CHAPTER 4
Total Quality Management and its application in Library and Information Centres

4.1 Introduction.

Quality is the basic philosophy and requirement of library profession and all libraries strive to deliver the highest quality of service. Quality is about expectations of functional performance. A quality service is one that fully meets expectations and requirements of the users. If a library provides right information to right user at right time and in required form, then it is maintaining quality. Libraries adopt management techniques to give their best in the form of services and products to its users. Total Quality Management is one such technique used for the improvement and maintenance of quality or performance of the libraries. The concept of Total Quality Management and its application in Library and Information Centres is briefly explained in the chapter.

4.2 Total Quality Management: Principles and Perspectives.

The concept of quality is very old; today it is perhaps the major preoccupation of organizations worldwide. Now Total Quality Management (TQM) has captured the world-wide attention and is being adopted in many organizations as a management philosophy. The control of quality includes measurement, feedback and comparison with standards and correction when necessary. The total quality control functions in a modern business organization must be to assure quality at each stage and there should be a group who should have the responsibility for coordinating quality control activities which is traditionally recognized as staff activities. Many organizations have recognized the important contributions that TQM can make in dealing with the management challenges.
4.2.1 Quality: concept, definition and standards.

The quality of a product or service can be defined as a set of collection of attributes. These attributes may relate to functional characteristics, behavioral characteristic or aesthetic characteristics of a product or service\(^1\). Quality is both a user-oriented and a product-oriented expression. From the users' point of view, quality is an expression of the products and services, usefulness in meeting the needs and expectations and its reliability, safety, durability and so on.

Different views of quality are held by marketing, engineering and manufacturing departments. Garvin (1983) outlines these as:

- **Transcendent**: Quality as a simple analyzable property recognized only through experience.
- **Product-based**: Quality as a precise and measurable variable.
- **User-based**: Quality lies in the eyes of the beholder.
- **Manufacturing-based**: Quality as conformance to the requirements.
- **Value-based**: Quality as performance or conformance at acceptable price or cost\(^2\).

Quality therefore is:

'A measure of achievement of customer satisfaction, fulfilling the customer's needs/requirements'. In TQM point of view, quality is everything that an organization does, in the eyes of its customers, which will encourage them to regard that organization, as one of the best in its particular field of operation\(^3\).

Deming, Juran, Crosby and Feigenbaum are recognized as the most influential of the quality gurus, but it would be a mistake to think of them as each offering his own unique view of quality management. These can be summarized as:

- **Deming**: statistical process control and the PDCA (Plan, Do, Check and Act) cycle, together with organization wide improvement;
- **Juran**: Leadership and management responsibility;
- **Crosby**: The five absolutes and companywide participation;
- **Feigenbaum**: Organization-wide quality and TQM;
• The key principles which can be taken together, to provide a useful starting point for the introduction of quality management, can be summarized as;

• The need for top management commitment and support;
• The need for long term commitment;
• The fundamental reorientation towards meeting customer needs;
• Careful planning and the introduction of appropriate process and procedures including the use of quality management tools;
• Training and education;
• The involvement of everyone in the organization;
• Recognition of the cost of failures, the cost of quality.

4.2.2 International Quality Management Systems.

The International Organization for standardization (ISO) was founded in 1946 in Geneva. The ISO technical committee developed a series of international standards for quality systems. The standards (ISO 9000, 9001 and 9004) were developed for use in two-party contractual situations and internal auditing. Most countries have adopted the ISO 9000 series as their national standards. In the US, the national standards are published by the American National Standards Institutes/American Society for Quality (ANSI/ASQ).

4.2.3 ISO 9000 series of standards.

ISO 9000 is a set of written standards laying down a quality system, defines the basic elements of the system through documentation, creates a quality system rooted in the customer’s requirements, focuses on the process assuming that quality process makes quality system, (Fig 4.1) gives guidelines do not feel with end product quality measure but with the set of processes used to build the product and documents that need to be there, system approach to quality management, documenting the problem solving approach system.
Quality management is not a static field; but rather it is dynamic, continuing to evolve in response to changes. By the mid 1990s ISO 9000 was used by a whole range of organization but was open to criticism, misunderstanding and misinterpretation which suggested that it was time for the scope and wording of the standard to be reviewed. Service industries have found the standard particularly difficult to interpret, despite the publication of part 8 of the British Standard which was intended as a guide for services. It is also a requirement of the ISO that all International Standards be reviewed at five-year intervals and a revision of ISO 9000 was due in 1992. This coincided with the preparation of the British Standards Institution’s strategy for quality standard in the 1990s, which was published in 1993 as vision 2000.

