CHAPTER 4

RESEARCH METHODOLOGY

4.1. Introduction

Research methodology acts as the pulse of the study by providing appropriate methods that the researcher uses to achieve research objectives (Cohen, et al., 2007). It provides a clear idea about research procedures, analysis plan and the research location that would be addressed in the course of the study. Punch (2009) argues that poor selection of research methods can lead to failure of the research study. Therefore, research methods should be selected with care and their advantages and disadvantages should be weighed before choosing the most pertinent methods.

Therefore, in this chapter an attempt has been made to study and understand the characteristics and the relevance of the QWL within the employees of the manufacturing and the service sector, and its impact on the dimensions of the QWL on the employees within the context of the selected sectors, giving due importance to the QWL and the combination of it with the inter-personal relationship of the employee within the company.

4.2. Hypotheses

$H_{10}$: There is no significant difference between the job Satisfaction of the employees in manufacturing and service sectors.

$H_{1a}$: There is a significant difference between the job Satisfaction of the employees in manufacturing and service sectors.
H2₀: There is no significant difference between the Opportunity for Growth of the employees in manufacturing and service sectors.

H2ₐ: There is a significant difference between the Opportunity for Growth of the employees in manufacturing and service sectors.

H3₀: There is no significant difference between the Social Integration in the Work Organization of the employees in manufacturing and service sectors.

H3ₐ: There is a significant difference between the Social Integration in the Work Organization of the employees in manufacturing and service sectors.

H4₀: There is no significant difference between the Safe and Healthy Working Conditions of the employees in manufacturing and service sectors.

H4ₐ: There is a significant difference between the Safe and Healthy Working Conditions of the employees in manufacturing and service sectors.

H5₀: There is no significant difference between the Adequate and Fair Compensation of the employees in manufacturing and service sectors.

H5ₐ: There is a significant difference between the Adequate and Fair Compensation of the employees in manufacturing and service sectors.

H6₀: There is no significant difference between the Training and Development of the employees in manufacturing and service sectors.

H6ₐ: There is a significant difference between the Training and Development of the employees in manufacturing and service sectors.

H7₀: There is no significant difference between the Overall Satisfaction of the employees in manufacturing and service sectors.
H7a: There is a significant difference between the Overall Satisfaction of the employees in manufacturing and service sectors.

4.3. Research Strategy Employed

Both qualitative and quantitative methods generate primary and secondary research results. Bell (2005) declares that the comparison between both methods adopted by researchers seek insights using statistics and questioning ‘scientific’ method; whereas quantitative method aims to collect facts and explore factual events.

The main purpose of this research is to understand the existing QWL among the manufacturing and service sector employees. In order to assess QWL, seven dimensions of QWL were used to analyse and thereby recommend strategies to address them.

Two types of data collection supported this study: primary source involving the collection of information through first-hand research and secondary source involving the collection of information published by others formulated through their primary research. Secondary source of information was gathered using reliable and key information from an extensive range of sources.

An exploratory and in-depth survey of the existing literature was first done to understand the QWL among various sectors in India as well as abroad and how it correlated with each other geographically. This understanding served as the background for the research. It helped to establish the problem, justify the need for research, which resulted in the establishment of research questions, aims and objectives of the study.

In this research, primary data was collected through a questionnaire, as we attempted to understand the perception of QWL among the manufacturing and service sector employees. Reaching out to the target audience is almost impossible due to the
large number of people working in these sectors. Therefore, Simple random sampling technique was employed for collecting data as reaching the entire population of the study would be time consuming and expensive.

The questionnaire addressing the objective of the study was distributed among the manufacturing and service sectors to collect the necessary information.

4.4. **Sampling procedure**

To collect information on QWL, employees of manufacturing and service sectors of leading organizations in Karnataka (Mysore, Bangalore, Maddur and Nanjanagud regions) were approached and valuable and accurate data from them were collected through a questionnaire (Appendix I). This sampling plan was more than adequate in terms of yielding a representative sample. The sample was sufficiently large to cover a representative set of manufacturing and service sectors in Karnataka. Only those willing to fill the forms were used in this study. No undue pressure or soft sales pitch was used to induce participants to spare their time to fill up the questionnaire. Procedure is explained in fig 4.1 and 4.2 respectively.

![Figure 4.1: General sampling summary](source: Adapted from Polit and Beck, 2006)
4.5. Research Instruments

The framing of the questionnaire was done with reference to the literature reviewed for the study of the quality of work life in the manufacturing and the service sectors in Karnataka.

The study used a questionnaire consisting of two sections. First section dealt with the demographic details of the respondents, while the second section addressed the actual issue of understanding QWL among them.

The demographic profile gives personal data of the respondents regarding the age, gender, marital status, qualification, experience, designation, income, and length of service in the same organization. Descriptive analysis for the demographic details was done and the results presented in the form of figures and tables.

The questions in section two was constructed using the chosen seven dimensions of the quality of work life, namely Job satisfaction, Work load, Opportunity for continuous growth and security, Training and development, Adequate and fair
compensation, Safety and healthy working conditions, and social integration in the work organization. Each of the independent variables contained five to ten multi-dimensional questions, which were measured using a 7-point Likert scale from “Strongly Disagree” to “Strongly Agree.” Complete questionnaire is given in Table A.1 in Appendix I.

