The computer service industry has been expanding dramatically due to the increase in the number of computing machineries in the last two decades. The entrance of large size companies in the market and the release of online tools that have the ability for diagnosing and troubleshooting hardware and software issues have boosted the competition. In the meantime, many of the small and medium size companies find themselves unable to keep their customers satisfied since their competitors provide high quality service with lower cost.

Lacking for a good measurement system to assess and analyze the satisfaction level with the provided service is the fundamental cause of customer decay. The aim of this study is to construct a robust framework to measure customer satisfaction and highlight the root causes of dissatisfaction in the computer service sector. This framework brings together the key aspects of six sigma and SERVQUAL instrument into a structured approach to measure and analyze customer satisfaction with computer services. It deploys the DMAIC problem solving methodology along with SERVQUAL instrument which contributes service dimensions and Gap Analyze technique.

Literature review indicates that there is not enough studies that have been conducted to integrate lean six sigma with SERVQUAL instrument. To explore the effectiveness of the current framework, a computer service company has been selected. The satisfaction levels are calculated, and the root causes of dissatisfaction have been identified. With a low overall customer satisfaction level, the company did not fulfill their customer requirements due to five major causes. Eliminating those causes will boost customer satisfaction, reduce the cost of acquiring new customers and improve the company performance in general.

Major: Industrial Engineering

Educational Career:
Bachelor's of Manufacturing Operation Engineering, BS, 2008, University of Baghdad

Committee in Charge:
Ahmad K. Elshennawy, Chair, Industrial Engineering and Management Systems
Luis C. Rabelo, Industrial Engineering and Management Systems
Petros Xanthopoulos, Industrial Engineering and Management Systems

Approved for distribution by Ahmad K. Elshennawy, Committee Chair, on March 18, 2014.

The public is welcome to attend.