

## Chapter-II

### RESEARCH METHODOLOGY

#### **PREPARING A ROADMAP**

For achieving any thing in life we must know two things: Firstly we know what we want to achieve i.e. what in our goal and secondly how to achieve i.e. what we should do in order to achieve it. If we have to go to New Delhi than we must know what we should do in order to reach New Delhi. We should know the requirements that are to be fulfilled to reach Delhi. One should know the direction of New Delhi mode of conveyance etc. A person definitely cannot reach New Delhi by hoarding by boarding a train going towards Chennai. If one desires to be a very high paid executive in life ad that is his goal, than he must clearly know the requirement of becoming one. He should know the traits required such as sincerity hard work capacity and competence qualification etc. All these constitute the milestones that are earmarked for achievement. Thus they form the milestones of the achievement map of the individual where each and every thing is clearly marked. This serves as a road-map or guide map. However the movement of initiative is still required while laying still ad preparing map is not enough. The initiative towards them that an individual takes, serves as a movement towards achievement fuelled by the will to achieve. Thus an achievement of any result or objective cannot be attributed to one single parameter of the map but is result of number of parameters that are earmarked in the map.

A research plan plays a very important role in carrying out any research. In designing the road map of achieving the objective of our research which is absolutely clear “IMPACT OF TRAINING ON ORGANISATIONAL EFFECTIVENESS AND HUMAN POTENTIAL” we must know what we have to captur in terms of data and element in our research in order to reach the aforesaid goal and how we have to capture them. That is to say we have to design the road map of reaching the goal by identifying and capturing the following things.

- What elements and factors constitute and are crucial for organizational and human effectiveness
- How (process/methodology) we can capture the elements and data

An approach and a model was there for developed based on four dimensions namely

1. Training leadership
2. Training process
3. Training resultants
4. Measuring initiatives

In the aforesaid model dimension of leadership and process constitute the facilitating element and input activities while resultants and measuring initiatives constitute outcomes and end result activities. If we have a close look at these dimensions we can clearly comprehend that training leadership processes and measuring initiatives are activities which are the actual outcome where impact can be experienced. Thus the leadership process and measuring initiatives can be together responsible for generating impact of deployed effectively.

Having laid down the assumption that leadership process and measurement are essential for impact major objective is to capture the impact. We must therefore know what elements can contribute towards impact. It is therefore imperative to ear mark those milestones within the leadership process and measuring. Hence it was planned to carrying a three pronged study as follows to have a clearer look at things

1. Studying various models and practices
  - Studying various models and approaches of training and training evaluation
  - Studying and documenting the training system and practices in BHEL Jhansi
2. A survey/ analysis of various training initiatives and
3. Impact evaluation
  - Form participant point of view
  - Form controlling officer point of view

The above studies are vary broad in nature and can comprehensively cover the model requirement.

## **STUDYING VARIOUS MODELS & APPROACHES TO TRAINING**

In order to draw an accurate picture of the training and initiative it was felt imperative to see the available in literature which go through their approaches and models of training which has been put forth. Simultaneously, the training systems and practices that are present in BHEL, Jhansi shall be studied and documented in detail in order to have the insight of such practices. This detailed system study of the practices will enable us in analysing the strengths and shortenings of the training system in BHEL, Jhansi.

Data will also be gathered about the financial performance of BHEL e.g. profitability turnover, Value added, quality, productivity, customer, wastages, rejection, people practices and involvement. The indices of these parameters shall be collected from journals, reports, MIRs etc. for past years which will help in identifying the growth of BHEL, Jhansi over a period of time.

## **TRAINING INITIATIVE SURVEY – A STUDY/ ANALYSIS OF TRAINING INITIATIVES**

If any activity is to be carried out effectively than there are few requirements that are to be met else the activity cannot be carried out effectively. Firstly the activity should be considered as relevant and useful by all concerned else people carry them out just for-the sake of formal requirement. If they feel that it is useful and relevant then it can certainly be of some concern and meaning for them and hence they will do it sincerely. Secondly, if some sense of sincerity is to be generated than there should be a laid down procedure available to carry out this activity A laid down procedure certainly draws attention and exerts pressure on the individuals. That is why it is emphasized that there should be well documented and laid down policies. procedures and objectives, Thirdly, the goals and objectives that are to be achieved must be made clear to all concerned people this helps people in setting standards and it conveys the underlying philosophy and expectations to all concerned. People are not blind, if they understand what and why of expectations, they perform better. Fourthly, if people are

involved in decision making process, they feel motivated and this enhances their sense of responsibility an ignored person is a wrought and does not contribute. Fifthly, if any activity is to be carried out efficiently then certain resources such as money, tools, time etc. are to be invested. The initiatives where maximum resources are deployed indicate the area of priority/ concern of management and are always in the eye of the employees.

