

TOTAL QUALITY MANAGEMENT (TQM) AND ITS APPLICATIONS IN ACADEMIC LIBRARY AND INFORMATION SERVICES**WRITTEN BY****ASHOK SINGH NEGI, RESEARCH SCHOLAR (LIBRARY AND INFORMATION SCIENCE), MEWAR UNIVERSITY, CHITTORGARH (RAJASTHAN)****AND****DR. J. P. SRIVASTAVA, DEPUTY LIBRARIAN, INDIAN INSTITUTE OF TECHNOLOGY (IIT) DELHI, HAUZ KHAS, NEW DELHI****ABSTRACT**

Introduces the topic “Total Quality Management (TQM) and its Applications in Academic Library and Information Services” defines the quality management which explains total quality management in the academic library and information services. TQM is a management approach centered on quality, based on the participation of an organization and aiming at long term success. The purpose of this paper is to present an overview of total quality management (TQM) in the academic library and information sectors. This paper discusses quality in academic libraries management and services. So, they need to provide quality products and services to their customers. It is a complete way of managing academic libraries services with focus on customer and quality. It provides the tools and the direction to improve quality. It describes the characteristics, objectives, elements, benefits, best practices and barriers to the implementation and the practices of TQM in academic libraries and information services. It concludes that TQM is best defined as a philosophy under big umbrella. Libraries have always been committed to provide a high quality of services to its users. The paper is an attempt to make the readers to understand the importance of TQM, an effective system that could enhance the performance of academic libraries with the aid of earlier research and literatures.

Keywords: *Total Quality Management, TQM, Academic Library, Information Services, management, Quality Management, Quality, Academic Library and Information Sectors, Customer, Best Practices, Barriers.*

1. INTRODUCTION

Library is the hub of all academic activities of any institute. Collections in the libraries are the part for organizing all such pursuit. Acquisition, organizing the information and dissemination of their thought content is the main job of the libraries. They serve as the connecting link between the information generations on the one hand and disseminating of this information in a digitized manner on the other hand.

Libraries are the service-oriented and non-profit organizations. The main aim of every academic library is not only to fulfill the needs of the users but also to anticipate their demands and to fulfill the same. Libraries should always aim at providing quality services with the available resources. In present world, the popular buzzword is 'Customer is the king.' 'Customers are our God'. Users of the library are defined as customers. Customers have become more and more aware of their rights. To provide quality services is the prime function of each and every academic library. Quality in service is a never ending journey. There is always scope for improvement continuously. In journey, information provider can never say that they have reached the destination. However, with each improvement they will be crossing important milestones in giving quality services to users. To improve the Quality of service given to the user, information provider must devise new methods of collecting feedback from the users of the academic library.

Academic library and information system introduces new information services from time to time. So it is necessary to apply TQM at the design stage so that many inherent problems can be prevented by changing the components or sources. TQM proves to be an excellent tool for minimizing these problems and to provide information services effectively.

Total Quality Management (TQM) is a comprehensive system to manage quality of service and related issues. Academic library and information science professionals are required to study the new developments and suggest creative and innovative methods to provide the quality services to the users. To provide such type of quality services, the professionals working in libraries are to be properly trained, and then only they will be in a position to acquire required skills and techniques in turn they may try their level best to render such type of services.

2. OBJECTIVES

The objectives of the present study are:

- 1) To understand the concepts of Quality; Quality Management; and Total Quality Management;
- 2) To present principles of TQM in the academic library and information service sectors;
- 3) To examine the elements and application of TQM with regards to the services to academic library and information service sector;
- 4) To examine the relationship between library science used in providing quality services;
- 5) To know the benefits of TQM in academic library and information service sector used in providing quality services in the libraries;
- 6) To present the best practice for implementation of TQM in libraries.
- 7) To establish the barriers in the applicability of TQM in academic library and information service sector; and
- 8) To suggest appropriate suggestions and conclusion to improve the TQM in academic library and information services for the betterment of the user.

