Chapter 4: Research Methodology

4.1. Research Problem

The first thing in research is to find out the research problem. A gap is to be identified between the required things and existing one. For this purpose this topic is studied as discussed further. After liberalization of Indian economy, the automobile sector started developing very fast. There was great impact of liberalization on Indian economy and robust economic growth took place in India. There was a potential for further growth and in all areas. Many MNCs entered in Indian automobile sector mainly in car manufacturing. There were free movements of resources across the world. Due to this the workforce has been diversified to a good extent and this situation provided a great challenge for management to understand the people and get their best at work so the competitive edge can be achieved. The strong need for diversity management for managing diversified workforce was strongly felt. Leading car manufacturing companies followed different strategies to manage diversified workforce. It was found that there was no uniformity in approaches of different companies. A big gap was found between the requirement of diversified workforce management strategies and the strategies followed by the companies. To bridge the gap between the required strategies and actual strategies followed by the companies, this problem attracted me for the research study. It could not be ignored at any cost and that is why this topic of Workforce Diversity Management Strategies under Present Global Scenario in Leading Car Manufacturing Companies in Indian Automobile Sector had been selected for research study.

Research methodology explains the method of conducting research and shows the logical sequences of the steps involved in research. Research methodology includes the following:

4.2. Objectives

Following are the objectives of this research study:

1. To understand the concept of globalisation, workforce diversity, work environment; and their related aspects in leading car manufacturing companies in Indian automobile sector.

2. To know Work force diversity management strategies adopted under present global scenario in leading car manufacturing companies in Indian automobile sector.
3. To know whether there is significant relationship between Culturally Diversified Workforce and Work Environment; and impact of Culturally Diversified Workforce on the Work Environment.

4. To know whether there is significant relationship between Work Environment and Workforce Diversity Management Strategies; and impact of Work Environment on Workforce Diversity Management Strategies.

5. To know whether there is significant relationship between Workforce Diversity Management Strategies and following:
   (a) Workers perception and attitude at workplace.
   (b) Sense of cooperation and team spirit at work.
   (c) Skill development of employees.
   (d) Individual performance and motivation level.
   (e) Job satisfaction level of employees.
   (f) Support to management in problem solution at workplace.
   (g) Improvement in production and services of the company.
   (h) Improvement in business performance and overall organisation effectiveness.
   (i) Competitive advantage to the company and market share.
   (j) Improvement in image of the company in global markets.
   (k) Business and reputation of company in future.

Further, to know whether there is significant impact of Workforce Diversity Management Strategies on the above mentioned variables.

4.3. Research Hypotheses

Objective No. 3:

1. Hypotheses Regarding Relationship:

H0: There is no significant relationship between culturally diversified workforce and Work Environment.

H1: There is significant relationship between culturally diversified workforce and Work Environment.
2. Hypotheses Regarding Impact:

H0: There is no significant impact of Culturally Work Force Diversity on Work Environment.
H1: There is significant impact of Culturally Work Force Diversity on Work Environment.

Objective No. 4:

1. Hypotheses Regarding Relationship:

H0: There is no significant relationship between the Work Environment and Work Force Diversity Management Strategies.
H1: There is significant relationship between the Work Environment and Work Force Diversity Management Strategies.

2. Hypotheses Regarding Impact:

H0: There is no significant impact of Work Environment on Work Force Diversity Management Strategies.
H1: There is significant impact of Work Environment on Work Force Diversity Management Strategies.

Objective No. 5

(For testing of hypotheses, Objective 5 is divided into 11 sub-objectives according to dependent variables – statement no. 38 to 48 of questionnaire)

Objective 5 (i)

Variables

1. Independent Variable: Work Force Diversity Management Strategies
2. Dependent Variable: Workers Perception and Attitude at Workplace

Hypotheses Regarding Relationship:

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Workers Perception and Attitude at Workplace.
H1: There is significant relationship between the Work Force Diversity Management Strategies and Workers Perception and Attitude at Workplace.
Hypotheses Regarding Impact:

H0: There is no significant impact of Work Force Diversity Management Strategies on Workers Perception and Attitude at Workplace.

H1: There is significant impact of Work Force Diversity Management Strategies on Workers Perception and Attitude at Workplace.

Objective: 5 (ii)

Variables

1. Independent Variable: Work Force Diversity Management Strategies
2. Dependent Variable: Sense of Cooperation and Team Spirit at work.

Hypotheses Regarding Relationship:

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Sense of Cooperation and Team Spirit at work.

H1: There is significant relationship between the Work Force Diversity Management Strategies and Sense of Cooperation and Team Spirit at work.

Hypotheses Regarding Impact:

H0: There is no significant impact of Work Force Diversity Management Strategies on Sense of Cooperation and Team Spirit at work.

H1: There is significant impact of Work Force Diversity Management Strategies on Sense of Cooperation and Team Spirit at work.