Each of the key constructs had several items under them to test the responses given by the individuals.

**Construct 1: Adequate and fair compensation**

This is the first construct which was considered as a variable in the study of QWL in the employees of the manufacturing and the service sector.

One of the most pertinent objectives of the job is to earn money for one’s needs. It thus becomes most evident that a job should satisfy the requirements of the individual. The quality of work life depends on this construct to a great extent making the individual to strive harder or to live in peace (Schreuder and Theron, 1997; and Walton, 1973). Thus the construct adequate and fair compensation is considered as one of the main factors that affects QWL directly (Nirenberg, 1993). It is not always easy to determine the factors which make the construct adequate and fair compensation since the perception of the construct and its relevance changes with individual’s needs and conditions at home and in the work place (Orpen, 1981). The definition of the fairness with respect to compensation determines the adequacy and the nature of one’s job.

**Construct 2: Safe and healthy working conditions**

The concept of safe and healthy working conditions imply that the work place does not pose any health problems or any health hazards to the employees nor the kind of
work or the equipment and implements involved in carrying out the job would be a hazard. The job must not be threatening to the individual mentally or physically (Orpen, 1981). The formation of labor laws, guilds and workers’ unions, and regulations in the recent times have brought about several positive changes that have improved the quality of life at the work place. The hazards like excessive noise, chemicals, space constraints, prevention of injuries during work have been considered and well taken care of. The constraints of age and physical wellness are also considered when the job is risky (Orpen, 1981; Walton, 1973). The quality of life is enhanced when the company supports the employees in terms of good working conditions so that they get a comfortable work zone (Newell, 2002). This consisted of two questions.

Kerce & Booth-Kewly in 1993 have posited that a high QWL results when along with the other features, when a sense of security and safety persists in the work place. The construct has two variables, namely reasonable hours and Minimum risk of injury or sickness.

Construct 3: Opportunity to use and develop skills and capabilities

In order to achieve a good, filling work, one’s job must possess certain characteristics which enable them to attain mental peace. They can be grouped as – the chance to showcase the aptitudes and dimensions in the job, capabilities to resolve tasks, and threats that they face during working and conditions which require leadership, and motivation; job challenges which prove the worth of the individual, job nature which suits the capacity of the worker and his aims and a sense of achievement in having accomplished a task. All these parameters justify the aspect of a good, satisfying job prospect which offers ample opportunities for growth of the employee. Often it is not just
the safety, security, finance that motivates the workers. The reasons for motivation can be others too.

The motivation to excel in one’s job, to get positive reviews, and share ideas which can enhance one’s performance in the work place is treated as a better construct to quality of life. It is observed that majority of the people like to see a good growth prospective job which can boost their careers (Rose, Beh, Uli and Idris, 2006). Thus many companies lay emphasis on the development of the personnel and their future prospects than other constructs.

Three important features of QWL based mediations by the organizations are i) consideration that the work allotted affects the employee as well as the progress of the company, ii) the liberty given to the employees in their role in ‘problem-solving and decision making’ and iii) to introduction of incentives and compensations that are novel in ideas and allow the role of ‘gain-sharing.’ The type of environment in the companies was employee friendly in the 1980s which later turned more to economic objectives with reduction in the size of the company by removing excess and non-performing staff, and reforming the structure of the company.

Cox and Cooper (1989) observed the reason behind the extended working hours among the top officials being the drive to excel and reach the top as shown by their study on the top officials of American Telegraphic & Transfer (Cannings & Monmarquette, 1991). The construct has three variables: Advancement opportunities, Job security, Development of capabilities.

The construct has the following variables: Autonomy or self-control in job, Range of skills and abilities used or learned, Knowledge of results of actions on job, Knowledge
of entire task and meaningfulness of task, Opportunity for continuous growth and security.

**Construct 4: Social integration in the work organization**

The other main construct of QWL is the social integration and interaction. The construct normally is affected by five different characteristics, namely, ‘support, patience, justice, flexibility and recognition’, which are important in bringing out the most advantages to the employees (Walton, 1973; Orpen, 1981). They observed that support is the interaction between the employees and the management as well as cooperation amongst the employees themselves keeping in mind their individual preferences and other characteristics like mutuality, confidence, sincerity and morality. The support must also come from higher ups in the company which helps in a mutual relationship between the workers and the officials (c, 1992).

The construct has the following variables: Equal opportunities, No prejudice, Support from primary work group, and Sense of community beyond work group, Interpersonal openness.

**Construct 5: Commitment to workplace**

It has been observed that when an employee shows a good degree of perception about the consequences of his job, the sense of commitment to the job too increases (Hackman and Oldham, 1976). Hackman and Oldham (1980) have studied the concept of the meaning of the job with respect to the variety of talents and capabilities possessed by the and the employees’ sense of completing the work on time, (task identity), and the effect of the job on the fellow workers (importance of the jobs). These criteria relate
these factors to the worthiness of the job to the organization. It has been noticed by several researchers that workers exclusively make efforts to learn the meaning of the work done, its importance, value and worthiness to the company (Wrezesniewski, Dutton & Debebe, 2003).

