

Project Quality Management

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PMG 354
Quality Fundamentals and Concepts

Lecture 01



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Lecture 1

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Lecture

01

Objectives



At the end of this lecture, we expect to acquire a knowledge about the different meaning and concepts of quality to be considered when planning and executing projects in order to achieve the intended outcome.



Lecture
01

Contents

- What does quality mean ?
- Quality grade & Quality class
- Characteristics of quality
- Quality Cost
- Responsibility for quality
- Benefits of quality
- Management of quality
- Evolution of quality-related thinking
- Quality Assurance and Quality Control

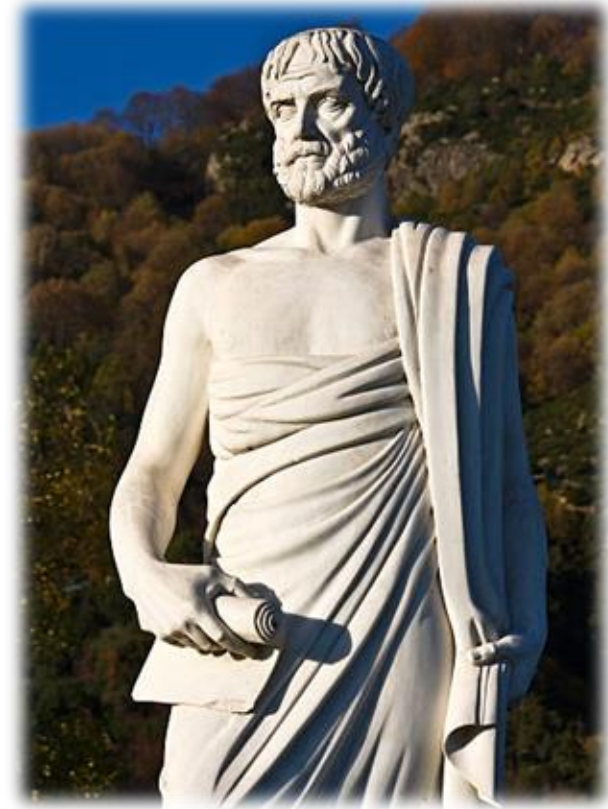
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01

What does quality mean ?

“Quality is not an Act...
it is a Habit.”

- Aristotle



Quality may be defined as :

The degree to which
a set of inherent
characteristics fulfills
requirements



“Conformance to
customer requirements
(including laws, rules,
procedures, policies and
standards).”



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01

Quality may be defined as :



Quality meaning in different areas of society

Airlines

On-time, comfortable, low-cost service

Health Care

Correct diagnosis, minimum wait time, lower cost, security

Food Services

Good product, fast delivery, good environment

Postal Services

Fast delivery, correct delivery, cost containment

Academia

Proper preparation for future, on-time knowledge delivery

Insurance

Payoff on time, reasonable cost

Automotive

Defect-free

Quality

Is

“All about Customer Satisfaction”

Who is the customer?

