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METHODOLOGY
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:: METHODOLOGY ::

3.1 INTRODUCTION :

From Natural science to Social and science research is a guide to give guidance to all the researchers in their field for going top on the field and helpful for development in their field. Research means ‘To search again’ for the help of research anyone can get right way or solution to understand their problems.

The nature of social research is scientific. When any researcher is finding anything for their research problem, he uses scientific aspect for it. He always believes to keep scientific aspect, objectivity, honesty, perfectness, pureness and freedom. There are some ethics for the scientific research and which is under:

(1) To compare of variables in relation to research problem.
(2) To know the relation of the variables in relation to research problem.
(3) To find out the effect of variables in relation to research problem.
(4) To keep control on some variables and check the effect of that kind of variables in relation to research problem.

Problem is not born from nothing but it is born from the curiosity of the person. The main objective of pure research is hypotheses, sampling, variables, data collection, reliability and validity of tools, data analysis and statistical analysis etc. to planning of research in advance. For this type of planning is helpful to researcher for getting their goals.
3.2 **TITLE:**
A study of Job stress and Job satisfaction of Managers and Workers of Software Company

3.3 **OBJECTIVES:**
(1) The purpose of the present study is the difference related to the Job stress and Job satisfaction of Managers and Workers of Software Company in relation to their Gender.

(2) The purpose of the present study is the difference related to the Job stress and Job satisfaction of Managers and Workers of Software Company in relation to their Divisions.

(3) The purpose of the present study is the difference related to the Job stress and Job satisfaction of Managers and Workers of Software Company in relation to their Gender and Division.

3.4 **HYPOTHESES:**
(1) There is no significant mean difference between the Job stress of Managers and Workers of Software Company in relation to their Gender.

(2) There is no significant mean difference between the Job stress of Managers and Workers of Software Company in relation to their Division.

(3) There is no significant mean difference between the Job stress of Managers and Workers of Software Company in relation to their Gender and Division.

(4) There is no significant mean difference between the Job concrete statements of Managers and Workers of Software Company in relation to their Gender.
(5) There is no significant mean difference between the Job concrete statements of Managers and Workers of Software Company in relation to their Division.

(6) There is no significant mean difference between the Job concrete statements of Managers and Workers of Software Company in relation to their Gender and Division.

(7) There is no significant mean difference between the Job-abstract statements of Managers and Workers of Software Company in relation to their Gender.

(8) There is no significant mean difference between the Job-abstract statements of Managers and Workers of Software Company in relation to their Division.

(9) There is no significant mean difference between the Job-abstract statements of Managers and Workers of Software Company in relation to their Gender and Division.

(10) There is no significant mean difference between the Psycho-social statements of Managers and Workers of Software Company in relation to their Gender.

(11) There is no significant mean difference between the Psycho-social statements of Managers and Workers of Software Company in relation to their Division.

(12) There is no significant mean difference between the Psycho-social statements of Managers and Workers of Software Company in relation to their Gender and Division.

(13) There is no significant mean difference between the Economic statements of Managers and Workers of Software Company in relation to their Gender.
(14) There is no significant mean difference between the Economic statements of Managers and Workers of Software Company in relation to their Division.

(15) There is no significant mean difference between the Economic statements of Managers and Workers of Software Company in relation to their Gender and Division.

(16) There is no significant mean difference between the Community/National growth statements of Managers and Workers of Software Company in relation to their Gender.

(17) There is no significant mean difference between the Community/National growth statements of Managers and Workers of Software Company in relation to their Division.

(18) There is no significant mean difference between the Community/National growth statements of Managers and Workers of Software Company in relation to their Gender and Division.

### 3.5 VARIABLES:

In the present study two level of gender (Male workers & Female workers) and three level of Division (T.C.S. Company, A.B.B. Company & J.K.S. Company) will be taken as an independent variables. The score of Job stress and Job satisfaction of Managers and Workers of Software Company will be taken as dependent variables.

In this study the independent & dependent variables has been show in the below table:
Table-3.5.1 : Detail of Variables

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Variables</th>
<th>Types of Variables</th>
<th>Grade of Variables</th>
<th>Name of the level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gender</td>
<td>Independent</td>
<td>2</td>
<td>1. Male workers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Female workers</td>
</tr>
<tr>
<td>2</td>
<td>Division</td>
<td>Independent</td>
<td>3</td>
<td>1. T.C.S. Company</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. A.B.B. Company</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. J.K.S. Company</td>
</tr>
<tr>
<td>3</td>
<td>Job stress</td>
<td>Dependent</td>
<td>1</td>
<td>Job stress</td>
</tr>
<tr>
<td>4</td>
<td>Job Satisfaction</td>
<td>Dependent</td>
<td>5</td>
<td>1. Job concrete statements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Job-abstract statements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. Psycho-social statements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4. Economic statements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5. Community/National growth statements</td>
</tr>
</tbody>
</table>

3.5.1 INDEPENDENT VARIABLES :

(1) Gender: (Male and Female)

(2) Division: (T.C.S. Company, A.B.B. Company & J.K.S. Company)

3.5.2 DEPENDENT VARIABLES :

The score of Job stress and Job satisfaction.

