Chapter 15
Value Co-Creation in Education:
A Case Study on Engineering Education

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ABSTRACT

The case study presents the opportunity to co-create, faced by a new department (department of mechanical engineering) created in an already existing college of ten years standing. The mechanical department had the option of either following the procedures established by other departments or creating its own procedures. The systems existing in the college were based on treating the student as the customer. In reality, the objective of any student is to get employed, immediately after the prescribed period of study. Therefore, the employer must be the customer and the student must be the product of the system. With this mindset, all existing procedures were revisited. The student and faculty co-created several procedures to differentiate themselves to suit the needs of their employers. The case study elaborates on the needs and approaches taken to achieve this differentiated status.

INTRODUCTION

All educational institutions get certified by ISO (International Organisation for Standardisation), for their procedures. As part of this process, they have to identify their customer first. By definition of a customer as one who pays for and uses the service (Majava, Nuottila, Haapasalo, & Law, 2013), Academic Institutes treat students as their customers. This leads to serving them better, teaching them well and enabling them to complete the course with flying colours. All these are mostly concerned with the Teaching Learning Process (TLP). But unfortunately, the course is declared as not relevant to industries and graduates declared as unemployable and not industry ready (www.aspiringminds.com).

Instead, if the institute reorients itself to consider the employing industries as its customers and students as its products, then there is enough scope to understand what the customer wants. This will enable the institute to reorient itself to meet the industry needs. With this approach, the faculty and the students of the department co-created a system for mutual value addition in terms of quality of education.

BACKGROUND

SSN College of engineering, promoted by Dr.Shiv Nadar, founder of HCL Technologies, is the place where this case study was undertaken. This is an institute of repute where outcome based education is practised (Salivahanan & Tyagi, 2016). It has a reputation as a good institute for engineering education. The case study explains in detail, how the Institution migrated from treating students as customer to treating industry as customer. Then the students became stake holders who could participate and co-create value for themselves .

Customer orientation provides strategic competitive advantages (Stock, 2016). However, it must be noted that customer orientation is quite difficult to achieve. Hence the re-orientation program needed several changes-like bringing in several hands-on practical programs to be introduced by the Institution, even though these were not prescribed by the affiliating University.

The result is seen as an improvement in placement records and satisfaction from Industries who recruit-by way of coming back to the institute again for the next academic session.

These ideas have been appreciated by the Apex body for higher education, All India Council for Technical Education (AICTE) by way of financially supporting an Industry Institute Partnership Cell, a Design Fabrication lab, a Robotics lab etc for hands on training. By interaction with CII (Confederation of Indian Industry), FICCI (Federation of Indian Chambers of Commerce and Industry) and IMTMA (Indian Machine Tool Manufacturers Association), the research work and project work undertaken by students has been made industry relevant. By offering training on Innovation, Creativity and TRIZ, the faculty have been contributing to industry and simultaneously learning what the industry needs. Internships in industries and student projects at industries have been developed as a means to improve industry Institute interactions.

The case study will explain the situations that warranted this change, the resistance to change, how it was overcome, approaches established, benefits attained and how it was sustained . Examples will be from a specific department -the department of mechanical engineering.

CURRENT STANDING POINT ASSESSMENT AND IDENTIFYING THE PROBLEM STATEMENT

When graduating students are treated as products, it naturally follows that at the first year of input, they are like raw materials. An analysis of their merit showed that all are quite meritorious, achieving more than 95% in their qualifying exams in school. The batches had a mix of students from English medium as well as Tamil medium (regional language) . There were also lateral entry students who joined in the second year of engineering, after completing a diploma in the same branch of engineering. These differences in input had a minor effect on their performance.

In general, in Indian system, achieving a very high mark in schooling to get a qualifying mark to enter engineering is a great task. Having obtained an engineering admission, students relax a bit. The next target of getting a job is only four years later. There is no incentive to aim at university ranks or high grades. This is partly because many companies who recruit do not rely on the marks of the university. They conduct their own entrance exams, aptitude tests, group discussions and personal interviews for selection. The marks obtained in the university subjects is only a qualifier-many tier 1 companies expecting around 75% and above and many tier 2 companies expecting around 65% and above. This

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