

BEGINNING OF DIVERSE QUALITY MANAGEMENT METHODOLOGIES IN LIBRARIES: AN OUTLINE

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Abstract

Excellence is intangible but it can and does symbolize a desirable target. Today, all kinds of organizations are becoming customer oriented organizations to survive in this world. To attain exactness, organizations must uphold and develop their values to ensure that the quality of their products and services are meeting their customer's necessities. A library is part of a service organization which delivers products personally to the customer. Libraries have always been committed to provide a high quality of services to its users. For the sake of these ever increasing requirements, nowadays libraries must follow an appropriate quality management methodology with an objective of identifying and prioritize customer requirements. This paper attempts to renew various Quality Management Methodologies in a comprehensive manner in order to effectively support the libraries to retrieve perfection for their customers.

Keywords: QFD, QMS, TQM, Six Sigma, Quality Management Methodologies.

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Introduction

Quality issues have always been quite challenging in service sector like library and in this context, derived from industrial applications, Modern Quality Management Methodologies can be extensively adapted and experimented within education. The library is an organization to offer reference and information services to its users. Library service is the combination of the services-process and its delivery (Pao-nuan et al., 2000). A library is part of a service organization which delivers products personally to the customer. Libraries have always been committed to provide a high quality of services to its users. A library needs both to satisfy its users and to prove to its funding bodies that it is worth investment. The librarians must manage staff, information in several supports, and technical activities to produce quality services. With this in mind, the present work has attempted to explore beginning of diverse Quality Management Methodologies in library science..

A Quality Management System (QMS) can be defined as “a set of coordinated activities to direct and control an organization in order to continually improve the effectiveness and efficiency of its performance.” In order to ensure that quality service is delivered consistently, a QMS should be developed and implemented in each functional area and at critical control points. However, in order to develop a QMS, the customer’s expectations need to be identified. The Quality Management System can also be defined as “a documented set of policies and procedures that provide assurance to the customer of the product and service levels expected.” Libraries have always been committed to provide a high quality of services to its users. In the past, consuming more resources, buying more books, and moving to large premises are considered as improving quality. But that approach is not valid today. One of the good solutions to improve quality is to provide right information to a right user at right time. This requires a through change in the approach – an approach based on user requirements and user satisfaction. It is believed that this can be achieved by implementing any Quality Management Methodology. There are various Quality Management Methodologies that are being used nowadays. A brief introduction of these Quality Management Methodologies is as follows--

A). Total Quality Management (TQM)

The term TQM first appeared in 1961, when the concept was devised by A.V. Feigenbaum and named Total Quality Control (TQC). TQM has been globally recognized as a Japanese approach toward quality improvement (Engelkemeyer, (1993),) and in spite of massive research from 1984

to 2002, it remains a hazy and ambiguous concept (Jyotirmoy Dash 2008). TQM engages all divisions, departments and levels of the organization. Top management organizes all of its strategy and operations around customer needs and develops a culture with high employee participation. TQM companies are focused on the systematic management of data of all processes and practices to eliminate waste and pursue continuous improvement. TQM cannot be fully understood through one definition only so TQM can be classified under the following broad headings:

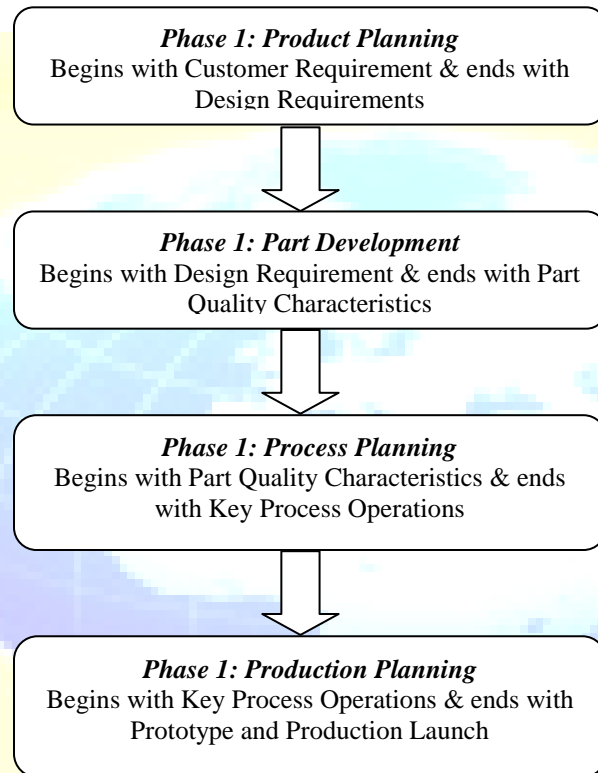
- TQM as a culture and management philosophy
- TQM as a management and institutional-wide process
- TQM as a strategy and a system

Dongare (2012), have stated that TQM brings together the constellation of productivity, ethics, leadership and performance into a unique relationship. The TQM is one of the techniques used for the improvement and maintenance of quality or performance of the library. It is to provide the right information to the right users at the right place and time and also at the right cost (Wang, 2006). The most important components of TQM in a library are Benchmarking, Performance Measuring and Monitoring, Qualification and experience of staff. If implemented carefully, total quality management principles yield positive benefits to libraries to forces library managers to develop leadership skills interested of replaying on power within position to obtain results, increase staff participation in decision-making, thus increasing the feeling of “ownership” of decisions and directions once charted, provides a method of improving services to users in a period to similar resources.

