Introduction

- **Total** – Made up of the whole (or) Complete.

- **Quality** – Degree of Excellence a product or service provides to the customer in present and future.

- **Management** – Act, art, or manner of handling, controlling, directing, etc.

**TQM** is the art of managing the whole to achieve excellence.
"TQM is a management approach for 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 to society."

**Definition**

TQM is composed of three paradigms:

- **Total**: Organization wide
- **Quality**: With its usual Definitions, with all its complexities *(External Definition)*
- **Management**: The system of managing with steps like Plan, Organise, Control, Lead, Staff, etc.
Definition
Total Quality Management (TQM) is a management strategy aimed at embedding awareness of quality in all organizational processes.
Explanation

TQM requires that the company maintain this **quality standard** in all aspects of its business. This requires ensuring that things are done right the first time and that defects and waste are eliminated from operations.
Evolution of quality –Means & Focus


Operation

Customers

Innovations

Quality of Work life

Quality Circle

Productivity

Employee Involvement

Quality

Total Quality

TQC/TQM

Self Directed Managed Teams

Self Directed Teams

Employees Empowerment
Figure 1. Kano Model
Basic Approach

- A committed and involved management to provide long-term top-to-bottom organizational support.
- An unwavering focus on the customer, both internally and externally.
- Effective involvement and utilization of the entire work force.
Basic Approach

- Continuous improvement of the business and production process.
- Treating supplier as partners.
- Establish performance measures for the processes.
New and Old Cultures

Quality Element  TQM

- Definition - Product  Customer
- Priorities - Service & Cost  Quality
- Decisions - Short  Long
- Emphasis - Detection  Prevention
New and Old Cultures

- Errors - Operations System
- Responsibility - QC Every Body
- Problem
  - Solving - Managers Teams
- Procurement - Price Partners/JIT
- Manager’s Role - Plan Delegate
  - Assign Coach
  - Enforce Mentor
Real Life

- TQM has been implemented in TVS Group.
- Boeing Aircraft
- Reliance
- Tata L & T HMT
- ITI
Guru’s of TQM

- Walter.A. Shewhart - TQC & PDSA
- W. Edwards Deming - 14 Points & PDCA
- Joseph M. Juran - Juran’s Trilogy
- A. Feiganbaum - Customer requirement, CWQC, Employee Involvement, TQC.
Guru’s of TQM

- Kaoru Ishikawa - Disciple of Juran & Feigenbaum. TQC in Japan, SPC, Cause & Effect Diagram, QC.
- Philip B. Crosby. Four Absolutes - Quality-Req, Prevention of NC, Zero Defects & Measure of NC.
Definitions

- **ISO 9000:2000**
  Quality is the degree to which a set of inherent characteristics fulfills requirements.

- **Quantified**
  \[ Q = \frac{P}{E} \]
  - \( P \) = Performance
  - \( E \) = Expectations

- **Joseph M. Juran**
  Quality is fitness for use or purpose
Definitions

- Philips B Crosby
  Quality is Conformance to requirements

- W. Edwards Deming
  A predictable degree of uniformity and dependability at low cost and suited to market

- Bill Conway
  **** Development, manufacture, administration and distribution of consistently low cost and products and services that customers need and want.
Dimensions of Quality

Product - TV
Performance - Primary Characteristics, such as brightness
Features – Secondary Characteristics, Remote Control
Conformance - Meeting Specifications or Standards
Reliability – Consistency of Performance over time-fail
Durability - Useful life, include Repair.
Service
Dimensions of Quality

Durability - Useful life, include repair.

Service - Resolution of problems, ease of repair.

Response - Human relations with Customers.

Aesthetics - Sensory Features.

Quality Cost

- Prevention Cost – Planning, Document, Control, Training
- Internal Failure Cost – Scraps, Repair Rework, Design Changes, Defect Failure Analysis, Retests & ReInspection, Downgrading, Down Time.
Economics of Quality of Conformance

- Total Cost
- Prevention & Appraisal Cost
- Optimum Total Cost
- Internal & External Failure Cost

22
Obstacles

Top management commitment
Changing Organization Culture
Improper planning
Continuous Training & Education
Obstacles

Organization Structure & Departments

Data’s & Facts For Effective Decisions

Internal & External Customers - Dissatisfaction

Empowerment & Teamwork

Continuous Improvement
Benefits

- Improved Quality
- Employee Participation
- Team Work
- Internal & External Customer Satisfaction
- Productivity, Communication
- Profitability & Market Share