CHAPTER - 6

RESEARCH METHODOLOGY
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Research Methodology describes and provides rationale for the various steps adopted for carrying out the study. Along with appropriate justification/logic, the following sections of research methodology describes the Research Problem Statement, Research Objectives, Hypotheses, Scope of Research, Research Design, Sources of Data Collection, Sampling Method, Details of Data Collection Instrument – the Pre-coded Interview Schedule (Questionnaire), Ethical Considerations and Limitations of the present research study.

6.1. RESEARCH PROBLEM STATEMENT & OPERATIONAL DEFINITIONS:

The research topic is “Perceived Quality of Work Life (QWL) and Job Involvement among Employees of Selected Divisions of GSRTC”.

The study attempts to assess the extent of perceived availability of various QWL parameters as well as the extent of job involvement among the employees [the Drivers, Conductors and Mechanics (Workshop & Maintenance staff)] of selected divisions of GSRTC; and suggesting measures to improve the same. Specifically, this study was centered around the research question framed as follows:

“How to ensure better QWL and Job Involvement among the employees of GSRTC?”
Sub-questions of this overarching research query were as follows:

1) What are the factors/attributes considered to be important for QWL by the employees of GSRTC?

2) How do the employees of GSRTC perceive their work environment in terms of availability of various attributes of QWL?

3) What is the existing level of Job Involvement of the employees of GSRTC?

4) Whether there is any association between perceived QWL and Job Involvement among the employees of GSRTC?

5) Whether there is any association between demographic variables like age, experience, education and income and the perceived QWL among the employees of GSRTC?

6) Whether there is any association between demographic variables like age, experience, education and income and the level of Job Involvement among the employees of GSRTC?

The Operational Definitions of various constructs used in the research topic are as follows:

- **Quality of Work Life**: Quality of Work Life (QWL) refers to the degree to which employees are able to satisfy their important personal needs through their experiences in the organization. This is measured through selected, suitably modified and translated 52 items framed on the basis of QWL-C approach, focusing on 13 QWL components of QWL.

- **Job Involvement**: Job Involvement refers to the degree to which a person identifies psychologically with his work or the importance of work in his total self image. This is measured through 22 items focusing on various aspects of Job Involvement, developed on the basis of 12 selected items of Job Involvement
instrument of Lodahl & Kenjer (1965), 8 selected items of Agarwala’s (1978) Instrument for Job Involvement Measurement in Indian Context, and 2 self developed items. All these 22 items were suitably modified and translated in Gujarati for data collection regarding Job Involvement of the respondents.

- **Employees**: These include the permanent on pay-roll employees of GSRTC. This means that the people working on temporary or casual basis are not included. As per the prevailing structure of GSRTC, the employees are classified into Six (6) Categories / Cadres / Levels, as shown in the following Table 6.1:

<table>
<thead>
<tr>
<th>Categories</th>
<th>Type of Employees Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class-I</td>
<td>Divisional Controller (DC), CoP, EDP, TS, etc.</td>
</tr>
<tr>
<td>Class-II-Senior</td>
<td>DME, DTO, etc.</td>
</tr>
<tr>
<td>Class-II-Junior</td>
<td>Depot Manager-A, DTS, DWS, A/c Officer, SO, etc.</td>
</tr>
<tr>
<td>Class-III-Supervisory</td>
<td>Depot Manager-B, AWS, ATS, Jr. A/c, Stores Supervisor, ASO, TI etc.</td>
</tr>
<tr>
<td>Class-III-Operatives</td>
<td>Drivers, Conductors, Mechanics, Jr. Assistants, Clerks etc.</td>
</tr>
<tr>
<td>Class-IV</td>
<td>Peons, Sweepers, Helpers etc.</td>
</tr>
</tbody>
</table>

Source: Annual Reports of GSRTC

The present research study is undertaken on Class-III-Operative (frontline) staff of GSRTC – the Drivers, Conductors, Driver-cum-Conductors and Mechanics (Workshop & Maintenance staff), as out of the total staff strength of 40,670; these employees – Drivers, Conductors, Driver-cum-Conductors and Mechanics occupy nearly 87% (35200). And, they are the people who are the real revenue generators as well as on-field soldiers.

- **Selected Divisions**: The present study is undertaken on the employees [the Drivers, Conductors and Mechanics (Workshop & Maintenance staff)] of selected two divisions of GSRTC. GSRTC has total 16* (now 15) divisions which are further subdivided into two categories: Large and Small.
Originally, this classification was based on the total no. of sanctioned and operating schedules in a particular division. But, the numbers of schedules, particularly the operating schedules were fluctuating quite often. So, from 1995, the divisions were classified based on the number of depots under each of them. But, even today, the number of sanctioned schedules is considered for categorization of a division as “Large” or “Small”.

The present classification of 16* (now 15) divisions into Large and Small categories is as follows:

**Large:** Godhra, Nadiad, Palanpur, Mehsana, Himatnagar, Ahmedabad, Surat, Bulsar (Valsad), Baroda (Vadodara), Rajkot and Junagadh – **Total 11**

**Small:** Bharuch, Jamnagar, Bhavnagar, Amreli and Bhuj – **Total 5***

Out of this, the Nadiad division is the Largest Division of GSRTC with the highest no. of schedules (673) and 11 Depots and the Bharuch division is the Smallest Division of GSRTC with the least no. of schedules (247) and 5 depots.

So, this study is undertaken on the Drivers, Conductors, Driver-cum-Conductors and Mechanics (Workshop & Maintenance staff) of Nadiad and Bharuch divisions with total 16 depots under these 2 divisions.

*Recently, owing to administrative convenience, GSRTC has merged one of the Small Divisions – Jamnagar into Rajkot. So, now, they both are represented by one single division – Rajkot. So, as per the latest arrangements, there are 15 divisions of GSRTC throughout the State – 11 Large & 4 Small.*

- **GSRTC:** Gujarat State Road Transport Corporation, popularly known as GSRTC is a State owned passenger transport organization – State Transport Undertaking (STU) of Gujarat State; that came into existence on 1st May, 1960.
6.2. RATIONALE OF THE STUDY – WHY THIS TOPIC?

