample opportunity to utilize my abilities and experience independently.
- I get ample opportunity to develop my aptitude and proficiency properly.
- My suggestions and cooperation are not sought in solving even those problems for which I am quite competent.

**Occupational stressor (Sub Scale: 10) : Low status**

- Higher authorities do care for my self-respect.
- This job has enhanced my social status.
- My higher authorities do not give due significance to my post and work.

**Occupational stressor (Sub Scale: 11) : Strenuous working Conditions**

- I do my work under tense circumstances.
- Some of my assignments are quite risky and complicated.
- I often feel that this job has made my life cumbersome.
- Working conditions are satisfactory here from the point of view of our welfare and convenience.

**Occupational stressor (Sub Scale: 12) : Unprofitability**

- I get less salary in comparison to the quantum of my labour/work.
- I am seldom rewarded for my hard labour and efficient performance.

(A. K. Srivastava, 1984)
4.7 TOOL FOR DATA ANALYSIS:

The most of the analysis of the collected data was done on the software ‘S.P.S.S.’ (Statistical Package for Social Sciences) -20. Some of the analysis was done based on the working-out of percentage, rank etc.…

The analysis and interpretation to find-out the level of occupational stress among the respondents were made by considering the ‘Section: II: Occupational Stress Index’ of the Questionnaire. The analysis and interpretation for the same were made based on the guide-line given under the Manual of Occupational Stress Index introduced by A. K. Srivastava and A. P. Singh.