CHAPTER III
RESEARCH METHODOLOGY

Research refers to the systematic investigation of the specified problem based on the data collected. Research design is the conceptual structure within which research is conducted. The previous chapters indicate the conceptual backdrop and the research trends. This chapter explains the hypotheses of the research derived on the basis of the previous chapter. The nature of the research, the sampling procedures, method of data collection, reliability and validity of the measuring tools, and the details of measuring tools used in the research are also included.

HYPOTHESES OF THE STUDY

Based on the objectives set for the study, the following hypotheses are formulated.

- There is no difference in the job satisfaction level of respondents.
- There is no significant influence of demographic factors on the job satisfaction of respondents.
- There is no significant relationship between family environment and work family conflict with the job satisfaction of respondents.
- There is no significant association between work locus of control and job satisfaction.
- There is no significant association between stress coping and job satisfaction.
• There is no significant relationship between physical symptoms and job satisfaction.

• There is no significant relationship between job satisfaction and life satisfaction.

• There is no significant influence of demographic factors on life satisfaction.

**PILOT STUDY**

A pilot study was conducted among 50 respondents from the leather goods manufacturing industries in Vellore district.

The following scales have been administered

• Job satisfaction scale
• Family Environment scale
• Stress Coping scale
• Subjective Well-Being scale
• Work Family Conflict scale
• Work Locus of Control scale
• Dependence Proneness scale
• Emotional Maturity scale
• Life Satisfaction scale
• Physical Symptoms scale

A correlation test is applied between the above mentioned variables and job satisfaction. Among the selected variables, certain variables such as subjective well-being, dependence proneness and emotional maturity scale, are not found to have significant correlation. So these variables were excluded in the main study.
Validity and reliability

The questionnaires used for the data collection are of standard tools and experts’ opinions for the questionnaire were obtained for its validity.

The reliability of the questionnaire was tested using the chron-bach alpha value and the reliability values for the dimension are given below:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Dimensions</th>
<th>Chron-bach Alpha Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Family environment</td>
<td>0.8252</td>
</tr>
<tr>
<td>2</td>
<td>Job satisfaction</td>
<td>0.8383</td>
</tr>
<tr>
<td>3</td>
<td>Work family conflict</td>
<td>0.7627</td>
</tr>
<tr>
<td>4</td>
<td>Stress coping skills</td>
<td>0.7481</td>
</tr>
<tr>
<td>5</td>
<td>Work locus of control</td>
<td>0.8232</td>
</tr>
<tr>
<td>6</td>
<td>Life satisfaction</td>
<td>0.6966</td>
</tr>
<tr>
<td>7</td>
<td>Physical symptoms</td>
<td>0.8283</td>
</tr>
</tbody>
</table>

Reliability for the dimensions was already tested after the pilot study and the values were erroneously missed out for inclusion.
RESEARCH DESIGN

The study is to understand the level of job satisfaction of women employees in leather goods manufacturing industries based on the demographic factors, job satisfaction, family environment, stress coping skills, work-family conflict, work locus of control, life satisfaction and physical symptoms inventory. Job satisfaction is measured as an outcome variable. Hence, a descriptive research design was followed by the researcher. A survey was conducted with the help of a questionnaire among the women employees working in leather goods manufacturing industries.

SAMPLING FRAMEWORK

AREA

The survey was conducted for the research in Vellore district. This district has nine taluks namely Thiruppatur, Vaniyambadi, Ampur, Gudiyatham, Katpadi, Vellore, Walajapet, Arcot and Arakkonam. The Leather Industries come under the organized sector and these Industries are located in eight taluks of the district except in Arakkonam. The number of industries are 298 spreading across the eight taluks and the number of women workers in the industries are 20,598. (As per the information obtained from inspector of factories, Vellore, RS no.A/1853/2012/ dt.01.08.2012).