Gujarat State Road Transport Corporation (GSRTC) - a state owned passenger transport organization being in existence for more than 52 years as of now has come to a point wherein it is facing challenges in the new environment such as productivity improvement, market orientation and financial engineering, and the fierce and somewhat unfair competition by private transport operators. Hence, GSRTC – one of the State Transport Undertakings in the country, operating successfully since 1st May, 1960, now requiring complete renewal and revival to sustain and grow in this competitive era – is eying for its employees’ support and progressive outlook.

Improving and reviving the operational performance of GSRTC seems to be a herculean task. As discussed by Ravichandran & Surya Prasad (2007) in their study entitled “Reviving Gujarat State Road Transport Corporation (GSRTC): An Agenda for Action”, there is a high felt need of employees’ positive response and appropriate initiatives to the governmental and management interventions for the revival. Trivedi (2012) also suggested that employees of GSRTC need to develop professional outlook, approach and act accordingly, rather than traditional or biased one.

Like in any other organization, in transport organization also, the quality of service as well as the customer satisfaction depends, to a large extent, on the interaction of the staff with the passengers. In other words, it is very important for a transport organization to have highly motivated, committed, dedicated employees at all levels in general, and at the operative level in particular, who are dedicated to providing better quality of service (Ramanayya, Nagadevara & Roy, 2007).

In case of GSRTC, if we apply the same logic, the Class-III – Operatives (Frontline) staff need to assume the central responsibility. In this cadre/category of employees also, the Drivers and Conductors are the ones who directly come into contact with the passengers – the customers on daily basis; and thus their behaviour, courtesy, politeness, regularity and such other soft aspects become very important. Even the
Mechanic Staff, who never come in face-to-face contact with the passengers, but they are the people who keep on ensuring that the duo of ‘driver and conductor’ on a particular bus would be able to justify the slogan of GSRTC “Salamat Savari, ST Amari”, meaning thereby “Safe Journey in Our ST”; by ensuring timely maintenance, up-keeping of the buses – a prime resource of GSRTC. So, these employees of GSRTC – the Drivers, Conductors and the Mechanic staff – are the real faces of GSRTC, as the customers (passengers) need to spend their active journey time relying on the commitment of these people only. So, it is very much necessary that this single largest cohort of GSRTC is motivated, dedicated and committed to the noble objectives of GSRTC. But, the motivation, commitment, dedication certainly depends on the experiences of employees regarding the quality of work life at the organization. Further, quality of work life can contribute to their job involvement, leading to better quality of service, which is a key organizational priority. So, there is a high felt need to take care of quality of work life and job involvement concerns of these employees of GSRTC.

So, we can say that in the light of this anticipated support and high participation of the employees, the concern regarding the level of job involvement among GSRTC employees, especially the Drivers, Conductors, Driver-cum-Conductors and the Mechanic Staff, becomes very important. Their level of job involvement is an indication of the extent to which they really care for the kind of job that they do and consequent continuous improvements in performance. Along with this, their level of expectations and the perceived availability of quality of work life attributes at the work take on greater importance. For this, assessment of various factors of importance of QWL, i.e., the expectations held by these employees, how these employees perceive the availability of these factors at GSRTC, their job involvement and consequent strategies has become the need of the hour.

Considering the aforesaid reasons, I have selected this topic – “Perceived Quality of Work Life (QWL) and Job Involvement among Employees of Selected Divisions of GSRTC” for the purpose of Doctoral Research. So, my research study aims to provide
a holistic picture of the concept Quality of Work Life in GSRTC in terms of its important constituents as it is perceived by GSRTC employees, its perceived availability, and the associated work attitude of job involvement of these employees; which seemed to be a bottleneck in the whole process of revival of the organization. Based on the analysis of the data, several remedial / progressive measures, as the case may be, can be initiated to foster better quality of work life for these employees and thereby improve their job satisfaction, job involvement and organizational commitment.

6.3. RESEARCH OBJECTIVES:

The main objectives of this study are as follows:

- **Primary Objective:**
  - To study the perceived quality of work life and job involvement among employees of GSRTC.

- **Secondary Objectives:**
  - To study the present schemes/initiatives of GSRTC (if any) for improving quality of work life of its employees.
  - To study the factors of importance for quality of work life of employees of GSRTC.
  - To study the perceptions of employees regarding the availability of quality of work life attributes at the work place.
  - To study the level of job involvement among the employees of GSRTC.
  - To find out the association between demographic variables and the perceived QWL among these employees.
➢ To find out the association between demographic variables and level of job involvement among these employees.

➢ To study the association between perceived quality of work life and job involvement among the employees of GSRTC.

➢ To suggest actions steps / recommendations to improve the quality of work life and job involvement of employees of GSRTC.

6.4. HYPOTHESES:

Ryan et al. (1992) says that when the research problem has been identified, the problem is generally analyzed by formulating a hypothesis.

A hypothesis may be regarded as a statement of empirical relationship between a set of variables. In general, this type of hypothesis is referred to as a scientific hypothesis.

A statistical hypothesis is a hypothesis about the parameters of a probability distribution. The probability distribution may be of the variables or the coefficients of (correlational) relationship between the dependent and independent variables. When a statistical hypothesis completely defines the probability distribution it is termed a simple hypothesis; all other types are composite hypothesis. Statistical hypotheses are generally investigated by specifying a null hypothesis (usually referred to as H0) and an alternative hypothesis (often referred to as H1), which is simply a negation of the null hypothesis. In studying the relationship between the variables, the null hypothesis is set up as stating that there is no relationship between the variables. Thus the scientific hypothesis is investigated by testing the statistical null hypothesis.

