This chapter covers review of literature from the vast repository of knowledge already available on the subject of training, its importance, steps in training and training evaluation models.

**Background**

**Emergence of Service Industry**

Wikipedia encyclopaedia (2003) states that, the tertiary sector of industry (also known as the service sector or the service industry) is one of the three main industrial categories of a developed economy, the others being the secondary industry (manufacturing), and primary industry (extraction such as mining, agriculture and fishing). Service sector cover activities which are primarily concerned with providing services for the benefit of the population and/or other industries. Include insurance banking and finance, provision of gas and electricity and water, transport, communications, retailing and wholesaling, and central and local government (http://www.richmond.gov.uk/home/environment/planning/glossary_of_planning_terms, 2004). For the last 20 years there has been a substantial shift from the other two industry sectors to the Tertiary Sector in industrialized countries (Wikipedia, 2003). In today’s unforgiving marketplace, creating and maintaining customer loyalty is
more complex than ever. Many companies have counted on customer satisfaction as a guarantee of future success but were disappointed to find that satisfied customers might shop elsewhere without a moment’s hesitation (Griffin, 2002). Tom Peters’ advice: "To meet the demands of the fast-changing competitive scene, we must simply learn to love change as much as we hated it in the past" (Kotler, 2003). Changing face of industry from product oriented to customer oriented, has led to change in the way organizations treat their customers.

This has led even manufacturing companies to look differently at their offering to customers; they have recognized the potential of service as one of the few sustainable competitive advantages they can develop (Zeithaml, Valarie and Bitner, 1996). All products and services, irrespective of sector they belong to have tangible and intangible components. For example, fast-food industry, while classified as a service, also has many tangible components such as the food, the packaging and so on. Automobiles, while classified within the manufacturing sector, also supply many intangibles (Shostack and Lynn, 1977).

Besides creating trends in the marketplace (companies aspiring to be industry leaders) must also become leaders in measuring and reporting on the linkages between their intangibles and cash flow (Davis and Harrison, 2001). Nargundkar and Panda (2004) mentioned that measurements in a service organization need to be multidimensional.
These measurements can be effectiveness metrics, capability metrics and efficiency metrics. To help organizations to deal with changing environment and be prepared for future, balance scorecard was created by Kaplan and David (1996). Balance scorecard measures organizational performance across four balanced perspectives: financials, customers, internal business processes and learning and growth.

Zemke and Schaaf (1989) have identified typical measures of service as reliability, assurance, empathy, responsiveness and tangible factors.

**Employees – Critical Link to Organization Success**

Employees are critical link to organizational success. According to Samuel (1995) capital investments will not be useful until matching human and institutional capabilities are available.

Importance of employee in service delivery is demonstrated by Kotler (1994), in service marketing triangle, the three corners of a triangle are company, employee and customer. Where company interacts with the customer through external marketing, it also needs to interact with its employee, enabling them to deliver the service. Kotler called this process as 'Internal Marketing'. Then these enabled employees interact with customer to deliver the promise made by external marketing. This side of 'Service Marketing Triangle' highlights the role played by internal
marketing, which is all about enabling employees to keep the promises that have been made to customers. Unless service employees are able and willing to deliver on the promises made, the firm will not be successful in keeping its promises and the services marketing triangle will collapse (Zeithaml and Bitner, 1996).

Freemantle (1998) highlighted importance of making an emotional connect with customers in service industry by narrating his dinner experience, “There was something about this restaurant that made it tick, that made the overall dining experience so positive, what made eating at this restaurant such a pleasant event was the emotional connectivity” and people are integral component in creating this emotional connect and delivering service (Szwarc, 2005).

This view has also been echoed by Suresh Rajpal, CEO, Hewelett-Packard India, “customer satisfaction is not possible without employee satisfaction, and this also impacts market share of organization” (Jauhari, 2001). Thus, winning customer loyalty begins with winning staff loyalty (Griffin, 2003). This was summarized by Freemantle (2004), by saying, “Organizations that provide world-class service (are called as) “buzz”, are full of people who make a difference.” According to Snow and Yanovitch (2003) customer service is all about training employees.

Scott and Devereaux (2003) mention that during the past 10 years, businesses have experienced dramatic changes, with increased focus on
services and customers, hence, there is critical need to match people to business results. This was also agreed by Keki Dadiseth “A Company is nothing without a collective intellect”; so in this millennium what is of prime importance is charging the organization’s emotional and intellectual energy (Nicholsen, 2000).

Hence, to succeed in a highly competitive global marketplace, companies need to be able to change quickly; their people must be able to acquire and assimilate new knowledge and skills rapidly and it is the responsibility of leaders to teach them (Tichy and Cohen, 1998). This will provide a competitive edge to future organizations, as the hardest thing for a competitor to match is your culture and the spirit of your people and their focus on customer service (Herb, 1998). Krishna (2002) summarized importance of people development by saying, “Physical infrastructure that men build can crumble and decay. But when we build up the capacity in people, it lasts for generations and helps to speedup the development process”.

Now a challenge is how do we train staff to recognize and deal with (customer) emotions and create differentiation for higher profits? (Barlow and Dianna, 2000)
Employee Development – An Integral Component of Organizational Strategy:

"The main producers of wealth have become information and knowledge."
— Peter Drucker (Charney and Conway, 2005)

As organization shifts from being product based to knowledge based, there has been a shift with accent on knowledge. Employee today needs to adopt skill sets and move across function and industries with ease (Singh, 2003). Buckly and Capel, (2000) mentioned that training is a vital element of any corporate strategy. The short-, medium- and long-term effects of training can only be experienced to the full if training is linked clearly with the corporate mission or purpose. This is also echoed by President and CEO of ASTD (2003), who point out that company should link training to their objectives and strategies.

The connection which Hussey (1985), forged between organization strategy and training lead him to formulate two basic premises. Firstly, because an organization’s activities in the education and training of management can be used to alter the organizational variables, they should be regarded as an aspect of strategy. Secondly, that because these activities in the education and training of management have the power to make a positive contribution to the implementation of strategy. According to Wills (1993), training is part of overall business cycle. Training should regularly assess the business current and future needs. The skills required are then identified and a training plan is developed to
eliminate the skills deficiencies to successfully implement business strategy.

The effective functioning of any organization requires that employee learn to perform their job at a reasonable level of proficiency. So much that organization needs to provide opportunities for the continuous development of employee not only in the present jobs but also to develop their capabilities for other jobs which they might look for in the near future (Gerson and Gerson, 2006). Hence, people and their development are important to sustainable growth at John Deere & Company, says CEO Bob Lane (Bingham and Pat, 2006).

One of the examples of training as part of strategy can be seen at IBM. IBM’s strategy to meet its ‘On Demand’ image, include one of the three focus areas as skill development, training and learning across the workforce, with budget of $700 million. IBMers will spend more than 15 million hours training and learning new, “hot”, market valued skills (Rex, 2005).

Frank Rose, VP of corporate training and dean of Symbol University for Symbol Technologies says, “We mandate every employee to receive a minimum of 40 hours a year of training” (Zahn, 2001). Importance of training is highlighted at Walt Disney World, where leader must encourage and train their Cast (read: staff) to connect emotionally with the guests (Taylor and Lovoy, 1998). Espire in its web site (2003) has
clearly stated that ‘to be in the lead, we have made learning and development a priority for both, businesses and individuals.’