3. UNDERSTANDING THE CONCEPTS OF TQM

A review of the literature on TQM concepts was carried out. Focusing on TQM implementation in the academic library and information sectors, the experiences of libraries adopting this method are also reviewed. In order to critically analyze and examine the applications of TQM to academic library and information services, it is essential in the first place to understand the various related concepts of TQM.

Total quality management (TQM) is an approach that an organization takes for improving its performance on systematic and continuous basis. This is achieved by involving all employees throughout the organization in satisfying all requirements of every customer, whoever the customer may be - either external or internal. Quality management is the basis for library management in general. Such principles of TQM as meeting the customer's needs, exact assessment, continuous improvement, teamwork, and enthusiasm of the leaders are typical for academic library service.

3.1 QUALITY

Quality is primarily concerned with meeting the wants and needs of customer's requirement, desires and expectations. Quality means to know and understand the needs of our customers and to take all necessary steps to ensure customer satisfaction. Quality can be described as doing the right thing, in the right way on right time as well as doing it right the first time and doing it right every time.

The word 'quality' has several definitions. Some well-known definitions of quality are;

- According to Robinson, "quality is meeting the requirements of customer - now and in the future".
- According to Sarkar, "quality of a product or service is the ability of the product or service to meet the users' requirements".
- According to Juran and Gryna, define quality is "fitness for purpose".
- According to Crosby, define quality as "conformance to requirement".
- According to Deming, define quality as "uniformity with respect to correct target".
- According to Weinberg, define quality as "value to some person".

The concepts of quality based definitions reveal two important dimensions i.e. customer satisfaction and continuous improvement. Consequently, we used a new definition of quality in terms of "customer focus".

In the context of the academic library and information service sector, it can be described as:

- Q - Quest for excellence of knowledge
- U - Understanding the user's need
- A - Actions to achieve user's demand
- L - Leadership quality for Librarian
- I - Involving all staff
- T - Team spirit in achieving common goals
- Y - Yardstick to measure progress

3.2 QUALITY MANAGEMENT

Customers are becoming the most important stakeholders. Libraries have adopted the most modern techniques of library administration with a purpose to give quality service to the users. Quality management as a concept provides comprehensive system to ensure quality, customer focus and continuous improvement in all organizations including academic library and information services.

Brophy, Peter and Couling, Kate in their book 'Quality management and library science for information and library managers' says that quality is easy to recognize and difficult to define.

3.3 TOTAL QUALITY MANAGEMENT

The final stage of quality management is known as TQM. TQM requires total commitment by senior management and by all staff, over the long term. TQM will involve a long term commitment to training and development for all staff. TQM involves complete dedications to meeting customers' requirements. TQM is based on teamwork and partnerships and seeks to break down inter departmental or sectional barriers and replace confrontation with corporation and partnership. TQM explicitly recognizes that there are internal and external customers and that proper recognition of all customers' requirements is needed if external customers are to receive quality products or services.

In general, total quality management is defined as follows (Kanji):

- a) Quality – is to continuously satisfy customers' expectations.
- b) Total Quality – is to achieve quality at low cost.
- c) Total Quality Management – is to achieve total quality through everybody's participation.

TQM is a step towards desired goals. The concept of TQM has come out through the meaning of quality. Therefore it is necessary to understand the meaning of quality.

- a) Total - everyone in the organization is involved in creating and maintaining the quality of the services and products offered.
- b) Quality - the organization through individual and collective actions focuses on meeting customer needs, recognizing that customer perception identifies quality.
- c) Management - in managing the system, the emphasis lies on continuously improving the system in order to achieve the best results.

From the user's point of view, quality is an expression of the services usefulness in meeting the needs and expectations and its reliability, safety, durability and so on. One must plan their activities, implement the plan, and then check whether the plan is going accordingly or not. If there are any non-conformances with regard to quality and customer satisfaction, one must act immediately and take appropriate corrective and preventive action that is how quality standards are established on a continuous basis keeping in mind the overall long term holistic view of the total quality management (TQM).

TQM can be assessed by following bench making practice. It has five steps as explained below:

- a) Plan and select the activity
- b) Analyze the process
- c) Design the study and gather information
- d) Compare performance
- e) Design and implement improved activity.