The women workers in the industries located in the Walaja taluk were selected for the purpose of survey and this taluk was selected on random.
In the taluk the industries are located in the following eight places viz., Keezvisharam, Lalapettai, Muguntha Rayapuram, Chenna Samudhram, Chettithangal, Sipcot (Ranipet), Maanthangal and Ammur. Distributed to the women workers explaining the contents of the Questionnaire and the purpose of research undertaken also informed them. The women workers are from varied educational background ranging from 8th standard to U.G. degree, but, mostly with the school level. Hence, a detailed explanation is required for each question of the questionnaire. For this purpose, 5 trainers well qualified both academic and experienced in the leather industry, were engaged in distributing the questionnaire who helped the respondents in filling the questionnaire who have difficulty to understand and collect back the same after completion.

**SAMPLING TECHNIQUE**

In this study, the researcher has adopted the multi stage cluster random sampling technique and the target population women working in leather industries of Vellore district located at Walaja taluk in the Keezvisharam block. In Keezvisharam eight leather industries are functioning and the women employees from all these eight industries were taken for the questionnaire survey, 525 women employees work in these industries. Survey was undertaken by the researcher along with the help of five trainers belonging to that district.
The five trainers were clearly explained by the researcher about the purpose of research and the information required in the questionnaire. The information in the questionnaire were obtained using interview method. The researcher covered an industry in a time phase of 3-5 days. The respondents were initially explained the contents of the questionnaire and obtained the required information. All of the employees were covered for the research excepting for 5 employees who were absent for a long duration of time.

**DATA COLLECTION**

**Primary Data**

The data were obtained from the women employees working in the leather industry by explaining the questions individually. The responses from the women employees were obtained using the interview method, since the respondents were mostly having school level or below in education level, they were required to be explained in detail about each and every question in the questionnaire. The respondents were explained about the purpose of research, and they were assured that the information given by them will be kept confidential and used for the academic purpose. The data were collected between the period of 1st May 2013 and 30th June 2013.
Secondary Data

The necessary secondary data to support the research regarding the level of job satisfaction among women employees working in leather industry have been collected from the Central Leather Research Institute in Chennai, Libraries of premier Management Institutes like IIM, Bangalore and University libraries. Sufficient data have been collected from electronic source also.

SAMPLE SIZE DETERMINATION

The following formula has been applied to determine the sample size for the main study:

\[ n = \frac{Z^2 \cdot p(1-p)}{d^2} \]

In the pilot study 50 members were selected and among the 50 samples, 28 of them were highly satisfied (i.e., 56%). Using the above formula, sample size can be determined.

Where, \( p \) is 0.56 (56%)

\( d \) is precision level of 6%

\( Z = 1.96 \) table value for 5% level of significance

Therefore, the calculated value was found to be \( n = 262 \).

Since cluster random sampling technique has been adopted, the sampling design effect of 1.8 has been taken up (i.e.) \( 262 \times 1.8 = 472 \) women respondents are required for the study. However, 520 responses have been collected in total for the purpose of the study.

\( n = 262 \times 1.8 = 472 \)

Where, level of significance \( \alpha \) is 5%.
Hence, the total number of responses required are 472 and the final responses received are 520.

**Justification of the Sample**

In Vellore District, the types of leather industries (i.e.) large, medium or small and the workforce employed in the leather industries are almost similar in nature in every place of location and taluks. That is, uniformity in the types of industry and workforce. Therefore, the workforce and type of industries in Keezhvisharam represents the sample relating to (leather) industries located in Vellore district.

**INSTRUMENTS DESCRIPTION**

**Demographic Factors**

Demographic factors include items such as age, education, religion, experience, marital status, spouse income, family type, size of the family, income of the employee, working department, distance between work place and residence, mode of transport and working hours. Review of literature indicates that the studies conducted earlier have not included religion, distance between workplace and residence and mode of transport. In order to measure the level of job satisfaction among women employees in leather goods manufacturing industries, the following tools have been used in the present study.

