

Training Model in I.T Companies and the Gap between University Education and Corporate Expectations

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Abstract: The I.T sector is growing globally and in order to fulfill the demands of the I.T sector there is a great demand for skilled I.T professionals in India. New academic institutes are being established and the old ones are revising their curriculum so that the needs of this growing IT industry is fulfilled. But only 25% are considered to be readily employable by the I.T industry. This is due to the difference in the needs of the industry and the syllabus taught in colleges and in order to fill this demand every fresher is given a training by the company so that the employee can undertake his job effectively. In order to understand more about this training procedure two surveys were conducted, one was with I.T company professionals and other one was with the fresh graduates and based on that survey the process of training in I.T firms as well as small business is described. Thus it has been focused on various aspects on training framework of I.T companies, training cycle and innovativeness of the employees.

Keywords: Training, IT, University, Education, Corporation, Expectation, Fresher's, Recruitment trends, IT companies.

I. INTRODUCTION

A huge impact is made by IT outsourcing on the Indian economy whether it may be economic growth, employment generation, entrepreneurship or changes in social or cultural values. From 1998 to 2008, the demand for skilled IT professionals increased to 13% and the growth will continue till 2016. Many new educational institutes have emerged which consists of public sector, private sector and the joint collaboration of both public and private institutes. Indian Institute of Technology increased its number from seven to twelve in order to fulfill the growing demands of the industry. There are currently 1645 engineering colleges in India which produce 400,000 graduates every year and this number is increasing every year. As stated by UGC 88% of the fresher's in IT companies come from private colleges and 12% from government colleges. Despite of the efforts made by the Indian government IT industry still suffers from lack of talent and experienced a shortage of 500,000 employees by 2010. Students coming out of colleges are not ready for the industry. Only one out of four students is fit for the industry.

Our curriculum still focuses on theoretical knowledge whereas the need for the industry is practical experience. In 2008, \$430 million was invested by big IT companies for the training and development of more than one hundred thousand students. The campus connect program by Infosys and the applying thought in school program of Wipro focuses on eliminating the gap between the lessons taught in colleges and the demands of the industry.

Apart from the big IT companies small firms are also considered as the pillars of industrial development in any country. This study helps to examine the relationship between perception and innovativeness of the employee among small firms. Training is believed to be one of the significant predictors of the innovativeness of the employee. This creates the need for training among small firms which shall go beyond on the job training. There is a need to promote employee innovativeness and it can only be done in small firms through training.

II. OBJECTIVES OF THE PAPER

1. To examine the training model in I.T companies.
2. To study the gap between University education and corporate expectations.
3. To evaluate the training framework of I.T companies.
4. To ascertain training model in I.T companies.
5. To evaluate recruitment trends.

Definition: Dale S. Beach defines the training as "The organised procedure by which the people learn about knowledge and skill for a definite purpose." Training is the act of increasing the knowledge and skill of an employee for doing a particular job. Training is a short term educational process and utilizing a systematic and organised procedure by which employees learn technical knowledge and skills for a definite purpose.

III. TRAINING FRAMEWORK OF I.T COMPANIES

In most of the big companies, the training covers 750 different topics in 400,000 learning days. Training and education provided should be in such a way that it keeps the student up to date and it is well covered in companies revenues. A systems approach is used in order to handle the perceptions of various stakeholders. The systems approach has an advantage that whenever a problem is being modelled, the dynamic behavior of the system is brought out and no compromise is made on the details and inter-linkages among various factors. Considering training as the central factor, sixteen other factors are also there whose inter-relationship has to be maintained. The arrow represents an influence relation between them. From the diagram depicted below, perception can be made that training influences building of intellectual capital. This can be depicted from the figure that there is a need for strengthening of intellectual capital.

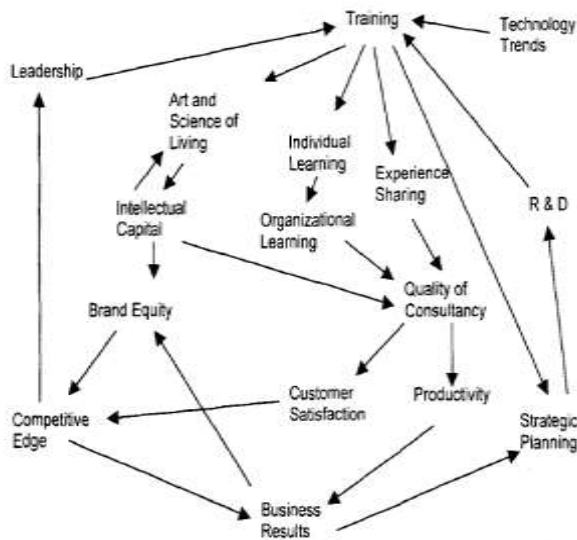


Figure 1. Cybernetics of training

(Source: Tata Consultancy Services)