The study of training initiatives is generic in nature and is designed to know the opinion amongst the cross section of executives who are directly or indirectly responsible for implementing the training activities in their areas. For this study the entire gamut of the model is covered and there is the attempt to gather and capture information/data pertaining to each of the initiative on the following dimensions keeping in view the above hypothesis -

- Whether it is being considered as relevant and useful;
- Whether there is a laid down procedure for it;
- Whether the underlying goals and objectives are clear to all;
- Whether concerned people at all levels are involved or not;
- Whether time and money is being invested in the activity or not;

The responses were captured at 'Desired' as well as 'Actual' level. The difference between desired and actual is the indication of gap that exists and needs attention. The Training initiatives identified for this purpose are given below and on each initiative response has been designed considering the above five dimensions. These dimensions are to be rated on the scale ranging form 0 to 4.

1. Departmental Training Plans and Objectives
2. Training Needs Identification
3. Development and Preparation of Course and inputs
4. Selection of Trainers
5. Identification selection of venue
6. Pre-Training counselling to participants
7. Post- Training Interview
8. Post-Training Evaluation of training
9. Post-Training On-The-Job Evaluation of Training

## **10. Identification of Gaps**

Training initiative Questionnaire was designed covering the five dimensions of the ten major activities that constitute the elements of the model. The responses shall be analysed in following ways:

- Function wise Analysis of responses
- Level wise Analysis of responses
- Overall Analysis of the responses

Training initiative of the above analysis is to identify those activities that have been preferred and where the organization should lay the emphasis. These activities shall form the list of suggestions.

### **The sample size**

This survey was carried on the executives who are directly or indirectly responsible for implementation of these activities in their respective areas/departments. In BHEL, Jhansi 230 executives are posted in various departments/functions and are responsible for result and tasks in their respective areas. The cross section of executives was selected at different levels and functions. 175 executives were chosen as respondents from various departments.

### **IMPACT OF EVALUATION (FROM PARTICIPANT'S POINT OF VIEW)**

The participant is the focal point for any training initiative and intervention. He is the person who experiences the entire processes of the training. His view and opinions pertaining to the training therefore carry lot of meaning and weight. The entire training process influences the psyche of the participant and develops distinctive in him. Thus he is the center of concern for all training initiatives.

There are number of variable responsible for positively influencing the training process and the participant as well. If we consider from the participant point of view than there are certain initiatives in the training process that are capable of influencing the effectiveness of training. If the participant is involved in the training need

identification process be can contribute towards the requirement of training enabling proper identification of training. Thus the participant's views can be obtained pertaining to three phases.

- Processes before the training
- During the training
- After the training

The participant's opinion on the above can indicate what actually has taken place right from the identification of need to the final implementation of the learning on-the-job. His opinion on the above can throw light on the various considerations and non-considerations that take place and which are essential for enhancing the training effectiveness and impact.

#### ***Opinion of the participant on issues before the training***

Few activities are essential before the training if the training process as to be carried out effectively which in turn may enhance the effectiveness of training. It is therefore essential to know the level of awareness of the participant before the training; whether he was consulted in the training need identification process or not etc.

#### ***Opinion of the participant on issues during the training***

The opinion of the participant regarding how the training was and what was its standard can also help in providing insight about the training program and can be utilized for assessing the impact. If the training program did not achieve its objective than definitely the effectiveness of the training cannot be enhanced. Thus it is imperative to know how the training was designed, what was the quality of inputs and usefulness of the inputs, what were the tools and to what extent they were able to deliver, what was the quality of training material and how much was it useful, how was the faculty - its presentation, knowledge and command over the subject etc., how much useful was the knowledge imparted, how was the duration etc.

#### ***Opinion of the participant on issues after the training***

Learning and gaining knowledge in itself is not sufficient unless it is practically applied for achieving the purpose. There are certain issues after the training that can

enhance effectiveness of training if deployed in letter and spirit. The opinion of the participant on these issues can help in inferring the impact of training based on the efforts applied on such issues. Thus opinion of participant can be sought about the usefulness of training in present job, to what extent he was able to apply knowledge and skills on the job, that were acquired during training, which area the training was able to impact – various dimensions and issues of individual concern, dimensions and issues of job/work and dimensions and issues of the organization.

### **Sample size**

A detailed questionnaire covering the above issues was prepared and served to the respondents. The participants of various training programs were covered. The total no. of respondents chosen were 300 for the research purpose.

