ABSTRACT

Widespread economic reforms in India since 1991 have resulted in a robust growth (Panagariya 2003) and the entry of many global players in the Indian market (Ahuja 2012). Indian companies need to gear up their core competencies and be on par with the global players in developing high quality attractive products, in managing lean operations, in offering efficient product service, and in building global brands.

Developing countries like India and Brazil will face huge skill gaps due to low employability (Forum 2011). The gap between demand and supply of skilled manpower has led to salary levels continuously going up (Manpower 2013). Even those who are employable require significant training from the companies to be able to perform the roles that they have been hired for. Generally, employees lack aspiration in terms of their career or personal goals resulting in low engagement, effectiveness and productivity.

As engineering students gain only a limited proficiency from the education system, companies have to make up for this deficiency. Hence, Indian companies need to develop more structured approaches for competence development that are aligned to the roles from the entry level. Some major reforms must be implemented in engineering education to address the gap.

A detailed literature survey was carried out to cover Potential, Competency, Assessment, Competency based Education, and Enterprise Management Systems. A high potential employee is someone with the

aspiration, ability (innate ability and learned skills) and engagement (Council 2011). Competency includes five characteristics - motive, traits, attitude, knowledge and skills (Spencer 1993). Motives and Traits being innate, organizations should assess the innate abilities as the basis for selection and teach the knowledge and skills required for the roles (Spencer & Spencer 1993). Aspiration is an important driver for engagement and learning. Competency based education always focuses on learning outcomes, greater workplace relevance, and observable outcomes in terms of competencies, assessments, and qualifications (Brown 2000).

Based on the problem and using insights from the literature survey, objectives were chosen for the research to include selection of employees based on innate abilities suited for specific roles, structured processes for competency based development of employees, competency based education programmes to groom role-ready engineers and integrating competency management with the Enterprise Management System.

A case study methodology was adopted for experimenting with the models developed through this research. A structured process was established for role-based competency development for the employees of a large automotive company. An IT system was developed for managing competencies across a large workforce. Initially, the engineering and sales functions under three key business processes such as New product development, Manufacturing and Sales & Service which include over 75% of the employees, were taken up for implementation.

Simultaneously, a collaborative, Competency based Engineering Education programme (CEP) was established with the active involvement of all the stakeholders in a polytechnic and an engineering college. A rural outreach programme attracted a large number of rural students with the right aspiration. They were selected for their innate abilities using assessment methodology. They were given a strong foundation in mathematics and science, which are essential to learn engineering, using bridge courses. The development of competency based courses was done by a team of faculty and industry experts. This was a residential programme focussing on behavioural competencies relevant to the industry, roles and life. Role based electives streams, internships, industry sponsored group projects, and role-readiness projects were found to be useful in developing industry - ready and role-ready engineers with life skills as well.

The competency management System was integrated with the Enterprise Management System resulting in a holistic model. A production system was developed as a part of the Enterprise Management System and was piloted in a manufacturing plant. On the same lines, product development and retail systems are being developed. Courses are being established for business processes, organisational processes, values and TQM way of thinking.

The results of the research were significant considering the scope of dealing with competencies of individuals and that of the organization. For the identified functions and roles, 77 courses were developed wherein over 70% of the employees were covered for half of their role needs. Apart from

improving the role effectiveness of hundreds of employees, this initiative has resulted in development of specialists in core areas. CEP students have the performed significantly better than their peer group. The three batches of the CEP engineers which joined the automotive company have shown significantly better engagement and performance.

In terms of business results, the delivery of new products every year has significantly increased in the last five years. Product performance, in terms of fuel efficiency, emission, comfort, and Fit & Finish has significantly improved and is either on par or is even better than that of the competition. The bandwidth of high potential managers and cover for succession of key roles has also improved during this period. If this journey is institutionalised and pursued further with rigor, a significant business impact and a sustainable competitive advantage can be realized.