The result was a two stage revision of the standard to correct inconsistencies and errors in use, improve the wording of many of the clauses so that it could be easily applied, especially in service industries and take account of the move towards the principles of TQM.

4.2.4 Advantages of ISO 9000

The advantages are:

i) Strengthens system discipline and the consistency in product quality;

ii) Motivation is improved, cooperative workmanship;

iii) International recognition of ability;

iv) Necessary pre-requisite for export;
v) Improves organization climate, improves efficiency;
vi) Goal orientation;
vii) Team building;
viii) Role clarity, openness;
ix) Reduces wastages, quality cost, rejection rates, scrap rework, customer complaints; and
x) Provides good platform for continuous quality improvement.8

4.2.5 Requirements of ISO 9000

i) An effective management representation be responsible for the effective documentation and implementation;

ii) All the concerned persons should be involved in writing the procedures; and

iii) 50% quality comes through good HRD9.

4.2.6 Principles of ISO 9000

(i) It has been written in a very concise form for generic application with most of the elements having linkage with another.

(ii) Cross examination of elements of ISO 9000 with respect to what is being done or planned to be done in the organization for complying with ISO requirements10.

4.2.7 Characteristics of ISO 9000

i) Applicable to all types of organizations.

ii) Independent of product size and country.

iii) Ensures consistent improvement in quality.

iv) Allows complete freedom on selection and use of processes and framing of operating procedures and work instructions.11
4.2.8 Difference between ISO 9000 and TQM

i) ISO 9000 is based on standards ignores human relations.
ii) ISO 9000 lays down system. It says nothing about implementation.
iii) ISO 9000 is unsustainable. TQM is sustainable ISO 9000.
iv) ISO 9000 makes no demand or assurance about product quality. TQM assume good quality.
v) ISO 9000 transfers the ensuring of quality to the certifier. It complements TQM. TQM emphasis is on human element. TQM is continuous production/process quality improvement.

The three standards in the ISO 9000 series can be described briefly as below:

**ISO 9000: 2000**-Quality management systems (QMS)-fundamentals and vocabulary discusses the fundamental concepts related to the QMS and provides the terminology used in the other two standards.

**ISO 9001: 2000**-Quality Management System (QMS)-requirements is the standard used for registration by demonstrating conformity of the QMS to customers regulatory and the organizations own requirements.

**ISO 9004: 2000**-Quality Management Systems (QMS)-guidelines for performance improvement provides guidelines that an organization can use to establish a QMS focused on improvement.

4.2.9 Provisions of ISO 9000

The detailed requirements of the ISO 9000 series are described in the published standards themselves. The standards can be described in summary as follows.

The essence of ISO 9000 is a statement of what the organization is doing to achieve quality, documented procedures which show how those actions are carried out consistently and how action is taken to amend the procedures when something goes wrong, and evidence of record keeping to enable compliance to the standard to be demonstrated. There will be three sets of documentation.

- A quality manual containing the organizations quality policy and objectives, together with standards of who is responsible for what within the quality
A procedural manual, containing description of all the procedures used by the organization. Very often the procedures are described by means of flow charts, showing how work progress through the organization.

- Work instructions, which are detailed aids memoir used by staff in carrying out specific tasks. A work instruction may be in the form of a detailed drawing, recipe, routing sheet, specific job function, photograph, video or simply a sample for comparison of conformity.

- Records: Records are a way of documenting that the policies, procedures and work instructions have been followed. Records may be forms that are filled out, a stamp of approval on a product or a signature and date on some type of document, such as a routing sheet. Records provide data for corrective action and a way of recalling products. The system documentation can be viewed as a hierarchy containing four tiers as shown in Fig. 4.2

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**Fig 4.2 The Documentation Pyramid**
ISO 9000 becomes a tool to enable all staff to develop their working methods to meet customer requirements, but in a controlled and consistent fashion. The quality system as a whole is subject to external assessment by one of the certification bodies which have been setup for this purpose; some work only in specific industry while others can certify compliance in any industry. The second type would be approached for certification in the library and information service field. Once approved, the organization receives a certificate and has the right to use the ISO 9000 symbol on its stationary etc. Subsequent to a successful approval visit, there are regular external audits and any problem identified has to be addressed and corrected if certification is to be retained\textsuperscript{16}. This can be figuratively represented as below. (Fig 4.3)

![Quality Management Operation Diagram](source)

**Fig 4.3 ISO 9000: System Review**

(Source: Quality Management and Library Science for Information and Library Managers. By Peter Brophy & Hate Coulling)

### 4.2.10 Total Quality Management (TQM)

TQM is a management approach that tries to achieve and sustain long-term organizational success by encouraging employee feedback and a work instruction may be in the form of a detailed drawing, recipe, routing sheet, specific job function, photograph, video or simply a sample for comparison of conformity.