## **2.1 STATEMENT OF THE PROBLEM**

Rapidly increasing intervention of training programme to bridge the gap between knowledge & skills and to upgrade the manpower in BHEL have troubled the organizations in this sector and many researchers are working upon finding solutions for this problem. Various studies have been conducted in the past few years on job satisfaction and retention management in public sector industry. Some of them have focused upon creating awareness for training programs in Indian public industry sector and few of them have suggested certain strategies to overcome this problem.

However, this problem is just a tip of the iceberg. The issue is a deeper one related to the overall training programs effects quality of Work Life in public Industry sector. The few studies that have touched on this issue are also done basically in the western context. Their applicability in the Indian context needs to be explored.

***BHEL Jhansi is selected for the research because they are currently undergoing continued expansion. In order to gain competitive advantage and adapt to the dramatically changing environment, it is important for them to achieve management efficiency by increasing employee satisfaction in the organization.***

## **2.2 SIGNIFICANCE OF THE STUDY**

In both developed and most developing countries, there have been several job satisfaction studies. However, very few of them have focused on the job satisfaction of work force/ employee/ executives working in the public industry in relation to up-gradation of employee which in turn reflects profitability of the industry.

Understanding the factors affecting job satisfaction as well as employee training will be useful for the organization, in order to manage and maintain the potential employees within the organization. This, in turn, would be instrumental in decreasing employee turnover which could be costly to the BHEL in general and to the industry as a whole. In addition, the study will recommend adoptable policies and strategies for mitigating similar problems.

## **2.3 GAP ANALYSIS**

Our literature review shows that no proper training empirical research has been systematically conducted dealing with “Efficacy of training programs on performance of an organization” on the functioning of Bhel as well as on organization effectiveness in Jhansi Uttar Pradesh..

A comprehensive literature reveals a dearth of studies with respect to:

- a) Employees Training Program & Job Satisfaction in BHEL.
- b) Studies applicable in the Indian context.
- c) Studies focusing on the BHEL Jhansi of India.
- d) Developing strategies and core competencies for long term up-gradation of employee.

## **2.4 NEED OF THE PROPOSED STUDY**

On the basis of Literature Review and subsequent Gap Analysis, it was opined that the following areas need to be explored more thoroughly:

**A) Issues related to Job satisfaction of employees/executives in BHEL**

- Human resource is the most crucial resource of the BHEL Jhansi.
- Repetitive low end jobs, psychological problems, few career growth opportunities are some typical problems
- High demands from the organization as well as the customers result in stress and burnout

This may disturb the work and family life of an employee.

**B) Issues related to high focus on executives in BHEL-Jhansi**

- Industry –specific training
- Opportunities of career growth within the industry
- Appropriate working conditions to minimize attrition rates

**2.5 OBJECTIVES OF THE RESEARCH**

1. To study result of training among the employees of BHEL Jhansi.
2. To identify factors which influence job satisfaction among the employees of BHEL
3. To know the training initiatives levels in the organization.
4. To identify the relationship between Job Security and Job satisfaction.
5. To identify how timely training help for Jobs Recognition and Job Satisfaction
6. To recommend suggestions to improve job satisfaction and upgrade the workforce which can minimize the wastage and start better utilization of all resources.

**2.6 HYPOTHESIS DEVELOPMENT**

Following hypothesis is framed in tune with the objectives of the study:

1. **H<sub>0</sub>** – There is no significant relationship between Training Programs for the employees and Organizational Effectiveness in respect to Human Behavior amongst work force/executives in selected sugar mills in Western Uttar Pradesh.

**H<sub>1</sub>** – There is a significant relationship between Training Programs for the employees and Organizational Effectiveness in respect to Human Behavior amongst work force/executives in selected sugar mills in Western Uttar Pradesh

2. **H0** – There are no definite variables influencing organizational effectiveness.  
**H1** –There are definite variables influencing organizational effectiveness
3. **H0** – There are no definite variables influencing employee behavior.  
**H1** –There are definite variables influencing employee behavior.
4. **H0** – There is no significant relation between Job Security and Job Satisfaction.  
**H1** -There is a significant relation between the Job Security and Job Satisfaction.
5. **H0** – There is no significant relation between Job Recognition and Job Satisfaction.  
**H1** -There is a significant relation between Job Recognition and Job Satisfaction.

## **2.7 RESEARCH METHODOLOGY**

Statistical survey method of research was adopted. The methodology of the researcher was selecting the area of the study for the purpose of taking sample respondents. Bhel Jhansi region Uttar Pradesh in India was selected as the area of study. All the sample respondents were Pan Attendant and above from Bhel in Jhansi. A thorough review of literature, interaction with employees & executives followed by an understanding of the variables influencing training and organizational effectiveness enabled the researcher to frame the question schedule for the purpose of gathering primary data. Whenever possible, the scholar visited the offices of the selected department in Bhel Jhansi. A detailed analysis of the qualitative answers of the respondents enabled the researcher to reach certain conclusions.