IV. TRAINING CYCLE

Most of the IT companies have source of their manpower from leading technology and management institutions in country. In most of the companies, the typical profile includes 25% of the computer science graduates, 60% from the other engineering disciplines and 15% from the management disciplines. Before selection all the students go through an aptitude and programming test. The candidates who are selected in this process undergo induction training. Evaluation tests are conducted during induction training and the students who do not possess the required skills of becoming a software engineer are eliminated. Before a project is allocated, participants go through training to provide skills relevant to the particular project. A continuous updating of skills is needed as professionals' progress in the career. The training

model of companies evolves every year to keep in pace with the changing market trends.

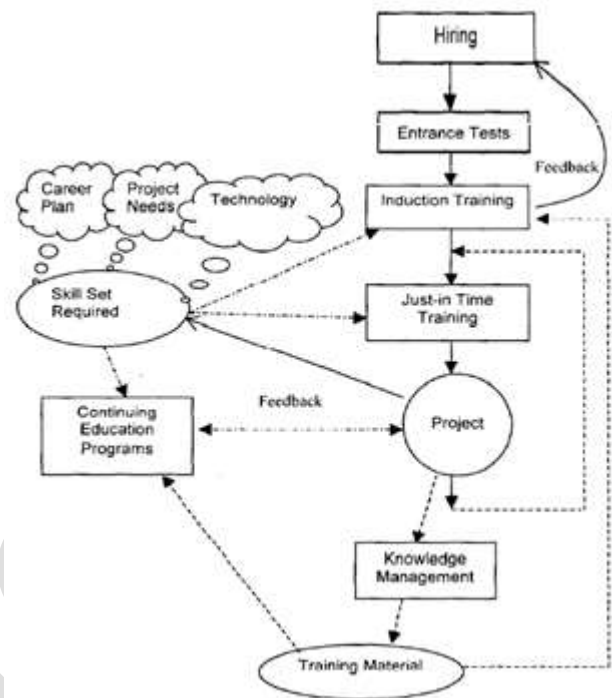


Figure 2: TRAINING MODEL

V. METHODOLOGY

Two surveys were conducted; one for human resource managers and one for fresher's joining the industry.

Human Resource manager's survey:

The survey was sent to 60 different companies and 28 companies completed the survey. The contact information was obtained from engineering colleges' alumnus. The survey was divided into a number of sections. Section A comprised of information like the number of employees working in the company and the ownership status. Section B comprised of the new trends in recruitment process and the posts for which the recruitment is done. Section C comprised of the changes that needs to be made in the recruitment and training process.

Survey for fresher's:

The survey was sent to 50 freshers of different colleges in India. Most of the fresher's belonged to SRM University. The survey was answered by 40 freshers. The survey was divided into several sections. Section A comprised information about engineering background of students and the company that they have joined. Section C was the training that the students went through and section D consisted questions on how much useful the training was for their job and what are the changes that should be made in the curriculum.

Findings

A. Survey for human resources managers

46% of the companies were foreign multinational companies, 25% companies were Indian, 25% companies were Indian multinational companies and 3% were foreign companies. Now the companies were divided into 3 categories: small companies, medium companies and large companies. The responses were as follows: small companies (46%), medium companies (15%) and large companies (37%).

Recruitment trends

There has been reported a large increase in the number of application from freshers in the last 5 years as reported by 82% of company officials. 35% officials said that the number of students selected for the training are same since last 3 years whereas 15% told that the number has reduced and 25% stated that the number has increased at a very high rate and the rest 25% said that the number has increased but at a very small rate. 57% of the freshers was assigned the post of a software engineer whereas 10.34% were given associate engineer and 10.34% rest were given system engineer. The freshers who were hired by large companies had more chances of staying in that company to the freshers hired by small and medium scale companies. The reasons for staying in their companies were as follows: 65% stated that learning opportunities were good whereas 15% told that due to interest in job they stayed in the company and 15% told that they stayed because of the reputation of the company. Most of the reasons why employees left the company was to go for higher studies or for more salary options.

Training

Training was given to students to improve their theoretical knowledge and to get some practical experience which goes along with knowing the ethics and culture of the company. Training was conducted in several ways and the most common was interactive sessions with company professionals or by conducting classes to provide both theoretical and technical knowledge. Online courses, series of tests and teamwork were some of the other measures of providing training. The companies stated that continuous taking care of employees and maintaining a formal training schedule were the two main aspects of training. The training time is mostly 12 weeks and it is conducted either by senior officials of the company or by external faculty members.

