CHAPTER 3
Objectives, Hypothesis and Research Methodology

3.1 Introduction
Training is one of several human resource management practices that can be used to increase a company’s competitiveness. Other human resource management practices include recruiting employees, selecting employees, designing work, rewarding employees, and labour and employee relations.

Training refers to a planned effort by a company to facilitate employees’ learning of job-related competencies. These competencies include knowledge, skills or behaviors that are critical for successful job performance. The goal of training is for employees to master the knowledge, skill and behaviors emphasized in training programs and to apply them to their day-to-day activities.

Companies today are trying to adapt to High-Leverage training to create working conditions that encourage continuous learning. Employees under this system are expected to acquire new skills and knowledge, apply them on the job, and share this information with other employees. Managers are expected to take an active role in identifying training needs and help to ensure that employees use knowledge acquired from training in their work.

Training is essentially a process of learning, and studies show there are several things you can do to improve learning. The three important aspects in this regard are:

To make learning meaningful: It is usually easier for trainees to understand and remember material that is meaningful.
**Make Skills Transfer Easy**: Make it easy to transfer new skills and behavior from the training site to the job site.

**Motivate the Learner**: Trainees learn best when the trainers immediately reinforce correct responses, perhaps with a quick ‘Well done’.

Firms today depend on their employees to recognize new opportunities, identify problems, and react quickly with analyses and recommendations. This requires a continuing upgrade or employee’s skills through lifelong learning. This means providing continuous training from basic remedial skills to advanced decision-making techniques throughout employees’ careers.

Evaluation of training is the collection of analysis and interpretation of information about any aspects of a programme of education or training as part of a recognized process of judging its effectiveness, its efficiency and any other outcomes it may have. Evaluation simply means the act of judging whether or not training was worthwhile in terms of some criterion (objective).

Evaluation of training can be seen as – Any attempt to obtain information (feedback) on the effects of training programme and to assess the value of training in the light of that information. This includes investigation before and during training as well as after training. This purpose of evaluation is to create a feedback loop or a self-correcting training system. This also involves the general judgmental sense of the continuous monitoring of a programme or of the training function as a whole.

Training evaluation means the systematic collection of data relevant to the selection, adoption, value or modification of workplace learning activities. Despite organizations expending a great deal of effort in setting up training and
development programmes, comparatively little attention is paid to evaluating their effectiveness.

3.2 Objectives of the Study

a) To understand the importance given to training needs’ identification in the Manufacturing and also in the Information Technology industries.

b) To understand how employees perceive training in both the types of industries.

c) To measure the adequacy of the training for improving skills and competency of employees in both the types of industries.

d) To understand the manager’s role in the career management of employees through training in both the types of industries.

e) To review how effective is the training function in both the types of industries.

3.3 Relevance of study

Any good management practice dictates that organizational activities be routinely examined to ensure that they are occurring as planned and are producing anticipated results. This is done to ensure that people, processes, products or services, stay ‘on-track’.

Since 1996 there is an increased awareness about accountability amongst the employees. Top management of different organizations is demanding evidence that the training departments are contributing positively towards the organizations. How often and how well a company’s training programme is used is affected by the degree to which managers, employees, and specialized development staff are involved in the process.
If line managers are aware of what development activity can achieve, such as reducing the time it takes to fill open positions, they will be more willing to become involved in it. An emerging trend is that employees must initiate the training process. The greater a company’s acceptance of continuous learning philosophy, the more development planning is expected.

Companies will support training and development activities but give employees the responsibility for planning their development. This will include identifying needs, choosing the expected outcome, identifying the actions that should be taken, deciding how progress towards goal attainment will be measured and creating a timetable for improvement. To identify strengths and weaknesses and training needs, employees need to analyze what they want to do, what they can do, how others perceive them and what others expect of them. A need can arise from gaps between current capabilities, interests and the type of work or position the employee wants in the future.

If managers are not involved in the training process, training may be unrelated to business needs. Managers may also not be committed to ensuring that training is effective. As a result, training’s potential impact on helping the company reach its goals may be limited because managers may feel that training is a ‘necessary evil’ forced on them by the training department, rather than a means of helping them to accomplish business goals.

Study of training effectiveness from employees’ point of view is very relevant in this context and will throw light on the above issues.
3.4. Research Methodology

The present study depends on primary data. The Responses of the employees at the middle level and senior level management of the manufacturing and information technology industries is collected.

The primary data is collected by using exhaustive questionnaire prepared for both employees at middle level and senior level and training managers. Also direct interaction with the employees and training managers was sort. Two separate questionnaires are used for the study, one for employees and one for the training managers.

- The questionnaire made for the middle and senior managers is adapted from the questionnaire of Dr. T. V. Rao taken from the book HRD Missionary.
- The questionnaire used for the study for responses of training manager is developed by Jack J. Phillips and is available in the “Handbook of Training Evaluation and Measurement Methods”.