Participation, satisfying customer needs and expectations, respecting societal values and beliefs and obeying governmental statutes and regulations.
TQM provides the overall concept that fosters continuous improvement in an organization-wide perspective involving everyone and everything.\textsuperscript{17} TQM is an enhancement to the traditional way of doing business. Analyzing the three words, we have

- **Total** - Made up of the whole.
- **Quality** - Degree of excellence a product or service provides.
- **Management** - Act, Art or manner of handling, controlling, directing etc.

Therefore TQM is the art of managing the whole to achieve excellence\textsuperscript{18}.

Youssef... et al (1996) defined TQM which can be pictorially represented as below\textsuperscript{19}. (Fig 4.4)

![Fig 4.4 The Definition of TQM.](image)

According to British Standard BS 7850, TQM is defined as ‘Management Philosophy and company practices that aim to harness the human and material resources of an organization in the most effective way to achieve the objective of the organization.’ According to G.R. Basotia, TQM technique is a planned effort that is
organization-wide with a view to increase the organizations effectiveness and its health through planned intervention in the organizations process. The management of change could be through various processes or interventions. These interventions are planned to change strategies. These interventions are planned to change strategies. Interventions could be of three types,

- Technical intervention.
- Administrative intervention, and
- Social intervention.

The first involves redesign of equipment and facilities and information processing methods and updating the technology of the manufacturing organization. The second concerns administrative interventions which are in the policies, procedures, compensation systems, etc... is the factory. The last are the social interventions which are concerned with employees and which focus on the ‘group’: here the ‘emotionality of work’ is focused on.

The key concepts must always be focus on the customer and continuous improvement and these must inform and influence every other components of TQM as the following figure (Fig 4.5) illustrates.

![Figure 4.5](image-url)

**Fig 4.5** Total Quality Management
(Source: Quality Management and Library Science for information & Library managers, by Peter Brophy & Hate coulling).
4.2.11 TQM Philosophy:

TQM is a business philosophy with world-wide appeal. It is viewed as a holistic system. Such a holistic system considers an organization as a mutually supportive network of interlinked activities contributing in different ways in creating added value to products and services for the customers at each stage.

4.2.12 TQM Principles.

The TQM principles are:

(i) Delight the customer;  
Customer requirements must be met first time every time

(ii) Management by fact;

(iii) People based management;
Everybody must be involved

(iv) Continuous improvement;

(v) TQM ends and begins with education and training;

(vi) There is need for strategic quality planning;

(vii) Strong leadership;
Leader has to establish credibility with their personal qualities. TQM should be led by senior managers

(viii) TQM is supported by quality system measure and record;

(ix) TQM cannot afford weak links/processes;

(x) Quality corporate culture;

(xi) Team work, team accountability, correct problems;

(xii) People oriented technology should be needed. Speed;

(xiii) Quality improvement will reduce waste and total cost; and

(xiv) Every job must add value.

4.2.13 Core concepts of TQM.

The core concepts of the TQM are the following:

(i) Customer satisfaction, be customer focused.

(ii) Internal customers are real.
(iii) All work is process. Make it a good place to work, create a work culture which will lead to satisfied customers.

(iv) Measurement – measure the work

(v) Team work – Top management must be involved.

(vi) People make quality- Do it right first time, quality is an attitude, empowering.

(vii) Continuous improvement cycle.

(viii) Prevention\textsuperscript{22}.

4.2.14 Characteristics of TQM

(i) TQM is customer oriented;

(ii) TQM requires a long term commitment for continuous improvement of all process;

(iii) The success of TQM demands the leadership of top management continuous involvement;

(iv) Responsibility for establishment and improvement of systems lies with the management of an organization;

(v) TQM is a strategy for continuously improving performance at all levels and in all areas of responsibility\textsuperscript{23}.

