

7- QUALITY MANAGEMENT (QM)

Quality management ensures that an organization, product or service is consistent. It has four main components: quality planning, quality assurance, quality control and quality improvement.

Objectives of Quality Management (QM):

- ☐ Preparing the internal processes of organization to global standers.
- ☐ Enhancing quality, productivity, and total performance of organization.
- ☐ Enriching the quality of work life of it is employee.
- Top Management must be completely involved in the quality improvement process rather than simply supportive of it.
- ☐ Give ownership for quality to your employees, encourage a continuous flow of incremental improvements.
- ☐ Make quality a religion. Make quality second nature of all your employees. Without it, all the corporate statements, procedures and standards will prove to be rules that are meant to be broken.

Historical development of quality management (QM):

- (1) Quality inspection stage (QI) – 1920s
- (2) Quality control stage (QC) – 1950s
- (3) Quality assurance stage (QA) – 1970s;
- (4) Total Quality management (TQM) stage.

Main principles of quality improvement:

1- Quality: meeting requirements (customer needs):

Specifications are imprecise means of conveying subjective aspects, i.e. Not everything is measurable, e.g. courtesy or friendliness Thus, Conformance to requirements is not necessarily all there is to achieving quality.

Quality: customer satisfaction:

- Customer Satisfaction or is it meeting requirements? It is only true measure of acceptable quality.

- Takes account of both subjective and objective interpretations of needs and expectations.
- Correct interpretation of needs and expectations...acceptable quality.
- Customers' Changing Perceptions Needs and Expectations of customers.
- Competitor products. (Wants become demands next time).

Quality Management (QM) Processes:

plan, do, check, and act (the *PDCA cycle*).

- ☐ **Planning phase:** people define the problem to be addressed, collect relevant data, and define the problem's root cause.
- ☐ **Doing phase:** people develop and implement a solution, and decide upon a measurement to gauge its effectiveness.
- ☐ **Checking phase:** people confirm the results through before-and- after data comparison.
- ☐ **Acting phase:** people document their results; inform others about process changes, and make recommendations for the problem to be addressed in the next PDCA cycle.

Tools of Quality Management:

. Graphical methods are easy to understand and provide comprehensive information; they are a viable tool for the analysis of product and process data. These tools are effect on quality improvement.

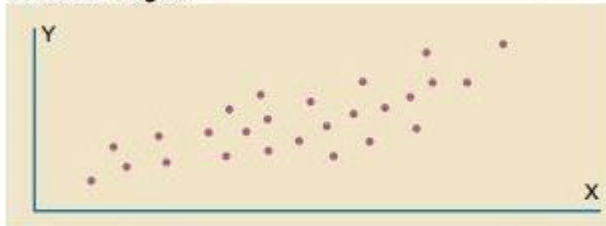
The Seven Tools for Quality are:

1. Pareto charts
2. Check sheets
3. Cause and effect diagram
4. Scatter diagrams
5. Histogram
6. Graphs or flow charts
7. Control charts.

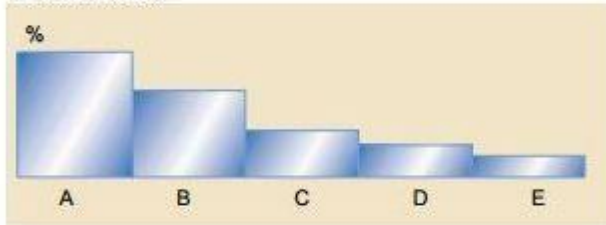
4. Control Chart



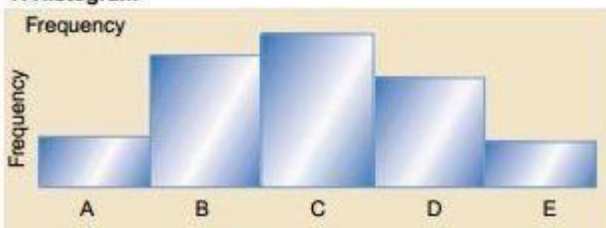
5. Scatter Diagram



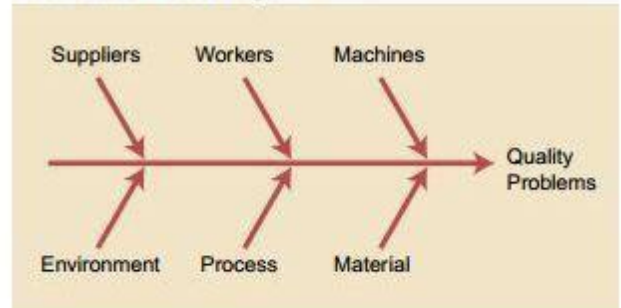
6. Pareto Chart



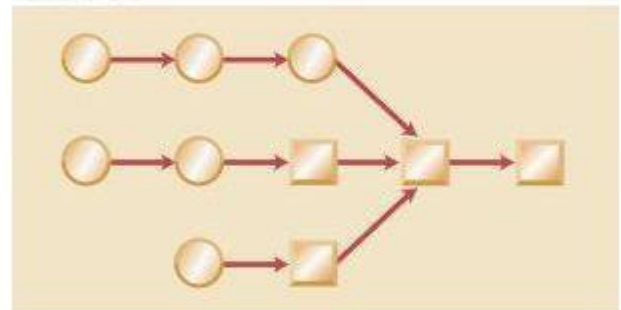
7. Histogram



1. Cause-and-Effect Diagram



2. Flowchart



3. Checklist

Defect Type	No. of Defects	Total
Broken zipper	///	3
Ripped material	////////	7
Missing buttons	///	3
Faded color	//	2