“Re-engineering of Indian Economy-Opportunities & Challenges” On 24th October 2013

RE ENGINEERING THE ENGINEERING

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Abstract:

Re engineering is the most important issue faced by industry. There are many challenges in the way of reengineering, so to overcome these problems some important dimensions are explored. There are many factors which identify the reengineering dimensions like environmental, size, economical, technical etc. In the present work an attempt has been made by review of literature to identify the dimensions and their parameters in the software Industry.

Keywords – Industry needs, pre hire training, collaborative research.

1. INTRODUCTION

Industry has its own objective and education system has its own. Education means enlightenment but if someone is just able to write a sentence it does not mean that he is enlightened, it means one has to be able to analyse. Once we are educated we should contribute to the society, then only society will benefit, this is the objective of education. Industry focuses more on making profit and therefore they engage very less with the education institutions. Industry requires manpower and that comes from educational institutions, therefore it should get more and more involved in the process of education.

India is a logical choice of outsourcing for the world with 65% of the world’s eminent companies and one of the world’s largest pools of scientific and technical talent. India has proved its mettle in IT And BPO industries to global community. Indian IT/ BPO industries have witnessed phenomenal growth in recent years leading to tremendous increase in the demand of skilled manpower. In this direction of development, the government has allowed private sector to open engineering colleges across the country to fulfill the huge demand of trained professionals of the industries. And in a very short span of time, the number of private engineering colleges has vastly increased and today around 3000 colleges and university together are producing nearly a million engineers per year in India.
Today, engineering colleges are operating with few teachers and almost zero facilities of placements etc. The students rarely attend classes in the colleges and mostly go at the time of examinations only. The engineers graduated by most of today’s engineering colleges have to do petty works to earn their bread as they are not compatible for the industries. Recently, over 3,800 graduate and 200 postgraduate engineers are set to join State Bank of India (SBI) in the clerical cadre. As most of such institutes are milling out engineers with zero quality, it doesn’t seem like the contribution of these business groups toward national progress. In fact, it is their self development as these groups are expanding the number of colleges rapidly across the nation under the banner of trust or NGO.

About 75% of engineers are getting their degree from private engineering colleges while there are a few private colleges among top 50 colleges in the country. And, it is also important to know that none of Indian university could make its position in top 200 universities of world. The number of technical institution in the country has touched the new height but around 10-15% of the institutions have been accredited by the governing body.

Today’s youth want to earn money as quick as possible. They want to work in IT field and call centre during their study. It will not be hyper to say that IT & BPO industry is the backbone of Indian economy. India’s IT and business process outsourcing (BPO) services industry could be bringing in around US$60 billion by the year 2013, growing at over 25 percent a year. By 2013 the Indian IT and BPO services industry could directly employ approximately 2.3 million people, besides providing indirect employment to another 6.5 million workers.

Nevertheless, due to high money and lucrative facilities involved in it, the other fields are being highly ignored by youth. It is true that IT field is the fastest developing field in India and every second children want to become an IT professional however other fields like research and teaching are also vital to give economy a pace and honour. In today’s world, the old moral saying of “teaching is a noble profession” alone is not enough and cannot draw the focus of today’ youth in this profession.

An economic growth engine is well-oiled only if it has a steady supply of skilled resources. If India has to sustain the current pace of growth in its knowledge economy or meet the many ambitions of its private enterprise then a complete overhaul of its many institutes that impart vocational skills is needed.

While nearly 5 million students graduate every year from a thousand colleges and universities, nearly half of them are not employment-ready due to insufficient English language and cognitive skills, according to a recent report.
What is severely lacking in mainstream education is the absence of industry-specific skills and domain knowledge. Often, the skills taught in our technical institutions are not tailored to meet the needs of the industry, resulting in a higher unemployment rate among fresh graduates.