3.5.3 CONTROLLED VARIABLES :

(1) In the present study selection of samples is only from Software Company.

(2) In this study only Managers and Workers of Software Company were taken.

(3) Limited samples were taken for this study.

3.6 SAMPLE :

3.6.1 POPULATION :

In the present study to measure Job stress and Job satisfaction of Managers and Workers of Software Company who
was working in Software Company was randomly selected for the sample.

1.6.2 SELECTION OF SAMPLE:

In the present study sample will be selected randomly. We will take 120 male workers who are working in Software Company and 120 female workers who are working in Software Company, so total 240 samples will be selected for this study.

Approximately 300 samples will be selected in each category for the research study. After disposing off incomplete and unclear details, a total of 240 samples will be selected as per primary planning.

3.6.3 EXPERIMENTAL DESIGN:

In the present study we will take total 240 Software Company workers. For breakup of the sample of present study, we can use 2x3 experimental designs and which is under:

Table-3.6.3.1 : Experimental Design (2x3)

<table>
<thead>
<tr>
<th>Division (B)</th>
<th>Male (A₁)</th>
<th>Female (A₂)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.C.S. Company (B₁)</td>
<td>40</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>A.B.B. Company (B₂)</td>
<td>40</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>J.K.S. Company (B₃)</td>
<td>40</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>120</td>
<td>240</td>
</tr>
</tbody>
</table>

A = Gender : Male Workers (A₁) and Female Workers (A₂)
B = Gender : T.C.S. Company (B₁) A.B.B. Company (B₂) and J.K.S. Company (B₃)

3.7 TOOLS:

The main objective of the present study is a study of Job stress and Job satisfaction of Managers and Workers of Software Company. In the present study I can use two questionnaires, (1) Job stress Inventory and (2) Job Satisfaction Scale.
3.7.1 **DATA SHEET:**

In the data sheet of the present study we can include normally Name, Sex, Qualification, Age, Religion, Type of job, Area of residency, Experience, Monthly Income, Type of Family, Division, Married or Unmarried, Category etc. items included in data sheet to measure Job stress and Job satisfaction of Managers and Workers of Software Company.

3.7.2 **JOB STRESS INVENTORY:**

In order to measure Job stress we will use “Job stress Inventory” by Shrivastava and Singh (1981) and this test is in English so the translation version of Gujarati which was done by Dr. Dinesh Dadhania was used. Job stress Inventory is measure how the person feel Job stress. In this inventory total 46 items are given. Out of which 28 items are positive and 28 items are negative. For above items person choose their answer out of below “Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree. The scoring for positive items is 5,4,3,2 & 1 and for negative items 1,2,3,4 & 5 score is given. This test is measuring Job stress perfectly.

3.7.2.1 **Scoring:**

In this inventory total 46 items are given. Out of which 28 items are positive and 28 items are negative. For above items person choose their answer out of below “Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree. The scoring for positive items is 5,4,3,2 & 1 and for negative items 1,2,3,4 & 5 score is given.

3.7.2.2 **Reliability and Validity:**

Reliability of Job stress Inventory is 0.94 which is very high and Validity of Job stress Inventory is 0.59.
3.7.3. **JOB SATISFACTION SCALE** :

This scale was developed by Singh, A, and Sharma, T. R, in 1999. The present scale draws motivation from the works of Hoppock (1935), Morse (1953), Kahan (1951), Herzberg (1959), Kelliberg (1977), Rajbir (1976), Sokhey (1975), Pestonjee (1973) and Muthayya (1984). While framing the scales almost all known factors of job satisfaction given above including Ginsberg, triple factors and Kelliberg’s work values and job rewards were kept in view.

The level of job satisfaction was measured in two types of areas-job-intrinsic (factors lying in the job itself) and job-extrinsic (factors lying outside the job). Job intrinsic area was further conceptualized as job-concrete (say: excursions, working conditions etc.) and job abstract (say: cooperating, democratic functioning etc.); and job-extrinsic area as consisting of three components, viz., psycho-social aspects, financial aspects and community/nation growth aspect. The following areas as suggested by literature were covered in nearly 80 statements provisionally framed to measure job satisfaction.