Hence constant training is an integral component of any corporate strategy and individual plan and would be necessary to keep the future running smoothly (Rex, 2005).

**Training and Steps in Training**

**What is Training**

According to Oxford advanced learner’s dictionary (1998), training is “The process of preparing or being prepared for a job”.

Training may also be defined as a learning experience in that it seeks a relatively permanent change in an individual that will improve the ability to perform on the job (DeCenzo, 1999).

An operational definition of learning by Bower and Hilgard (1981), says: “Learning refers to change in subject’s behaviour potential in a given situation brought about by subject’s repeated experiences in that situation, provided that the behaviour change can not be explained on the basis of subject’s natural response tendencies, maturation, or temporary states.”

Goldstein (1980) defined training as: “The acquisition of skills, concepts or attitudes that result in improved performance in an on-the-job situation.”
Number of other researchers has also concurred that, training is the transfer of defined and measurable knowledge or skills that result in improved performance in an on-the-job situation (Goldstein (1980); Wills Mike (1993); Zalman, Richard (1991); Decenzo and Robbins (1999); Lee and Beard (1993); Rothwell and Sredl (2000); Prasad (1994); Dubois and Rothwell, 2004). In other words training activities are aimed at making desired modifications in skills, attitudes and knowledge of employee so that they perform their jobs most efficiently and effectively (Brattan and Jeffrey, 1999; Stranks, 2006).

These definitions highlight training as a focused approach to solve problems existing as on date. As per Lynton and Pareek (1990), basic objective of training is to help the people to improve their current and future performance. Hence, they defined training as the 'means to reduce obsolescence among people and organizations in the face of relentless technological innovations' or to prepare him for a higher position with increased responsibilities (DeCenzo, 2003). This is summarized by Rothwell (2005), who defined training as “the field of activity that focuses on identifying, assuring, and helping develop, through planned learning the key competencies that enable individuals to perform current or future jobs.”

As already defined, training is aimed at making desired modification in attitude, knowledge and on-the-job skill of employee to enable them to
perform current and future role effectively. Training shortens the learning curve of employee and reduces mistakes.

For the purpose of this study, training refers to the process of transfer of defined knowledge or skills that result in improved performance in an existing on-the-job situation. Broadly speaking training is the act of increasing the knowledge and skill of an employee for doing a particular job.

**Benefits of Training**

“The primary goal of the training department should be to provide products and services that directly impact the business results of organization”, says Ann Parkman, President for Effective Performance in Atlanta (Rossi, 2005).

According to Patrik (1999) training is the tool to fulfil all three basic requirements, which organizations must have i.e. people retention, people performing task in dependable manner and people go beyond their role and engage in some form of creative spontaneous and innovative behaviour at work.

Some situations where training can be a part of solution are high employee turnover, high absenteeism, proportionally high overtime, increasing customer complaints, employee grievance, low employee morale, high error rate, new employees not trained, low employee
productivity, introduction of new procedures. Some other areas where training can make an impact are succession planning, work methods improvement, work methods, material control, improved hygiene and safety and enhanced sales (Buckley and Jim, 2004; Hurley, 2005; Harris, 2005). Research has indicated that training can also impact courtesy and employee attitude transformation (Karnikeya, 2004; Goyal, Sharma and Jauhari, 2004).

As is evident from definition of training, training is development of the attitude, knowledge and skill and/or behaviour pattern required by an individual to perform adequately a given task or job for organizations benefits. Hence, organizations can't be benefited till individual knowledge and skills are not improved (Zalman, 1991). Buckley and Jim (2004) also pointed that there are numerous potential benefits to be gained by individuals and by organizations from well-planned and effectively conducted training programmes.

Individual trainees can benefit in a number of ways. There will be increased job satisfaction from performing a task well and from being able to exercise a new repertoire of skills. Also there will be opportunities for extra earnings accrued through improved job performance and the enhancement of career and promotion prospects both within and outside the organization to which they belong (Buckley and Jim (2004)). Demand for training by individual employee can be highlighted from employee complaints that they do not receive enough training—or that the training
they receive is offered too little or too late to be of value to them in keeping pace with today's frantic pace of organizational and technological change (Rothwell, 2002).

Another benefit of training is demonstrated by study conducted by Hodges (1999) is that developing competencies and as learners worked to develop skills, they also developed increasing complexity of thought and the ability to develop comprehensive models of situations and processes. They expanded contextual understanding of the workplace and had the experience of being able to more easily and effectively address real workplace problems.

Managers at Corning's ceramic plant found that training team workers improved productivity by virtually every measure (Henkoff, 1993). Some employers have found that funds spent for basic skills training not only improved performance and reduced accidents, but also improved the self-esteem of employees who acquired the skills (Fisher, Schoenfeldt and Shaw, 1990).

According to McManus (1994) and Flaherty (1995) training is an effective retention strategy, as workforce view training and development opportunities as critical. This can impact organizational performance as in a study for hospitality industry in U.K., staff turnover is costing over £300 million per annum, averaged at over £3,000 per post (Lashley, 2001). Strayer (2003) gave a formula for employee retention:
Employee Retention = Better Compensation + Developmental Opportunities

Study at HP services demonstrates impact of training in employee retention and saving manpower turnover costs. At HP services, as a result of the training program, approximately sixty individuals who were in the program voluntarily left the company, against 100 individuals left the company from untrained group in a similar time period; this has resulted in savings of over $1,600,000 towards cost to locate and hire (Kirkpatrick and Kirkpatrick, 2005).

Raychem (1996) in his research at Xerox found that post-training, Newcastle branch of Xerox, became the top branch in the country, in terms of sales productivity and number of calls required to get an order was reduced by half from 48 to 24 post training.

Training is an answer to deal with stagnation stage by constantly updating employees in every field. Some of these benefits are quick learning - reduce learning time to reach the acceptable level of performance, improving quality and quantity of output by enhancing skills of employees, standardization of best procedure available at work place, reduced supervision, economical use of material and equipment leading to lower cost of production per unit, higher morale and commitment of employees. With the help of training, employee dissatisfaction and complaints of absenteeism can also be reduced.
among the employees. Training also adds to the hiring appeal of the organization (Patrick & Furr, 1999). Another benefit of training has been identified as for preparation of future managers and as a tool for reward and recognition. In times when changes in environment and management are happening at considerable pace, the training function can potentially impact in a positive and major way on the management of change (Stewart, 1996).

Most of the literature available on human resources training and development and its benefits is based on the observations of large-scale organizations (Srivastava, 2003). However, now even small businesses have started focusing on training. The U.S. subsidiary of an Australian supplier of automotive brake components saved US$100,000 in overtime payments alone the first year after signing with GoTrain Corp. for its environmental, health and safety training. Study by Ogunu (2002), concluded that management training programmes in Guinness Nigeria Plc are effective in preparing the staff for the job they do.

Overall training gives the organization a competitive edge by keeping abreast of the latest changes; it acts as a catalyst for change (Towers, 2004). According to Strayer (2003) training exists primarily to help people do a better job at getting the results an organization needs.

With benefits of training defined, trainer / performance consultant should be committed to closing measurable gaps in valued results
(business results), between current level (of business performance) and desired level (Geary and Morrill, 2005).

