

Total Quality Management (TQM): Definition, elements, philosophies

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Total Quality Management (TQM):

Definition:

- Total Quality Management (TQM) is a set of management practices throughout the organization geared to ensure the organization consistently meets or exceed customer requirements.
- TQM refers to management methods used to enhance quality, based on the participation of all members & aiming all long term success through customers satisfaction & benefits to all organizations.
- According to ISO, TQM is defined as: "**A management approach of an organization centered 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 society**"
- It plays a vital role in improving productivity, product quality and reduce manufacturing cost by reducing rework and scrape.

Total Quality Management (TQM):

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- According to John Gilbert, Total Quality Management (TQM) is “a process designed to focus on customer expectations, preventing problems, building commitment to quality in the workforce and promoting open decision-making”.
- W.Edwards Deming and Joseph M.Juran jointly developed the concept of TQM.
- It has four main components

Components of TQM



Objectives of Total Quality Management :

- It is a Continuous process.
- Focus on customer satisfaction.
- Mistake prevention as a preventive step.
- Defect identification and quality improvement.
- Avoidance of wastes.
- Reduction of the lead time.
- Increase of the flexibility and profitability.

Principle/Elements of TQM :

The key elements of the TQM approach are

1. Focus on customer:

- It is important to identify the organizations customers. The customers ultimately determines the level of quality.

2. Employee Involvement:

- The quality is considered the job of all employees and employees should be involved in quality initiatives.
- All employees participate in working toward common goals. So management has provided the proper environment which integrate continuous improvement.

3. Continuous improvement:

- The quest for quality is a never-ending process in which people are continuously working to improve the performance, speed and number of features of the product or service.
- ❖ These elements can be divided into four groups according to their function
 - ❑ 1. Foundation – It includes: Ethics, Integrity and Trust
 - ❑ 2. Building Bricks – It includes: Training, Teamwork and Leadership
 - ❑ 3. Binding Mortar – It includes: Communication
 - ❑ 4. Roof – It includes: Recognition

1. a. Ethics -

- Ethics is the discipline concerned with good and bad in any situation.
- It is a two-faceted subject represented by Organizational and Individual ethics.
- Organizational ethics establish a business code of ethics that outlines guidelines that all employees are to adhere to in the performance of their work.
- Individual ethics includes personal right and wrong.

b. Integrity -

- Integrity implies honesty, morals, values, fairness, and adherence to the facts and sincerity.
- These characteristic is what customer expect and deserves to receive.

c. Trust-

- Trust is the by-product of integrity and ethics conduct.
- Without trust, the framework of TQM cannot be build.
- It allows empowerment that encourages pride ownership and it encourages commitment.
- Trust is essential to ensure customer satisfaction.

2. a. Training-

- Training is very important for employees require interpersonal skills, the ability to function within teams, problem solving, decision making, job management performance analysis and improvement, business economics and technical skills.

b. Teamwork -

- To become successful in business, teamwork is also a key element of TQM.
- With the use of teams, the business will receive quicker and better solutions to problems.
- Teams also provide more permanent improvements in processes and operations.

c. Leaderships -

- It is possibly the most important element of TQM.
- It appears everywhere in organization.
- Leadership in TQM requires the manager to provide an inspiring vision, make strategic directions that are understood by all and instill values that guide subordinates.

3. Communication-

- It binds everything together. Starting from foundation to roof of the TQM house, everything is bound by strong mortar of communication.
- It acts as a vital link between all elements of TQM.
- Communication means a common understanding of ideas between sender and the receiver.

4. Recognition-

- It is the final and last element in the entire system.
- It should be provided for both suggestions and achievements for teams as well as individuals.
- Employee strive to receive recognition for themselves and their teams. Detection and recognition contributors is the most important job of a supervisor.

Philosophies Total Quality Management :

The Philosophy of TQM was born out of the concepts developed by four great gurus of Quality Management.

- ❖ W. Edwards Deming
 - ❖ Joseph M Juran
 - ❖ Armand V Feigenbaum
 - ❖ Philip Crosby
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- **Dr. W. Edwards Deming:** (1900-1993) is considered to be Father of Modern Quality.
 - He preached that to achieve the highest level of performance requires more than a good philosophy the organization must change its behavior and adopt new way of doing business.
 - Deming's and his famous 14 Points.

Dr. W. Edwards Deming's 14 Points

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|---------------------------------------|---|
| 1. Create constancy of purpose | 8. Drive out fear |
| 2. Adopt the new philosophy | 9. Eliminate boundaries |
| 3. Cease inspection, require evidence | 10. Eliminate the use of slogans |
| 4. Improve the quality of supplies | 11. Eliminate numerical standards |
| 5. Continuously improve production | 12. Let the people be proud of their work |
| 6. Train and educate all employee | 13. Encourage self-improvement |
| 7. Supervision must help people | 14. Commit to ever-improving quality |

Point -1

- Create constancy of purpose toward improvement of the product and service so as to become competitive, stay in business and provide jobs.