On the basis of analysis appropriate statistical technique, Chi Square test is used for testing the hypothesis.

Renowned manufacturing and information technology industries in and around Pune are studied for the purpose of this research.

Reliability Testing: The scale which was developed for the study was tested for its reliability by using Cronbach’s Alpha where the acceptable score is 0.7 and above. As the respondents were different, the scale devised for the study was tested for both Manufacturing as well as Information Technology Industries. The
reliability score was observed to be 0.973 in case of Manufacturing Industries and 0.977 in case of Information Technology Industries.

**Validity Testing:** The research is based on Training and it is an endeavor to measure the Training Effectiveness. The science of statistics is very open in deciding the acceptable scores. It varies from 99% to as low as 50% depending on the subject matter. In case of Bio Statistics which includes clinical trials, testing of drugs and procedure which amounts to high risk, the statistician may not be happy even with 99% success as it involves 1% risk related to lives of individuals.

However, in social science, social scientists may lay down their own acceptable levels depending up the objective of research, the implementation and the risk involved. Therefore based on the scholarly papers reviewed and earlier work done in the area, the researcher has thought a score of 75% on the scale would suffice the purpose of research. Thus a score of 75% was thought to be most appropriate. This indicates that if the total score of the questions under each of the objectives is above 75%, then the training programme would be considered effective as far as that objective is concerned.

**3.5 Sampling Unit/frame**
Employees at the middle level and senior level management in the manufacturing and information technology industries working in capacity of managers, assistant managers, deputy managers and officers were interviewed along with the training managers.
The companies involved in the study were in and around the city of Pune covered in the following areas:
Pirangut, Vadgaonseri, Sanaswadi, Nagar Raod, Shivane, Katraj, Satara Road, Hadapsar, Pimpri, Chinchwad, Vadgoan, Kondwa, Chakan, Hinjewadi, Dhayari, Bhima Koregaon etc.

3.6. Sampling size
A total of 300 employees at middle and senior level working in different manufacturing and information technology industries were involved in the study. Also 15 training managers of both the industries were involved. The study began with a survey of companies in and around Pune out of which, an adequate, appropriate and representative sample of companies on the basis of stratified random principles was selected. The stratified random sample consisting of companies which have a turnover of more than 50 crores was used. According to the data acquired from MCCIA (Mahratta Chamber of Commerce, Industries and Agriculture) around 73 manufacturing companies in and around Pune had a turnover of more than 50 crore as on 31st March 2009, whereas around 84 information technology companies having a turnover of more than 50 crore were present according to a reliable data.

Thus, it is with special reference to some manufacturing and information technology companies that the researcher has verified the varsity of the objectives in time with the hypothesis.

3.7 Sampling Technique
For the purpose of the study the stratified random sampling technique was followed wherein middle and senior level managers from different departments along with their training managers were taken as sample.
A sample of 150 employees was taken from manufacturing industries and a sample of 150 employees was taken from information technology industries.

The research was done by dividing the pool of 73 manufacturing companies and 84 information technology companies into 2 strata. First strata consisted of companies having turnover between 50 crore to 1000 crore and second strata consisted of companies having a turnover of more than 1000 crore.

In case of manufacturing industries, 6 companies at random were selected from the first stratum and 7 companies at random were selected from the second stratum.

Similarly, in case of information technology industries, 9 companies at random were selected from the first stratum and 8 companies at random were selected from the second stratum.

In all 13 manufacturing companies at random and 17 information technology companies at random were selected for the purpose of study.

3.8 Sampling Proportion
A representation of employees from various departments were taken into the sample frame from the middle and senior level management from the manufacturing as well as information technology industries selected for the purpose of study. Data was collected from employees of at least 10% of the companies falling in the framework of a turnover of more than 50 crores.

3.9 Scope of Study
The present study deals with only the middle and senior level employees of the organizations of different manufacturing and information technology industries. The study is undertaken with respect to industries only in and around Pune and which have a turnover of more than 50 crores as on March 2009.
3.10 Hypothesis
Training programmes have a greater impact on middle level and senior level
managers in the information technology industry than in the manufacturing
industry.

3.11 Limitation of study
This research study is mainly based on the reliable data available during the
period December 2009 to October 2011. The Primary data is based on the
Stratified Random sample survey of 13 manufacturing industries and 17
information technology industries from amongst 73 manufacturing companies and
84 information technology companies during the said period.

3.12 Chapter scheme
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4. Data Collection
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6. Conclusions, Suggestions and Recommendations
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Appendices:
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   ii. Questionnaire for training managers
   iii. Responses of Employees in the Manufacturing Industries
   iv. Responses of Employees in the Information Technology Industries
   v. Consolidated Analysis of Responses in Manufacturing and
      Information Technology Industries
   vi. Contact details of Manufacturing Industries
   vii. Contact details of Information Technology Industries