4. PRINCIPLES OF TQM IN LIBRARIES

The purpose of this paper is to present an overview of total quality management (TQM) in the academic library and information sectors. Education and training are fundamental for the successful

implementation of TQM (Deming, 1988). TQM requires employee's participation, each employee needs to learn and understand the underlying principles of TQM. Employees need to have the right skills and they should be granted a platform that enables them to implement the principles of TQM.

The objectives of this study are framed based on the extensive literature-search on customer expectations, perceptions, and service quality. The main objectives of the study are to measure customer expectations and quality of the service perceived by the customers.

The specific objectives of this study are to: Deming's 14 Points on Quality Management, a core concept on implementing total quality management, is a set of management practices to help organizations increase their quality and productivity. These 14 points are the keys to measure monitor and improve the performance of all organizations. These are slightly meeting the need of the libraries:

- a) Create constancy of purpose for improving products and services.
- b) Adopt the new philosophy.
- c) Cease dependence on mass inspection to achieve quality.
- d) End the practice of awarding business on price tag alone; instead, minimize total cost by working with a single supplier.
- e) Improve constantly and forever every process for planning, production and services.
- f) Institute modern methods of training on the job.
- g) Institute modern methods of supervision and leadership.
- h) Drive out fear.
- i) Break down barriers between staff areas of the departments.
- j) Eliminate numerical goals for the work force.
- k) Eliminate work standards and numerical quotas.
- l) Remove barriers to pride of workmanship, and eliminate the annual rating or merit system.
- m) Institute a vigorous program of education and self-improvement for everyone.
- n) Put everybody in the company to work accomplishing the transformation. The transformation's is everybody job.

5. ELEMENTS OF TQM IN LIBRARIES

TQM is the application of a number of activities with perfect synergy. The philosophy of TQM is based on understanding customer needs and improving customer service and satisfaction. There are many elements of TQM addressed to different areas for change. The following are the most important elements of any total quality management (TQM) Programme:

- a) Customer-driven quality;
- b) Top management leadership and commitment;
- c) Continuous improvements;
- d) Fast response and error free process;
- e) Action based decision on facts;
- f) Employee participation and commitment;
- g) Performance measurement; and
- h) A TQM culture

6. APPLICATIONS OF TQM IN LIBRARIES

This definition is apt and offers Application of total quality management (TQM) in academic library and information services in the new millennium. Libraries adapted management practices simply to give their best in the form of services, products and consultations. Application of TQM is to identify service improvement techniques for an academic library systems and services.

Implementation of TQM in academic library and information services requires change in the mental frame of the employees as well as the executives of the library; customer segmentation in terms of their needs; service strategy to each user segment within library constraints; and the last but not the least, support from the top management of the academic library is must without this the quality can't be improved. Thus, implementation of TQM requires a changed attitude of employees towards their work. Each employee has to contribute his or her best for achieving the objectives of the department which, in turn, are driven by the objectives of the library. Everyone has to work hard to meet and exceed the user's requirements for literature and information. The whole philosophy of working environment has to be changed by introducing effective policies and procedures.

Successful implementation of TQM requires deciding on the customers to whom a academic library aims to serve, assessing their needs, and deciding on the services, the academic library has to provide to each segment of user's, keeping in terms of finance, staff, documents, and databases. In a TQM effort, all members of an organization participate in improving processes, products, services, and the culture in which they work. The meaning of TQM is customer satisfaction through product or services. The customer in the academic library is user / reader / student. The primary purpose of academic library is to support the teaching, research and other academic programs of its parent organization. A academic library is a part of a service organization which delivers personally to the customers. TQM is at present not emerging as one of the management technique, but also felt very essential by several organizations and disciplines.

Sirkin, suggests some ways a library might use the principles of TQM to enhance library and information services.

