

Total Quality Management

The term Total Quality Management (TQM) refers to a quest for quality that involves everyone in an organization.

There are two philosophies in this approach

- Continuous Improvement-never ending push to improve. It covers equipment, methods, materials and people.
- Customer Satisfaction-which involves meeting or exceeding customer expectation.

Definition of TQM

- TQM is a structured (planned, prepared, well thought-out) system for satisfying internal and external customers and Suppliers by integrating the business environment, continuous development, improvement, and maintenance cycles while changing organizational culture.

Principles of Total Quality Management

- ✓ The customer is the ultimate determiner of quality. Services and programs should be designed, with the needs of the customer in mind.
- ✓ Quality should be built from the beginning, and not simply derived from customer complaints.
- ✓ Achieving Quality requires continuous improvements, because expectations of Customer are always changing.
- ✓ Each department of an organization must be involved in producing a quality product and not just try to modify it before delivery.

Benefits of TQM

- When organization follows TQM principles, they gain both measurable and intangible benefits. Some of these included following things:
 - ✓ Ability to be more competitive
 - ✓ Increased market share
 - ✓ Cost reductions
 - ✓ Increased flexibility and responsiveness
 - ✓ Simplified process
 - ✓ Improved communication
 - ✓ Less Frustration and more satisfaction among the workforce

Approaches of TQM:

- Find out what customers want.
- Design a product or service that meet or exceed what customer want.
- Remember the concept during the design a production process “DO THE JOB RIGHT THE FIRST TIME” .The concept developed by Philip Crosby. Determine where mistakes are likely to occur and try to prevent them.
- Keep track of results and use those to guide improvement in the system. Never stop trying to improve.
- Extend these concepts to suppliers and to distribution.

Some Other Elements in TQM

1. Continual Improvement
2. Competitive Benchmark
3. Employee Empowerment
4. Team Approach
5. Decision based on facts rather than opinion
6. Knowledge of tools
7. Supplier Quality

Deming's 14-Points for Management

1. Create constancy of purpose for the improvement of product and services.
2. Adopt the new philosophy throughout all areas everyday.
3. Cease dependency on mass production
4. End the practice of awarding business on the price tags alone.
5. Improve constantly and forever the system of production and service.
6. Institute training and retraining.
7. Institute leadership.
8. Drive out fear.
9. Breakdown barriers between staff areas.
10. Eliminate the slogan exhortations and targets for the workforce.
11. Eliminate numerical quotas for production
12. Remove barriers to pride of workmanship.
13. Institute a rigorous program education and retraining.
14. Take action to accomplish the transformation/revolution.