In regard to the research objectives of this study, based on the extensive review of available literature, the following ten hypotheses have been formulated. While framing these hypotheses, the researcher has duly considered the inputs from the in-depth interviews and discussions with the key informants during the exploratory stage. In the
light of this, the logic/rationale of framing a particular hypothesis has been thoroughly explained below each hypothesis.

To derive meaningful conclusions by testing these ten hypotheses, two types of hypotheses namely null hypothesis and alternative hypothesis are established for each of the below stated hypothesis; and tested through empirical investigation in the data analysis section.

**H 1: The fulfillment of lower order needs is more important to the employees of GSRTC.**

In Indian organizations, issues pertaining to physiological and social needs are more important compared to others. Several studies revealed that, in the Indian context, ‘Environmental Factors’ like physical work environment, safety and other working conditions; and ‘Relational Factors’ such as work group relations, and labour-management relations; are more important in regard to QWL of employees. So, in Indian context, lower order needs like physiological (biological), safety/security and social needs have still remained more important in comparison to the higher order needs like esteem need and self actualization need (Singhal, 1975; Mehta, 1978; Srivastava & Verma, 1978; Kalra, 1981; Sharma & Rajan, 1983; Kalra & Ghosh, 1984; Saklani, 2010). This is in sharp contrast to the Western society wherein ‘Job Conditions’ like meaningful and interesting work are found to be more important for QWL (Jackson, 1973; Cherns, 1975; Mottaz, 1981). Even in the post liberalized era also, Gani & Ahmed (1995) reported that adequate financial returns from the job, desire for job security, better working conditions and advancement opportunities have still remained the top most considerations for QWL of Indian employees. A very recent study of Saklani (2010) concluded that the non-managerial employees in India are more concerned about satisfying their lower order material needs. Interestingly, the present research is also conducted on non-managerial employees of GSRTC – the Class-III-Operative staff. So, it is interesting to see how far these findings are applicable to GSRTC employees.
**H 2:** The existing level of QWL among the employees of GSRTC is low.

In the context of the Indian industries, it was found that the existing level in all dimensions of QWL is much lower than satisfactory, or even considerably poor. Ganesh (1982) opined that the notion of QWL in Indian Organizations seems to be an irrelevant view. Sengupta (1985) also highlighted similar issues related to quality of working life in the Indian context. So, a lot needs to be done to foster a better QWL in Indian industries (Singh, 1982, 1983, 1984; Chakraborty, 1987). In the light of these findings coupled with insights from the in-depth interviews and discussion with the employees of GSRTC, the above hypothesis is formulated.

**H 3:** The existing level of Job Involvement of employees of GSRTC is low.

Over the years, several earlier studies (Sinha, 1973; Baird & Mainstone, 1980; Nisonko, 1981; Jaiswal, 1982; Krishna, 1988; Srivastava & Krishna, 1992) have indicated that in the typical Government Organizations in India, the scenario of job involvement among the employees is not very encouraging. Considering the wide variety of differences in job involvement of employees between the public and private sector undertakings, one would certainly expect that the employees of State Transport Undertaking in India like GSRTC would also have low job involvement.

Further, Ravichandran & Surya Prasad (2007) in their study entitled “Reviving Gujarat State Road Transport Corporation (GSRTC): An Agenda for Action” examined in detail the reasons related to the declining operational and financial performance of GSRTC. While trying to diagnose the problem in the light of various environmental and governance issues, they found that the non-participative employees and their indifferent and detached view to the operating and financial health of GSRTC has also been a major concern. So, it is hypothesized that the existing level of Job Involvement of employees of GSRTC is low.
H 4: The demographic variables of age, experience, education and income do not affect the perceived QWL among the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC.

Even though contradicting findings have been reported in several earlier studies regarding the association of demographic variables and perceived QWL; the above hypothesis is formulated based on the insights from the exploratory stage informal discussions. Some studies have reported that the demographic variables of age (Rahman, 1984), education, experience and income have no significant association with the perceived QWL (Hoque & Rahman, 1999; Natarajan & Annamalai, 2011), while some others reported that in Indian context, demographic variables of educational background and income level have negative correlation with the perceived QWL (Rahman, 1984).

H 5: The demographic variables of age, experience, education and income do not affect the level of Job Involvement of the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC.

The research on JI as a personal characteristic has attempted to relate it to such personal demographic factors as age, education, marital status, sex, locus of control, length of service, higher order need strength, job level, etc. The findings are contradictory and no clear-cut pattern emerges (Rabinowitz and Hall, 1977).

The evidence on age-involvement relationship is mixed between studies showing non-significant differences among age-groups (Gurin, Veroff & Fled, 1960; Mannheim, 1975) and those that found increases in JI as individuals get older (Schwyhart & Smith, 1972; Jones, James & Bruni, 1975; Hall & Mansfield, 1975). Studies on education-involvement relationship have also provided mixed results. While Siegel & Ruh (1973) and Jones et. al. (1975) reported no relationship between education and involvement, Ruh & White (1974) demonstrated that JI was negatively related to education for rank-and-file workers. In contrast, Mannheim (1975) reported positive relationship between these two variables. Further, Lodhal & Kejner (1965) found no relationship between
marital status and JI, Rabinowitz (1985) found higher average involvement for men than women. However, when the effects of job level and length of service were removed, sex difference in JI disappeared. Perhaps the length of time that a person has been on a job has something to do with his JI. While Jones et al. (1975) found positive relationship between these variables, Schneider, Hall & Nygren (1971), Schwyhart & Smith (1972), and Hall & Mansfield (1975) found no relationship between JI and tenure for the sample of male middle managers, development scientists, and engineers. With respect to job-level-JI relationship also the findings are contradictory. Tannenbaum (1966) and Mannheim (1975) reported that individuals at higher ranks are more involved with their jobs, but Lodhal & Kejner (1965) and Rabinowitz (1985) found that these two variables are unrelated.

In general, it can be concluded from the studies cited earlier that the issue of the relationship of various demographic variables and JI is wide open in both - western and Indian settings. So, here, it has been hypothesized that there is no association between demographic variables and level of Job Involvement among the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC.