Who contracts with
the organization for
specific purposes

Who is witness on
the quality of
products and
services

Quality Grade and Quality Class



Quality Class



The type of product that
fulfill the customer
requirement

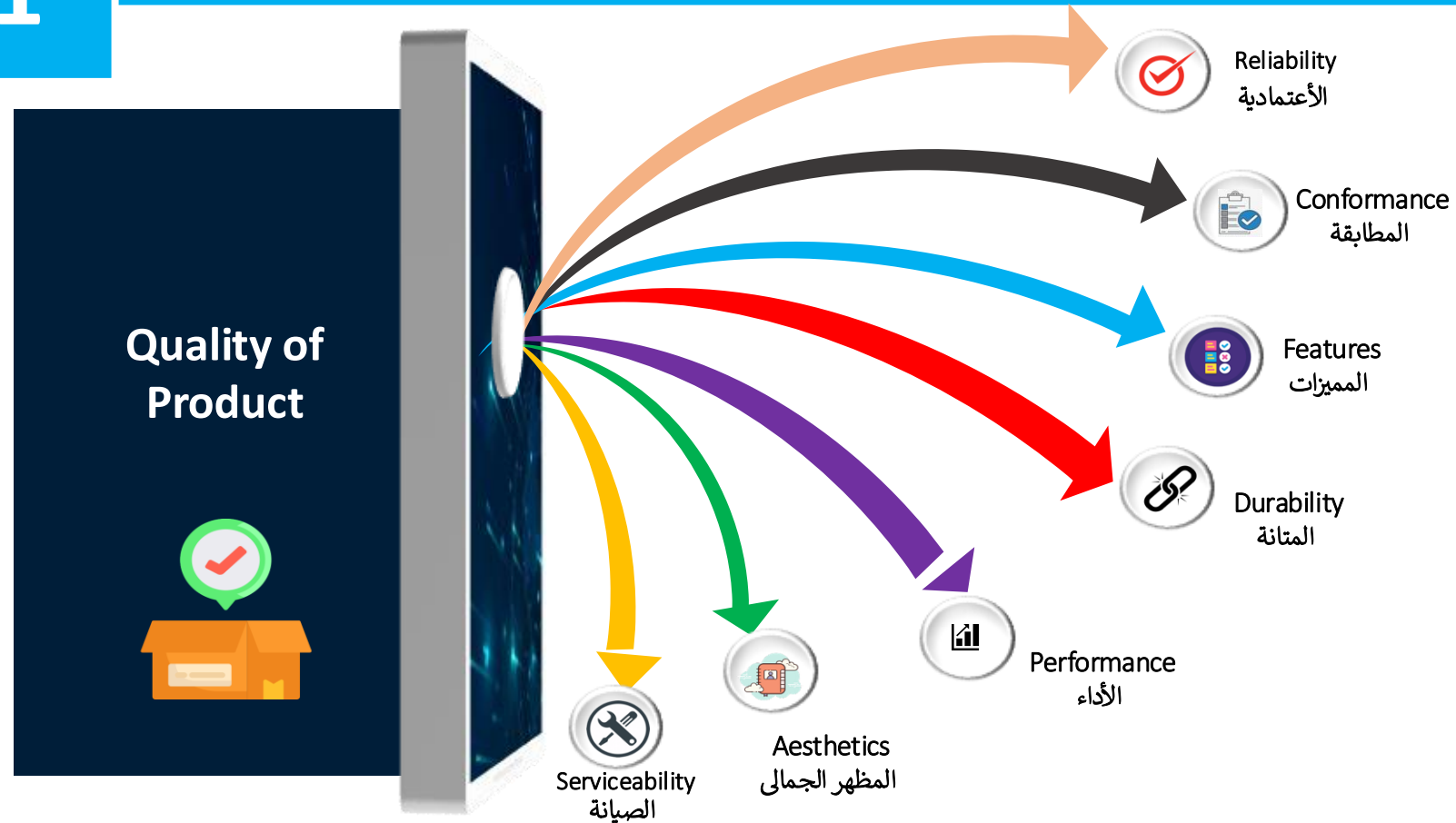
Quality Grade



Differences in
product or service
performance

Characteristics of Quality





Criteria for
Quality
Product

Measuring **product quality** characteristics is absolutely crucial , but there are some techniques and metrics for measuring quality.



Refers to the propensity for product to perform consistently over its useful design life.

Reliability



Does the product meet the standards?