Deming chain reaction in TQM

Improve Quality



Cost decreases



Productivity improves



Captures markets with better quality and lower prices



Stays in business



Provide jobs and more jobs

Method of Process Improvement

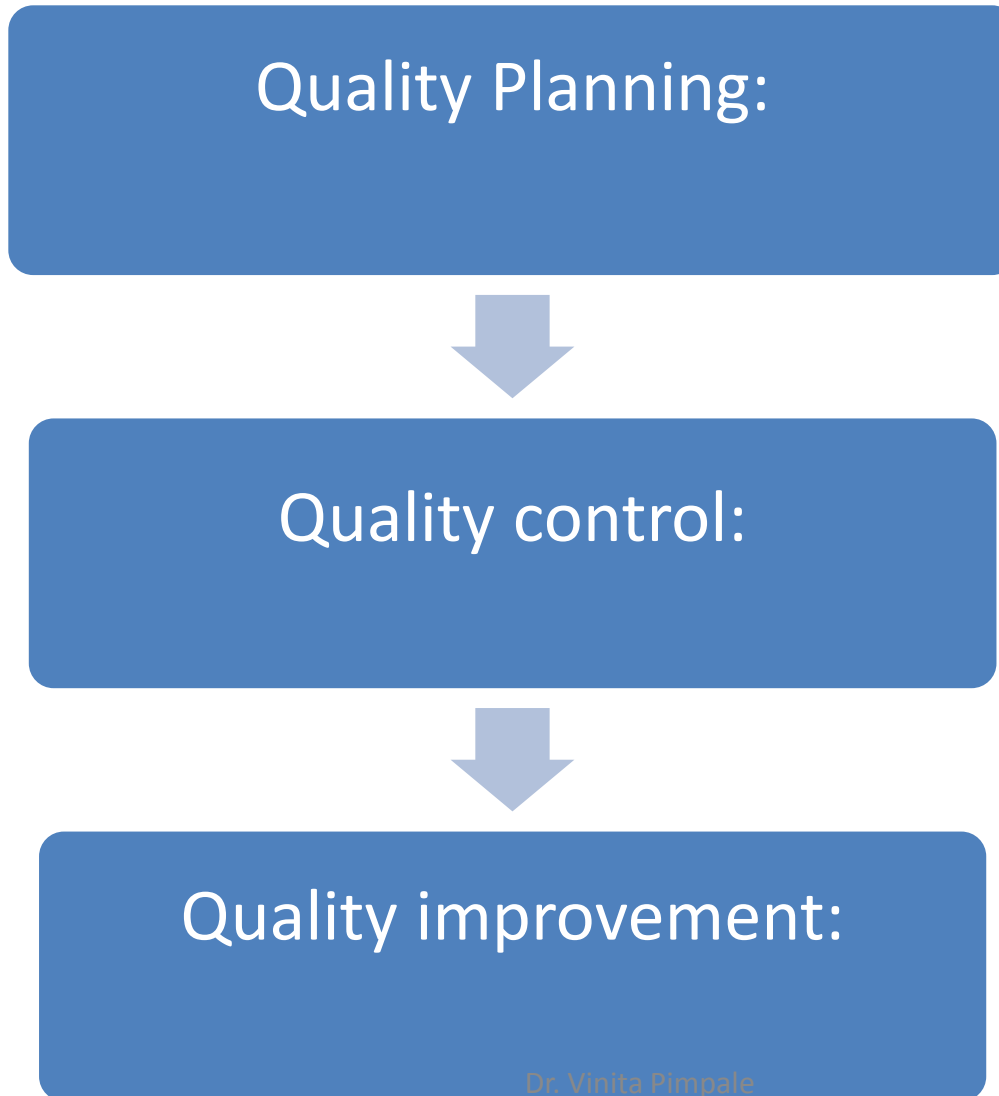
The Plan-Do-Check -Act Cycle

- This also referred to as either Shewhart Cycle or Deeming wheel.
- **Step-1: Plan:** Begin by studying the current process. Document the process. Then collect data to identify problems. Next, survey data and develop a plan for improvement. Specify measures of evaluating the plan.
- **Step-2: Do** Implement the plan on a small scale if possible. Document any changes made during this phase. Collect data systematically for evaluation.
- **Step-3:check:** Evaluate the data collection during the do phase. Check how closely the results match the original goals of the plan phase.
- **Step-4:Act** If the results are successful standardized the new method and communicate the new method to all people associated with the process.

Juran's Quality Trilogy

- Dr. J.M. Juran, did impact on the quality movement in Japan.
- He developed a useful framework, referred as “a universal thought process about quality, which fits all functions, all levels, all products lines.”
- He called it as “Quality Trilogy”

Quality Trilogy means managing for quality consists of three basic quality



Quality Planning:

- It involves the process of establishing goals of organization.
- Once the process becomes operational, their responsibility is to run the process at optimal effectiveness and take corrective action.

Quality control:

- It is the process for breaking through too extraordinary levels of performance.
- Quality improvement does not happen of its own accord.
- It happens by purposeful action taken by upper management of quality improvement process

Quality improvement:

- It is implemented in addition to quality control, not instead of it.
- Prove need for improvements
- Build awareness of opportunities to interfere
- Organise for diagnosis
- Provide remedies

Juran Quality Improvement Plan (JQIP)

- Action plan to solve problems which are chronic in nature
- Interdepartmental involving middle level & lower Level of Organization. Called Vital Few Approach.
- Members come from following departments:
 - Ailing department
 - Suspect department
 - Remedial Department

TOOLS FOR PROCESS IMPROVEMENT

There are a number of tools for process improvement. We are going to describe eight and first seven is known as seven basic quality tools. These areas-

- Check sheets
- Flowcharts
- Scatter Diagrams
- Histograms
- Pareto Analysis
- Control Charts
- Cause and effect Diagram
- Run charts.