**When training is required**

According to life cycle of employee in organization and role, training requirements differ. Different occasions when training is to be conducted are movement of people within organization and new work. Some areas of movement within organization are new recruits to the company (University of Western Australia, 2004), transferees within the company, promotions (Towers, 2004) and retirement and redundancy (Patrick and Furr, 1999).

Training is also required in case of from changing the work itself. For example: new plant or equipment, new procedures, new standards, rules and practices, new relationship and authorities (G. Nicholsen, 2000), Bach, S. and K. Sissons, (2000) also agree that this knowledge cannot be gained accurately in a casual fashion: some effort has to be made by management to supplement what the employee learns accurately and in accurately, in the course of the day. In addition to occasions where training is required with movement of people and new work, training is also required for the maintenance of present attributes, like maintenance of standards particularly in areas of human safety (Towers, 2004), maintenance of adaptability (Deret, Hall & Taylor, 2002), maintenance of
management skills & standards and integration with organizational culture (Child, 1989).

It is important to conduct training at time, when people can use skill mastered during training. People forget a previously mastered skill when they do not use it. If an employee has to wait for six months to practice or use what they have been taught, they would have forgotten. There is not only a learning curve; there is also a forgetting curve (Singh, 2000). The impact of just-in-time training is very high on business results (Armstrong, 1999).

Benefits from training and the return-on-investment from training can be realized by individual and organization, only if training programs, both informal and formal, are well defined, delivered, and evaluated (McArdle, 1999).

**Training Steps:**

To ensure effective training, different researchers have defined training steps. Craig, 1976, defined various steps of training as identification of training needs, develop training objective, design training curriculum, design/select training methods, design training evaluation methodology, conduct training programme and measure training results. On the other hand McManus, 1994, simplified this model in four steps of identification of training needs, design training, conduct training and assessment of training effectiveness.
McArdle, 1999, has developed training design model, where he mentioned that before starting the training process, it is important to have a business justification of training initiative, which include training need analysis and estimated return on investment of training. He also mentioned that evaluation should not only be done at end of training program, but at each stage of training to enhance training effectiveness.

The training steps adopted to implement training, decide the approach and detailing by the person implementing training. Broadly speaking, all researchers have divided training cycle in four steps of investigate, design, deploy and evaluate training. Now, we shall briefly discuss research in each step, before going in details of research conducted in training evaluation.

**Identification of Training Needs**

“Success of any training programme largely depends upon proper identification of training needs” (Tyson, Lawrence, Poirson, Manzolini, and Seferi, 1993). Strayer (2003) clearly identified, needs assessment and needs analysis as the first steps of any training process.

Training need is a gap between actual performance and desired performance or between current abilities and job requirements that can be closed by training (McConnel, 2003). A training needs assessment is the systematic process of gathering and analysing information about training needs (McManus, Irene, McManus and Williamson, 1994).
According to McClelland (1992), training need assessment provides information on areas where training programs can be effectively implemented with the greatest impact. Zemke & Kramlinger (1982) have defined training needs assessment as the process of identifying how training can help organization reach its goals. It has been referred to as "the art and science of finding the right problems and understanding them fully".

Nowack's (1991) clearly states in his model for needs analysis to differentiate between training "needs and wants" based on their importance to the job-task (or behaviour) and the requirement for increased employee proficiency. Fairbairns (1991) identifies two questions common to many needs analyses: 1) What skills, knowledge, and/or personal attributes are important in your job and, 2) In what skills, knowledge, and/or personal attributes are you in "need" of training?

Darraugh (1991) mentioned that preceding need assessments, training professionals should determine the deficiencies and why they exist i.e. conduct a root cause analysis. This is also validated by 'Performance Relationship Map' proposed by Robinson and Robinson (1995) which emphasizes both training and non-training solutions to individual and small-group performance discrepancies should be investigated. The Zemke & Kramlinger's (1985) 'Figuring Things Out' (FTO) Model is composed of factors that affect performance in an organization. The
factors are detailed in three primary arenas: performer, local performance environment, and organizational climate. While conducting training need analysis, we need to isolate these factors. Thus, before starting training need analysis, one should analyse problem carefully and identify training and non-training solutions.

Most practitioners look at training needs analysis as problem solving activity focused at reducing the gap between desired and actual problem. Rossett's (1987) reactive model seeks to lessen the gap between "optimal" and "actual" individual and small-group performance. The procedure for this activity involves responding to initiating performance discrepancies by identifying the source of problems (causal analysis). Gordon (1994) also approached needs assessment as an analysis activity, and does not so much identify and document gaps in results.

Researchers have defined steps for conducting training need assessment. These include defining the needs assessment purpose, collection of needs assessment information, analysing the information and making training recommendations based on the analysis (McManus (1994), Estep (2005), McArdle, (1999), Witkin & Altschuld (1995)).

Gilbert (1978) also asserts that "at whatever level we ultimately wish to draw conclusions about performance, we must begin by identifying the context at a higher level". This view is also agreed by Kaufman's (1998) in his 'Organizational Elements Model' (OEM) formally addresses the linkages between every result focus (societal, organizational, small-group,
and individual). The OEM framework suggest that a needs assessment begin with a focus on societal results (referred to as mega-level results) and roll-down to organizational (macro-level) and individual or small-group (micro-level) results. Ostroff & Ford's (1989) model proposed that training requirements should be analysed according to three content areas: organizational, task, and person.

Rothwell & Kazanas' (1992) and the four-phase model for needs assessment proposed by Burton & Merrill (1998) relies on the assumption that the acquisition of skills learned in a course will contribute to desired societal outcomes and organizational outputs. Even, Hannum & Hansen's (1989) support beginning with a top-down, societal needs assessment, but elect in their model to examine only gaps in results at the level of the individual performer. As training is a tool to develop individual employees to impact performance at all levels.

Before conducting training need analysis, objective of training need analysis needs to be defined. Training need analysis can be done at corporate level and individual level (Patrick and Furr, 1999, McConnel, 2003). The training needs of the organization have to do with the requirements to meet the organization's objectives. For example, a new employee orientation program is something the company wants all new employees to attend. It meets an organizational need of ensuring all employees have similar and correct information about the organization, its policies, and its benefits. At an individual level, each learner is
unique, their personalities differ and their learning needs differ (Cotton, 2004), individual employee training needs have to do with training required by a specific employee to improve performance, to be eligible for other jobs, or to acquire specific skills or abilities that most employees already have. For example, if only one employee in a department requires training in basic mathematics, that is an individual employee training need, not an organizational one (McConnel, 2003). Hence, while conducting training need analysis, objective has to be kept in mind. Is this a need analysis for organization, an individual or both? When we meet individual training needs we "put teeth" into career planning and individual development (Laird, Naquin and Holton, 2003).

Information about training needs comes from all levels of management, employees, and other sources, such as production requirements, organizational records, governmental regulations, technology changes, and economic forecasts (McManus, Irene, McManus and Williamson, 1994). Analysing performance is one of the key inputs for training need analysis (Mager, Robert F. and Peter Pipe, 1999). The managers feel training needs when they discover deviation between standard performance and actual performance of its employee (Patrick and Furr, 1999). Specifically, the manager should pinpoint training needs with career life cycle of employee (Peterson, 1996). Cline & Seibert (1993) have identified data sources for training need identification as hard and soft data sources. Guidelines for the collection of soft data include interviews,
group discussions, and questionnaires. Though he has not mentioned any sources of hard data, which may be organizational performance records. Cureton, Newton and Tesolowski (1986) recommended the use of advisory committees, assessment centres, behaviour observation, in addition to conventional interviews and attitude surveys to be used as tools for training need assessment. Graham & Mihal (1986) offer model for needs assessment recommend using a surveying approach that is less likely to be biased by the perceptions of managers. According to them, "when the needs for a management-development program is determined by a survey that asks managers to report their wish list of training needs, one out of four programs recommended (25% to 38%) will be unnecessary and waste training funds."

