

TOTAL QUALITY MANAGEMENT (TQM)

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Introduction

Total Quality Management (TQM), a buzzword phrase of the 1980s, has been killed and resurrected on a number of occasions. The concept and principles, though simple seem to be creeping back into existence by “bits and pieces” through the evolution of the ISO9001 Management Quality System standard.

Total Quality Management (TQM) is a management strategy aimed at embedding awareness of quality in all organizational processes. TQM has been widely used in manufacturing, education, government, and service industries, as well as NASA space and science programs.

1.1 Definition

According to International Organization for Standardization (ISO):“TQM is a management approach for an organization, centred on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society.”

TQM is composed of three paradigms:

- **Total** : Involving the entire organization, supply chain, and/or product life cycle.
- **Quality** : Degree of Excellence a product or service provide.
- **Management** : The system of managing with steps like Plan, Organize, Control, Lead, Staff, provisioning and the likes.

TQM is defined as both a philosophy and a set of guiding principles that represent the foundation of a continuously improving organization. It is the application of quantitative methods and human resources to improve all the processes within an organization and exceed customer needs now and in the future.

TQM integrates fundamental management techniques, existing improvement efforts, and technical tools under a disciplined approach.

1.2 Origin and Evolution of Total Quality Management

- The concept of Quality Control emerged as a distinct discipline in the United States in 1920 when statistical theory was first applied to product quality control.
- The philosophy of TQM was developed in Japan in 1960's by two academicians Dr. W. Edward Deming and Dr. J.M. Juran which involves total participation of all the employees at every level of the organization in quality management and not only the quality control staff.
- In the 1980s to the 1990s, a new phase of quality control and management began. This became known as Total Quality Management (TQM). Having observed Japan's success of employing quality issues, western companies started to introduce their own quality initiatives. A typical definition of TQM includes phrases such as: customer focus, the involvement of all employees, continuous improvement and the integration of quality management into the total organization

1.3 Elements of TQM

- A sustained management commitment to quality.
- Total Focus on the Customer.
- Preventing rather than detecting Defects.
- Universal Quality Responsibility
- Quality Measurement
- Continuous Improvement
- Root Cause Corrective Actions
- Employees Involvement and Empowerment
- Focus upon Team Synergy
- Thinking Statistically
- Benchmarking
- Training
- Supplier Teaming

1.4 Objectives of TQM

- TQM emphasizes upon collective effort of all functional department and people for improvement in quality of goods and services in order to achieve higher customer satisfaction.
- The aim of TQM is to look for maximum satisfaction to the consumer by providing goods and services which are best in quality (i.e zero defects)
- TQM aims at educating and training the managers and employees since they are considered to be the integral part of the TQM process.
- TQM not only focus upon quality but also on productivity as it aims for Zero defect production which not only makes employees responsible for quality improvement but also leads to higher productivity.
- TQM aims at enhanced communication in the organization as every employee is encouraged to express their suggestion for quality improvement, cost reduction and elimination of wastage. It also calls for rewarding those who have active participation.

1.5 Advantage of TQM

- Enhanced Customer Satisfaction
- Total change in organization working culture
- Increased Productivity and efficiency
- Incorporation of advanced production techniques
- Development of new products and skills
- Enhanced teamwork
- Reduced rework
- Reduced Inventory
- Increased Profitability

1.6 Limitation of TQM

- TQM is a slow moving process. It requires total change in the outlook of management and employees. It's benefit will be therefore available after a longer period of time
- The success of TQM largely depends upon participative management. TQM needs employees who can take leads whereas trade union are more interested in their own benefit rather than quality management
- TQM implementation is not an easy task particularly in a developing economy due to unfavorable approach of management and employees.

1.7 Deming's 14 Quality Principles

The quality process message, directed primarily at management, stated by Deming's has been summarized below and is known as his famous **14 Points for Management**:

- 1) Create constancy of purpose for improvement of product and service.** Inspire the workers to stay competitive in the market and remind about the importance of stability in jobs and new opportunities which may come up in later stages, as inducing a sense of purpose in producing quality products will work as the inspiration to work efficiently.
- 2) Adopt the new philosophy.** The customer demands and taste change very fast and the competition in the market grow at a rapid rate today, and we have to accept new philosophies according to the market trends and technology revolutions.
- 3) Cease dependence on mass inspection.** Instead of inspecting the product for quality after production, infuse quality at the beginning itself with production quality control, as this will ensure no raw materials are wasted for the sake of quality.
- 4) End the practice of awarding business on price tag alone.** Instead, minimize total cost - move towards a single supplier for any item, on trust.

- 5) **Constantly and forever improve the system of production and service.** Enterprise systems and services must keep growing indefinitely in order to catch up with the competitive market.
- 6) **Institute modern methods of training on the job.** A trained worker has more productivity and quality than an untrained one, so giving training sessions will drastically improve the quality of the person and directly it helps in better product quality performance.
- 7) **Institute modern methods of supervision.** A company can display stunning growth if potential leaders are identified and encouraged.
- 8) **Drive out fear.** Creating a fearful impression in the employees does not give more quality and productivity to work. If a person is not working willingly with satisfaction then he can never do a work perfectly even if he has the intention to be perfect in conscious mind, so driving out fear is essential.
- 9) **Break down barriers between staff areas.** The workers in design, sales, and production must work together to face problems and resolve them, which takes the company to better quality assurance management and also other profit with better planning.
- 10) **Eliminate numerical goals for the work force.** Slogans or exhortations call for more quantity in production than focusing on quality control in manufacturing, which will severely damage the quality management process. Employees should have a calm and quiet quality atmosphere in the company.
- 11) **Eliminate work standards and numerical quotas.** This focuses on quantity rather than quality of product.
- 12) **Remove barriers that hinder the hourly worker.** Supervisor responsibility must be focused on quality, not numbers. Abolish annual or merit rating and MBO completely.
- 13) **Institute a vigorous program of education and training.** A person must grow after joining a company, and letting them learn new technology and techniques will increase employee longevity.

14) Create a situation in top management that will push every day on the above points. Just like products and services, every employee in a company must work to accomplish the transformation.