**H 6: There is significant difference in the perception of availability of QWL attributes among the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC.**

Considering the major differences in the job profile, skills required and the working area/place environment, it has been hypothesized that the perceived availability of different QWL attributes among different categories of employees like Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC would be significantly different.
H 7: There is significant difference in the level of Job Involvement among the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC.

Following the logic of hypotheses 6 – H 6, it has been hypothesized that the level of job involvement among different categories of employees like Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC would be significantly different.

H 8: There is significant difference in the perception of availability of QWL attributes among the employees of Large and Small Divisions of GSRTC.

Considering the fact that in case of Large division, the number of sanctioned schedules would be more compared to Small division, it may have an impact on the perceived availability of QWL attributes at the workplace. So, the researcher has hypothesized that there would be significant difference in the perceived availability of QWL attributes among the employees of Large and Small divisions of GSRTC.

H 9: There is significant difference in the level of Job Involvement among the employees of Large and Small Divisions of GSRTC.

Following the logic of hypotheses 8 – H 8, the same is hypothesized in regard to the level of Job Involvement that there would be significant difference in the level of Job Involvement among the employees of Large and Small divisions of GSRTC.

H 10: There is significant positive correlation between perceived QWL and extent of Job Involvement among the employees of GSRTC. So, higher the perceived QWL, higher will be the Job Involvement of the employees.

Based on the findings of several earlier research studies, it has been hypothesized that with higher degree of perceived QWL, the employees would have higher level of Job Involvement.
### 6.4.1. Research Objectives & Corresponding Hypotheses:

All the ten hypotheses are leading to the realization of the research objectives as shown in the following Table 6.2:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Research Objective</th>
<th>Corresponding Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>To study the factors of importance for quality of work life of employees of GSRTC.</td>
<td><strong>H 1:</strong> The fulfillment of lower order needs is more important to the employees of GSRTC.</td>
</tr>
<tr>
<td>2.</td>
<td>To study the perceptions of employees regarding the availability of quality of work life attributes at the work place.</td>
<td><strong>H 2:</strong> The existing level of QWL among the employees of GSRTC is low.</td>
</tr>
<tr>
<td>3.</td>
<td>To study the level of job involvement among the employees of GSRTC.</td>
<td><strong>H 3:</strong> The existing level of Job Involvement of employees of GSRTC is low.</td>
</tr>
<tr>
<td>4.</td>
<td>To find out the association between demographic variables and the perceived QWL among these employees.</td>
<td><strong>H 4:</strong> The demographic variables of age, experience, education and income do not affect the perceived QWL among the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC. <strong>H 6:</strong> There is significant difference in the perception of availability of QWL attributes among the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC.</td>
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<td></td>
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</tr>
<tr>
<td>5.</td>
<td>To find out the association between demographic variables and level of job involvement among these employees.</td>
<td><strong>H 8:</strong> There is significant difference in the perception of availability of QWL attributes among the employees of Large and Small Divisions of GSRTC.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>H 5:</strong> The demographic variables of age, experience, education and income do not affect the level of Job Involvement of the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>H 7:</strong> There is significant difference in the level of Job Involvement among the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>H 9:</strong> There is significant difference in the level of Job Involvement among the employees of Large and Small Divisions of GSRTC.</td>
</tr>
<tr>
<td>6.</td>
<td>To study the association between perceived quality of work life and job involvement among the employees of GSRTC.</td>
<td><strong>H 10:</strong> There is significant positive correlation between perceived QWL and extent of Job Involvement among the employees of GSRTC. So, higher the perceived QWL, higher will be the Job Involvement of the employees.</td>
</tr>
</tbody>
</table>
6.5. **SCOPE OF THE RESEARCH STUDY:**

The present research study is undertaken on Class-III-Operative (frontline) staff of GSRTC – the Drivers, Conductors, Driver-cum-Conductors and Mechanics (Workshop & Maintenance staff), as out of the total staff strength of 40,670; these categories – Drivers, Conductors, Driver-cum-Conductors and Mechanics occupy nearly 87% (35200). And, they are the people who are the real revenue generators as well as on-field soldiers. Further, the study is undertaken in 16 depots of the selected 2 divisions – Nadiad and Bharuch. The depots covered under the study in these 2 divisions are as follows:

**Nadiad Division:** Anand, Balasinor, Borsad, Dakor, Kapadvanj, Khambhat, Kheda, Mahudha, Matar, Nadiad and Petlad - **Total 11 Depots**

**Bharuch Division:** Ankleshwar, Bharuch, Jambusar, Rajpipla and Jhagadia - **Total 5 Depots**

6.6. **RESEARCH DESIGN:**

Kothari (2004) says, the research design is the conceptual structure within which the research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. As such the design includes an outline of what the researcher will do from writing the hypothesis and its operational implications to the final analysis of data. So the research design can be defined as a plan, structure and strategy of a research to find out alternative tools to solve the problems and to minimize the variances.

Research design can be classified into three categories namely Exploratory, Descriptive and Causal Research Design.

The research design used for this study is Descriptive-Cross Sectional Research Design, as it describes the views of GSRTC employees regarding QWL and Job Involvement at a point of time.
Descriptive Studies are undertaken in many circumstances. When the researcher is interested in knowing the characteristics of certain groups such as age, sex, educational level, occupation or income, a descriptive study may be necessary. Other cases when a descriptive study could be taken up are when the researcher is interested in knowing the proportion of people in a given population who have behaved in a particular manner or making projections of a certain thing. The main objective of such study is to answer the “who, what, when, where, and how much” of the subject under investigation. The task is to provide a description of various phenomenon connected to individuals, situations or events that occur.

A Cross Sectional Study is concerned with a sample of elements from a given population. Data on the relevant characteristics from the sample elements are collected and analyzed. Like a Camera Shot, this study represents the time when the date are gathered.

This study, using Descriptive-Cross Sectional Research Design, describes the views/opinions of GSRTC employees regarding various aspects of their QWL and Job Involvement (Descriptive) at a specific point of time (Cross Sectional).

