



# Chapter Outline

1.1 Quality and competitiveness

1.2 Understanding and building the quality chains

1.3 Managing processes

1.4 Quality starts with 'Marketing'

1.5 Quality in all functions

**What is Quality?**

# 1.1 Quality and competitiveness

- **Reputation**

for quality, reliability, price, and delivery – all things we compete on

- **Lessons to be learned about reputation from this story:**

1. Competitive elements of quality, reliability, delivery, and price.
2. It takes a long time to change the poor reputation for quality.
3. Reputations, good or bad, can quickly become national reputations
4. The management of the competitive weapons can be learned and used to turn round a poor reputation.

# 1.1 Quality and competitiveness

- **What is quality?**

“meeting the customer requirements”

- **What is reliability?**

“It is the ability of product and service to continue to meet the customer requirements”

- **Quality is meeting the customer requirements, and this is not restricted to the functional characteristics of the product or services.**

# Definition of Quality

- Quality is also defined as **excellence** in the product or service that **fulfills or exceeds the expectations of the customer.**
- There are **9 dimensions of quality** that may be found in products that produce customer-satisfaction.
- Though quality is an abstract perception, it has a quantitative measure-  $Q = (P / E)$  , where **Q=quality**, **P= performance(as measured by the Mfgr.)**, and **E = expectations( of the customer).**

- Quality is **not fine-tuning your product at the final stage** of manufacturing, before packaging and shipping .
- **Quality is in-built into the product at every stage** from conceiving –specification & design stages to prototyping –testing and manufacturing stages.

# What is Quality

- **FEIGENBAUM (1983) DEFINED QUALITY AS FOLLOWS**
  - Quality is total composite product (goods and services) characteristics, through which the product in use will meet the needs and expectations of the customers.
  - Concept of quality must start with identification of customer quality requirements and must end only when the finished product is placed into the hands of the customer who remains satisfied through various stages of relationship with the seller
- **American Society of Quality Control (ASQC) and American National Standard Institute (ANSI) defined**
  - Quality is totality of features and characteristics of product (goods and services) that bears on its ability to satisfy given needs”

# Definitions

- ISO 9000:2000

Quality is the degree to which a set of inherent characteristics fulfils requirements.

- Quantified

$Q = P/E$  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.

# Approaches to define Quality

- **Transcendent Approach**

- Quality is absolute and universally recognisable.
- It is common notion used by laymen
- There is no subjective judgement and is estimated by looking at the product

- **Product Based Approach**

- Attributes of a particular product in a specific category
- These attributes are accepted as bench of quality by the industry
- Others in the same industry try to produce close to this quality

# Approaches to define Quality

- **User Based Approach**

- Defined as “Fitness for use”
- Viewed from user’s perspective and is dependent on how well does the product meet needs of the consumer.
- Also known as Customer Oriented Approach

- **Production Based Approach**

- An outcome of engineering or operational excellence and is measured in terms of quality of conformance
- The producer has specifications and produces the product as per the specifications

# Approaches to define Quality

- Value Based Approach

- Quality is viewed in context of price
- Quality is satisfactory, if it provides desired performance at an acceptable price
- Customer looks at the total value proposition and not the price alone

$$Value = \frac{Benefits}{Price}$$

# Value-based Approach

- **Manufacturing Dimensions**

- Performance
- Features
- Reliability
- Conformance
- Durability
- Serviceability
- Aesthetics
- Perceived quality

- **Service Dimensions**

- Reliability
- Responsiveness
- Assurance
- Empathy
- Tangibles

# Attributes / Dimensions of Quality

- *Performance* - main characteristics of the product/service
- *Aesthetics* - appearance, feel, smell, taste
- *Special Features* - extra characteristics
- *Conformance* - how well product/service conforms to customer's expectations
- *Reliability* - consistency of performance

# Attributes / Dimensions of Quality(Cont'd)

- *Durability* - useful life of the product/service
- *Perceived Quality* - indirect evaluation of quality (e.g. reputation)
- *Serviceability* - service after sale