2. **Family Environment**-Developed by Dr.Harpreet Bhatia and Dr.N.K.Chandhr (1993)

Dimensions are Cohesion, Expressiveness, Conflict, Acceptance and Caring Independence
3. **Stress Coping Skills** - Developed by Jerabak (1996)

   Dimensions are
   Reactivity to Stress
   Resourcefulness
   Ability to Relax
   Self-Reliance
   Adaptability and Flexibility


5. **Work Locus of Control** - Developed by Paul E. Spector (1988)

6. **Life Satisfaction** - Developed by Andrews and Withey (1976)


**Job Satisfaction Tool**

**Description**

This refers to the extent of positive attitudes towards the job. The job satisfaction scale constructed and standardized by Rabindra N. Kanungo (1982) was used in the study. This scale has 16-items.

**Instructions**

The instructions for this scale are as follows.

Listed below are some of the characteristics or qualities that people look for in their jobs. We would like to know the degree of one’s satisfaction or dissatisfaction with each of the job qualities as they are related to one’s present job.
Each job quality listed below is measured using 5 point Likert scale.
The degree of one’s agreement or disagreement with each statement is marked by a tick in one of the answer categories given below:

<table>
<thead>
<tr>
<th>5-Strongly Agree</th>
<th>4-Agree</th>
<th>3-Not Decided</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Disagree</td>
<td>1-Strongly Disagree</td>
<td></td>
</tr>
</tbody>
</table>

**Scoring**

The scale consists of 16 items. The maximum score is 80 and the minimum score is 5. The mean value of less than 46 is low, scores between 46 and 66 is moderate and the mean value of 66 and above is considered high. Higher the score, higher is the perception of job satisfaction.

**Family Environment Tool**

Dimension Description

**1. Cohesion (Relationship Dimension)**

**Description**

This dimension is defined as the cohesive relationship with family members. The positive statements are 1, 9, 24, 37, 43, 55, 60, 63, 66, 69 and the negative statements are 17, 49, 31.

**Scoring**

The dimension consists of 13 items. So the minimum and maximum possible scores are 0 to 65. The mean value of 45 and below is considered a low score, scores between 46 and 60 is average and the mean value of 61 and above is considered a high score. The higher the score, higher is the cohesion nature of the employees.
2. Expressiveness (Relationship Dimension)  
**Description**  
This dimension is defined as the expressiveness of the employees with their family members. The positive statements are 10, 25, 38, 44 and 56 and the negative statements are 2, 18, 32 and 50.

**Scoring**  
The dimension consists of 9 items. So the minimum and maximum possible scores are 0 to 45. The mean value of 27 and below is considered a low score, scores between 28 to 39 is average and the mean value of 40 and above is considered a high score. The higher the score, higher is the expressive nature of the employees.

3. Conflict (Relationship Dimension)  
**Description**  
This dimension is defined as the conflict arises with the family members. The positive statements are 11, 19, 39, 51, 61 and 67 and the negative statements are 3, 26, 33, 45, 57 and 64.

**Scoring**  
The dimension consists of 12 items. So the minimum and maximum possible scores are 0 to 60. The mean value of 37 and below is considered a high level conflict, scores between 38 to 51 is average conflict and the mean value of 52 and above is considered a low conflict. The higher score indicates low conflict and lower score indicates higher conflict.
4. Acceptance and Caring (Relationship Dimension)
Description
This dimension is defined as the acceptance and caring nature of the employee with the family members. The positive statements are 8, 16, 36, 42, 48, 54, 59 and 62 and the negative statements are 23, 30, 65 and 68.

Scoring
The dimension consists of 12 items. So the minimum and maximum possible scores are 0 to 60. The mean value of 40 and below is considered a low level, scores between 41 to 54 is average level, and the mean value of 55 and above is considered a high level. The higher score indicates high level of acceptance and caring nature of the employees.

5. Independence (personal growth Dimension)
Description
This dimension is defined as the independence nature of the employee. The positive statements are 4, 27, 46 and 52 and the negative statements are 12, 20, 34, 40 and 58.