The oft-cited Nasscom-McKinsey study revealed that only 25% of the engineering graduates are employable. The number of unemployed educated youth between the ages of 15-29 has been growing in urban India and stands at 10 percent for males and 23 percent for females. For urban India, graduate unemployment is 8.2 percent while unemployment among post-graduates is slightly lower, at 7.7 percent.

2. PRE-HIRE TRAINING

A new recruit is considered work-place ready, if he/she can contribute to the company's growth by efficiently handling the day-to-day tasks. However, the first-day-first-hour ready workforce is a myth. Typically, IT companies allocate 3-4 months of training at an average cost of Rs. 200,000 per employee to make the freshly-inducted employee productive.

In non-technical domains, the training varies between 2-4 weeks. Is it any wonder that companies these days are considering pre-hire training as part of the standard induction process?

Pre-employment programs are generally short courses, comprising skill sets identified by industry as essential for entry into the industry or occupation. It could be soft skills such as interpersonal skills, collaborating with stakeholders in multiple functions and geographies, cross-cultural interactions, multi-tasking, project management and cognitive skills.

While earlier, individuals aspiring to hone or upgrade skills opted for pre-hire training, nowadays, corporates are beginning to include pre-hire training as part of the recruitment process.

For every employee who falls short of expectations, an organization will have to bear costs equivalent to two and half times of an individual's salary. An unproductive new hire may weigh on the company's efficiency rate and costs as the company ends up spending a lot on training and mentoring.

Training costs make up nearly 2-3 per cent of total staffing budget. Organizations realize that training is not a luxury but a necessity. Besides streamlining existing training programs for new hires to include mobile training and self-paced learning programs, what if there is a more time-tested way to harness new talent.
A pre-hire training program can be the gateway to an organization’s growth if the industry works with the academia to mobilize and train resources in relevant skill sets. Through pre-hire training selected candidates can be trained on IT skills, practical use of machines, project management, communications and team work practices. They can be given practical knowledge and significant on-the-job training to bring their skill levels on par with regular employees.

Pre-hire training enables you to do just this. Small and medium-sized businesses especially in non-IT related sectors find it easier to hire and do their own training. Starting on a blank slate allows a company to instruct the employee more easily about the company’s protocols and processes. It is easier to estimate training time to bring the recruit to speed.

3. INDUSTRY EXPECTATIONS

India today needs many new economy sectoral subjects to emerge in to academia being debated with industry. It is important to educate and train the human resource capital for employability. Innovations and design thinking is the key. It is true that the industry is not engaged the way it should in academics today. A suggestion is that industry must keep posting projects in an objective manner(achievable within short/long term) to a common hub and let the academics Catch up with the requirements. If we have a person responsible from each industry to look into and organise the responses from academics may be we can make a progress.

Let the problems be defined and kept in the companies end to which academic will respond. Initially it may take time to reach a satisfactorily level but there is no harm in starting it. The funding, logistics and other organisational issues can be worked out once the nature of the Problem and its complexity is known. This is the need of the hour and sufficient effort and planning should be put on this issue.

A symbiotic relationship between industry and academia, is expected with synergy. Eventually this alignment is a complex phenomenon and is unique to the context and situation of institute and industry. It has to be driven with honesty and piety.

More and more industries should involve in terms of financing, imparting industrial training etc. to students of the universities. Industry can build R&D centers. There can be a collaborative research between industries and academia. Some percentage of profit shares by the industries can be invested in setting up state of art laboratories in the Universities which will be directly benefitted to students who are feeder to the industries.
4. CONCLUSIONS

Developing skilled workers enhances their efficiency and flexibility; skills bottlenecks are reduced and skilled workers are able to contribute to the company’s growth and help in economy building. Educational institutions are starting to give vocational training its due especially in a gloomy job market where the IT, BFSI and retail sectors are not hiring at the fast clip they normally would. The proper & timely education and training must be imparted and it should be knowledgeable, flexible, innovative and efficient. The effective training will definitely help in reducing the risk and effort and proper decision making by the software development team members in case of emergencies. Quality is the most important factor for the software industry.

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