B). Quality Function Deployment (QFD)

Quality function deployment (QFD) is a “method to transform user demands into design quality, to deploy the functions forming quality, and to deploy methods for achieving the design quality into subsystems and component parts, and ultimately to specific elements of the manufacturing process. There is no single or unique definition for Quality Function Deployment (QFD), but a general basic concept of this method is as follows: “QFD is a system with the aim of translating and planning the “voice of the customer” into the quality characteristics of products, processes and services in order to reach customer satisfaction”. QFD is a concept and methodology of new product development (NPD) under the umbrella of total quality management (TQM). It is one of the few techniques that could potentially have a quality improvement impact throughout a

company's product development process. Its objectives are to: identify and prioritize customer requirements and translate these requirements into appropriate company requirements at each stage of the product life cycle. In order to develop a service it is necessary to "translate" these fuzzy requirements into quantitative service design requirements; QFD makes this translation possible. Services are not developed as a whole; instead, these are developed through the integration of different components.



The component features are what provide the functionality, that in turn satisfy client requirements. Booker (2003) described QFD as a "step-by-step deployment of a job function or operation that embodies quality, into their details through systemization of targets and means." Different phases of QFD are shown in Figure 1.

C). Quality Circles

Quality Circle generally recommends solutions for quality and services which may be implemented by the management. Thus Quality Circle is not merely a suggestion system or a quality control group but extends beyond that because its activities are more comprehensive. Furthermore, it is not a taskforce because it can be made a permanent feature of the organization or a department. Generally six to twelve volunteers from the same work area make up a circle

(Abo-Alhol et. al., 2005). The members receive training in problem solving, statistical quality control and group processes. Different steps used in quality circle program are shown in Figure 2. Quality circle tools and methodology have evolved utilizing various domains associated with process improvement. It provides a comprehensive and flexible system for maximizing satisfaction. It is like sowing good quality seeds for better tomorrow. It has been considered as a revolutionary approach to improvement. The most important benefits of the quality circles are their effect on people's attitude and behaviour. Other beneficial effects are:

- Quality circles enable the individual to improve personal capabilities
- Quality circle helps volunteers change certain personality characteristics. Circles help workers develop the potential to become the supervisors of the future.
- Quality circles increase workers' understanding of the difficulties faced by supervisors.
- Quality circles increase management's respect for workers.
- Quality circles reduce conflict stemming from the working environment.

Therefore it can be concluded that quality circle can also be stated as an evolutionary tool for service organization like libraries.

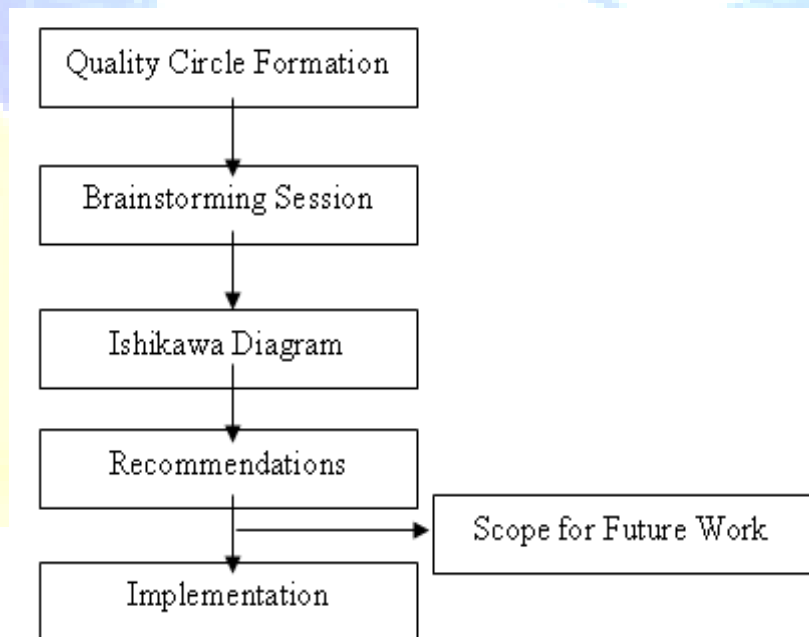
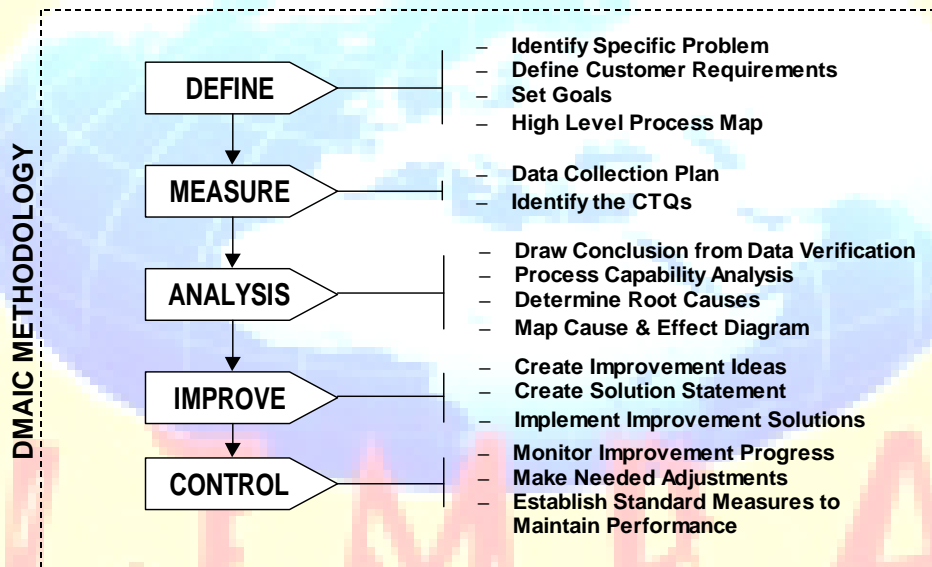


