Monitoring the Quality of Higher Education Programs through the Six Sigma approach

Continuous monitoring of academic performance is considered vital as it is required for the attainment of academic accreditation as well as to secure a position in global university ranking systems, and as such, it draws more attention by university administrators. Presently, there is no uniform model adopted by Saudi universities to facilitate this process. As a measure to fulfill this, a new performance improvement model entitled 'DMABIC' model has been developed based on the principles of Plan-Do-Check-Act (PDCA) cycle and Six-sigma DMAIC approach. DMABIC model is implemented through a five-phase process viz. Defining KPIs [D], Measuring [M], and Analysing [A] performances, Benchmark [B] with suitable internal and external partners, improving [I] the performance using SWOT analysis and sustaining the improvements obtained through appropriate Control [C] measures. The five phases of DMABIC model are depicted in the figure.

To track performance and to initiate an action plan for improvement, an exclusive online application entitled, 'UDmetrics' has been designed and implemented across IAU.

Further, to ascertain its effectiveness, several Key Performance Indicators (KPIs) focusing on the quality of teaching and learning have been chosen, and different quality tools and techniques are adopted in each Phase of DMABIC to improve it. The baseline Sigma rating for the selected KPIs was computed using the Poisson distribution model, and it was graded using a Six Sigma performance rating scale. Higher the sigma value, the better is the quality of teaching and learning processes of the health sciences programs. Through the adoption of the benchmarking component in the Six Sigma DMAIC model, the actual performance was compared with the internal benchmark and external benchmarking partners' performance, which helps to adopt good practices from other Saudi universities. Hence, this new model will help the university administrators to track, monitor, and improve the quality of teaching & learning processes effectively adopted by its academic programs.