Conformance



Style , materials and visual of product appear

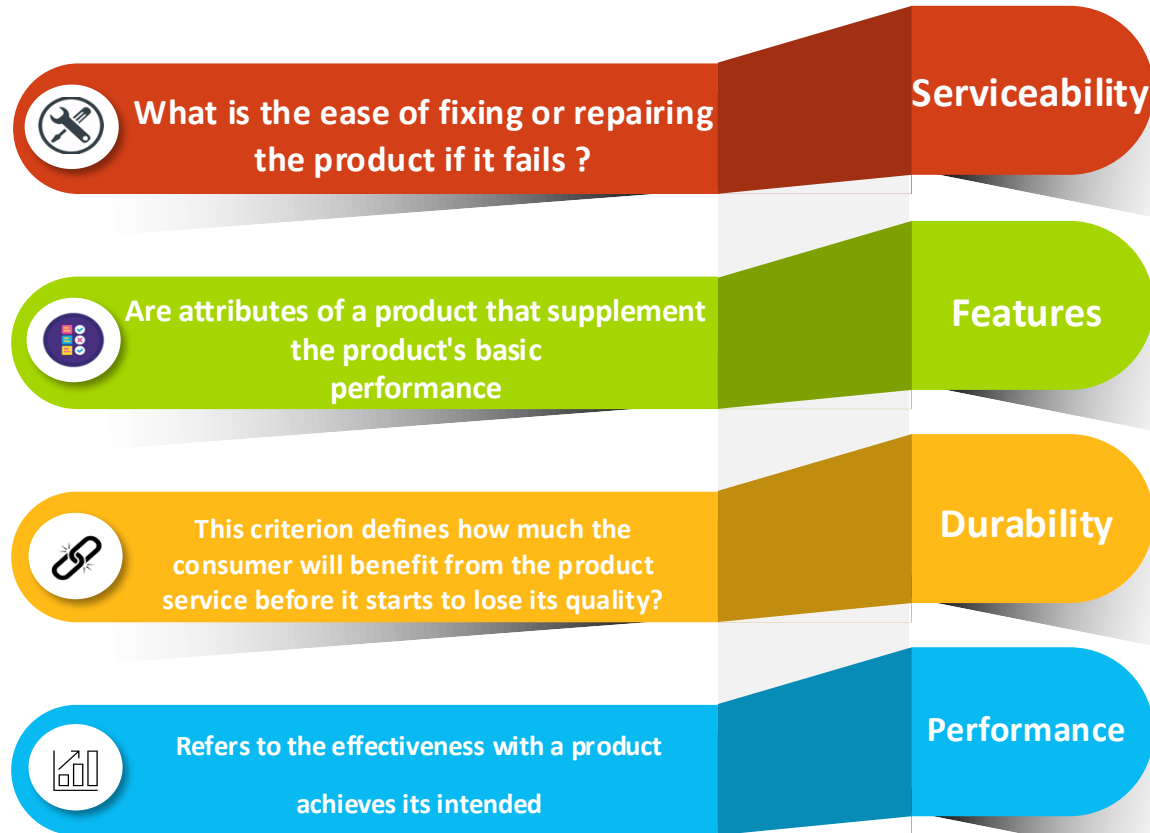
Aesthetics

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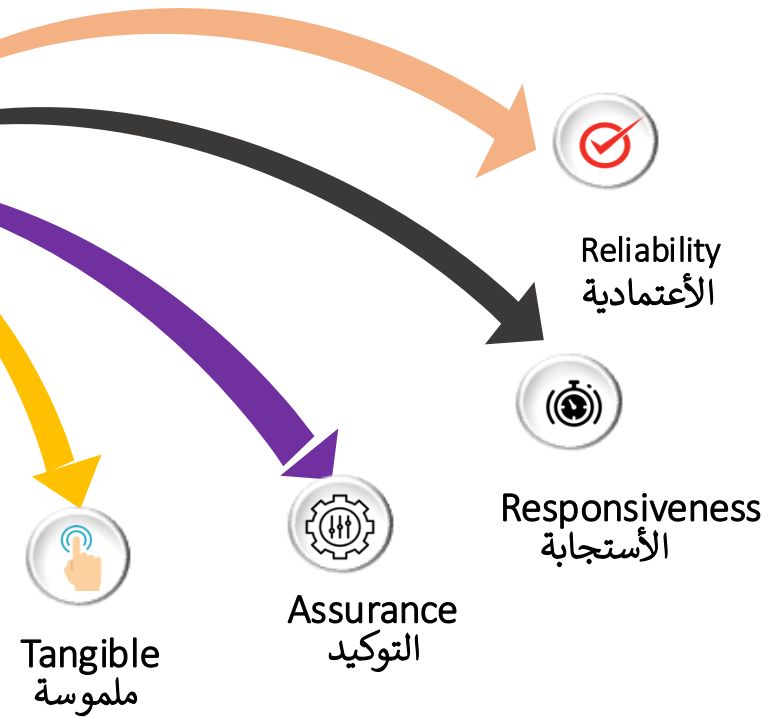
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Criteria for
Quality
Product

Measuring product quality characteristics is absolutely crucial , but there are some techniques and metrics for measuring quality.



Quality of Service



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Criteria for
Quality
Service

Measuring service quality is absolutely crucial, but there are some techniques and metrics for measuring quality.

Reliability

It relates to the ability of the service provider to perform the promised service accurately



Responsiveness

The ability to deal effectively with complaints and promptness of the service



Assurance

Refers to the knowledge of employees and their ability to inspire trust and confidence



Tangibles

The state of facilitating goods; physical condition of the buildings and the environment; appearance of personnel; and condition of equipment



Quality Cost



The quality cost is generally classified into two main categories

COPQ

Internal cost

Cost associated with **defects** found **before** the customer receives the product or service

External cost

Cost associated with **defects** found **after** the customer receives the product or service

COQ

Inspection cost

Cost incurred to determine the **degree of conformance** to quality requirements

Prevention cost

Cost incurred to **Prevent poor quality**

Who Is Responsible for Quality ?



Who Is Responsible for Quality ?

