Abstract

Quality in higher education has been a topic of discussion and has at all times evolved with newer definitions and connotations, owing to the changing dynamics of the market, hence the needs of the students, the expectations of the employers and the community at large. Quality of education is linked with standards, measurements, assessments and control. In terms of assessment and measurement, approaches to quality have also seen a sea change over the few decades. Universities and Quality assurance agencies have brought into practice several approaches of quality assessment methods, viz-a-viz, Accreditation, Self-Evaluation and Academic Audit. Concurrent to the world of Academics, quality assurance practices in the non-academic setup too has evolved through time and has ascertain a genre of its own in various sectors aka manufacturing and services.

This dissertation encompasses two schools of thought (i) Perception of Quality with respect to Academic Institutions’ and (ii) Use of Six sigma strategy to assess Quality in Academic institutions’. With an apt use of multilevel modelling to quantify a metric for a quality index, this study employs the DMAIC strategy of research to investigate into the problem, identify the root causes of non-conformities, analyze the data and suggest areas for improvement.

The claim that the six-sigma strategy can be integrated into the quality analysis process of the academia can be agreed upon but with the conditions that Quality excellence projects such as these required trained personnel to conduct the diagnostics, subject matter experts to investigate into and contribute to the pain areas in the processes and continuous support from the top management in terms of resources for an effective inquiry and implementation. A simple study as this is but a modest step to what can otherwise be an effective six-sigma project if conducted in an environment conducive for the same.

The study includes a search for metrics for the quality parameters started with the already existing definitions of quality and academic quality, followed by the
validation of the currency of those definitions and then metrics that may be used to measure the variables hence filtered for the study. The multilevel model that was generated helped identify the most influential and contributing variables to the Quality Index of the institution. Faculty and Research Opportunities were significantly (and statistically) dominant in terms of the effect. Mapping of the sigma levels v/s the stated priority of the decision variables helped give an insight into how should these variables be treated for the future. Categorized as Primary and Selling factors to maintain, Opportunity areas, Secondary opportunity areas and Potential Differentiators, these categorized variables lead to the recommendations for change or continuation. Knowing the pain area gives the lead to a successful six sigma project.

This study justifies the perceived (and otherwise) notions about quality of academia, promotes the use of strategy for six sigma for quality assessment of processes in an academic institution and also places a modeling technique in place so as to quantify the effect of influencing variables on the quality index. With the availability of the right direction and if implemented the six sigma strategy is an effective tool. With an additional support of statistical modeling, the variables critical to quality can be quantified in terms of their effect on the quality index and thereby indicative of need for change or otherwise! Quality studies in an academic institution aims to provide vital information to its stakeholders as a proof of the institution's progress and growth or the lack of it! An analysis of this sort is also in introspection by the institution as a check on its utility.