Figure 2: Steps of implementing Quality Circle

D). Six Sigma

Sigma is a Greek letter representing standard deviation or the amount of variation within a given process (McAdam and Lafferty, 2004). A library is part of a service organization which delivers products personally to the customer. In industry, a company may look at defects in its final manufactured products whereas in libraries services, a defect relates to falling "users satisfaction" and to develop the "quality" of the library. In this scenario, a Six Sigma approach can directly affect the needs if it is conducted wisely. Six Sigma is a powerful breakthrough improvement business strategy that enables companies to use simple but powerful statistical methods to define, measure, analyze, improve and control (DMAIC) processes for achieving and sustaining operational excellence. Doing things rightly and keeping them consistent is the basic



fundamental idea behind Six Sigma. In library, to improve quality and to provide right information to a right user at right time and to provide maximum users' satisfaction, now it is the time to execute Six Sigma in libraries. The Six Sigma methodology employs various tools and techniques for its implementation. The various methodologies are DMAIC (Define-Measure-Analyze-Improve-Control), DMAC (Define-Measure-Analyze-Control), DMADV (Define-Measure-Analyze-Design-Verify) etc. But, the most popular technique among all these methodologies is DMAIC due to its versatile approach. A team using DMAIC as shown in figure 3, which stands for define, measure, analyse, improve and control, undertakes the project.

Figure 3: Six Sigma DMAIC Methodology

Define--- Define the problem as per customer requirement

Measure—Identify key customer requirements, and determine key product and process characteristics.

Analyse— Analyse data using various statistical tools such as Histogram, Process capability analysis, Run Chart, Design of Experiments, Fishbone Diagram, T-Test etc

Improve—Design and carry out experiments to establish cause and effect relationships and optimize the process.

Control—Design the controls, make improvements, implement and monitor.

Conclusion

Research proves that firms that successfully implement Quality Management Methodologies in Libraries perform better including return on scales, return on investment, employment satisfaction and customer satisfaction. It has been found that Quality Management Methodologies in Libraries is highly beneficial to improve the performance and to recover the standard of the library and helps to improve the skills and talent of the library employees. The ultimate goal of the library is to satisfy its users. This can be achievable by using any Quality Management Methodology. It helps library employees to have a better management to evaluate the services to library users. The study could be a paradigm initiative towards improvement in library system. Libraries that have board on a passage for wildly excellence should execute Quality Management Methodologies for well again rating.

References

1. Abo-Alhol T.R., Ismail M.S., Sapuan S.M. and Hamdan M.M. (2005), “The Effectiveness of Quality Circle Participation in Industrial and Service Organizations in Malaysia”, *Journal of Social Sciences*, Vol. 1, pp. 25-30.
2. Booker J.D. (2003), “Industrial practice in designing for quality”, *International Journal of Quality & Reliability Management*, Vol. 20, pp. 288-30.
3. Dongare Sudesh (2012), “TQM in Library”, *Social Growth*, Vol. 1, Issue III, pp. 111-117.
4. Engelkemeyer, S.W. (1993), “TQM in Higher Education”, *The Centre for Quality Management Journal*, Vol. 2, No.1, pp. 28-33.
5. Jyotirmoy Dash (2008), “Total Quality Management in Libraries - A Perspective Approach”, 6th International CALIBER -2008, University of Allahabad, Allahabad, February 28-29 & March 1, 2008, pp 414-419
6. McAdam R. and Lafferty B. (2004), “A multilevel case study critique of six sigma: statistical control or strategic change”? *International Journal of Operations & production Management*, Vol. 24, No. 5, pp. 530-549.
7. Pao-nuan; Pao-long Chang; Kuen-horng (2000), “Quality Management Approaches in Libraries and Information Services”, *Libri*, , vol. 50, pp. 191–201
8. Wang Hong (2006), “From “user” to “customer”: TQM in academic libraries”?, *Library Management*, Emerald Group Publishing Limited, Vol. 27 No. 9, pp. 606-620.