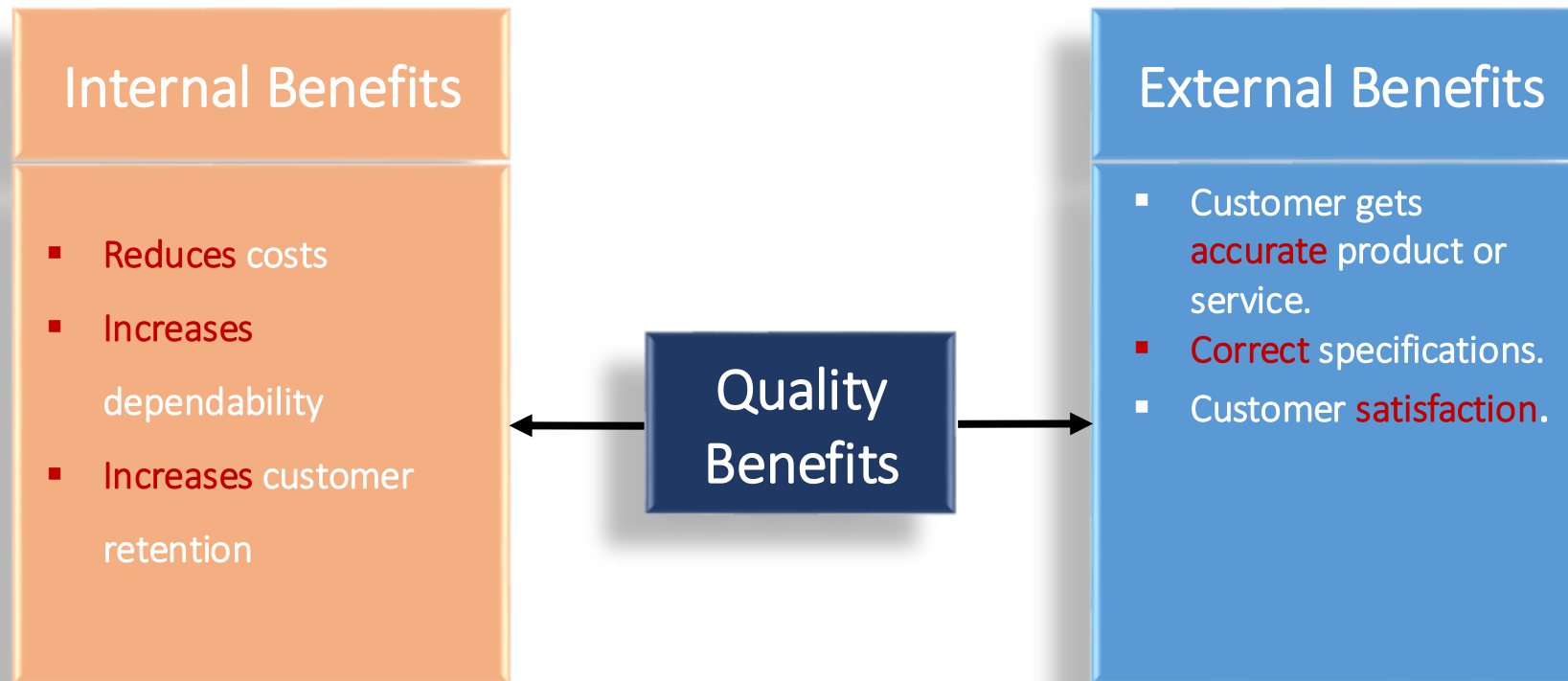
QUALITY

**IT'S
EVERYONE'S
RESPONSIBILITY**

Benefits of Quality



Benefits of Quality



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01

Management of Quality



Management of Quality

01

First Step : Plan Quality
What is quality and how will we ensure it?

02

Second Step : perform Quality Control
Are we meeting the quality standards?

03

Third Step : perform Quality Assurance
Are we Following the quality standards?

Lecture

01

Evolution of quality



The challenge that companies face in the 21st Century is to succeed in a global economy where competition is huge and where customers are becoming increasingly demanding of quality.

It is realized that the survival of business comes from the strong relationships between the organization itself and its **interested parties** to satisfy their needs and expectations.



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01

Evolution of quality-related thinking

In delivery of products or services, three aspects have to be considered - price, quality and delivery