4.2.15 Five pillars of TQM

A holistic, humanistic management system is required that blends the new principles and practices into every aspect of the organization. Five pillars of TQM is a way of describing the need for that broad foundation. According to Bill Creech, 'Product is the focal point for organization's purpose and achievement. Quality in the product is impossible without quality in the process. Quality in the process is impossible without the right organization. The right organization is meaningless without proper leadership. Strong bottom-up commitment is the support pillar for all the rest. Each pillar depends upon the other four, and if one is weak all are\textsuperscript{24}.'

The five pillars of TQM can be pictorially (Fig 4.6) represented as:
4.2.16 Benefits of TQM

The potential benefits of adopting TQM system compared to conventional quality system are numerous and can be outlined as follows.

(i) TQM helps to focus clearly on the needs of the market.
(ii) TQM facilitates to aspire for a top quality performer in every sphere of activity.
(iii) It channelizes the procedures necessary to achieve quality performance.
(iv) It helps examine critically and continuously all process to remove non-productive activities and waste.
(v) It gears organizations to fully understand the competition and develop an effective combating strategy.
(vi) It helps to develop good procedures for communication and acknowledging good work.
(vii) It helps to review the process needed to develop the strategy of never ending improvement\(^{25}\).

Tangible benefits of TQM are Better products quality, Productivity improvement, Reduced quality costs, Increased market, Increased profitability, Reduce employee grievances and the Intangible benefits are Effective team work, Enhancement of job interest, Improvement of human relations & work area morale, Participative
culture, Customer satisfaction, Enhanced problem solving capacity, Improved corporate health & character of the company, Better company.

4.2.17 TQM Vs Traditional Management.

The concept of TQM has evolved because of the changes in business practices with reference to the imperatives in the market. To become a world class performer the recent emphasis on the three key attributes – ‘Excellence, Innovation and Participation’ necessitated a totally new approach which is supposed to be met by TQM26.

Following are some of the basic and fundamental difference.

1. TQM focus essentially on customers rather than any other resource as in the traditional management.
2. TQM takes the view that profits follow quality, not the other way round.
3. TQM views that the quality is composed of multidimensional attributes.
4. In traditional management, economy-of-scale is seen as a desirable objective characterized by long production runs, to incur low cost and achieve high efficiency. In TQM, economy-of-time and economy-of–scope are pursued.
5. In traditional management, high volumes, long runs and maximum products are perceived as desirable. TQM aims to use manufacturing as a resource for quality products.
6. Traditional management proposes hierarchical, vertically structured organization. TQM seeks to create a culture of networking across and among functions, so that teams from different disciplines come together to seek a permanent solution to each problem. TQM is organization centered.
7. The traditional management favours many layers of authority, with short spans of control. TQM advocates a flatter organization structure with large spans of control, where authority is pushed as far down as possible and flexibility actively encouraged. In summary, traditional management is in pursuit of maintenance of the status quo, and of avoidance, where ever possible. TQM in turn is characterized by a divine discontent, which causes it to seek continuous improvement in every aspect of everything it does27.
The pertinent differentiating characteristics between TQM and traditional management are briefly listed in the table (Table 4.1)²⁸.