Point -2

- Adopt the new philosophy for economic stability. (We are in a new economic age. We no longer need live with commonly accepted levels of delay, mistake, defective material and defective workmanship).

Point -3

- Cease dependence on mass inspection: require instead, statistical evidence that quality is built in.

Point -4

- Improve the quality of incoming materials. End the practice of awarding business on the basis of a price alone. Instead, depend on meaningful measures of quality, along with price.

Point -5

- Find the problem: constantly improve the system of production and service. (There should be continuous reduction of waste and continual improvement of quality in every activity so as to yield a continual rise in productivity and decrease in costs).

Point -6

- Institute modern methods of training and education for all. (Modern methods of on-the-job training use control charts to determine whether a worker has been properly trained and is able to perform the job correctly. Statistical methods must be used to discover when training is complete).

Point -7

- Institute modern method of supervision.(Improvement of quality will automatically improve productivity. Management must prepare to take immediate action on the response supervisors concerning problem such as inherited defects, lack of maintenance of machines, poor tools or fuzzy operational definitions.)

Point -8

- Fear is the barrier to improvement. (So drive out fear by encouraging effective two-way communication and other mechanisms that will enable everybody to be part of change, and to belong to it).

Point -9

- Break down barrier between department and staff areas. (People in different areas such as research, design, sales, administration and production must work in teams to tackle problems that may be encountered with products or service).

Point -10

- Eliminate the use of slogans, posters, and exhortations for the workforce, demanding zero defects and new levels of productivity without providing methods.

Point -11

- Eliminate work standards that prescribe numerical quotas for the workforce and numerical goals for people in management.

Point -12

- Remove the barriers that rob hourly workers, and people in management, of their right to pride of workmanship. (This implies, abolition of the appraisal of performance and of management by objective).

Point -13


- Institute a vigorous program of education, and encourage self-improvement for everyone. (What an organization needs is not just good people; it needs people that are improving with education).

Point -14

- Top management permanent commitment to ever-improving quality and productivity must be clearly defined and a management structure creating that will continuously take action.

2. Joseph M Juran:

- He preached that quality begins at the stage of designing and ends after satisfactory services are provided to the customers.
- His famous definition for quality is 'fitness for use'.
- He recommends a set of four important stages as
 - ❑ 1. Establish specific goals to be reached.(Identification of needs to done, focus on specific project etc.)
 - ❑ 2. Establish plan for reaching goals (Development of structured process to achieve this)
 - ❑ 3. Assign clear responsibility for reaching goals.
 - ❑ 4. Give rewards/ awards on the basis of result achieved.




Quality achievement, according to Juran is possible through various initiatives that are the basis of his famous quality Trilogy, the main components of which are

- ❑ Quality planning
- ❑ Quality control
- ❑ Quality improvement

For the purpose we have to give emphasis on the following points listed below

- Build awareness of the need and give an opportunity for improvement.

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- Set goals for improvements.
 - Organize to teach the goals (establish a quality council, identify problems, select project, appoint teams, designate facilitators)
 - Provide training.
 - Carry out projects to solve problems.
 - Report progress
 - Give recognition
 - Communicate results
 - Keep score
 - Maintain momentum by making annual improvement part of the regular systems and process of the company.

Armand V Feigenbaum:

- Feigenbaum was the originator of the term “Total Quality Control”
- He believed that significant quality improvement could be achieved by the participation of everyone in the organization.
- Fire-fighting quality management should be replaced with clear, customer-oriented quality management which the employees understand and can commit themselves to.
- Feigenbaum believed that the goal of Quality improvement was to reduce the total cost of quality to as low a percentage as possible.

Philip Crosby:

- Philip Bayard Phil Crosby was a businessman and Author who contributed to management theory and quality management practices.
- Crosby's approach revolves around the zero defects program.

Crosby's Philosophy:


- Quality means conformance to requirements not elegance
- There is no such thing as quality problem
- There is no such things as the economics of quality. It is always cheaper to do the job right the first time.
- The only performance measure is the cost of the quality
- The only performance standard is zero defects

➤ Crosby provides a holistic view of quality. The roots of his philosophy can be found in the following five absolutes of quality managements:

- ❖ Quality means conformance to requirements and not elegance.
- ❖ There is no such things as quality problem.
- ❖ It is always cheaper to do things right the first time; The only performance measurement is the cost of quality.
- ❖ The only performance standard is zero defects.
- ❖ He had put forth the 14 steps of implementation quality programs in an organization.
- ❖ To operationally the 14 steps program he has provided number of tools like quality maturity grid' "Make Certain Program" and "Management Style Evaluation"

Crosby's 14 Steps to Quality are:

- Management Commitment .
- From Quality Improvement Team.
- Management Perspective.
- Determine Quality Measures.
- Evaluate the Cost of Quality.
- Quality Awareness.
- Correction Action.
- Ad hoc Committees and Zero Defects Programs.
- Training of Supervisors and Managers.

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- Zero Defect Day.
 - Goal Settings.
 - Error cause removal.
 - Recognition.
 - Quality Councils.
 - Do it over again.