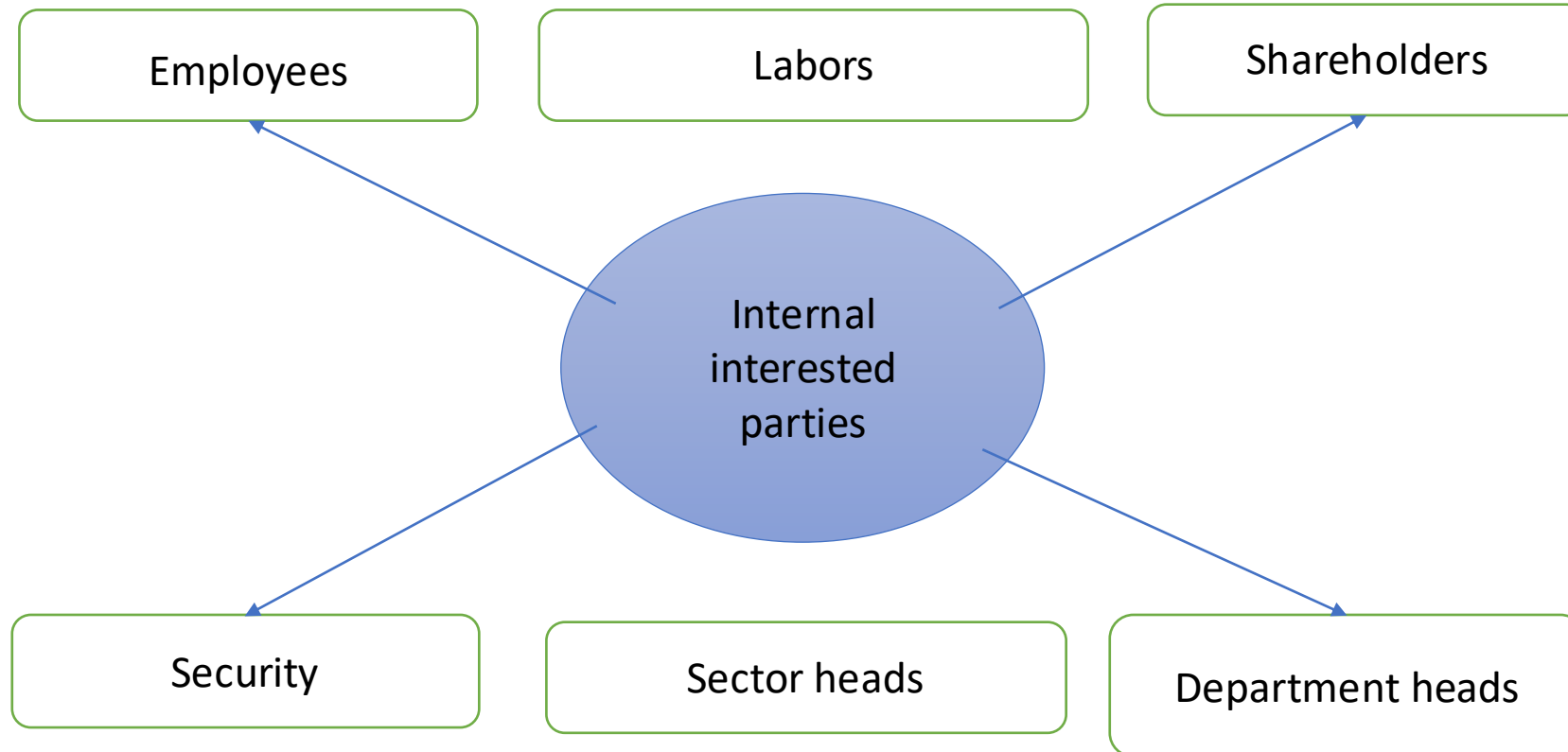
definition



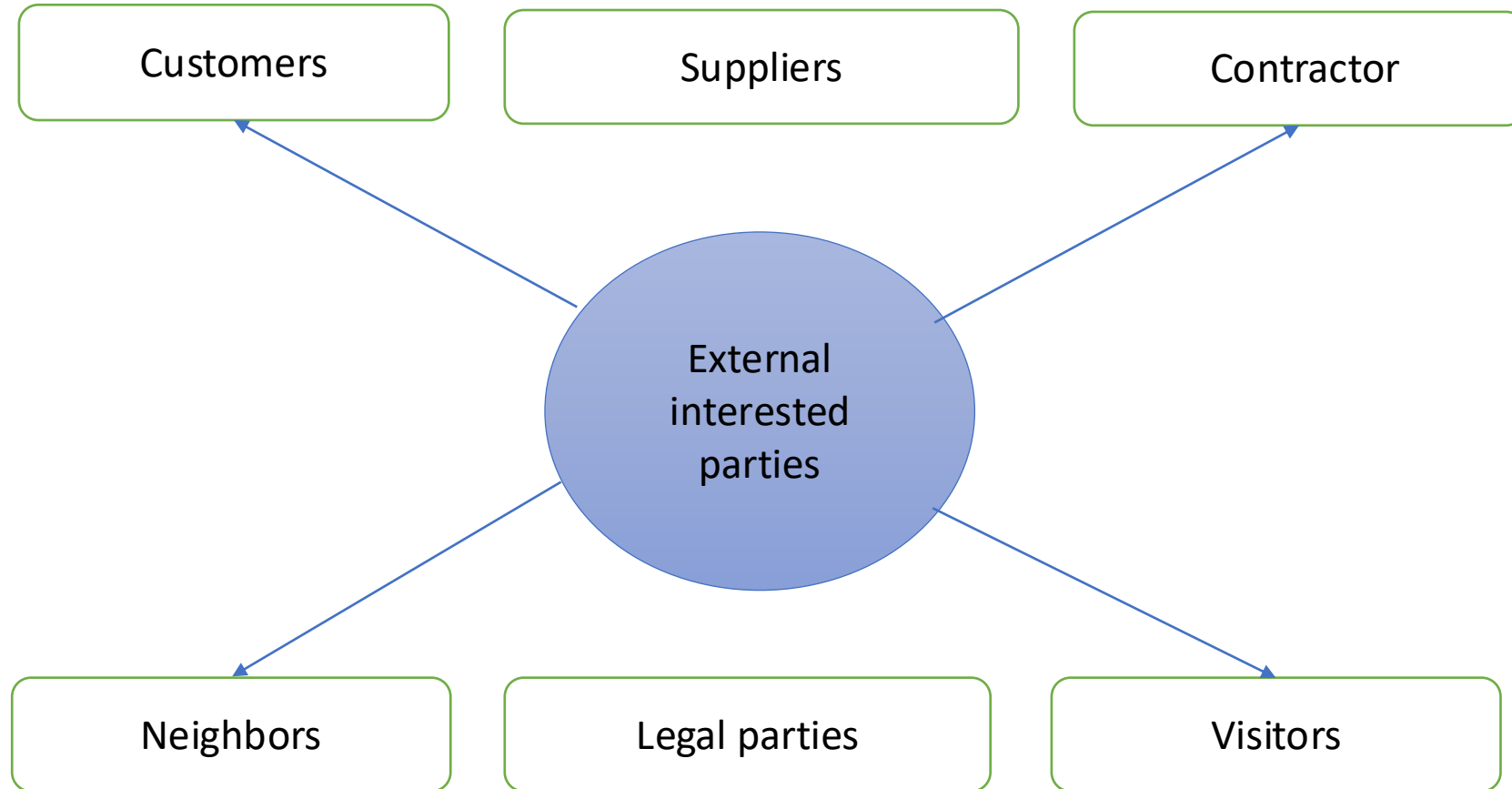
INTERESTED PARTY / stockholder

person or organization that can affect, be affected by,
or perceive itself to be affected by a decision or
activity