Objective: 5 (iii)

Variables

1. Independent Variable: Work Force Diversity Management Strategies
2. Dependent Variable: Skill Development of Workers/ Employees

Hypotheses Regarding Relationship:

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Skill Development of Workers/ Employees.

H1: There is significant relationship between the Work Force Diversity Management Strategies and Skill Development of Workers/ Employees.
Hypotheses Regarding Impact:

H0: There is no significant impact of Work Force Diversity Management Strategies on Skill Development of Workers/ Employees.

H1: There is significant impact of Work Force Diversity Management Strategies on Skill Development of Workers/ Employees.

Objective: 5 (iv)

Variables

Hypotheses Regarding Relationship:

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Individual Performance and Motivation Level of Workers/ Employees.

H1: There is significant relationship between the Work Force Diversity Management Strategies and Individual Performance and Motivation Level of Workers/Employees.

Hypotheses Regarding Impact:

H0: There is no significant impact of Work Force Diversity Management Strategies on Individual Performance and Motivation Level of Workers/ Employees.

H1: There is significant impact of Work Force Diversity Management Strategies on Individual Performance and Motivation Level of Workers/ Employees.

Objective: 5 (v)

Variables
1. Independent Variable: Work Force Diversity Management Strategies
2. Dependent Variable: Job Satisfaction Level.

Hypotheses Regarding Relationship:

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Job Satisfaction Level.

H1: There is significant relationship between the Work Force Diversity Management Strategies and Job Satisfaction Level.
H1: There is significant relationship between the Work Force Diversity Management Strategies and Job Satisfaction Level.

**Hypotheses Regarding Impact:**

H0: There is no significant impact of Work Force Diversity Management Strategies on Job Satisfaction Level of Workers/ Employees.

H1: There is significant impact of Work Force Diversity Management Strategies on Job Satisfaction Level of Workers/ Employees.

**Objective: 5 (vi)**

**Variables**

1. Independent Variable: Work Force Diversity Management Strategies
2. Dependent Variable: Support to Management in Problem Solution at Workplace

**Hypotheses Regarding Relationship:**

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Support to Management in Problem Solution at Workplace.

H1: There is significant relationship between the Work Force Diversity Management Strategies and Support to Management in Problem Solution at Workplace.

**Hypotheses Regarding Impact:**

H0: There is no significant impact of Work Force Diversity Management Strategies on Support to Management in Problem Solution at Workplace.

H1: There is significant impact of Work Force Diversity Management Strategies on Support to Management in Problem Solution at Workplace.

**Objective: 5 (vii)**

**Variables**

2. Dependent Variable: Improvement in Production and Services of the Company.

**Hypotheses Regarding Relationship:**

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Improvement on Production and Services of the Company.
H1: There is significant relationship between the Work Force Diversity Management Strategies and Improvement on Production and Services of the Company.

**Hypotheses Regarding Impact:**

H0: There is no significant impact of Work Force Diversity Management Strategies on Improvement on Production and Services of the Company.

H1: There is significant impact of Work Force Diversity Management Strategies on Improvement on Production and Services of the Company.

**Objective: 5 (viii)**

**Variables**

2. Dependent Variable: Improvement in Business Performance and Overall Organisation Effectiveness.

**Hypotheses Regarding Relationship:**

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Improvement in Business Performance and Overall Organisation Effectiveness.

H1: There is significant relationship between the Work Force Diversity Management Strategies and Improvement in Business Performance and Overall Organisation Effectiveness.

**Hypotheses Regarding Impact:**

H0: There is no significant impact of Work Force Diversity Management Strategies on Improvement in Business Performance and Overall Organisation Effectiveness.

H1: There is significant impact of Work Force Diversity Management Strategies on Improvement in Business Performance and Overall Organisation Effectiveness.

**Objective: 5 (ix)**

**Variables**

2. Dependent Variable: Competitive Advantage to the Company and Market Share.
Hypotheses Regarding Relationship:

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Competitive Advantage to the Company and Market Share.

H1: There is significant relationship between the Work Force Diversity Management Strategies and Competitive Advantage to the Company and Market Share.

Hypotheses Regarding Impact:

H0: There is no significant impact of Work Force Diversity Management Strategies on Competitive Advantage to the Company over its Competitors, and Market Share.

H1: There is significant impact of Work Force Diversity Management Strategies on Competitive Advantage to the Company over its Competitors, and Market Share.

Objective: 5 (x)

Variables

Hypotheses Regarding Relationship:

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Improvement in Image of the Company in Global Markets.

H1: There is significant relationship between the Work Force Diversity Management Strategies and Improvement in Image of the Company in Global Markets.

Hypotheses Regarding Impact:

H0: There is no significant impact of Work Force Diversity Management Strategies on Improvement in Image of the Company in Global Markets.