**Table 4.1**  
Comparison of Traditional Management & TQM

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Dimension/Attributes /Characteristics/ Categories</th>
<th>Total Quality Management Approach</th>
<th>Traditional Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Management understanding &amp; attitude</td>
<td>Considers Quality Management as essential part of company system.</td>
<td>No compensation for quality. Tend to blame quality department for quality problems.</td>
</tr>
<tr>
<td>2</td>
<td>Quality organization status</td>
<td>Quality is through the leader. Quality managers on Board of Directions.</td>
<td>Considers quality is hidden in manufacturing. Quality is not considered as integral part of organization.</td>
</tr>
<tr>
<td>3</td>
<td>Problem handling</td>
<td>Emphasis on prevention of problems. A structure approach to identifying &amp; solving problem.</td>
<td>Problems are fought as they occur fighting fire approach.</td>
</tr>
<tr>
<td>4</td>
<td>Quality improvement action</td>
<td>Quality improvement is a continuous action.</td>
<td>No organizational activity.</td>
</tr>
<tr>
<td>5</td>
<td>Priority</td>
<td>Quality is topmost priority.</td>
<td>The first priority is to profit</td>
</tr>
<tr>
<td>6</td>
<td>Focus</td>
<td>Focus on customer satisfaction.</td>
<td>Focus on management's requirements.</td>
</tr>
<tr>
<td>7</td>
<td>Organization</td>
<td>Networking across and among the functions.</td>
<td>Hierarchical – vertically</td>
</tr>
<tr>
<td>8</td>
<td>Span of control</td>
<td>Large span of control with authority almost pushed down to the lowest level.</td>
<td>Short span of control and many layers of authority.</td>
</tr>
<tr>
<td>9</td>
<td>Production schedule</td>
<td>Economy to time, just-in-time production, quick customer</td>
<td>Long production runs for low cost and high efficiency.</td>
</tr>
<tr>
<td>10</td>
<td>Communication</td>
<td>Conveyed with action.</td>
<td>Conveyed by slogan</td>
</tr>
<tr>
<td>11</td>
<td>Responsibility for quality</td>
<td>With top management</td>
<td>Delegated to subordinates.</td>
</tr>
<tr>
<td>12</td>
<td>Perception of quality</td>
<td>Quality is considered multidimensional and the dimensions are customer oriented.</td>
<td>Quality is defined in terms of single dimension, which is conformance to specifications.</td>
</tr>
<tr>
<td>13</td>
<td>Employee</td>
<td>Employees are motivated and are given significant role regardless of level to find better ways to work.</td>
<td>3 Emphasizes on monolithic work pattern. Opportunities for participation do not exist.</td>
</tr>
<tr>
<td>14</td>
<td>Work force</td>
<td>Multi skilled work force with job rotation.</td>
<td>Emphasis on division of labour.</td>
</tr>
<tr>
<td>15</td>
<td>Quality – productivity relationship.</td>
<td>Considers high correlation between the two forces.</td>
<td>Contribution of quality in improving productivity not recognized.</td>
</tr>
<tr>
<td>16</td>
<td>Ways of improving</td>
<td>Changing corporate culture, increasing employee education, use of process control.</td>
<td>Improvement in inspection and gauging.</td>
</tr>
<tr>
<td>17</td>
<td>Keys to firm success.</td>
<td>Customer satisfaction &amp; production of high quality goods and services</td>
<td>Growth in sales, profits and return on investments.</td>
</tr>
</tbody>
</table>

### 4.2.18 Steps in the implementation of TQM.

Lawton (1991) outlines six-step process for creating customer centered culture as:

(i) Define service as tangible products  
(ii) Identify and differentiate customers in terms of their roles, power, special characteristics and needs,  
(iii) Determine customers prior expectations related to service product attributes such as performance, perception and outcome.  
(iv) Continuously measure the degree to which expectations are met.  
(v) Maintain a current description of the service creation and delivery process with charts, texts and measures.  
(vi) Establish and maintain service product measures.29

Savell and Williams (1988) outlines quality management implementation process for improving the internal quality of service functions as:

(i) Select area quality management emphasis;  
(ii) Define the service process or operation;  
(iii) Analyze current system/process;
(iv) Develop excellence model;
(v) Identify key performance areas;
(vi) Develop process control systems;
(vii) Integrate process control into management control; and
(viii) Establish ongoing improvement process.30

Initiating and implementing TQM in the service sector like library and information service is a major task. It requires thorough analysis of customer expectations, analysis of systems, process and functions, defining quality parameters, developing system for measurement and control and integrating this system with the business system.

The steps involved are:

Step 1: Develop service quality strategy;
Step 2: Analyze service processes and define quality measures;
Step 3: Establish process control system;
Step 4: Investigate the process to identify improvement opportunities; and
Step 5: Improve process quality.31

4.2.19 Roadblocks in the implementation of TQM

The major problems towards implementing TQM include:

- No formal strategy;
- Failure to provide incentive by recognition;
- Lack of effective communication;
- Narrowly based training;
- Lack of faith in and support to TQM activities among management personnel;
- Lack of interest or incompetence of leaders;
- Misunderstanding about the concept of TQM;
- Delay or non-implementing of quality improvement team’s recommendations;
- Irregularity of team activities;
- Non-application of proper techniques;
- Inadequate visibility of top management support;
- Measurement difficulties;
- Limited resources;
- Lack of adequate education and training; and
- Heavy workloads.

Implementing TQM is not a bed of roses. Management must keep its fingers on the pulse of TQM efforts as bringing a change in culture, attitudes and beliefs. Patience and perseverance and sincere and loyal efforts on the part of management will help overcome many of these problems.

4.3 TQM: Applications in Library and Information Centers.

An old definition of economics is "the dismal science", because it deals with limits. There's a limit to resources, there is a limit to what we can do effectively. Libraries share in this paradigm of scarcity. They have limits and cannot "ride off in all directions at once". The economy of the 1990s certainly won't allow it; libraries need a way to target and orchestrate limited resources for maximum impact.