- a) Create service brochures and information kits
- b) Conduct a user survey about library and information services.
- c) Improve signage
- d) Change hours of operation
- e) Provide a more convenient material return.
- f) Simplify checkout of material
- g) Use flexibility in staff assignment
- h) Co-operate with local government.
- i) Ask vendors to give products demonstration
- j) Give new staff a through orientation.
- k) Create inter departmental library advisory groups.
- l) Improve the physical layout of the library.
- m) Track complaints
- n) Develop an active outreach programme.
- o) Open satellite offices
- p) Publicize new or changes services.
- q) Develop user and staff training materials
- r) Target services o specific groups.
- s) Offer electronic document delivery.

7. RELATIONSHIP BETWEEN LIBRARY SERVICES AND TQM

In academic library and information services the customer means user, client, reader, citizen, visitor and member. The other common term used for this concept is stakeholder. Stakeholders include students, academic staff, university / institute supporting staff, library managers, library support staff, university /

institute managers, the government, society-internationally, nationally, regionally and locally, international research communities, posterity.

A library is a business that must be operated efficiently and well. A major difference is that most libraries are non-profit organizations. Management of vast amounts of information stored in different formats - printed, electronic, audio, video - requires use of the most modern management techniques. A library is a part of a service organization which delivers personally to the customers.

Today technologies have changed our social and economic life. In the workplace methodologies change; people work at home or on the web with flexible timetables, and more and more virtual communities are emerging in different fields. The most important stakeholders in the academic library are customers, the providers of subsidies, staff, and other libraries. These stakeholders are interested, for various reasons, in the introduction of TQM. The introduction of TQM makes great demands on the staff. TQM is a step towards desired goals. The concept of TQM has come out through the meaning of quality. Therefore it is necessary to understand the meaning of quality.

According to Sarkar, Quality of a product or service is the ability of the product or service to meet customer's requirements. Here customer is the real authority who can clearly dictate the quality of a product or service provided.

Quality with regards to the academic library and information science or with respect to the processing of information services in the library depends on:

- a) The collection of documents and their technical processing by applying certain technique and methods;
- b) The skills of employees;
- c) Equipment and processing;
- d) The span of time of service to be rendered; and
- e) The attributes of services which are to be rendered.

It is clear that while quality in respect of industries fulfils the ultimate goal of user satisfaction, the same may be adopted in library and information centre. Quality in library and information services is most effective in user oriented services. The concept of TQM is now a management technique used in most disciplines and the libraries and information centre. This concept of TQM has become more relevant in the current technological area, especially due to emergence of application of information technology in the libraries and changes in information consciousness among users.

The management of quality in libraries, as a management method that allows the improvement of performance, has been the object of interest for the managers of these services. In this context, the identification of indicators that may take into account the social-economical and political context that permeate the reality of the information services is essential to better adequate the quality proposals.

8. BENEFITS OF TQM IN LIBRARIES

TQM leads to a synergy of benefits. Libraries that had TQM processes were better performers than those that did not have TQM processes in place. The study indicated that these libraries have improved employees relationships and retention, improved operating processes, greater customer satisfaction and increase market (Eriksson, 2003).

This was because libraries empowered all levels of management, including self management at customer level; this was done to manage quality systems, improved quality ultimately resulting in decreased costs and increased productivity.

The benefits of TQM are shown below (Nagaprasad, H. and Yogesha, B. 2009):

- a) Benefits for the organizations:
 - Quality improves defects fall
 - Staff is motivated
 - Problems resolved faster
 - Productivity increases
 - Cost reduction
- b) Benefit to the customer
 - Fewer problems with the product of service
 - Better customer care
 - Greater satisfaction
- c) Benefits to the staff
 - Empowerment
 - More training, more skills
 - More recognition

9. BEST PRACTICES FOR IMPLEMENTATION OF TQM IN LIBRARIES

Successful implementation of TQM program in libraries can be achieved by adopting a set of TQM best practices. For effective implementation of TQM and better results, following steps are identified:

- a) Effective leadership
- b) Customer satisfaction management
- c) Building quality culture
- d) Developing high performing processes
- e) Improving product quality and reliability
- f) Creativity and innovation
- g) Building supplier partnerships
- h) Continuous improvement through measurement of quality
- i) Eliminating root causes of important failure costs.