Scoring
The dimension consists of 9 items. So the minimum and maximum possible scores are 0 to 45. The mean value of 30 and below is considered a low level independence, scores between 31 to 40 is average level, and the mean value of 41 and above is considered a high level. The higher score indicates high level of independence of the employees.
**Coping Stress Tool**

**Dimension Description**

**1. Reactivity to Stress (R.S)**

**Description**

This dimension is defined as the ability to function normally under stress. The positive statements are 19 and 26 and the negative statements are 3, 9, 20, 23 and 28.

**Scoring**

The dimension consists of 7 items. So the minimum and maximum possible scores are 0 to 35. The mean value of 0-14 is considered a low score, scores between 15 and 27 is average, and the mean value of 28-35 is considered a high score. The higher the score, reactivity to stress is also higher.

**2. Resourcefulness (R)**

**Description**

This dimension is defined as the ability to find a new solution to an old problem. The positive statements are 6, 8, 10, 12 and 39 and the negative statement is 14.

**Scoring**

The dimension consists of 6 items. So the minimum and maximum possible scores are 0 to 30. The mean value of 0-12 is considered a low score, scores between 13 and 23 is average and the mean value of 24-30 is considered a high score. The higher score indicates higher resourcefulness.
3. Ability to Relax (A.R)

Description

This dimension is defined as the ability to take time for ourselves and enjoy lives and surrounding which help us to appreciate life. The positive statements are 2, 24, 35, 37 and 45 and the negative statement is 7.

Scoring

The dimension consists of 6 items. So the minimum and maximum possible scores are 0 to 30. The mean value of 0-12 is considered a low score, scores between 13 and 23 is average, and the mean value of 24-30 is considered a high score. The higher score indicates higher ability to relax.

4. Self-Reliance (S.R)

Description

This dimension is defined as the ability to rely on one’s own decisions and solutions. The positive statements are 1, 4, 16, 22, 41 and 42 and the negative statement is 38.

Scoring

The dimension consists of 7 items. So the minimum and maximum possible scores are 0 to 35. The mean value of 0-14 is considered a low score, scores between 15 and 27 is average, and the mean value of 28-35 is considered a high score. The higher score indicates higher self-reliance.
5. Adaptable and Flexibility (A.F)  
**Description**

This dimension is defined as the ability to adapt to change, being flexible and open minded in dealing with life changes. The positive statements are 13, 21 and 44 and the negative statements are 27, 30, 36, and 43.

**Scoring**

The dimension consists of 7 items. So the minimum and maximum possible scores are 0 to 35. The mean value of 0-14 is considered a low score, scores between 15 and 27 is average, and the mean value of 28-35 is considered a high score. The higher score indicates higher adaptability and flexible nature.

**Work-Family Conflict**  
**Description**

This dimension is defined as work to family conflict and family to work conflict of the employee, and it was measured using two subscales (5 items for WFC & 5 items for FWC).

**Scoring**

This scale consists of 10 items. So the minimum and maximum possible scores are 0 to 50. This instrument measures both work-to-family and family-to-work conflict. Therefore, it fits the concept of the research model for this study both theoretically and methodologically. Work-to-family conflict was measured with five items assessing the extent to which work interferes with family.
Family-to-work conflict was measured with five items assessing the extent to which family interferes with work. Scale scores were obtained by averaging participants’ responses to a 5-point Likert scale rating from 1=strongly disagree to 5= Strongly agree. Negative items were reverse scored and responses were summed across 5 items so that larger numbers were associated with greater inter-domain conflict in each scale.

**Work Locus of Control**

**Description**

This scale consists of 16 items. Responses to the items should be numbered from 1 representing strongest disagreement to 6 representing strongest agreement with each.

**Scoring**

The Work Locus of Control scale or WLCS has half of its items written in each direction external and internal. Scores on the scale can range from 16 to 96. Each item can have a score from 1 to 6 if original response choices are used. High scores on the scale represent externality, so the score on the internally worded items must be reversed before summing. This is because a score of 6 representing strongest possible agreement on an externally worded item is equivalent to a score of 1 representing strongest possible disagreement on an internally worded item. Below is the step by step procedure for scoring.
1. Responses to the items should be numbered from 1 representing strongest disagreement to 6 representing strongest agreement with each. This assumes that the scale has not been modified and original response choices are used.

