

عنوان البحث

APPLICATION OF SIX SIGMA TO ANALYZE COMPLAINTS
OF PATIENTS AT KING FAISAL SPECIALIST HOSPITAL

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Medical services are an important facility in healthcare institutions. Patient complaints with services of the hospital is a main indicator for the healthcare quality assessment, because services with quality have a stronger effect on customer satisfaction, organizations performance and profits. The importance of quality of services is to avoid poor quality cost (Mehta, 2004). However, most of medical services institutions still do not use the basic quality tools or do not have a high- level management support, which impact the process performance or the quality of service of the institutions, thus increasing in the number of patient complaints, for example, Medical Services Center at King Faisal Specialist Hospital (KFSH), in Riyadh city, Saudi Arabia, which is the case study of the project. The medical services center received various complaints from the patients about the quality of services. First, due to the long time to solve the problem. Second, due to personal skill of the worker and low information provided. Third, due to the table of time, forms keeping, received treatment, and medical equipment related. The problem of complaints of the patients became significant at the hospital, and had greatly impact on work satisfaction, services effectiveness, low hospital reputation, low overall income because of poor quality cost that increase expenses of working for medical service center. Because of poor quality management can reduce patients' satisfaction and prevent the hospital to achieve a competitive advantage among other health care institutions, it is important that patient complaints problem is understood so that processes of services of medical services center are operating efficiently. This project will use quality management techniques; particularly, Six-Sigma DMAIC methodology to eliminate the patient complaints problem about the services, and to improve the service quality in Medical Service Center at KFSH by using quality tools such as Pareto chart and fishbone diagram to identify and measure the root cause of the type of issue in the service and to analyze the main cause in detail. Then, giving a recommendation about how to improve the service processes to reduce these complaints, to meet patients' satisfaction, and to drive KFSH to achieve a competitive advantage among other health care institutions. The data had been submitted in document by the head of patient affair office from 2023 and 2024. The submitted document (Appendix X) showed the total number of patient complaints and the types of the complaint

that were grouped in 9 categories and were used as source of data for Pareto chart, which also known as the 80/20 rule to identify and measure the common type of issue in service problem that have high number of complaint events. After identifying the root cause of the problem by using Pareto charts, fishbone diagram can then be used to identify and eliminate sub-causes of the main cause of patient complaints problem. Once problem causes are determined in the Analyze phase, the project will find, evaluate through testing, and select creative new improvement recommendations. After improve phase, a solid audit plan with proper change service management methods will be established to monitor and control service issues that cause the complaints of patients. In planning this study, the project presumed that management will be interested in improving the quality of services standards in the medical services center at King Faisal Specialist Hospital and will be interested in reducing complaints number, generating hospital revenue, and obtaining patient satisfaction of requirements, so they will provide accurate information for the purpose of this project. the benefits of Six-Sigma and its application are limited in this project because of time constraints that cannot solve all types of error about service, and just focus on the major type that cause high number of complaints to improve it. In addition, the application of project is limited to the medical services center in KFSH which is a healthcare services institution. Consequently, the results may not be applicable to other department or other hospital, especially those dealing in different services or located in different countries. The project DMAIC activities start on January 22th, 2023 to April 22th, 2024. In conclusion, this research proposed to analyze why number of the patient complaints is increased. Is applying Six-Sigma leading to reduce patient complaints? Will Six-sigma DMAIC methodology enable Medical Services Center at KFSH to improve its patient satisfaction and meet their expectation by reducing the issues and thus producing services better? Will the Six-Sigma quality tools such as Pareto chart and Fishbone diagram that are used in the project effective to find out the root causes of the type of error in the Medical Service Center at King Faisal Specialist Hospital, Riyadh city, Saudi Arabia. To answer the previous questions, the project will use Six-Sigma DMAIC methodology and certain quality tools on the case study to investigate whether the methodology is effective in reducing the number of complaints of the patients about the services in Medical Service Center at KFSH, or not effective.

مشكلة الدراسة:

Complain many patients from long time waiting to access doctors' clinics.

أهمية الدراسة:

I have been working on the second goal in my proposal which is: on the last goal in my proposal which is: reducing the number of complaints of patients in medical services center at KFSH. then I will have a clear control chart, final result of the project, and conclusion.

أهداف الدراسة:

Improvement for the current services process performance.

تساؤلات الدراسة:

- Is applying Six-Sigma leading to reduce patient complaints?
- Will Six-sigma DMAIC methodology enable Medical Services Center at KFSH to improve its patient satisfaction and meet their expectation by reducing the issues and thus producing services better?
- Will the Six-Sigma quality tools such as Pareto chart and Fishbone diagram that are used in the project effective to find out the root causes of the type of error in the Medical Service Center at King Faisal Specialist Hospital, Riyadh city, Saudi Arabia.

The importance of service quality, quality management in services organizations.

(Kandampully, Mok, & Sparks, (2001); Seth, Deshmukh, & Vrat, (2005)), talked

Mehta, (2004) in his book, said that the importance of quality is to avoid costs of poor quality because the poor-quality costs of certain service are the same of 30% of operating expenses average in manufacturing. Also, he mentioned that according to Burst and Gryna, (2002) 25 to 40% increasing in working expenses which poor quality costs cause for service organizations.

Nonthaleerak & Hendry, (2006) show that quality management (QM) is an important management strategy in the business world to achieve competitive advantage. QM classified into traditional initiative such as Statistical Quality Control (SQC), Zero Defects and Total Quality Management (TQM), and recent initiative such as Six-Sigma which had been adopted by many manufacturing and non-manufacturing organizations across the world and gave a great improvement result to many companies in contrast with traditional initiative.

Six-Sigma (SS) is considered as organizational strategy to increase their revenue and satisfy their customers by certain statistical tools which lead to elevate the income by making the services with excellent quality according to (Park, 2003).

Truscotts, (2003) defines Six-Sigma as administration system seeks to achieve strong leadership with enhancing employees to share in problem solving or suggestion in the organization.

المنهجية وطرق البحث:

Applying Six Sigma DMAIC methodology. The five phases of DMAIC approach explained the quality tools and techniques used as well as key steps that led to problem-solving and sustainable improvement for the current services process performance and led to investigate type of issue, root causes of the complaint problem, and provide a recommendation to eliminate these complaints.

أدوات الدراسة:

The project has used Six-Sigma DMAIC methodology Define-Measure-Analyze-Improve-Control to reduce service issues, thus reduce the number of complaints of patients about the quality of service in medical services center at King Faisal Specialist Hospital, Riyadh city, Saudi Arabia. Also, the project seeks to success in Six-Sigma process by identifying the voice of the customer (VOC); Customer is the patient (Pt) in the hospital. The importance of VOC in this research study is to capture the patients' needs by gathering patient data and converting it into measurable critical-to-quality (CTQ) elements to satisfy their needs. The study obtained the patient complaints data by the head of patient affair office through submitted.

حدود الدراسة:

- Applied only in KFSH in Riyadh city.
- Time constraints.

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