Total Quality Management, an effective approach to libraries satisfies their customers'. TQM starts with customers. Unless we exist to provide a pleasant social experience for the staff, libraries must systematically solicit feedback about product and service satisfaction from our customers. There are need to use this information as the basis for planning and improving our products, services and processes. Using the scientific method (data gathering, hypothesis building and testing), are need to continuously measure our plans and improvements against customer satisfaction. This is the heart of TQM. It becomes a way of life for an organization, its corporate culture and a powerful force to improve the quality of what we do for people. It is true that modern libraries are managed according to principles which are common to the management of any business or organization. The needs of users have also changed and rising costs and the need to maintain
standards in service delivery have become major issues. Users expect quality services, quality in provision of infrastructure, as well as training.\textsuperscript{34}

The provision of high quality service has always been the responsibility of library managers. With a rapidly changing environment, greater competition for resources, the ever-increasing cost of information carriers, the rising expectations of funders and clients’ and the increasing complexity of information provision form a big variety of providers, it is evident that management skills must match these more intense demands on, and threats to library and information services. It is in this regard that the application of TQM could assist library and information managers very well.\textsuperscript{35}

\subsection*{4.3.1 Defining TQM in the LIS purview}

In the library and information services disciplines, there have been attempts to define quality management in information-specific terms, and one of the most useful was formulated by Jennifer Younger, who returns to a basic description of quality management to provide a frame work for applying the methodology in information delivery.

\textbf{Total:} Everyone in the organization is involved in creating and maintaining the quality of the service and products offered by the organization.

\textbf{Quality:} The organization through individual and collective actions focuses on meeting customer needs recognizing that it is the customer’s perception that identify quality.

\textbf{Management:} In managing the system, defined as the steps taken to produce the services and products, the emphasis lies on continuously improving the system in order to achieve the best results.\textsuperscript{36}

'Easy to recognize...difficult to define':\textsuperscript{37} so states the UK Library Associations answer to the question what quality is. Quality is concerned with meeting the wants and needs of the customers. One of the key and enduring definitions is that 'quality is fitness for purpose'.\textsuperscript{38} According to the British Standard (4778(1987) =
ISO 8402, 1986) quality it defined as 'the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.'

### 4.3.2 Importance of TQM for Libraries

Libraries and Information centres are intrinsically complex to manage because of the wide range of user expectations and demands placed upon them. As service oriented organizations, libraries are striving to give the best to their users. Most libraries are pursuing excellence in their services as well as products and, if the objective is to maintain this, TQM could assist in the pursuit of never ending improvement. TQM could be the catalyst that causes librarians to examine issues such as leadership, staff, empowerment, incentive programme, work simplification, innovation and performance evaluation.

From a user's perspective, the criteria for judging satisfaction with a service can be reduced to four elements.

1. A Service is available at the moment it is needed.
2. The Information supplied is exactly correct.
3. The Service is of a high quality.
4. Service is delivered by professional, well trained staff.

The importance of TQM for libraries is not only centered around the user's needs, but also in anticipating and exceeding the demands of the fast changing environment of service delivery in libraries. Most libraries today operate according to a strategic plan containing vision and mission statements, goals and objectives and short – medium – long term plans. To make this all effective, TQM requires that the management of the library commit itself to the process and actually set the example in displaying a commitment to continuous quality improvement.

### 4.3.3 Quality Management in Library and Information Centres

A Quality system, especially in case of service organizations like libraries, has three key aspects such as:

- Management Responsibility.
Management is responsible for establishing a policy for service quality and customer satisfaction. Quality policy should be promulgated, understood, implemented and maintained.

The quality gurus—Deming, Juran, Crosby and Feigenbaum shows that there are a limited number of key principles which taken together, provide a useful starting-point for the introduction of quality management. These can be summarized as:

- The need for top management commitment & support.
- The need for long term commitment.
- The fundamental reorientation towards meeting customer needs.
- Careful planning and the introduction of appropriate process and procedures including the use of quality management tools.
- Training and education.
- The involvement of everyone in the organization.
- Recognition of the cost of failures, the cost of quality.