2. The internally worded items should be reverse scored. Below are the reversal for the original item score in the left column and reversed item score in the right. The rightmost values should be substituted for the leftmost. This can also be accomplished by subtracting the original values for the internal items from 7.

   1=6
   2=5
   3=4
   4=3
   5=2
   6=1

**Life Satisfaction**

**Description**

This scale consists of 15 items. “Yes or “No” type questionnaire was used.

**Scoring**

The minimum and maximum possible scores are 0 to 30. The higher the score, life satisfaction will be also higher.
**Physical Symptoms Inventory**

**Description**

This scale consists of 18 common physical problems that are often associated with psychological distress. This instrument measures somatic symptoms involving discomfort or pain (e.g., headache, backache, stomac-ache, palpitations or irregular heartbeat), as opposed to symptoms that cannot be directly experienced such as blood pressure or cholesterol level. These symptoms were rated with a 2 point scale (0=No and 1=Yes).

**Scoring**

The minimum and maximum possible scores are 0 to 34. The higher number of symptoms shows that the level of job satisfaction is low and the less number of symptoms shows that the satisfaction level is higher.

**JOB SATISFACTION TOOL**

**Description**

This refers to the extent of positive attitudes towards the job. The job satisfaction scale, constructed, and standardized by Rabindra N. Kanungo (1982) was used in the study. This scale has 16-items.
**Instructions**

The instructions for this scale are as follows.

Below are listed some characteristics or qualities that people look for in their jobs. We would like to know the degree of one’s satisfaction or dissatisfaction with each of the job qualities as they are related to one’s present job. For each job quality listed below, you will five answers. Please indicate, the degree of one’s agreement or disagreement with each statement by putting a circle (✓) in one of the answer categories and they are

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>4</td>
<td>Agree</td>
</tr>
<tr>
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**Scoring**

The scale consists of 16 items. The maximum score is 80 and the minimum score is 5. The mean value of less than 46 is low, scores between 46 and 66 is moderate and the mean value of 66 and above is considered high. Higher the score, higher is the perception of job satisfaction.
STATISTICAL TOOLS USED

The collected data were analyzed by using SPSS package version 15 and Amos 5. The statistical tools used are

- **Descriptive Statistics**: It refers to the transformation of raw data into representative data namely, mean and standard deviation so that they can be compared and interpreted.

- **One-way ANOVA**: Analysis of the effects of one treatment variable on an interval-scaled or ratio-scaled dependent variable; a technique to determine if statistically significant differences in means occur between two or more groups.

- **Friedman’s Multiple Comparison Test**: A technique for grouping the variable by comparing the mean rank.

- **Path Analysis**: This analysis helps in developing and fitting the model with the variables selected.

- **Step Wise - Multiple Regressions**: An analysis for measuring the linear association between the dependent and independent variable.

- **Simple Correlation**: A statistical measure of the association between two variables.

- **Cluster Analysis**: An analysis that classifies individual or objects into a small number of mutually exclusive groups, ensuring that there will be much likeness within groups and as much differences among groups as possible.

- **Chi-square**: A test that statistically determines significance in the analysis of frequency distribution.
LIMITATIONS OF THE STUDY

Though the research has been properly planned, and well executed, there are certain limitations, which are inherent in nature, and are out of the researcher’s control. The effectiveness of the research is felt only when the result are read along with the limitations and constraints faced during the course of the study. Such important limitations of the study are stated below.

- The study was conducted only in Vellore District due to time and cost constraint. So the findings of the study cannot be generalized to all leather industries in other places. Because the standard of living, culture and other factors differs from place to place.

- Any research tool, when circulated can mean different things to different individuals. The same technique applicable for this study also.

- Few organizations do not encourage their employees to participate in the study.

- Collecting data from the leather industries employees is a million dollar task. This is because they are equipped with time stipulated work. We had to find odd timings to collect the information.

- The resistance of the respondents due to fear, lack of interest, and time is a major constraint and steps were taken to reduce this error by giving assurance that it is only for academic purpose.