**Construct 6: Job satisfaction**

Job satisfaction is attained when an employee is able to convert the work culture and nature of the work into a productive and fruitful relationship. Whenever there occurs a disparity in the kind of the job, then the employee finds the job a burdensome affair. When the job becomes too demanding, the person can get stressed out and jittery. The variables present in the construct job satisfaction are time sense, collective work capacity, service to consumers, work-management, cooperation with colleagues, and identification with the job and the company. Job satisfaction is directly related to appreciation of one’s work. It is related to the kind of response one obtains from the superiors towards the work performed. It includes admiration, warnings, and responsibility towards the job and the opinions of the higher ups, colleagues and the administration, and the customers. In case, a worker does not succeed in getting the identification with the job, then he or she suffers from dissatisfaction in the job.

The job satisfaction also envisages expertise, upward growth in the job, facilities, and increase in the compensation and income which caters to the needs of the employee. Job satisfaction is also related to a good work life balance, support of the family, financial adequacy, and sufficiency of funds. Dissatisfaction among the work-force can affect the quality of business to the administration and result in loss to the company (Yadav et al., 2014).
**Construct 7: Training and development**

The companies in the manufacturing sector and the service sector are continuously facing challenges in their day to day professional lives. Thus, to combat the competition and to equip themselves with the latest technological developments in their respective fields it is necessary for the organizations to provide training and skill development programmes to their staff periodically. The companies must organize more workshops, symposiums to create a better understanding of their job requirements.

The construct here refers to the type and number of workshops conducted, symposiums arranged, and other facilities given to the employees to upgrade themselves.

**4.6. Sample population**

The sample population consisted of the employees of the manufacturing and the service sectors in Mysore, Bangalore, Nanjanagud and Maddur Districts in Karnataka, India. The total numbers of the employees contacted were 300 from the manufacturing sector and 300 from the service sector. The total number of employees contacted was in total 600. Out of which, 154 completely filling questionnaires were received from manufacturing sector and 160 were received from the service sector. Even though both private and public sector industries were considered for the study, no specific discrimination among these two sectors were done in this study.

The type of industries used in the survey belonged to manufacturing and service sectors like textiles, pharmaceuticals, tyre, rubber industries, sugar industries, and electronics and information technology industries. The position of the employee in the industry and their status in the company were not used to filter; however, this survey focussed on executive’s upto manager level.
4.7. Collection of the data

The data was collected through hard copy using a printed version of questionnaire. The data was transferred to the computer for further analysis. For pilot study the data was collected using online forms.

4.8. Pilot Study

In order to ensure the validity of the questionnaire, the pilot study was conducted to accommodate the comprehensive picture of the life of the employees at the working place in the manufacturing sectors and the service sectors in Karnataka. The pilot study was conducted with 50 samples each given to a select batch of employees from the manufacturing and service sectors in Karnataka to collect the primary data.

The employees who answered the pilot study were educated about the aims and objectives of the questionnaire and the questionnaire was reviewed and scrutinized by the employees who were given sufficient flexibility to make any modifications required in the questionnaire. The final questionnaire was thereafter drafted using the inputs of the pilot study.

Based on the literature materials and the pilot study, the final questionnaire was framed. The draft of the questionnaire was almost the same version of the pilot study without many changes and contained the preliminary structure of the questions used in the final questionnaire. The pilot study helped in collection of the data of the relevance to the research in order to estimate the reliability and the validity of the variables of the survey and ensure a proper data collection by the researcher.
4.9. Instrument Reliability

The questionnaire that was finally drafted from the pilot study was subjected to statistical analysis and the reliability coefficient for the data was estimated. The Cronbach’s alpha value was accepted as reliability factor for the questionnaire, which was estimated to be 0.936. Any value between 0.7 and 0.9 is taken as the acceptable value.

Table 4.1: Reliability statistics

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
</tr>
<tr>
<td>Cronbach's Alpha Based on Standardized Items</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>.936</td>
</tr>
<tr>
<td>.938</td>
</tr>
<tr>
<td>57</td>
</tr>
</tbody>
</table>

4.10. Statistical Analysis

Descriptive statistical analysis is used to describe the basic features of the collected data with summaries about the sample and the measures, together with simple graphics analysis. Simple linear regression test was employed to investigate the significant relationships/difference between variables and to verify the research hypotheses. The level of significance was calculated at the alpha level of 0.05 (5%). Reliability and validity of the questionnaire will be tested by estimating Cronbach’s alpha value and factorial analysis, respectively. The validity and reliability of the questionnaire issued to customers were tested to check the efficacy of the research model. Validity refers to the extent to which a test/questionnaire can measure what it claims to measure. Any test that is conducted should be valid in order to accurately apply and interpret the results. Reliability of the test is conducted to ensure the consistency of the tests. Thus, it refers to the consistency of the measure.