Authur (1993) suggests that need assessment begins with an analysis of customers and suppliers. The model focuses efforts around the requirements of end users or those "who ultimately serve the external paying customer."

As per Eisenstein (1995), pre-training skills assessment secures a solid foundation for learning. The objective of training is to 'train'. This statement imposes certain prerequisites on training. Snow and Yanovitch (2003) observed that each level in the organization has specific needs and questions that are unique to their situation. Hence, they recommended holding separate training sessions for different levels of hierarchy in the organization.
Some benefits of training needs assessment are that this ensures that training relates to the real needs of the organization, and not to assumed needs. Training need analysis justifies the expenditure for a training program, a benefit that is particularly important when an organization's finances are lean. Need analysis helps to define the current levels of employee knowledge, skills, and performance. These levels act as a baseline from which to measure training effectiveness or performance improvement and establish an information base to use for anticipating and planning future training (McManus, McManus and Williamson, 1994; Tobey, 2005).

Mackey and Thorne (2003) identified key questions to be answered before working to link training to business objectives are, 'what are the business objectives?' and 'How will the training help the business to meet those objectives?'. Here, training need assessment sets the stage for further stages in training cycle, including training evaluation. This is demonstrated by (McCain, 2005), he defined the training need assessment model, where the first stage of training need analysis is identification of business needs, which defines, 'Why training is required?' Once business needs are understood, the second stage of training need analysis is to understand the performance needs, i.e. what performance issues this training is addressing. Once, performance issues are identified, then learning needs in terms of knowledge, skill and attitude need to be identified and as a concluding step, who are the
learners who need to be given this input which will develop their knowledge, skill and attitude, resulting in developing their performance and impacting the business requirements. This model clearly demonstrates that the stage for training evaluation is set at time of training need analysis itself.

It has been seen that many organizations invest considerable resources in training and development but never really examine how and where this can most effectively promote organizational objectives and individual growth. The failure to analyse training needs with the organization will lead to lesser of benefits of the training programme (Bach and Sissons, 2000). According to a study, US organizations spend about $5 billion annually to train end-users of information technology (IT), and 50% of organizations that have training programs do not assess their training needs (Nelson, Ryan, Whitener, Ellen, and Philcox (1995)). Hence it would be pertinent to analyse training needs first and then imparting training accordingly.

**Develop Training Objectives**

Training objectives are defined on outcome of training need analysis. Learning objectives may be the most critical input in designing training sessions. People are more likely to complete training sessions successfully if they are told at the outset of the session what the goals of the training are (McArdle, 1999).
According to McManus (1994), training objectives state precisely what the trainees will know or be able to do when they complete the course. For example, in an electronic assembly course, a training objective could read: Upon completing this training, trainees given a printed circuit board will be able to solder connections that meet quality control specifications or, as a result of training effort (participants should) know more than they knew before, understand something they did not understand before, develop a skill that was not developed before, feel differently about a subject that they felt before, develop an appreciation for something where there was little or none before (Mager, 1999).

Training objectives must be written to provide unambiguous statements, which describe precisely what trainees are expected to be able to do as a result of their learning experience (Buckley and Jim (2004)).

**Design Training Curriculum**

Training design refers to factors built into the training program to increase the chances that transfer of training will occur. For transfer of training to occur we need to apply transfer of training theories and principles of self-management (Noe, 2002). Training design is a set of detailed plans created to achieve the course objectives. Ideally, this means that, after completing the course, trainees will be able to perform the behavioural objectives to defined standards. Instruction (training
curriculum) is effective to the degree that it succeeds in changing students in desired direction and not in undesired directions (McManus, 1994).

The first step for designing training curriculum is defining instructional objective. An instructional objective is a collection of words and/or pictures and diagrams intended to let others know what you intend for your students to achieve. It is specific and measurable, rather than broad and intangible and it is concerned with students, not teachers (Mager, 1999).

To enhance effectiveness of training, many companies see customized training as a differentiator (Cohan, 1998).

According to Estep (2005), Instructional System Design (ISD) models as the ADDIE (that is, analysis, design, development, implementation, and evaluation) model offered a wonderful concrete, step-by-step approach to developing training.

Design / Select Training Methods

Training method is a tool used to deliver learning (McManus, 1994). Training methods have a number of overlapping objectives. As stated earlier, they have to be chosen in relation to the programme design requirements. The main objectives of individual training methods could be demonstration value, developing interest and finally, appeal to senses.
However, more than one or even all three objectives may be found in one method. Mager & Pipe (1997) hold that cost-benefit is the best approach to training solution selection. According to Pike and Christopher (2004), learning is directly proportional to the amount of fun trainee has, which leads to higher involvement and recall.

Choice of training method determines the impact of training. Different training methods involve different senses, which enhance retention of learning. While only hearing results in 30% of message retained, only seeing results in 40% retention, both hearing and seeing result in 50% retention, while doing and experiencing results in 80% retention. This has resulted in development of variety of training methods involving different senses (Singh, 2000).

Training methods are broadly divided into on-the-job training and off-the-job training. On-the-job training involves apprenticeship training, job instruction training, in-plant and craftsmanship training. On the job training may be easier and cheaper, and just as good as the formal variety. As one of the stages of the business, Thomas Gilbert, put it, “Show-how is cheaper than know-how” (Mager and Pipe, 1999). On the other hand Sissson (2001) argued that, on-the-job training is unstructured and probably the single most expensive training method available, being conducted on one-on-one basis. Off-the-job training involves ‘Programmed’ instructions. Various methods of off-the-job training are Classroom lectures, videos and films, simulation exercises.
(simulating real life situations like role-plays, business games and in-basket training), laboratory training (sensitivity training, T-group and L-group transactional analysis), Sample real life – case study, individualized counselling, discussion methods (seminars, conferences), computer based training, vestibule training (simulated work station), programmed instructions (DeCenzo, David and Robbins, 1999), Teleconferencing (Dessler, 1997) and outdoor training programme.

Importance of non-classroom training is increasing. Study by Patra, 2003, concluded that business games have assumed an important role in education and training for industry and commerce. Also, simulation provides learners with an atmosphere in which it is safe to fail (Salopek, 1998).

Survey of 150 US organizations show that 77% of U.S. organizations currently use blended learning (blend of classroom training and e-learning) (Balance Learning Limited, 2004). Key benefit of e learning, as mentioned by Ara Ohanian, CEO of Vuepoint is improving proficiency and the learning curve (Harris, 2003). However, in e-learning implementation, one of the challenges is high drop out rate, sometimes over 80% (Leslie, 2003).

Different approaches to training have varying impact on business results. While the impact of just-in-time, highly tailored training and one-to-one coaching is very high on business results. Impact of generic, non-tailored
training in larger groups has low impact on business results (Armstrong, 1999). Singh and Perdue (2002) concluded that training methods that are interactive, involve human interaction, emotionally involve the participant, and connect the trainee with reality, are generally more effective training method. Examples of these methods are case study, one-to-one, role play and sensitivity training.

