

Quality

Quality

Definition: Involves meeting a standard for a good or service to meet consumer needs and expectations.

Businesses will try to achieve quality through:

- **Purchasing the right raw materials and components** → the quality of the materials will directly influence the quality of the end product
- **Having the best production processes** → ensure that each stage is completed to the required standard
- **Employing the right people** → making sure that they have the right skills and level of motivation to take pride in work
- **Training employees** → equipping them with the necessary skills to produce the product
- **Implementing quality assurance and quality control** → making sure that the end product is the best that it can be



QUALITY CONTROL AT WORK

Quality Control

Definition: Involves inspecting a sample of goods produced at the end of the production process to ensure that specifications have been met. Goods which do not meet the standards are scrapped or are sold as seconds.

Advantages:

- ✓ Inspection is carried out by a specialist
- ✓ Reduces the risk of a faulty product reaching the customer
- ✓ Problem areas can be identified and action taken

Disadvantages:

- ✗ Waste levels can be high as a fault will only be found at the end of the process
- ✗ Requires specialist personnel
- ✗ Operatives may feel demotivated as they are "being checked up on"

Quality Assurance

Definition: A guarantee given by producers to consumers that certain standards have been met throughout the production process. Legal standards have been met and / or codes of practice have been followed.

Quality assurance involves:

- checking/inspecting quality at each stage of the production process
- quality is the responsibility of everyone throughout the process
- achieved through a system of total quality management
- making everyone in a business responsible for quality
- each employee treats the next person as if they are a customer and ensures what they pass on to them is of the correct quality

Quality assurance requires staff to consider:

- what suppliers they are using to make sure the supplies used do not create problems
- training staff so they can check their own work rather than waiting for it to be inspected
- providing the equipment and technology to allow employees to check their own work

Advantages:

- ✓ Motivated staff as everyone is given responsibility
- ✓ Focus on quality throughout the process
- ✓ Less waste from reworking or scrapping faulty goods
- ✓ Better reputation due to quality products

Disadvantages:

- ✗ Relies on commitment of all staff
- ✗ Training must be provided
- ✗ Productivity can be reduced



Quality Awards

Definition: Evidence of high standards – these show customers that certain standards have been met.



Wastage

Definition: Occurs when products cannot be sold because they are of poor quality, or damaged, or stock is out of date.

Total Quality Management (TQM)

Definition: Creates quality through continuous improvement, development of systems and products and by creating an organisational culture of quality.

For TQM to be effective a number of production management and control methods need to be used:

- **Quality chains** → the next person in the production process (chain) is treated as a customer and customer satisfaction is the objective.
- **Empowerment** → giving workers control over tasks completed.
- **Monitoring** → checking that standards at each link in the chain are being achieved and the use of statistical tools to measure levels of failure to achieve quality.
- **Teamwork** → a team is responsible for a production process → the team is empowered to check the quality of raw materials, interact during the installation process and check the quality of the finished product → implies that responsibility lies within the team → can build trust and morale, whilst improving communication between members.
- **Quality circles** → employee involvement in the decision-making and product-improvement process → employees meet to identify and solve problems.
- **Zero defects** → attempting to achieve perfect product quality, time after time.
- **Benchmarking** → the process of setting standards of quality and output which are based on the best that competitors can offer.



The importance of quality to a business

Satisfying and increasing customer expectations

- To gain and retain customers
- Repeat custom
- Word of mouth advertising
- Brand loyalty

Increasing sales

- Reputation of the business
- Positive image to consumer
- Positive word of mouth
- Improved customer satisfaction



Reducing cost and waste

- Reduce product returns and recalls
- Avoid negative publicity
- Cost of recall and reworking faulty goods
- Dealing with customer complaints
- Loss of trust



Ways in which businesses can ensure that they provide high quality goods and services

- **Well designed products** → use of CAD/skilled designers
- **Quality of workers** → qualifications → training → skills → experience
- **Motivation** → financial/non-financial explained → job production
- **High quality materials** → to ensure products less likely to break
- **Investment in up-to-date machinery** → CAM/CAD → ensure products more accurately made
- **Quality control** → e.g. supervision / inspectors / checking
- **Dealing with complaints/listening to customers** → to give confidence → customer feedback
- **Belonging to professional organisation/Quality standards** → to give confidence
- **Quality assurance** → TQM → quality circles → kaizen



Consequences of bad quality goods and services

- **Customers will be lost** → dissatisfied customers will look elsewhere
- **The reputation of the business will suffer** → they may develop a reputation for faulty or poor standard products and services
- **Increased costs** → in wastage and the recall and replacement of faulty products
- **Storage costs** → for unwanted products that consumers do not want
- **Legal action** → if the product causes harm to consumers