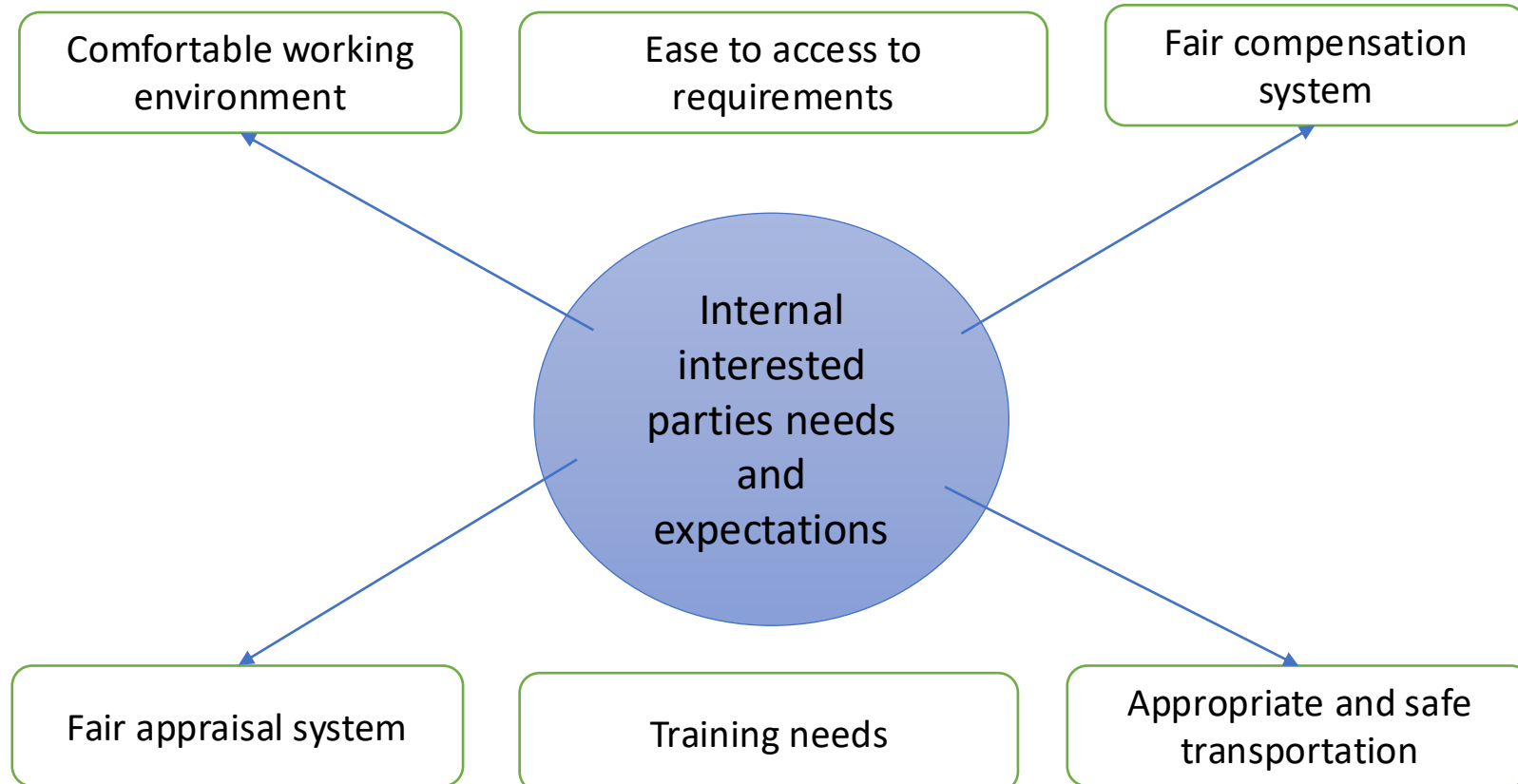
Interested parties



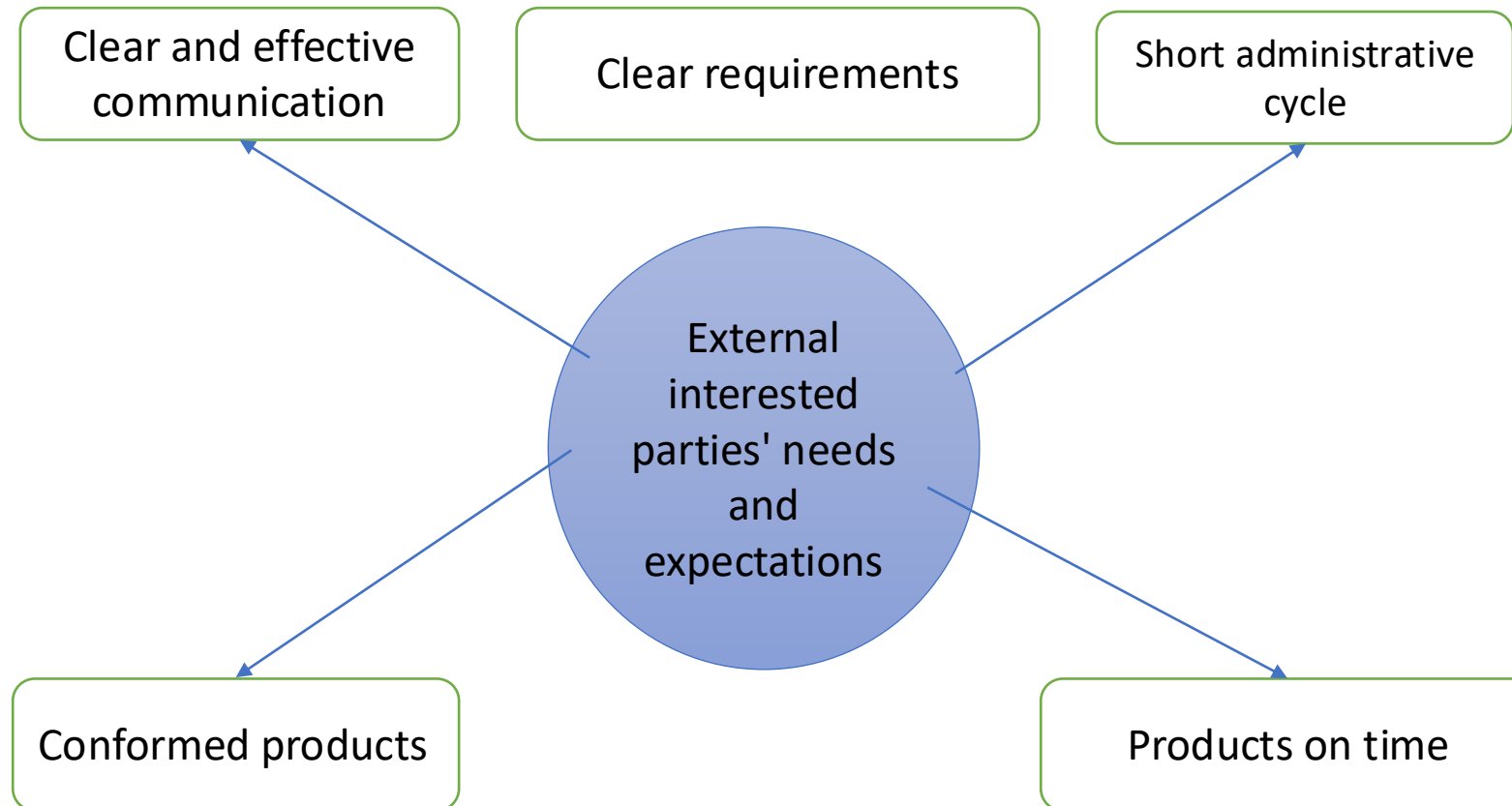
Interested parties



Interested parties

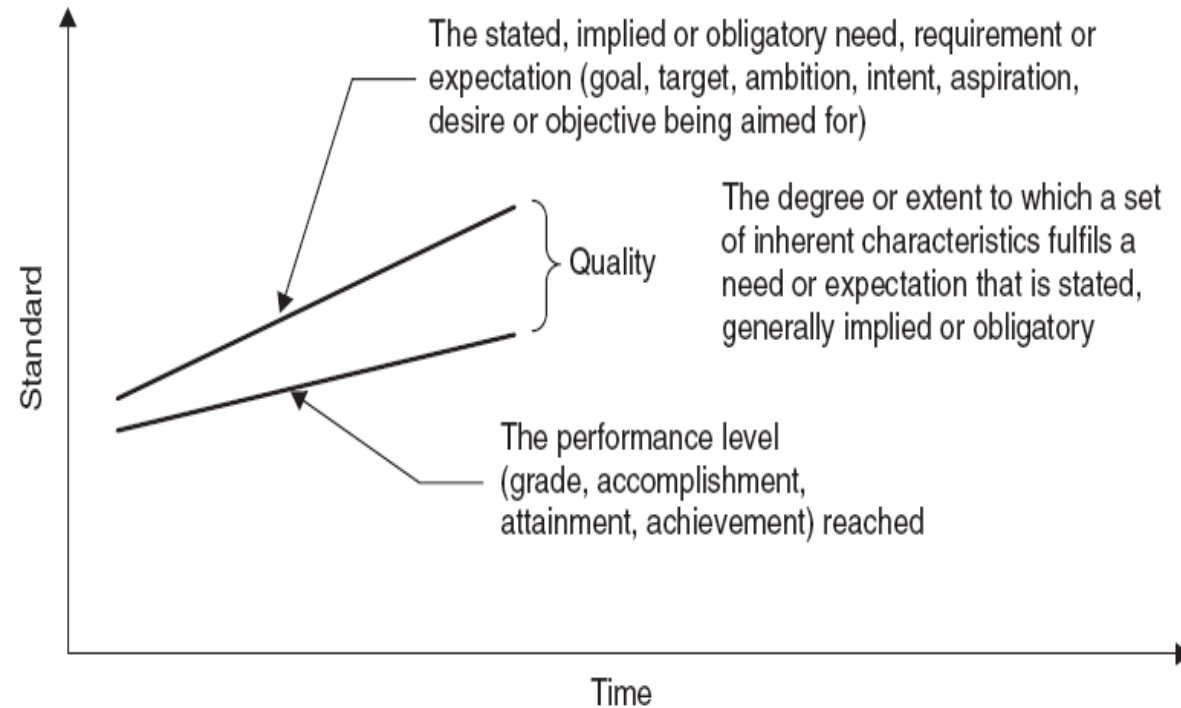


Interested parties



Quality is....

So..... What Is Quality?



Quality assurance vs. quality control

Differences Between
Quality Assurance and Quality Control



Quality assurance vs. quality control

Both QC and QA personnel.
Control is defined as
“To check, test, or verify by evidence or
experiments”

Assurance is defined as
“Confidence of mind or manner.”



Quality assurance vs. quality control

Quality Assurance (QA)

Definition

QA is a set of activities for ensuring **quality** in the **processes** by which products are developed

Focus on

QA aims to **prevent defects** with a focus on the process used to make the product. It is a **proactive** quality process.

Goal

The goal of QA is to **improve** development and test **processes** so that **defects** do not **arise** when the product is being developed.

How?

- **Establish** a good **quality management system** and the assessment of its adequacy.
- **Periodic** conformance **audits** of the operations of the system.

Quality Control (QC)

QC is a set of activities for ensuring **quality** in **products** – **services**.
The activities focus on identifying **defects** in the actual products produced.

QC aims to **identify** (and correct) **defects** in the finished product. Quality control, therefore, is a **reactive** process.

The goal of QC is to **identify** defects **after a product** is developed and **before it's released**.

Finding & eliminating sources of **quality problems** through tools & equipment so that customer's requirements are continually met.

Quality assurance vs. quality control

Quality Assurance (QA)

Process

Proactive

Staff function

Prevent defects

Defining process

Quality Control (QC)

Product- Service

Reactive

Individual function

Find defects

Testing

QA and QC responsibilities

Quality Assurance (QA)

Everyone on the team involved in developing the process is responsible for **quality assurance**

- Verify the accuracy of the data in order to provide confidence in the results.

Quality Control (QC)

Quality control is usually the responsibility of a **specific team** that tests the product for defects

- QC personnel **perform** the testing and compare the results to the specification requirements.
- Responsible for controlling the quality of the work performed.



Thank You