**Design Training Evaluation Methodology**

Evaluation is not an activity to be developed at the conclusion of the design/development process, nor is it something that is completed at the end of a course delivery. Evaluation is part of the training program; instructional design is incomplete without evaluation. Evaluation should be planned before the program activities are designed (McCain, 2005). It is at the planning stage that the basis upon which each category is to be evaluated should be determined. At the same time, it is necessary to consider how the information required to evaluate courses should be obtained and analysed (Armstrong, 1984).

Training must enable and link directly to bottom-line initiatives, not just build skills (Strage and Hennessey, 2003). Seagraves (2005) strongly advocate that the value of training should be communicated tersely and in the language of CEO, which include financial numbers.

Hodges (1999) developed a model, where he shared various components of HRD evaluation. This models look at conducting a need evaluation.
followed by formative evaluation by asking 'will it work?', followed by summative evaluation, which includes four evaluation levels of Kirkpatrick training evaluation model.

Thus training evaluation methodology must be created at design stage itself. Trainers should always include an evaluative conclusion, whether you've met learning objectives (Michaluk, 2001).

Training Evaluation involves scrutinizing the programme both before and after the programme is completed in order to make the training programme effective. Neo (2002) gives the flowchart of Training Evaluation Process. The process should begin with determining the training needs, which helps to identify what knowledge, skills, attitude, behaviour, or other learned capabilities are needed. Next step is to identify specific measurable training objectives to guide the programme. The more specific and measurable these objectives are the easier is to identify relevant outcomes or criteria for the evaluation. Based on the learning objectives, outcome measures are designed to assess the extent to which learning and transfer have occurred. Once they are identified, next step is to determine an evaluation strategy. Factors such as expertise, how quickly the information is needed, change potential, and the organizational culture should be considered in choosing a design (method to be used for evaluation like pre-test / post-test with control or without control). Planning and Executing the Evaluation involves previewing the programme well as collecting training outcomes according
to the evaluation design. The results of the evaluation are used to modify, market, or gain additional support for the programme (Noe, 2002).

A training evaluation plan should provide for each of the elements including learning, use on the job and impact on business (McCain, 2005).

**Conduct Training Program**

The selection of, or the systematic design and development of training content is no guarantee of success; training programmes have to be delivered properly. The findings suggest that the role of the professional trainer had undergone significant changes. He is today not only a mere provider or organiser of training but also is being seen as an agent or facilitator of change. This is because today the management is integrating training into the very culture of their organisation. In some organisation the trainers now have access to key decision-makers and have established greater legitimacy for training and development activities (Monappa, 1999).

Zenger, Folkman and Sherwin (2005) have concluded that investments in the post training follow-through, enhances the degree to which any learning is put to practice. Thus it leverage the investments made during learning events.
MEASURE TRAINING RESULTS

The Evaluation of Training

The two biggest challenges facing learning and development professionals are measuring learning effectiveness and communicating the impact of learning on the bottom line (Murray, 2004). With huge investments made in training, the question no longer is, “should we impart training”, but rather, “are training initiatives worthwhile and effective?” (Srivastava, Shafiq and Ghosh, 2005).

There are a number of expressions used to describe steps taken by management and by training offices at the conclusion of training and during the days or weeks afterwards. These expressions include validation and evaluation, as well as cost benefit, which have appeared in more recent years. Let’s look at definitions in order to establish a clearer picture of what each is, and how they relate to each other.

Evaluation literally means the assessment of value or worth. In training terms, evaluation refers to the process of collecting the outcomes of training programmes that are needed to determine the training effectiveness. Training effectiveness refers to the benefits that the company and the trainees receive from training. Benefits for trainees may include learning new skills or behaviour and for company may include increased sales (Noe, 2002).
There is both disagreement and confusion among practitioners over the terms validation and evaluation.

The Department of Trade and Industry (DTI) defines Validation as "a series of tests and assessments designed to ascertain whether a training programme or course has achieved the behavioural objectives specified." In literal terms: - "Does training do what it was designed to do?" (Lee & Beard, 1993).

Validation is establishing that what you set out to do, you have actually done. Thus the validation that is concerned with training means that, when the training is finished, someone inspects the evidence available to see whether the right things have been taught, in the agreed manner and to agreed standards and that the trainees have learnt to an expected level of proficiency (Dessler, 1997). Generally speaking, validation means, if it is undertaken to deliver a certain product by a certain date, it is checked to see that it has been done. Validation produces no problems for management, provided a system is established to check and validate (Dessler, 1997).

Evaluation on the other hand, is defined by DTI as "the assessment of the total value of training or course. Evaluation differs from validation in that it attempts to measure the overall worth & benefit of the course, and not just the achievement of the laid down objectives." In plain words again: "Was it worth doing the training?" (Lee & Beard, 1993).
Evaluation of training, or, indeed of anything, consists simply of putting a value to it. The person who undertakes to validate is not immediately concerned with saying whether he likes the thing he is validating, or whether any benefit arises from it, or whether it was the right thing to have done. He is concerned simply with saying whether or not it happened. But to evaluate training means undertaking a search for the effect that it has had on the people and the situations, which it influences, and then trying to measure or estimate whether this is advantageous or disadvantageous. One of the values that one can attach to training and to its effect is money value, on cost benefit analysis, i.e. the ways in which the costs of training and the financial benefits, which follow from training can be assessed (Storey and Sisson, 1993).

Hamblin (1974) defined evaluation of training as: “Any attempt to obtain information (feedback) on the effects of training programme & to assess the value of training in the light of that information for improving further training”, (Lee, and Beard, 2003).

**Need for Evaluation**

Training evaluation is critical both for the users of training (example industry/corporations) and training consultants. Where training evaluation is important for industry to optimise their investment, training organizations want to know answers about the quality of
training programs, as perceived by their clients. This was the reason for group of training organizations in Netherlands to create an association ‘VETRON’, to evaluate quality of training programs and benefits to clients (Mulder, 2001).

Some of the reasons for evaluation of training are for further improvements in training programme (like to identify the program’s strengths & weaknesses and to assess whether the content, organization & administration of the programme contribute to learning and the use of training content on the job), or to determine financial benefits and costs of the training programme, by comparing the costs and benefits of training versus non-training investments (such as work redesign or a better employee selection system), or by comparing the costs and benefits of different training programmes to choose the best programmes (Noe, 2002).

Evaluation provides measurable outcomes from training courses or development centres which can be used to assess the impact on the workplace performance of the participants, and the subsequent impact of this on the overall organizational performance. This of course, will not be simply an evaluation of the training process, but will be an evaluation of the whole process of maintenance or change or development within which training has a part to play (Nicholsen, 2000). Dan (2006) says that measuring the results of training shouldn't be the responsibility of
training department alone. Instead, line-of-business managers should also be involved.

**Evaluation Types**

Noe (2002) and Ahluwalia (1994) have classified evaluations on basis of objective with which evaluations is done as formative evaluation, pilot testing and summative evaluation.

**Formative Evaluation:** It refers to evaluation conducted to improve the training process. Employees and Managers participate in the programme before it is made available to rest of the company. As a result of the formative evaluation, training content and process may be changed to be more accurate, easier to understand or more appealing.