Initial exploration stage focused on careful review of relevant literature and in-depth interviews and discussions with key informants for developing thorough understanding of the topic. Several in-depth interviews and discussions were conducted with the officials of GSRTC at the Central Office, Ahmedabad as well as at the division level. These key informants were right from top-to-bottom ranging from the top most official at the divisional level – the Divisional Controller to the Class-III (Operatives) level employee like Drivers, Conductors, Driver-cum-Conductors, Mechanics (Workshop & Maintenance staff). The focus of these interactions was mainly on understanding the working of GSRTC, the present state of affairs, the views of these key informants regarding various aspects of working of GSRTC, the concern areas etc. This exploration helped the researcher in structuring the contents of the questionnaire by including the relevant issues.
In terms of published database, the Cumulative Costing Results and the Cumulative Operational Results of GSRTC for the period of last 12 years – 1999-2000 (March, 2000) to 2010-2011 (March, 2011) have been studied and analyzed to develop an understanding on various operational aspects of GSRTC. This helped the researcher to understand the profit and loss situation prevailing in various divisions of GSRTC year-by-year, the costing parameters, the operational performance indicators and such other related matters. The Road Transport Year Book of various years, published by Transport Research Wing, Ministry of Road Transport & Highways, Govt. of India, have also been studied thoroughly.

6.7. DATA COLLECTION:

6.7.1. Primary Data:

The study is mainly based on Primary Data collected from the respondents – the Drivers, Conductors, Driver-cum-Conductors and Mechanic staff of GSRTC – by way of a structured questionnaire, to be precise, a Pre-coded Interview Schedule framed in English as well as in Gujarati; which was administered personally to these respondents.

6.7.2. Primary Data Collection Instrument:

A Structured Questionnaire, to be precise, Structured Interview Schedule (Pre-coded Questionnaire) was designed for collecting the required primary data from the targeted respondents. Initially, this Structured Interview Schedule (Pre-coded Questionnaire) was framed in English for showing it to some experts in academia including my research guide as well as the top officials in GSRTC to ensure the coverage of all the relevant aspects under study and to avoid any sort of pitfalls. Then, with due care, it was translated into Gujarati for facilitating understanding on the part of respondents. The respondents were personally approached at their work places in depots and this questionnaire was personally administered to each of the respondent.
This Structured Interview Schedule (Pre-coded Questionnaire) has been organized in 4 parts. The 1\textsuperscript{st} and 2\textsuperscript{nd} parts of the questionnaire are focused on the importance and availability QWL dimensions respectively; the 3\textsuperscript{rd} part is focused on various aspects Job Involvement; while the 4\textsuperscript{th} part is focused on the demographic particulars of the respondents.

For framing the relevant items/statements of QWL in the 1\textsuperscript{st} part and 2\textsuperscript{nd} parts, the 13 factors identified in the pioneering work of Saklani (2003) have been taken as a base. As it is evident from the literature review section, there is plenty of literature available each highlighting different factors/dimensions critical for assessing QWL; and this basically leads to confusion as to which factors/dimensions are to be considered. But, in the process of QWL scale development, based on the sample survey of 294 respondents, the research of Saklani (2003) appears to be the most recent and advanced version; and the same 13 factors have been considered in developing the items of the 1\textsuperscript{st} and 2\textsuperscript{nd} parts.

These 13 factors include;

- \textit{Adequate and Fair Compensation};
- \textit{Fringe Benefits & Employee Welfare Measures};
- \textit{Job Security};
- \textit{Safe and Healthy Working Environment};
- \textit{Work Load};
- \textit{Opportunity to Use and Develop Human Capacity};
- \textit{Opportunity for Continued Growth};
- \textit{Human Relations and Social Aspect of Work Life};
- \textit{Participation in Decision Making};
- \textit{Reward and Penalty System};
- \textit{Equity, Justice and Grievance Handling};
- \textit{Work and Total Life Space (Work-Life Balance)}; and
- \textit{Image of Organization in the Society (Social Relevance of Work Life)}. 
Then, based on the insights from the in-depth interviews and discussions with the key informants during the exploratory stage; these 13 factors were given operational meaning by identifying the real life practical indicators. Thus, an efforts is made to ensure that the questionnaire contain only contextual items relevant to the QWL of employees of GSRTC, to be precise, the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff.

Then, the researcher has duly considered the insights given by Sashkin and Lengermann (1984) that assessment of QWL can take place in either of the two ways, that is,

(a) By focusing on QWL Conditions, abbreviated as QWL-C; and

(b) By focusing on QWL Feelings, abbreviated as QWL-F.

Here, as Saklani (2003) also reported that QWL-C, as a base of assessing QWL, consists of a set of objective indicators pertaining to various dimensions of QWL. In a way, it reflects the prevailing working conditions, working environment facets, management policies and practices at the work place. On the other hand, the QWL-F, as a base of assessing QWL, consists of a set of indicators requiring the respondents to ventilate out their feelings or affective reactions to each of them. So, while QWL-C approach strives to generate cognitive reactions based on recalling of empirical realities, the QWL-F approach generates affective reactions in terms of likes/dislikes. Considering this, in the present study, the researcher has also used QWL-C approach for drafting items, on the line of studies of Saklani (2003, 2004, 2010); so that the items are descriptive of organizational realities, here GSRTC realities, having no scope or very little scope for feelings/emotions of the respondents to intervene. So, even though QWL assessment seems to be subjective measurement, an element of objectivity has been introduced by using the QWL – Conditions for framing the statements, instead of QWL – Feelings.
So, the 1st part contains the listing of 13 QWL components requesting the respondents to tick mark only 7 factors/components out of total 13, which they think are “important” to them for their QWL in GSRTC.

The 2nd part contains 52 selected QWL-C based statements focusing on 13 components of QWL identified by Saklani (2003). These statements were framed using the 5-Point Likert-type Summated Rating Scale of Agreement to Disagreement continuum, with “1 meaning Strongly Agree response” and “5 meaning Strongly Disagree response” with a particular statement.