Comments from Human Resource Managers

Companies don't want colleges to train students exactly according to IT companies but they want to see a little bit more practical work. In most of the colleges of India main focus is on getting marks and theoretical knowledge. More emphasis should be given on practical knowledge. Company officials want the students to try to understand the concepts that are being taught during the training process. They want the students to good learners. The college curriculum should

be designed in such a way that students develop the ability to understand and learn every concept.

B. Survey for fresher's:

Participants

44% of the students were from computer science department perusing B.tech and 60% of the students were from rest of the branches from engineering and technology. Rest 6% students were from MCA and M.Tech .

Recruitment trends:

The number of students who were doing their first job were 90%. People working in foreign multinational companies were 34%, the people working for Indian multinational companies were 26%, 25% worked for Indian companies and 11% worked for foreign companies. The title which they got in the companies was mostly software engineer which comprised of 53% of the total and developer which comprised 11% of the total. The choice made by students of the company was mostly because of the reputation of the company and the learning opportunities that the students were getting.

Training

90% of the freshers undergone a training process of the company. Mostly all the freshers who took jobs in Indian and foreign multinational companies went through a training process. In 80% of the cases, the training was conducted by a person from the company and in rest 20% of the cases, training was conducted by an external faculty. The most common types of training were interactive learning with the company officials.

Comments from freshers

50% of the students were satisfied by the curriculum of their respective universities. 28% of the students said that the curriculum was not up to the mark which was needed for the industry standards and requirements. Rest stated that the curriculum was good but a few changes can be made to make it more industry oriented. Educational institutions try to give knowledge of each and every subject to the students but no in-depth knowledge is given on any particular subject which can prove to be more useful as per the industry requirements. The colleges need to focus more on architectural design of software. Students need to be given knowledge about programming. The exams should be designed in such a way that they are able to identify a particular students understanding of any subject and not the ability of mugging up the course. In college curriculum the main focus is on development whereas in the industry, students are assigned both development and maintenance work. So more focus can be given on maintenance. There are many new technologies used in the industry but are not taught in the curriculum because industries update their technology day to day but college curriculum does not. Students should be encouraged to do a real life project with the industry in a field in which they are interested. One more solution can be given as company

professionals can visit the university before placements and give knowledge about the things that students should prepare beforehand before coming to the company. Very few universities support extra-curricular activities and it plays a major role in gaining confidence resulting overall development of their own personality.

VI. IMPORTANCE OF EMPLOYEE INNOVATIVENESS

There are certain factors like data generation and opportunity exploration which determine the innovativeness level in employees in big and small firms. Employee innovativeness contribute in the performance of mainly small firms so it is much important for people working in small firms to be innovative and try to find new ways so that overall development of both the organization and the individual can take place simultaneously. Without the capability of the employees to innovate it would be very difficult for the small firms to withstand in the market. So it is very important for the small firms to give training to the employees in such a way that they are able to use their own innovativeness in work and new ideas should always be encouraged. Firms having high level of innovativeness have a higher job satisfaction as compared to the firms having low innovativeness level.

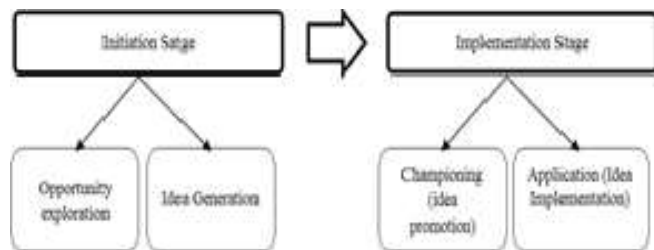


Figure 3: innovativeness level

The above figure shows the employee innovativeness framework which consists of mainly two sections which are initiation stage and implementation stage. In the initiation stage, the employee is encouraged to innovate, changes in the training curriculum are made so that the creativity of employees can be checked. The second stage is the

implementation stage in which the application of the ideas from different domains and different people are put together and the best one is chosen for the work.

VII. CONCLUSION

The findings in this paper are done by the deep study about the training model of big IT companies and by conducting a survey among human resource managers and the freshers. Also a study was conducted about the importance of employee innovativeness so that small firms can grow at a fast rate. From the survey it was found that there is a gap between what is being taught in colleges and universities and the demands of the industry. This gap needs to be bridged and this can be implemented only by either changing the curriculum in colleges or by giving training to the faculty. Students need to gain more practical knowledge and they should be taught the software's that are being used in the industry. Universities should focus more on giving real life projects to students than on giving theoretical knowledge. Companies are spending a lot of money in the training of students and all this money can be put into a much more fruitful use if the same thing can be taught in the universities. The universities need to understand that the curriculum needs to be changed regularly in order to keep with the demands of the industry.

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