Tann (1993) suggested in a paper concerned with the application of the ISO9000 quality assurance standard to libraries that fitness for purpose include:

- Knowing the customer's needs-stated and/or implied
- Designing a service to meet them on or off the premise.
- Faultless delivery of service.
- Suitable facilities-car park, cafe, library, crèche:
- Good accommodation.
- Reliable equipment.
- Efficient administration.
- Helpful courteous staff.
- Efficient back up service.
- Monitoring and evaluation including customer expectation, complaints etc and
- Feed back loops to build-in improvement procedures and/or checking that improvements are put in place\textsuperscript{44}.

4.3.4 TQM Preconditions.
There are at least two important preconditions to implementing a TQM Programme successfully. First it must be fully supported by top-level management. Second TQM requires that employees be taught the skills they need to know to enable them to analyze and improve work processes. It is essential that training in the TQM approach and specific TQM techniques be provided to the personnel.\textsuperscript{45}

4.3.5 TQM Implementation model for university libraries.

4.3.6 To start with TQM
TQM is not too analytical in approach rather it is a holistic one to the management of organization. TQM is a long term and organization-wide process. It may be expensive to implement initially but will prove economic in the long run. The key concepts of TQM must always have a focus on the customer and continuous improvement and influence other components of TQM. Delighting to customer is a watch word in TQM.\textsuperscript{46}

4.3.7 Model for University Libraries.
After the decision to introduce TQM has been made, the process which follows is commonly referred to as implementation. The model presented illustrates a comprehensive, systematic process of integrating TQM into a university library environment. Jurow and Barnard in their work on TQM give a more theoretical description based on the work done by the US Association of Research Libraries Office of Management Service and a discussion by a group of Library Directors at a meeting in Texas in January 1992 is given. TQM in libraries as outlined below. The ten stages are grouped into four phases.\textsuperscript{47}

- Phase 1. Exploration and decision making:
In the first phase library managers need to gather together information about quality management, including examining the related literature, attending conferences and training events, contacting and visiting congruent organizations already involved in TQM. Once this information and understanding has been gained
the library can move on to the second step in this phase, making the decision to implement TQM and crucially, gaining top management commitment to it.

- **Phase 2. Organizing for Quality.**
The initial step in the second phase is to undertake a series of planning which will provide the groundwork on task associated with this phase will be reasonably familiar to librarians who have been engaged in strategic planning. For example, the initial step will be to carry out on assessment of the library to determine whether its predominant culture is already sympathetic to the introduction of quality management. Alongside this environmental assessment there will be a process of seeking deeper understanding of both internal and external customers in part by training staff to understand the issues behind customer expectations and customer satisfaction, and some of the techniques which can be used to achieve improvements. Finally, a vision needs be articulated, supported by guidelines and actions which will enable the organization to move forward from what it is to what wants to be.

- **Phase 3: Start Up:**
In order to move from preparatory phase to action there are a series of steps which are needed to provide the base information for quality management. First of all library managers need to identify what are the needs and expectations of the customers, secondly identify and then measure the critical processes which are being used by the library: Third step is to set up pilot project teams to tackle those critical processes which have been targeted for improvement, and fourth, they need to provide appropriate training to members of the teams to enable them to function.

- **Phase 4: Planning.**
The integration of the results of the project team's considerations into library processes is seen as part of the final phase, which also includes a strategic planning and departmental planning activity. Within this phase also there is an emphasis on spreading the expertise of the initial project teams to all members of staff and involving them in teams and problem-solving activities. It is also suggested in line with TQM practice, that a reward and recognition programme should be implemented, although no suggestions are made as to how this might be achieved.

The model can be represented in the flow chart as follows. (Fig. 4.7)
Although the model proposes the implementation process in four phases and ten steps, this doesn't mean that these steps and activities must be strictly sequential or all that are mandatory, rather the model presents the various issues, elements and processes that would comprise a comprehensive TQM-based transition. While adopting quality management a library may undertake same activities concurrently in a different order.48
4.3.8 How libraries have improved services with TQM

Many libraries have implemented TQM successfully. Harvard college Library created a task force which recruit the library’s vision statement, and considered changes that would have to be made in order to develop a new organization culture-one that "highlights the changing nature of staff roles and responsibilities in an era of pervasive change." with the help of consultants, Harvard learned about TQM, and found that its principles of service excellent, team work, ongoing training and skill building, process/system focus, continuous improvement and cooperation across boundaries could help them make changes they needed.