The 3rd part contained 22 statements developed in the same 5-Point Likert-type Summated Rating Scale of Agreement to Disagreement continuum fashion; focusing on various aspects of Job Involvement based on the landmark works of Lodahl & Kenjer (1965) and Agarwala (1978).

The 4th part was focused on the demographic details of the respondents viz. Division in which they are working, Experience, Age, Marital Status, Annual Family Income, Other Sources of Income (if any) except the Job in GSRTC.

In search of appropriate items, various published sources in the literature were referred. Finally, considering the fact that the present study is conducted on non-managerial employees of GSRTC, the QWL Instrument designed by Saklani (2003) was taken as a base for developing items for measuring the perceived QWL. Similarly, for measuring the Job Involvement, the pioneering instruments of Lodahl & Kenjer (1965) and Agarwala (1978) were taken as base. Thus, 52 selected items of QWL instrument of Saklani, 12 selected items of Job Involvement instrument of Lodahl & Kenjer (1965), and 8 selected items of Agarwala’s Instrument for Job Involvement Measurement in Indian Context, and 2 self developed items for Job Involvement measurement were suitably modified to be included in the questionnaire.
Initially, this questionnaire was shown to several people in academia, including my research guide; as well as in GSRTC to ensure the coverage of all the relevant aspects under study and to avoid any sort of confusion.

Based on inputs from these people, following modifications were made in the initial draft of the questionnaire:

- The structured questionnaire was converted into Pre-coded Interview Schedule considering the ease of giving responses on the part for respondents and ease of data analysis on the part of researcher.

- Double Barreled items were suitably modified as it would lead to unnecessary confusion in the minds of respondents while giving responses to a particular item.

- With due care, all the statements/items were framed in ‘positive direction – affirmative’, avoiding mixture of affirmative and negatively frames statements.

- Several items that were found to be lengthy, ambiguous, loaded and confusing were reformulated to ensure better clarity. Instead of using hi-fi adjectives, these items were reformulated using simple language.

- Some items conveying similar meaning were clubbed together, and thereby the total number of items was reduced.

- Annual Family Income of the respondent was included in the demographic particulars as it might have some bearing on QWL and Job Involvement.

- Use of ambiguous word like ‘etc.’ was avoided.

Then, considering the language comfort zone of the respondents, it was translated in Gujarati for data collection purpose. The translated version was shown to four different experts – being conversant in both the languages English and Gujarati, to ensure the spirit of various statements in it.
Finally, before administering it to the respondents, the questionnaire was pilot tested with 25 respondents to verify the suitability of the instrument. Based on the suggestions, minor modifications were made in the questionnaire; and the same were approved by the research guide.

6.7.3. **Secondary Data:**

Secondary data refers to the information which already exists and which was collected for a purpose other than that of the present researcher; but which can be used a second time for a current project. Despite several limitations and concerns that have been raised about the use of secondary data, at times secondary data may be superior to primary data, as previous researchers could have had different circumstances to work under, e.g. less constraints concerning time or resources (Clark et al., 1998). Secondary data played a very important role in this study and can be considered as the backbone of this study.

In addition to the extensive literature review, analyzing the earlier research studies, the study also involved collection of secondary data from published reports of GSRTC Central Office at Ahmedabad, Central Institute of Road Transport, Pune, relevant research papers, news papers, books, internet etc. Secondary data have been collected from books, articles (Ebsco, Emerald, Cygnus database etc.), journals, periodicals, other published and unpublished sources and electronic databases and World Wide Web facilities. Published and unpublished documents of GSRTC have also been used. In terms of published database, the Cumulative Costing Results and the Cumulative Operational Results of GSRTC for the period of last 12 years – 1999-2000 (March, 2000) to 2010-2011 (March, 2011) have been studied and analyzed to develop an understanding on various operational aspects of GSRTC. These Cumulative Costing Results and the Cumulative Operational Results of GSRTC provided useful insights into the operational performance of all the divisions of GSRTC on various performance parameters. It helped the researcher to understand the positive/negative movement in specific performance parameter and understand its implications for the employees of
GSRTC. From these databases only, it became evident that all the divisions of GSRTC, irrespective of their size (large or small), their manpower strength, and the total number of schedules (trips); are incurring huge losses over the years. While reviewing these databases, the researcher came to know that unlike many Government Organizations, GSRTC is not over staffed, it is under staffed. Due to shortage of employees in various categories, particularly the Class-III-Operatives, the employees are constantly under pressure to do double duties, not getting leave easily, and face such other issues.

The Road Transport Year Book of various years, published by Transport Research Wing, Ministry of Road Transport & Highways, Govt. of India, have also been studied thoroughly to understand the Passenger Road Transportation System in India.

Libraries of Indian Institute of Management, Ahmedabad-Gujarat; Veer Narmad South Gujarat University, Surat-Gujarat; Department of HRD, VNSGU, Surat-Gujarat; CIRT, Pune-Maharashtra, Asian School of Business Management, Bhubaneswar-Orissa; XLRI, Jamshedpur-Jharkhand; and Ahmedabad Management Association, Ahmedabad-Gujarat were extensively used to collect and refer the relevant research papers from reputed national and international journals, earlier scholarly work in the form of dissertation and press notes / briefings regarding GSRTC.

6.8. SAMPLING DESIGN:

6.8.1. Population Size:

- **Divisions of GSRTC:** For smooth functioning and ensuring better quality services to the passengers, the GSRTC has structured its operations by dividing it into total 16* (now 15) divisions. These 16 division are further subdivided into two broad categories: *Large and Small* as follows:

  **Large:** Godhra, Nadiad, Palanpur, Mehsana, Himatnagar, Ahmedabad, Surat, Bulsar (Valsad), Baroda (Vadodara), Rajkot and Junagadh – **Total 11**

  **Small:** Bharuch, Jamnagar, Bhavnagar, Amreli and Bhuj – **Total 5* (now 4)**
Recently, owing to administrative convenience, GSRTC has merged one of the Small Divisions – Jamnagar into Rajkot. So, now, they both are represented by one single division – Rajkot. So, there are 15 divisions of GSRTC – 11 Large & 4 Small.