**Pilot Testing:** Pilot testing refers to the process of previewing the training programme with potential trainees and managers. Programme developers use the information gained from this preview to improve the programme before it is made available to all employees.

**Summative evaluation:** It refers to evaluation conducted to determine the extent to which the trainees have changed as a result of participating in the training programme. That is, have trainees acquired knowledge, skills, attitudes, behaviour, or other outcomes identified in the training objectives? Summative evaluation may also include measuring the monetary benefits (ROI) the company receives from the programme. It usually involves collecting quantitative data using tests, ratings of
behaviour or objective measures of performance such as volume of sales, accidents, or patents.

While formative evaluation and pilot testing focus on improving the process, summative evaluation focus on evaluating the outcome of training process or training intervention. As part of this study, while evaluating impact on business performance, we are focusing on summative evaluation of training programme.

These evaluations may be done internally or by an external expert. Over last four decades few models of training evaluation have evolved. Some models are discussed below:

Models of Evaluation

1. **Donald Kirkpatrick’s Model for assessing training impact:**

Kirkpatrick’s training evaluation looks at the trainees' reaction, learning, behaviour and results to ascertain if a training course is successful.

According to Swanson, 20061994, this model for evaluating the impact of training was first introduced in 1959, and it still serves as an industry standard for evaluating training results. Extensive research and application of the model indicate there are four basic levels in measuring the impact of training:

*Level 1: Reaction – Did the participants like the training?*
Reaction is commonly obtained at the end of a seminar or workshop by simply asking the participants, “How did the training feel to you?” Usually designed as a questionnaire, trainers refer to this level as “Happy Sheets” or a “Feel Good Measure”.

Such measurement should not be underestimated. Participants’ reactions can help to determine the effectiveness of a program and how it can be improved. Kirkpatrick believes the first level can’t be bypassed because, as he puts it, “If participants do not react favourably, they will not be motivated to learn”. If participants aren’t enjoying the program, you will have an increasingly difficult time keeping them engaged in the activity.

Reaction about the training can be obtained by any of the methods of ‘Reaction Evaluation’.

Extensive usage of level 1 evaluation has been confirmed by number of researchers. (Burgoyne and Cooper, 1975; Smith and Tanton 1985; Foxon 1989).

**Level 2: Learning – Did the participants learn something in the training?**

Kirkpatrick defines learning as the “extent to which participants change attitude, improve knowledge and/or increase skill as a result of attending the programme”.

It is typically easier to determine what new knowledge or skills participants have acquired than the ways in which the training changed
their opinions or beliefs. Tests are the most frequent method of evaluating learning. Learning is determined by Post Course Surveys, written and oral tests and knowledge & performance based testing.

As per Brenman (2003) there is increased interest in level 2 evaluation – testing participants to see whether they actually learned anything.

*Level 3: Behaviour – Did the participants apply what they learned in the training back on the job?*

The third level of training helps assess impact of employee learning back on the job. This form of evaluation can be time consuming and costly, but it’s critical in determining if classroom knowledge transfers to the workplace.

In this system, the candidate is assessed periodically once in a year and sometimes even half yearly. The assessment is made on a questionnaire specially designed to measure behaviours considered as critical for performance. This feedback is to be taken both before and after the training program and the results on comparison would throw light on the change in behaviour of the trainee, if any.

*Level 4: Results – Did the participants’ application on the job impact the organization?*

Kirkpatrick did not offer a formal definition for this element of his framework either. Instead, he relied on a range of examples to make clear his meaning. Those examples are herewith repeated. “Reduction of costs;
reduction of turnover and absenteeism; reduction of grievances; increase in quality and quantity of production; or improved morale which, it is hoped, will lead to some of the previously stated results”.

It is worth noting that there is a shifting of conceptual gears between the third and fourth elements in Kirkpatrick’s framework. The first three elements centre on the trainees; their reactions, their learning, and changes in their behaviour. The fourth element shifts to a concern with organizational payoffs or business results (Nelson, 1999; Delahoussaye, 2002; http://Home.att.net/nickols/evaluate.htm, 2002). 50% of top 100 companies, measure training effectiveness through Kirkpatricks’ Level IV, business results (Noe, 2000).

Nicco Internet Ventures Ltd. (NILV) evaluated its training program at four levels. A summative evaluation of the training course at Level 1 got excellent feedback from participants, where 91% agreed that they have gained important new knowledge, 82% agreed that they have gained important new skills and 91% agreed that these learning would help them in negotiating with clients. Evaluation done at Level 2 at Nicco Internet Ventures Limited through pre- and post-training quizzes showed an improvement from 24 to 92 percent correct answers. At level 4 evaluation at Nicco Internet Ventures Limited, it was concluded that rate of professional charges negotiated with clients for 12.5% and above has improved from 33% to 44% of contract negotiated, demonstrating improved negotiation skills (Lahiry, 2005).
2. **Jack J. Phillips** (Training & Development, April 1996) has added a fifth level to Kirkpatrick's Model; the ROI or 'Return on Investment' level, which compares the monetary benefits of the programme with its costs. The ratio of the program's cost to its benefits (expressed as a percentage) is the return on investment of the programme. So, according to him the model is evaluation of participant reaction, participant learning, and application of learning on-the-job, business results from implementation of learning and evaluation of return on investment by comparing investment on training and monetary benefits of training. 'Return on Investment', compares the costs of the training programme with monetary results and is usually expressed as a percentage. Detailed, comprehensive data collection and analysis of costs & benefits is conducted. Accounting expertise is helpful in the process. It is most comprehensive and objective evaluation technique, but the process can be very costly and time consuming (Kurtus, 2001; http://www.doeal.gov/qtd/internet/trn-conf/tc-presentations/traderoi.ppt, 2002).

Phillips (1996), founder of performance resource organization, defined some measures of training. He divided these measures in hard data and soft data. Hard data is the traditional measure of organizational performance; it's objective and easy to measure and transfer to monetary values like units produced, scrap, downtime, sales expenses. Soft data.
on the other hand, is typically the measure of soft skills such as communication. It is subjective and more difficult to measure and to transfer to monetary values. Some examples of soft data are employee work habits, safety rule violations, and work climate factors like employee turnover and job satisfaction, impact of new skills like decision making and problem solving and increased employee initiative. This is agreed by Ravi (2003), Head of Indian Operations, Mercuri Goldmann; he quotes “Soft skills can be perceived to be more subjective and hence difficult to measure. Soft skills can also be looked at as context based & since the context can vary, measurement seems to be difficult.”

Few evaluations studies have been conducted on calculating ROI of training. However, SHRM study by Leiserson (2005) has revealed that even today in almost 80% of cases no analysis of ROI on training is done.

ROI of technical training and sales training has been calculated as is evident from studies quoted below. While calculating ROI of technical training, in a field comparison of 70 trained engineers and 30 untrained engineers, all the trained engineers were able to perform a construction task; less than half of untrained engineers could. The conservative estimate of ROI for one year was 4,000 percent per year. (Leslie and Benson, 1996)

Dell Computer Corporation for instance implemented a five step ROI Measurement for their Sales Negotiation Training Programme in 1997
and found that the ROI for a period of 3 months was 523.25%. The total net profit to the company was $763,297. Control & Training Groups were tested on specific business metrics both before and after the training programme and an overall improvement of 17.63% was calculated for the training group (Ferdinand, 1998).

