

What is Quality?

- Quality refers to grade of service, product, reliability, safety, consistency and consumer's perception.
- “Quality is Customer Satisfaction”.
- Quality: means "degree of excellence"
- Quality – is to satisfy customers’ requirement continually
- Whereas Total Quality is to achieve quality at low cost. Broadly quality includes fitness for use, grade, degree of preference, degree of excellence and conformity to requirements.
- The notion of quality often subsumes a comparison between products.
- Product A is better than B and therefore has a higher quality

$$\text{Quality} = P/E$$

Where,

P = Performance

E = expectation

If,

- $Q < 1$ Performance does not meet expectations
- $Q > 1$ Performance is better than expectations
- $Q = 1$ Performance is equal to expectations

Dimensions of Quality:

The following are the components that reveal the dimensions of quality.

- 1. Manufacturing Industries**
- 2. Service Industries**
- 3. Product Features Accuracy:** characteristics, added features, such as remote control
- 4. Performance:** Primary product characteristics, such as the brightness of the picture
- 5. Conformance:** Meeting specifications or industry standards, workmanship
- 6. Durability:** Consistency of performance over time, average time for the unit to fail
- 7. Ease of use Anticipating Customer needs**
- 8. Serviceability:** Knowledge of Server: Resolution of problems and complaints, ease of repair

9. Esthetics: Sensory characteristics, such as exterior finish

10. Reputation: Past performance and other intangibles, such as being ranked first

Total Quality Management

Total Quality Management (TQM) is an enhancement to the traditional way of doing business. It is a proven technique to guarantee survival in world-class competition. Only by changing the actions of management will the culture and actions of an entire organization be transformed.

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.

Thus TQM is the art of managing the whole to achieve excellence.

Four Level Model in TQM

Level 1. Inspection: measure the characteristics of a product and compare them with its specifications; the goal here is the fitness of standards.

Level 2. Quality Control: inspection performed by the workers themselves with a feedback loop to the production line.

Level 3. Quality Assurance: set of (implemented) predefined and systematic activities necessary to give confidence in the process quality; one step further. Quality procedures are designed and planned as a whole to ensure that no bad products be delivered. We do not just rely on everybody's work and control. This introduces the notion of a coherent set of quality procedures/tests. The given confidence (in the definition of QA) is important both for the producer and for the customer.

Level 4. Total Quality Management: centered on quality and based on the participation of everybody which aims at the customer satisfaction and at the improvement of the company's personnel, of the company and of the society.

Six Basic Concepts of TQM

1. A committed and involved management to provide long-term top-to-bottom organizational support.
2. An unwavering focus on the customer, both internally and externally.
3. Effective involvement and utilization of the entire work force.
4. Continuous improvement of the business and production process.
5. Treating suppliers as partners.
6. Establish performance measures for the processes.

Basic Principals of TQM

Continuous improvement. TQM is a long-term process that entails achieving improvements in the company's operations. This means that management should establish targets for improvement and measure progress by using reliable criteria. The quest for quality and better service to the customer should be a continual, never-ending one. Competitors will seek to provide better service and customers will come to expect it. Hence, to **cease improvement efforts will likely lead to loss of competitive advantage and a decreased level of customer satisfaction.**

Customer focus. In TQM, the customer is believed to be the ultimate judge of quality. Therefore, the company must remain close to the customer and understand how he or she views and judges quality.

Strategic planning and leadership. Achieving quality and market leadership requires a viable competitive strategy that outlines goals and desired outcomes. Moreover, senior executives should be responsible for introducing and supporting TQM programs

Competitive benchmarking. This means identifying companies or other organizations that are the best at something and then modeling your own organization after them. The company need not be in the same line of business as yours.

Teamwork approach. The use of teams for problem solving and to achieve consensus takes advantage of group thinking, gets people involved, and promotes a spirit of cooperation and shared values among employees. Further, teamwork creates opportunities for learning and exchanging ideas.

Employee empowerment. TQM is based on humanistic management principles that suggest employee involvement and participation is essential for success. Giving workers the responsibility for improvements and the authority to make changes to accomplish them provides strong motivation for employees. This puts decision making into the hands of those who are closest to the job and have considerable insight into problems and solutions. Empowered to bring about changes in their workplace, employees can creatively contribute to their company's well being.

Knowledge of tools. Everyone in the organization is trained in the use of quality control and improvement tools.

Obstacles in Implementation of TQM

- Lack of commitment from the management
- Inability or Resistance to change
- Improper planning
- Lack of continuous training and education
- Incompatible organization structure and isolated departments and individuals
- Ineffective performance measures and lack of visibility of data and results
- Inadequate use of Empowerment and teamwork

Benefits of TQM

- Improved quality and productivity
- Better employee participation and teamwork
- Better customer and employee satisfactions
- Increase in market share and profitability
- Improved communication
- TQM is a good investment