2021

MODULE 3

PROGRAMMING & SITE OPERATIONS

QUALITY APPROACHES

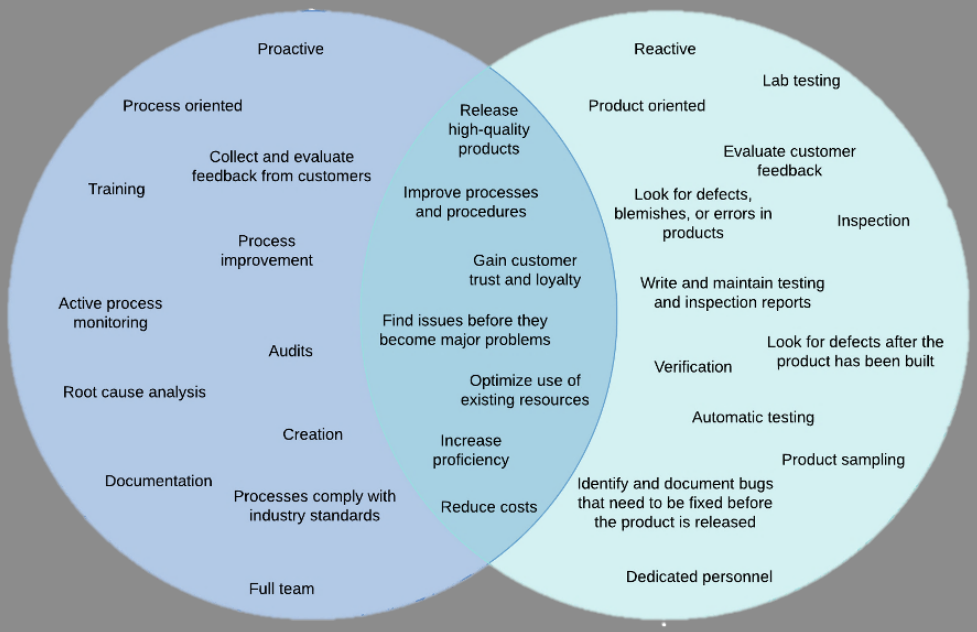
CALA CONSTRUCTION
ACADEMY OF EXCELLENCE

keystone

QUALITY SYSTEMS

Quality Assurance (QA) vs Quality Control (QC)

QA is a proactive process which starts even before the work on the deliverables has started, whereas QC is a reactive process, and its activity starts as soon as you start working on the deliverables. QA relates to how a process is performed or how a product is made, while QC concerns the inspection aspect of quality management that is focused on fulfilling requirements.



Quality Systems

This holistic process of improvement considers the organisation as a whole. It is important to consider all four factors when embarking on quality improvement drives and changes to business process.

COST PRODUCTION QUALITY

The CPQ triangle illustrates the relationship between three primary forces in a project. Also called the iron triangle or project triangle, the triple constraint refers to these three elements of a project:

- Cost – the amount of money or resources available
- Scope or quality – the fit-to-purpose that must be achieved
- Time – the available time to deliver the project

The theory is that you have to compromise on at least one of these things, which creates a trilemma. You might know this from hearing some variation of the cliché "fast, cheap or good: pick two". Of course, a bad project will compromise on all constraints, overrunning on time and budget, and then delivering a bad final product. The priorities are guidelines. If product profitability is the top priority, the development team can cost reduce a product by eliminating components, or streamlining production thus increasing profitability.

A good practice in project management using this tool is to establish thresholds that trigger a consideration of priorities and goals. For example, if meeting the time to market goal requires eliminating critical product functionality or increase cost to an unprofitable level, then the project may need to 'slip' providing more time to meet acceptable scope and cost targets.

TOTAL QUALITY MGMNT

Total quality management (TQM) is the continual process of detecting and reducing or eliminating errors in manufacturing, streamlining supply chain management, improving the customer experience, and ensuring that employees are up to speed with training.

It is a participative, systematic approach to planning and implementing a constant organisational improvement process. Its approach is focused on exceeding customers' expectations, identifying problems, building commitment, and promoting open decision-making among workers.

Typical TQM tools include:

- Pareto Principle.
- Scatter Plots.
- Control Charts.
- Flow Charts.
- Cause and Effect
- Fishbone
- Ishikawa Diagram.
- Histogram
- Bar Graphs
- Checklists.