3. **Hamblin’s level of evaluation** (Sloman, 1999)

The processes that occur as a result of a successful training programme can be divided into four levels. Evaluation can be done at any of these levels:

(a) Reaction Level: Trainees react to the training (form opinions and attitudes about the trainer, the method of presentation, the usefulness and interest of the subject matter, their own enjoyment and involvement etc.)

(b) Learning level: Trainees learn (acquire knowledge, skills and attitude about the subject matter of the training, which they are capable of translating into behaviour within the training situation).

(c) Job behaviour level: Trainees apply this learning in the form of changed behaviour back on the job.

(d) Functioning level: (Efficiency and Costs) – this changed job behaviour affects the functioning of the firm (or the behaviour of individuals other than the trainees). These changes can be
measured by a variety of indices, many of which can be expressed in terms of costs.

Hamblin's four levels form a cause and effect chain linking the training effects at various levels. According to Hamblin, we can evaluate at any of these levels but ideally, we should set evaluation objectives at every level. Evaluation data at any of these four levels can be gathered during, and immediately or at a specified period, after training, and it should be preferably compared with information on before training situation.

4. **Warr’s CIRO Framework of Evaluation:** Warr, Bird & Rackham (1970) elaborate four levels of evaluation in their CIRO - model. They distinguish between **Context evaluation** (inquiry of the training needs and -goals), **Input evaluation** (resources used to reach the goals), **Reaction evaluation** and **Outcome evaluation** (immediate outcome: change of knowledge and attitude; intermediate outcome: change of behaviour at the workplace; ultimate outcome: effects on company level) (Kailer, 2004).

**Context Evaluation:** Obtaining and using information about the current operational context, that is, about individual difficulties, organizational deficiencies, and so on. In practice, this mainly implies the assessment of training needs as a basis for decision.
**Input Evaluation:** Determining and using facts and opinion about the human and material training resources available in order to choose between alternative training methods.

**Reaction Evaluation:** Monitoring the training as it is in progress. This involves continuous examination of administrative arrangements and feedback from trainees.

**Outcome Evaluation:** Measuring the consequences of training. Three levels of outcome evaluation can be distinguished:

1. *Immediate outcomes:* The changes in trainees’ knowledge skills and attitudes, which can be identified immediately after the completion of training.

2. *Intermediate outcomes:* The changes in trainees’ actual work behaviour, which result from training.

3. *Long-Term Outcomes:* The changes in the functioning of part or all of the organization, which have resulted from changes in work behaviour originating in training.

5. **Bell System Approach** (Chadha, 2002): A slightly different approach was developed as a result of a study at AT&T and the Best System Unit. The following levels of programme results, or outcomes were presented:
   
i) Reaction Outcomes
ii) Capability Outcomes – Participants expected to know, do or produce by the end of the programme.

iii) Application Outcomes – Participants know, think, do or produce in the real world settings.

iv) Worth Outcomes – Value of training in relation to its cost.

The outcomes represent the extent to which an organization benefits from training in terms of the money, time, effort, or resources invested.

6. The Parker Approach (Parker, 1976): He has divided the evaluation studies into four groups:

i) Job Performance

ii) Group Performance

iii) Participant Satisfaction

iv) Participant Knowledge Gained

7. Virmani and Premila’s Model: (Journal of CDM, 2003) According to them, training constitutes a three-stage system. The first stage is the period before training during which trainees have expectations from the course. The second is the teaching and learning stage and the third stage is after training when back on the job, the trainee is supposed to integrate training with his job performance.

Pre-training Evaluation: To ensure maximum impact of training, it is essential that the training objectives match with the
expectations of the trainee and with the needs of the user system of training. After getting acquainted with the requirement of the trainees, the trainer needs to be aware about the existing level of knowledge and skills, their attitudes, their potential in the organization and the degree of susceptibility of the group to accept and imbibe training.

**Content and Input Evaluation:** The next is that the trainer ought to have at least some information about the context in which the trainee has to work after training. Pre training evaluation not only helps in identifying the training needs but also helps trainers to evaluate the inputs and its contribution to achievement of training objectives.

**Post-Training Evaluation:** Levels of evaluation after training are as follows:

1. **Reaction Evaluation:** The participants’ impression about the course in general and about immediate specific inputs is measured during and after the course.

2. **Learning:** Measures the degree of learning affected through training.

3. **Job Improvement Plan (JIP):** Evaluation of the trainees improved performance immediately after the training without yet providing
him an opportunity to put training into practice is a poser to the evaluator.

4. **Evaluating transfer of Training to the job:** On the job evaluation would help assess the transfer of training to the job. Any changes, modifications or deletions required in the job improvement plan could be carried out through a debriefing session. This exercise helps increase receptivity to new ideas by the trainees immediate work environment.

5. **Follow-up of Evaluation:** Evaluation at this stage involves monitoring and follow up of the trainees' performance to assess its' contribution to the organization. It also helps in identifying specific areas where improvements have been effected and in evaluating outcome in cost benefit terms.

8. **Another View: - G. Rajkumar :**

According to G. Rajkumar (Rajkumar, 2003), General Manager, Learning & Development, at Dr. Reddy's Laboratories, if one ensures that the content of training is contextual and the delivery is qualitatively superior, the results will definitely follow. "The ROI Approach, driven heavily by metrics and measurements, is good when we are not sure of the training content or delivery. Using this approach one can test the hypothesis whether the training effectiveness is positive. Once the hypothesis is proven, I would tend to believe that more focus needs to be given to
leveraging the learning for the business benefit. It would involve creation of necessary opportunities, climate or processes for transfer of learning. The payoff will be more than getting engaged in the paradox of searching for hard metrics for soft training. *The simple principle is that cost of measuring should not exceed the benefits of training*, believes Rajkumar.

He proposes a model for measuring training effectiveness, where the first step is to articulate the desired behaviour and defining some surrogate measures to measure these behaviours. Once these measures are defined, it is important to define present level, and then design the training intervention. Then design on-the-job monitoring system and track progress.

As per Gulzar (2006) learning evaluation is calculated by formula of learning index.

\[
\text{Learning index} = \frac{(\text{Post Training Score} - \text{Pre Training Score})}{100} - \text{Pre Training Score} \times 100
\]

Werther and Davis (1993) defined steps in the evaluation of training and development as finalization of evaluation criteria, pre-test, trained or developed employee, post-test, transfer to the job, follow-up studies. Coffman (1990) highlighted another methodology of training impact assessment prevalent in Australia, Canada, South Africa and the U.S., where a group consisting of trainee managers meet to look collectively at what happened to their employees as a result of training.
Irrespective of model of evaluation used, all models advocate post training evaluation by reaction feedback, evaluation of participant learning, participant ability to implement learning on the job and benefit to business.

Establishing ROI on training is not as difficult in a sales environment as it is in other areas. Corporate sales training manager for Neil Huffman Auto Group (ranked 86), attribute ROI by the performance of the sales team (Noe, 2000).

One of the principal reasons companies avoid Level III and Level IV evaluations is the lack of resources available to gather and sift through performance data. Measuring ‘hard’ numbers like call-time and customer complaints isn’t too taxing. It’s the behavioural stuff that frequently causes the most evaluation angst (Delahoussaye, 2002).

Hence, a large telecommunication company has set the training evaluation targets. 100% of training programmes are to be evaluated at level 1, while only 10% of training programmes to be evaluated at level 4 (business impact) of Kirchpatrick model (Delahoussaye, 2002).