The Oregon State University Libraries also decided to test TQM. Two small teams, the shelving and the documents team worked with outside facilitators. Each team surveyed users and staff and found that some issues, perceived as critical by staff, were not perceived as critical by customers and therefore needed rethinking in TQM. The shelving team, which wanted to address the problem of long lasting shelving, backlogs, found that shelvers, who worked alone on the floors, felt isolated and unmotivated to make progress. Using this information the team devised a plan for shelvers to work in small groups and have an assigned floor. The result was increased -tidier shelves and fewer backlogs.

Sirkin suggests some ways a library might use the principles of TQM to enhance the library service. They are:

- Create service brochures and information kit;
- Conduct a user survey about library service;
- Improve signage;
- Change hours of operation;
- Provide a more convenient material return;
- Simplify check out of materials;
- Use flexibility in staff assignments;
- Cooperation with local governments;
- Ask vendors to give product demonstrations;
- Give new staff a thorough orientation;
• Create interdepartmental library advisory groups;
• Improve the physical layout of the library;
• Track complaints;
• Develop an active outreach programme;
• Open satellite offices;
• Publicize new or changed services;
• Develop user and staff training materials;
• Target services to specific groups;
• Offer electronic document delivery;
• Follow the mission statement; and
• Smile.  

4.3.9 Benefits of TQM for University/Academic libraries:

1. TQM reduces bureaucracy, empower staff and create a team base culture, which is keenly desired and suited for mechanistic, hierarchical organizational structures like university libraries.

2. TQM helps in gauging users, needs and expectations in a proactive way and equips the librarian to provide more and better services with the same resources efficiently and effectively, resulting increased user satisfaction and loyalty.

3. TQM is an evolutionary process and can easily be incorporated into the already existing management system of libraries.

4. Brain storming exercises helps to know what functions are necessary to the efficient operation of a library and who should perform these, resulting increased employee involvement and dedication.

5. Reduction in user complaint and gain a competitive advantage over other information providers.

6. TQM helps in breaking down intersectional barriers/status in a library and promotes cooperation and team work instead of competition.

7. In TQM quality is a high profile management tool. Its implementation in libraries improves the image of the library staff and helps in public relations and marketing.
8. TQM ensures consistent qualitative library & information services to users and defines user satisfaction issues.

9. TQM ensures a non-threatening environment for open debate for problem solving, for change, for HRD and clearly indicates power, responsibility and accountability of each employee.

10. Empowered staff members develop a sense of self determination: a sense of meaning; sense of competence; a sense of impact and become more effective, innovative, transformational and charismatic.  

4.3.10 Barriers for TQM Implementation

Susan Jurow and Susan S, Barnard identified four barriers which prevent the adoption of TQM in libraries. They are:

(i) Vocabulary: librarians are uncomfortable with the use of terms and concepts such as ‘total’, ‘quality’ ‘management’ which are affiliated with business & market place.

(ii) Resources: TQM demands long term commitment and the librarians are of the opinion that they cannot ‘afford’ to invest in the organization and implementation of quality programme.

(iii) Process: Our culture tends to be impatient and we try to solve problems quickly, contrary to TQM’s careful process analysis.

(iv) Professionalism: Professional staff can be resistant to turning over their practices and services to what they perceive as the “uninformed whims of the customer”.

4.3.11 Conclusion

TQM being a collaborative system can be conceptualized as a network of processes and activities through which various people in the organization can see different aspects of a problem and can constructively explore. Their differences and search for continuous improvement that go beyond their own limited vision of what is Possible. TQM is an interdepartmental and inter-organizational effort to address problems of improvement.
Quality is a very important tool for application of TQM in academic libraries which can be measured, managed and improved by measuring rod of customer satisfaction and through user surveys, suggestions and complaints.\textsuperscript{54}

Libraries are ideal places to implement TQM. They are service organizations dedicated to their customers the patrons. By formulating a strategic plan, and following it with a commitment to continuous quality improvement, library managers can transform and improve their organizations. Riggs summarizes the notable principles of TQM:

i. Manage by fact: Make library decisions after careful analysis of data gathered with tools such as check sheets, histograms and pareto charts.

ii. Eliminate rework: library work is often labour intensive, simplify and make sure it is done properly the first time.

iii. Respect people and ideas: Staffs are the library's most valuable resources, and they should be encouraged to point out problems without fear of management.

iv. Empower people: Trust library staff to act responsibly and give them the appropriate authority to make decision that can improve the quality of work.

Finally remember that TQM is not a 'quick fix' it needs to be implemented gradually.\textsuperscript{55} The whole process of TQM aims at introducing a new cultural change which is likely to bring about greater participation of the employees to achieve the goals and objectives of the university library.
References

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