10. BARRIERS TO IMPLEMENTING TO TQM IN LIBRARIES

The implementation of TQM in library organizations provides an opportunity to update and enhance the abilities of the staff to work effectively, yet it is still not free from some barriers. A number of barriers to the implementation of TQM have been encountered in all types of organizations, including libraries. In practice, TQM initiatives are not easy to achieve. TQM fails because of the following reasons:

- a) Lack of management commitment and management understanding on "Quality".
- b) Lack of awareness on the benefits of TQM implementation in the organization.

- c) Inadequate knowledge of TQM and improper understanding of the measurement techniques that are used to measure the effectiveness of TQM implementation.
- d) Lack of clarity in the guideline, implementation plan and implementation methods.
- e) Lack of understanding about the positive results of continuous improvement.
- f) Ignoring the importance of customers.

The libraries are faced with major challenges due to many internal and external changes that are taking place. Libraries are well aware of these changes and they are forced to develop strategic and management philosophies to deal with these challenges. This study reveals that there are considerable barriers and difficulties that libraries were faced with during implementing and sustaining their quality improvement initiative. While TQM clearly has positive aspects, implementing it can have potential challenges as well.

Jurrow and Barnard (1993) identify four barriers to the adoption of TQM in libraries:

- a) Vocabulary: Objections to terms such as 'total', 'quality', and 'management';
- b) Commitment: TQM takes several years to implement and requires a long-term commitment by library managers;
- c) Process: Our culture tends to be impatient and we try to solve problems quickly, to TQM's careful process analysis; and
- d) Professionalization: Professional staff can be resistant to turning over their practices and services to what they perceive as the uninformed whims of the customer.

The major barriers that were encountered during the implementation of TQM in this study included the lack of active top management involvement and full commitment in the initiative, rigid organizational structures and a culture that inhibits communication between management and employees which in turn hinder employee empowerment, which is one of the core values of TQM.

It is clear that continuous improvement is the only way in which the organization can excel in their performance, leading to customer satisfaction. Therefore the organization should remove all barriers that prevent it from continuously improving.

Teamwork is the key to involvement and participation. Teams should be motivated and encouraged to work effectively and the reward system also should be centered on team efforts and should not be individual based.

This study emphasizes that all barriers related to the six TQM dimensions or values need to be eliminated as they make it difficult to implement and obtain the benefits that are brought about with successful implementation of TQM.

11. SUGGESTION

The objectives of this final section are to highlight the suggestions to the academic library facility to overcome the barriers that faced during their TQM implementation. Based on the above discussion and observations, following suggestions are made for the implementation of quality in the libraries.

- i. Quality assurance of academic library and information system should be the part of TQM project;
- ii. There is a need to develop standards / norms for assessing quality of information services with particular reference to the Libraries;

- iii. There is a need to evolve methodologies and mechanisms for improvement of quality information services. This will enhance team building, problem solving, cooperation and innovation;
- iv. More funds to be allocated for studying the quality of information services; and
- v. Training of staff members in providing quality information services.

12. CONCLUSION

The paper concludes with an idea after perusing various literatures stating that total quality management (TQM) is a way where-in it could any management for improving its effectiveness, efficiency, flexibility and competitiveness among the libraries as a whole by making each and every employee to get involved with an intention to improve the performance of the organization in all spheres. This eventually keeps the customers feel happy and highly satisfied with the services offered by the organization.

Libraries can also excel in its performance by maintaining the quality standards and conformities as prescribed in TQM principles employing necessary tools and techniques. In effect to the implementation and regular adoption of TQM, libraries were able to establish a culture of continuous improvement and started to offer quality product and services. Libraries are service organizations dedicated to their users. The success of TQM will vary from library to library as each academic library is different from the others. It indicates that quality improvement is essential not only for survival but for facing major changes and growth required for the libraries of today and tomorrow. Libraries are the suitable to implement TQM. It is well known that TQM is a management method, which libraries can benefit from it in several ways. By formulating a strategic plan method, and following it with a commitment to continuous quality improvement, library managers can transform and improve their organizations. The main purpose of academic library activities is the continual focusing on the users servicing and the satisfaction of their demand.

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