1) Job, its nature
2) Job security
3) Longitudinal and horizontal mobility
4) Wages and financial gains
5) Incentives
6) Fringe benefits and perks
7) Occupational and social status
8) Responsibility
9) Recognition
10) Participation and respect for creative suggestion
11) Safety and medical care
12) Communication network
13) Training and experience on the, for the job
14) Co-workers and colleagues
15) Supervision, guidance, advice
16) Subordinates and bosses
17) Organizational climate and structure
18) Size and site of the organization
19) Working conditions
20) Attitudes and morale
21) Personal factors such as age, sex, intelligence, educational level, personality
22) make-up, goal expectations and so on
23) Modernization
24) Cultural links
25) Community/National development
26) Life-satisfaction
27) Value formation and development

These 80 statements got rated for suitability by 30 judges belonging to the fields of psychology, sociology, business, administration, law and trade-union. Depending upon the unanimity among the judges only 40 items were retained for a pilot study made on nearly 50 professionals. This try-out resulted in deletion, modification and also inclusion of a few items. For the final scale only 30 statements were retained. Each statement has five alternatives from which a respondent has to choose any one which candidly expresses his response. The following matter shows the connection of different items with different areas constituting the scale.
1) **Job-intrinsic statements (factors inherent in the job)**

a) Job concrete statements such as excursions, place of position, working conditions: 6, 11, 13, 19, 23, and 25

b) Job-abstract statements such as cooperation, democratic functioning etc: 8, 15, 16, 17, 21, and 27

2) **Job-extrinsic statements (factors residing outside the job)**

a) Psycho-social such as intelligence, social circle: 1, 3, 4, 7, 10, 12, 1, 26, and 30

b) Economic such as salary, allowance: 2, 5, 9, 18

c) Community/National growth such as quality of life, national economy: 14, 22, 24, 28, and 29

3.7.3.1 **Standardization sample:**

The scale was personally administrated to each of the 320 professionals consisting of an equal number of engineers, doctors, advocates and college teachers selected as per stratified random technique from all over the state of Punjab. The rural and urban areas were given due representation. The scale in its totality or in parts depending upon the requirements can be administrated to any category of professionals. It is comprehensive and omnibus in nature.

3.7.3.2 **Scoring:**

The scale has both positive and negative statements. Items at Sr.No.4, 13, 20, 21, 27 and 28 are negative, others are all positive. The positive statements carry a weightage of 4, 3, 2, 1, and 0 and the negative ones a weightage of 0, 1, 2, 3 and 4. The total score gives a quick measure of satisfaction/dissatisfaction of a worker toward his job. As indicated earlier by adding the score on particular statements. Satisfaction/dissatisfaction can also be found in particular areas say financial or job inherent and so on.
3.7.3.3 Reliability and Validity :

The test-retest reliability works out to be 0.978 with N=52 and a gap of 25 Days. The scale compares favorably with Muthayya's job satisfaction questionnaire giving a coefficient of 0.743. Moreover the satisfaction measures obtained from this scale have a close resemblance to the ratings given to the employees on a 3-point scale: fully satisfied, average satisfied, dissatisfied by the employees. The coefficient of correlation was 0.812 (N=52).

3.7.3.4 Uses of Job Satisfaction Scale :

As a result of carefully manipulation of the scale satisfaction/dissatisfaction of a worker (or workers) can be seen on any factor/variable (or groups thereof) by administrating the scale in full or in parts as desired and then steps taken to enhance satisfaction by removing the irritants. The scale is brief, reliable, valid and has administrative facility. It is easily scorable. It can be administrated to any category of workers. Each of the 30 statements has been provided with suitable alternatives characterized by the nature of the statement. All statements are clear, distinct and concept based. The following table shows the degree of satisfaction among workers.

3.8 DATA COLLECTION :

For the data collection of the study we can get information about software company workers and then we meet to them directly and conversant with an importance of the present study. Than we can give questionnaire to all the managers workers who was working in Software Company like T.C.S. Company, A.B.B. Company and J.S.K. Company and data was collected.
3.9 **PROCEDURES OF RESEARCH**

In procedures of research first in relation to main objective we can select right questionnaire and after that we can get information about software company workers and we meet to them directly and conversant with an importance of the present study. In order to measure Job stress “Job stress Inventory” and Job Satisfaction “Job Satisfaction Scale” was used. Both tests are in Hindi so at first we can translate both test in Gujarati and Pilot study was done and then we measure the reliability and validity of test. We visited many of Managers and workers of Software Company. There were we meeting them directly and tests were given and data was collected. At last 120 Male and 120 Female workers of Software Company were selected finally.

3.10 **STATISTICAL ANALYSIS**

After scoring of every test which is fill up by workers I can get raw scores and then by help of raw scores I can complete data analysis. First I check which option out of “Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree” was selected by workers and help of them I can give a score to every sentence and at last I get a raw score.

Thus, in relation to main objective of the present study all the data was collected from the Managers and workers of Software Company and then scoring was done for the help of manual of the questionnaire and at last for getting results I can used 2x3 “F” test (ANOVA) method for statistical analysis of the present study.

In the next chapter-4 in relation to variables of the present study like gender and Division results and interpretation was given.