H1: There is significant impact of Work Force Diversity Management Strategies on Improvement in Image of the Company in Global Markets.

Objective: 5 (xi)

Variables
2. Dependent Variable: Business and Reputation of Company in future.
Hypotheses Regarding Relationship:

H0: There is no significant relationship between the Work Force Diversity Management Strategies and Business and Reputation of Company in future.

H1: There is significant relationship between the Work Force Diversity Management Strategies and Business and Reputation of Company in future.

Hypotheses Regarding Impact:

H0: There is no significant impact of Work Force Diversity Management Strategies on Business and Reputation of the Company in future.

H1: There is significant impact of Work Force Diversity Management Strategies on Business and Reputation of the Company would be in future.

4.4. Type of Research

This research is descriptive research. The topic is theoretical and data collected from car manufacturing companies of automobile sector in India relating to strategies of management for managing workforce diversity. The descriptive research is most suitable to the topic selected.

4.5. Sources of Data

For the study purpose both primary and secondary data had been used. The primary data collected from employees, their supervisors, and managers. The secondary data collected from HR departments of the companies regarding training, career planning and development, socialization and orientation, cross cultural education programme etc. These data have been used in combination as per need of the study.

4.6. Instruments for Data Collection

For collection of data relating to the topic the instruments used include questionnaire, interview, telephone, internet, and mail. These have been used as per suitability of instruments while collecting data.

4.7. Research Methods

For collection of primary data for this research work, survey and observation methods have been used. Experimental method is not found suitable for this study because the topic is a theoretical topic and there is no need to have experiments.
4.8. Sampling

It was not possible to collect data from all employees of the selected companies located at different places across the country. The sampling process has been selected for the study. The samples of the population (employees at different levels) have been selected. The convenience sampling method has been used for selection of samples. The samples included the employees from different location, levels, jobs and availability at the time of research. Proper care has been taken to ensure that the samples have proper representative of the population.

The sample size is of 400. Formula for Sample size is:

\[ \text{Sample size} = (Z \text{ score})^2 - \text{Standard Deviation} \times (1 - \text{Standard Deviation})/ \text{margin of error} \]

Here, the calculation is:

Confidence level is 95%, Standard Deviation is: 0.5 and margin of error is: .05

So, \((1.96)^2 - 0.5(0.5)/.05 = 3.8416*0.25/.0025 = 384.16\) Approximately 385.

It is rounded off to 400 for research study.

The respondents have been selected according to the following plan:

**Table 4.1 : Respondents Distribution Plan According to Level of Employees**

<table>
<thead>
<tr>
<th>Name of Company</th>
<th>Level of Employees</th>
<th>Total</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Senior</td>
<td>Middle</td>
<td>Lower</td>
</tr>
<tr>
<td>1. GM India Ltd</td>
<td>5</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>2. Maruti Suzuki Ltd</td>
<td>5</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>3. Mah. &amp; Mah. Ltd</td>
<td>5</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>4. Tata Motors Ltd</td>
<td>5</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>5. Honda Car India Ltd</td>
<td>5</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>25</td>
<td>75</td>
<td>300</td>
</tr>
</tbody>
</table>

It was expected that from a particular area the respondents may not be available despite of repeated efforts, such and from company senior, middle and lower levels. The number of respondents in these conditions was likely to vary but repeated efforts were put to keep the numbers as per the plan without disturbing the total number of respondents from the company.
<table>
<thead>
<tr>
<th>Name of Company</th>
<th>Head Office</th>
<th>Manufacturing Plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Honda Car India Ltd.</td>
<td>Honda Car India Ltd. GNIDA, Greater Noida, Uttar Pradesh 201306 India</td>
<td>1. <strong>Honda Cars India Ltd.</strong> Plot No. A-1, Sector 40/ 41 Surajpur-Kasna Road, Greater Noida Industrial Development Area, Distt. Gautam Budh Nagar U.P. 201306. 2. <strong>Honda Car India Ltd.</strong> Tapukara Industrial Area Khuskhera, Distt. – Alwar Rajasthan. Total employees – nearly 4500 + 3000 =7500.</td>
</tr>
</tbody>
</table>
4.9. **Statistical Tools for Data Analysis**

For analysis and presentation of data, measures of central tendency, percentage, graphs and charts etc. have been used. For testing of hypotheses, Pearson correlation coefficient \((r)\) and regression \((r \text{ square})\) have been used. Cronbach's alpha has been used for reliability of the data during the research work.

**4.10. Limitations**

To carry out the research study the following limitations were faced:

1. Availability of secondary data from HR departments of companies was difficult.
2. Employees avoided or hesitated to give relevant data.
3. Management did not like to share their views on the topic.
4. Time, cost and location factors were the main causes of difficulties.
5. Managers frequently did not give time for appointment and sometime did not meet at appointed time also.

However, sincere efforts were put up to overcome the limitations during research.