Under each of these divisions, there are number of depots through which, these divisions operate number of schedules (trips of buses). The following Table 6.3 represents this classification of Divisions along with respective Depots and Sanctioned Schedules (trips):

Table 6.3: Divisions-Depots-Sanctioned Schedules of GSRTC

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category</th>
<th>Division</th>
<th>Depots</th>
<th>Sanctioned Schedules</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Large</td>
<td>Nadiad</td>
<td>11</td>
<td>673</td>
</tr>
<tr>
<td>2</td>
<td>Large</td>
<td>Rajkot</td>
<td>14</td>
<td>669</td>
</tr>
<tr>
<td>3</td>
<td>Large</td>
<td>Mehsana</td>
<td>11</td>
<td>655</td>
</tr>
<tr>
<td>4</td>
<td>Large</td>
<td>Palanpur</td>
<td>7</td>
<td>569</td>
</tr>
<tr>
<td>5</td>
<td>Large</td>
<td>Ahmedabad</td>
<td>10</td>
<td>561</td>
</tr>
<tr>
<td>6</td>
<td>Large</td>
<td>Himatnagar</td>
<td>9</td>
<td>538</td>
</tr>
<tr>
<td>7</td>
<td>Large</td>
<td>Junagadh</td>
<td>9</td>
<td>465</td>
</tr>
<tr>
<td>8</td>
<td>Large</td>
<td>Godhra</td>
<td>7</td>
<td>434</td>
</tr>
<tr>
<td>9</td>
<td>Large</td>
<td>Surat</td>
<td>6</td>
<td>424</td>
</tr>
<tr>
<td>10</td>
<td>Large</td>
<td>Bulsar (Valsad)</td>
<td>6</td>
<td>392</td>
</tr>
<tr>
<td>11</td>
<td>Large</td>
<td>Baroda (Vadodara)</td>
<td>7</td>
<td>355</td>
</tr>
<tr>
<td>12</td>
<td>Small</td>
<td>Amreli</td>
<td>7</td>
<td>322</td>
</tr>
<tr>
<td>13</td>
<td>Small</td>
<td>Bhavnagar</td>
<td>8</td>
<td>295</td>
</tr>
<tr>
<td>14</td>
<td>Small</td>
<td>Bhuj</td>
<td>8</td>
<td>251</td>
</tr>
<tr>
<td>15</td>
<td>Small</td>
<td>Bharuch</td>
<td>5</td>
<td>247</td>
</tr>
</tbody>
</table>

Source: Cumulative Costing and Operational Results of GSRTC - 2010-11

Out of these 15 divisions, the Nadiad division is the Largest Division of GSRTC with the highest no. of sanctioned schedules (673) and 11 Depots and the Bharuch division is the Smallest Division of GSRTC with the least no. of sanctioned schedules.
schedules (247) and 5 depots. So, initially, these 2 divisions are selected namely Nadiad and Bharuch.

- **Manpower Strength in Selected Divisions of GSRTC:** The Manpower Strength in the selected 2 divisions – the Largest and the Smallest divisions of GSRTC – Nadiad & Bharuch – is shown in Table 6.4.

Table 6.4: Manpower Strength in Selected Divisions of GSRTC

<table>
<thead>
<tr>
<th>Division</th>
<th>Drivers</th>
<th>Conductors</th>
<th>Driver-cum-Conductors</th>
<th>Mechanics</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nadiad</td>
<td>1419</td>
<td>1516</td>
<td>10</td>
<td>531</td>
<td>3476</td>
</tr>
<tr>
<td>Bharuch</td>
<td>502</td>
<td>529</td>
<td>11</td>
<td>192</td>
<td>1234</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1921</td>
<td>2045</td>
<td>21</td>
<td>723</td>
<td>4710</td>
</tr>
</tbody>
</table>

Source: Cumulative Costing and Operational Results of GSRTC - 2010-11

6.8.2. **Sample Size:**

Sample size taken for the study is 400 respondents - Drivers, Conductors, Driver-cum-Conductors and Mechanics working in 16 depots of the selected 2 divisions of GSRTC - Nadiad and Bharuch divisions.

The category wise surveyed respondents are as follows:

Table 6.5: No. of Respondents in Selected Divisions of GSRTC

<table>
<thead>
<tr>
<th>Division</th>
<th>Drivers</th>
<th>Conductors</th>
<th>Driver-cum-Conductors</th>
<th>Mechanics</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nadiad</td>
<td>110</td>
<td>110</td>
<td>06</td>
<td>50</td>
<td>276</td>
</tr>
<tr>
<td>Bharuch</td>
<td>40</td>
<td>40</td>
<td>04</td>
<td>40</td>
<td>124</td>
</tr>
<tr>
<td>TOTAL</td>
<td>150</td>
<td>150</td>
<td>10</td>
<td>90</td>
<td>400</td>
</tr>
</tbody>
</table>

6.8.3. **Sampling Method:**

In this study, *Convenience-cum-Quota Sampling* method of *Non-Probability Sampling* is used. Considering the hectic schedules of the respondents under study and difficulty in approaching them at their work place itself, this was the most suitable method for personally contacting the respondents and collecting the required data.
Initially, out of 11 Large divisions, Nadiad was selected being the Largest Division of GSRTC with the highest no. of sanctioned schedules (673) and 11 Depots; and out of 4 Small divisions, Bharuch was selected being the Smallest Division of GSRTC with the least no. of sanctioned schedules (247) and 5 Depots. Then, the respondents were personally approached at their work places in these 2 divisions.