Training may not deliver business results; it is an important part of process. In case of one of the largest oil marketing companies, practice of windscreen cleaning on the filling station forecourt was believed to be desirable, and ultimately profitable, for forecourt attendants to wash and wipe the windscreens of cars drawn up at the pumps waiting for service.
The company had several thousand filing stations and of these some 200, known to be cooperative and competent, was selected to try out this new practice. The forecourt attendants were given appropriate training in how to approach the customer and in a quick and effective method of cleaning the windscreen. Some months later, on comparing sales of gasoline of these filling stations with those of other comparable stations at which no windscreen cleaning had been introduced. The evidence was that the selected 200 stations were no better and no worse than the rest (Bach and Sissons, 2000). This case study illustrated that even though attendants did receive their training and it was to the performance level required and motorists may have responded with pleasure; they did not, on the whole, buy more petrol at those stations. Hence, sales did not improve, nor did revenue. Hence, it is not a valid assumption that windscreen washing will increase sales, in fact, the training manager completely met his objectives, in producing, at the end of the training, competent attendants and training was no more than a means of enabling the attendants to do the washing correctly (Monappa, 1999).

It is well known that training cannot solve all organizational problems. Therefore, it would be advisable for the trainer to identify what problems can be solved by training and what cannot, before the process of training is started (Singh, 2000).
Training Effectiveness – Case Studies

In addition to various studies of evaluating impact of training, industry and academicians have reported measurements of impact of training using different evaluation methodologies.

Some researchers have evaluated impact of training through pre-training, post-training, control group, experimental group evaluation method. They have compared performance of the people who were trained with those who were not trained, demonstrating impact of training, while maintaining extraneous factors constant. Some case studies are listed below:

In a study for Motorola, Canada, with 42 people in control group and 42 people in experimental group, sales to new customers for experimental group, went up by 63%, against reduction in sales by 16% for control group. Whereas, in case of sales to existing customers, for experimental group, went up by 1%, against reduction in sales by 13% for control group (Raychem, 1995).

Study by Hedges, Patricia and Dennis Moss (1996) in training of 16 managers, demonstrated that training was effective in sustainable improvement in annual BSI rating from 65 to 70 and subsequently to 80. While the average gain of Parcelforce as a whole was 11 BSI points over this period, the gains in the experimental office has been 15 BSI points.

Baral, Bhattarai, Thapa, Ghimire and Burathoki (1994) in their study to measure the impact of training of basic health workers in leprosy control
programme, conducted a post-training evaluation after six months of completion of training. They concluded that training brought considerable change in knowledge and attitude of trained health worker, when compared with control group, who were not trained. Training also improved service delivery provided by the health workers. Though, Improvement in knowledge and attitude was greater than improvement in service delivery.

Many other researchers have evaluated impact of training using pre-training and post-training performance measures. Even though these studies demonstrate impact of training, but questions are always there with regards to influence of extraneous factors. Some case studies are shared below:

Effectiveness of training initiative at Cisco Systems, Inc. was evaluated and it was found that within one quarter write-offs due to non-traceable RTVs were reduced by 100 percent. Another benefit was that within four weeks, the cycle time for the return of boards was reduced from seven to ten days to three days and productivity among buyers went up by a minimum of 10 percent (Kirkpatrick and Kirkpatrick, 2006)

In an evaluation of a soft skill training programme of time management at MCI WorldCom, the respondents felt that they were able to develop their skills of prioritising and weekly planning and were able to save 3.85 hours per week through application of the skills learned in time management training. In another evaluation of a training programme of
change management at MCI WorldCom, the respondents believe their on-the-job performance had increased almost 15 percent through the application of the skills taught in the change management training (Schmidt, 1999).

In a study conducted by Trinh and Lacopetti (2005), at the end of training, 'Pathway to Excellence', at Von Duprin, a division of Ingersoll-Rand, it was observed that required production floor space reduced by 1120 sq.ft. (4355 to 3235 sq.ft.), production rate increase by 50 per shift (800 to 850) and department staffing decreased by one (21 to 20).

CIGNA (an insurance company), while evaluating impact of 7-day training program in basic management skills programme found that insurance premium collection improved from 75% to 96% in one year, giving 50:1 return on dollar invested on training (Cascio, 1992).

In the training for Healthsearch Pharmaceutical, Inc. to improve the selling skills of representatives by improving their skills in establishing specific call objectives, delivering the core promotional message to physician customers, and handling objections properly to influence physicians’ choice of prescriptions. The evaluation results show a significant improvement in physician prescribing behaviour in favour of HPI (human performance index), 112 responses, or 68.7 percent, through better handling of objections and better skills to influence physician prescribing behaviour. Calculation of post-training revenue from sales for the 12-month period before and after the training demonstrated Post-
training gain of $17,969,024 in revenue from sales in year 1997-98 against 1996-97 (Stone 1999).

Implementation of training program (SWAT) at Toshiba has demonstrated benefits in areas of increased retention of sales staff, increased loyalty to Toshiba brand, and faster turn around time. (Leiserson, 2005).

To quote Duggal, C.E.O. NIS Sparta Limited, 2006, “a sales training programme conducted by NIS Sparta for Coca Cola resulted in a 17 per cent increase in sales while an intervention with the Indian Railways, which launched a customer goodwill movement, resulted in a 34 per cent increase in the customer satisfaction score.”

In India also organizations have started focusing on evaluation of trainings as in GHCL, where training performance is monitored at regular intervals (Chopra, 2002) and Tata Steel, where training evaluation is done as proactive measure for future training programmes (Srivastava, Deb and Prasad, 2001).

Selvam and Panchalam, 2003, while evaluating effectiveness of training programmes offered by Neyveli Lignite Corporation Limited (NLC), concluded that 22.67% respondents felt the training programmes highly effective, but 4% considered them as highly ineffective.

One organization with an impressive payback from training is Motorola, which says that every dollar spent on training returns thirty dollars in productivity gains in three years. Motorola not only improved sales substantially through training, but also reduced costs by training
employees to simplify processes and reduce waste (McManus, McManus and Williamson, 1994).

Study in textile industry demonstrates that training has yielded results in terms of improved productivity, reduce defect rate (Sharma and Agarwal, 2000).

In financial services, study by Garner (2006) pointed that for a forex trader, understanding the relationship between pair of currency, will allow traders to hedge positions, but it may also give them an edge when it comes to entering a trade.

Recent SHRM study by Evakalan-Leiserson (2005) has revealed that highest ROI of training comes from apprenticeships/internships (20% of companies reported positive ROI), followed by formal coaching (18% of companies reported positive ROI) (Hedges, Patricia and Dennis, 1996).

ASTD study has shown that an increase of $680 in a company’s training expenditure per employee can generate on average, a 6% improvement in total stockholder return the following year (Abernathy, 2001).

This evidence of training effectiveness is slight and sporadic. Most of the programs make no or little difference to performance at work (Lynton and Pareek, 1990).

Although there are enough arguments to substantiate that training impacts the business results, evidence of impact of training are few. There are few case studies for demonstrating impact of technical training
and training in manufacturing/product industry, but none in case of service industry, which is the fastest growing segment. In India, focus has been to evaluate impact of training on employee knowledge and skill, but little work is done to evaluate impact of training on business results.