### **2.7.1. RESEARCH DESIGN**

The study adopted a **Descriptive cum Exploratory Research** design to identify the impact of training programs on organizational effectiveness and human behavior.

### **2.7.2 SELECTION OF SAMPLE**

A combination of **Judgmental Sampling** and **Stratified Sampling** is used for research work:

- **Judgemental Sampling:** For sampling purpose 6sugar mills were selected from Western Uttar Pradesh .
- **Stratified Sampling:** The respondents comprised of pan man of selected sample of sugar mills belonging to five different strata:
  - (a) Pan attendants,
  - (b) Assistant pan man,
  - (c) Pan man,
  - (d) Pan incharges

The **Sample Frame** is drawn from the employee record departments of the sugar mills in the study.

The **Sample Size** for the study is 294 respondents.

### **2.7.3 DATA SOURCE**

The task of data collection begins after a research problem has been defined. In this study data was collected through both primary and secondary data source.

- ❖ **Secondary Data:** Secondary data consist of information that already exists somewhere, having been collected for some other purpose. In this study secondary data was collected from a through review of:
  - Empirical & Theoretical Literature
  - Management and Quality Journals
  - Reports of Governmental Agencies,
  - Business Magazines,
  - Newspapers
  - Websites

**Primary Data:** A primary data is a data, which is collected for gathering information

first time and to analyze the problem. In this study the primary data was collected through a structured questionnaire. The questionnaire was administered through electronic mail and personal delivery. A pilot study was conducted on the questionnaire to establish the adequacy and reliability of the instrument in wording, sequencing etc. One common structured questionnaire was used for all kinds of employee of Sugar Industry.

#### **2.7.4 DESIGN OF RESEARCH INSTRUMENT**

Majority of the questions in the questionnaire were closed-ended questions. To give the respondent space and opportunity to express themselves in their own words, the researcher decided to include some open ended questions. To reduce the risk of asking leading questions that can distort the results, the researcher supplemented the questions with an open option "comment", thus ensuring that the respondent could compose replies that suited him the best.

The questionnaire consisted of 3 sections

- a) **SECTION A:** Questions related to Demographic information of respondents.
- b) **SECTION B:** Questions covering different variables pertaining to Job Satisfaction & Training & Organizational Effectiveness.
- c) **SECTION C:** Open ended questions.

A five point **Likert Scale** was used in the design of the questionnaire.

##### **2.7.4.1 RELIABILITY AND VALIDITY OF THE RESEARCH INSTRUMENT**

For the purpose of accuracy, the research instrument must measure those variables which it is intended to measure. Also, it should be easy and efficient to use.

For this, the **Cronbach's Alpha Reliability Co-efficient** was measured. The method is easy and simple to apply because the respondents and the measuring instrument are the same.

Using SPSS, the **Cronbach's Alpha Reliability Co-efficient** showed an estimate of 0.8 thus assuring the data reliability.

### **2.7.5 DATA TABULATION & ANALYSIS**

Once data is collected, it has to be compiled for interpretation. In the present study, Microsoft Excel worksheet was used to compile and interpret the data. Statistical software SPSS was also used for data analysis, reliability – validity testing and generation of charts and graphs. To measure the satisfaction level a 5 point scale was used which is denoted by 1=SD, 2=D, 3=N, 4=A, and 5=SA.

The open ended questions were analyzed qualitatively by a categorization. When all the data was recorded, the researcher used descriptive statistics to produce mean and standard deviation. Mean was calculated because it is a widely known statistical test. The mean value needs to be supplemented with a measure of variability. The researcher chose to use the standard deviation. Standard deviation is a measure of the average deviation from the mean of a series of statements. The mean is sensitive to extreme values which can be found in the study, therefore, standard deviation was used to avoid misleading the reader.

#### **Statistical Tools for Data Analysis**

- Percentage calculation by simple mathematical method
- Pearson Correlation Coefficient
- Factor Analysis
- ANOVA

## **2.8 LIMITATIONS OF THE STUDY**

The following limitations can be pointed out from the research

- The sample size chosen for the study was only 294 and that may not represent the true picture of the perception of pan attendant/ executives.
- The research was confined to the city of Meerut and near-by districts only implying that the results obtained may not be generalized to other cities.
- Public sector sugarmills were not included.
- One of the major limitations of the study is the difference in the number of respondents from each Sugar Mills and also from each stratum.
- Junior participants may not feel free to express their perceptions.
- The study used only questionnaire as a survey method to collect the data.
- Some respondents might not have honesty and seriousness to fill the questionnaire and hence this might have failed in giving the appropriate result.
- Constraint of Resources
- Constraint of Time