Due to sensitive nature of the data to be collected for the purpose of this study coupled with the hectic schedules of the respondents under study, especially the drivers, conductors and driver-cum-conductors), the non-sampling error mounts substantially if probability sampling is attempted. Hence, it would be appropriate if such studies are carried out by adopting purposive sampling method. Further, even though, non-probability sampling method has been sued in this study; enough care has been taken to ensure that the selected respondents are fairly representing the characteristics of the population. For this, the respondents have been surveyed from all the 16 depots of the Nadiad and Bharuch divisions of GSRTC.

Further, as suggested by Onwueguzie & Leech (2010), although Convenance-cum-Quota Sampling method of Non-Probability Sampling is used; homogeneity in other similar divisions of GSRTC can be fairly assumed; and hence generalizations may be permitted.

GSRTC, being a State Government Owned and Operated Transport Undertaking, the divisions – whether small or large – operate within the broad framework of policies being decided at the Central Office, Ahmedabad, under the directive of the respective authorities of the State Government. So, working pattern, employee related policy measures, rules and regulations etc. are same in all divisions of GSRTC across the state. So, homogeneity can easily be assumed in these 15 divisions of GSRTC; and hence generalizations of findings can be permitted.
6.9. TIME DIMENSION OF THE STUDY:

For having insights into the operational performance of GSRTC as a whole on various performance measures, the published database of the Cumulative Costing Results and the Cumulative Operational Results of GSRTC for the period of last 12 years – 1999-2000 (March, 2000) to 2010-2011 (March, 2011) have been studied and analyzed.

During the exploration stage, in-depth interviews and discussions were conducted with the key informants of GSRTC at the Central Office, Ahmedabad as well as at the division level. These key informants were right from top-to-bottom ranging from the top most official at the divisional level – the Divisional Controller to the Class-III (Operatives) level employee like Drivers, Conductors, Driver-cum-Conductors, Mechanics (Workshop & Maintenance staff). These in-depth interviews and discussions; focusing on understanding the working of GSRTC, the present state of affairs, the views of these key informants regarding various aspects of working of GSRTC, the concern areas etc.; were conducted during March, 2010 to April 2011.

The Primary Data have been collected from the 400 respondents during the period of January, 2012 to June, 2012. These 400 respondents – the Drivers, Conductors, Driver-cum-Conductors and Mechanics – have been selected from the 16 depots of the 2 selected divisions – Nadiad and Bharuch divisions of GSRTC.

6.10. ETHICAL CONSIDERATIONS:

Before requesting the respondents for filling up the pre-coded questionnaire, they were clearly informed about the purpose of the study in their own mother tongue or in such language which they can easily understand. Further, the confidentiality of information requested by the respondents was assured and fully maintained.

Even while acknowledging the people who helped in the entire process of carrying out this study, based on the request of some of the officials, their names and identity have not been disclosed; and they have been thanked only in spirit.
6.11. SIGNIFICANCE OF THE STUDY:

Findings of this hitherto study are significant from various points of view. The study is expected to give useful inputs to the Society, GSRTC, Employees of GSRTC and to the knowledge domain as follows:

Contribution to the Society: The present study would reveal the existing level of availability of quality of work life of the targeted employees as well as their job involvement level in GSRTC. So, the society – the general public would become aware that how hard these employees have been trying to provide utmost quality services to them and under what kind of working conditions, they are fulfilling their obligations. This might appeal to the sentiments of general public also, and thereby decrease the chances of frequent hostile verbal encounters with these employees, by developing an empathetic orientation among the general public. They may start looking at these employees with due respect and regard, that is missing most of the times, and that would certainly be a welcome sign.

Contribution to GSRTC: The present study would identify the basic realities of the favorableness/unfavorableness of the working environment at GSRTC from the view points of these employees – the real revenue generators. This will assist GSRTC to redesign their work places to increase the convenience and comfort of these employees. It may even trigger appropriate people policy measures to ensure better quality of work life to these employees. This study would also help to capture the job involvement level of these employees – an essential input to the operational efficiency of GSRTC. So, appropriate measures can also be initiated in the direction of improving their job involvement, and consequently the financial viability of GSRTC.

Contribution to Employees: Through this study, this largely neglected single largest cohort of GSRTC – the Drivers, Conductors, Driver-cum-Conductors and Mechanic Staff of GSRTC – would get an opportunity to voice out their sentiments regarding their work life. This will certainly be a morale booster for them as in pretty long service tenure in GSRTC, through this study, they are being asked about their
opinions regarding various facets of their working life. Simultaneously, this study may lead to increased accountability on the part of these employees, as they would come to know about their own involvement levels in their jobs. They may start behaving more consciously and demonstrate organizational citizenship behaviour, and thereby improve the operational efficiency of GSRTC by achieving customer (passenger) delight, optimum utilization of the available resources etc.

Contribution to Knowledge domain: The present study, being the first ever primary data based research on quality of work life and job involvement of employees of a State Transport Undertaking – GSRTC, would certainly enrich the existing knowledge database pertaining to this topic. Being a novel research, this would add a new dimension to the already existing literature on the subject of study; and will surely put an important brick to the sound and strong knowledge building.

6.12. DATA ANALYSIS PLAN:

The collected primary data have been coded, tabulated, classified and analyzed using the most relevant and appropriate statistical tools and techniques. Software packages like Statistical Package for Social Sciences (SPSS) and Microsoft Excel are used for data analysis purpose. These data are analyzed by applying measures of central tendency, frequency distribution, cross tabulation, chi-square test, one sample t-test and measure of correlation.

6.13. DATA PRESENTATION - THESIS:

The entire research work has been thoroughly documented in the form of a thesis, written in a lucid language and presented as per the following chapter scheme:

- Chapter-1 – Introduction
- Chapter-2 – Passenger Road Transportation System in India
- Chapter-3 – Background of Gujarat State Road Transport Corporation (GSRTC)
- Chapter-4 – Operational Performance Analysis of GSRTC
- Chapter-5 – Review of Literature
Chapter-6 – Research Methodology
Chapter-7 – Data Analysis & Interpretation
Chapter-8 – Conclusions & Recommendations
Appendix
Bibliography