

UNIT II

TQM PRINCIPLES

2.1 LEADERSHIP

- Leadership is the ability to positively influence people and system under one's authority to have a meaningful impact and achieve important goals.
- Leadership may seek to motivate employees and develop enthusiasm for quality leaders create clear & visible quality values and integrate these values into the organization's strategy.
- Leadership concepts:
- Leadership means to create an order that is consistent. Controllable and predictable. Leadership is all about helping the people to do a better job, It is the leaders responsibility to discover & remove all barrier that prevent workers from taking pride in what their do.
- Leadership requires a good understanding of human nature. To become an effective leader & understanding of the following is a must.
- People require job security and at the same time independence also.
- People are self motivated but in addition that sensitive to rewards/ punishment that are external in nature.
- People give importance to words, especially word of praise.
- People do not trust a leader whose words & actions do not match.
- People can do only few things at a time (includes processing of facts).
- Hence for effective leadership a leader should note the following.
- Leaders should not punish people for mistakes, this will make the person stop taking risk & being creative.
- Leaders should be of encouraging type and should reward good work. Eg: Employee accomplishment news letter.
- Leaders should ensure safe and secure working atmosphere.
- Leaders should make the employees to believe that the work they are carrying out is important. This will make the employees to be committed to wars their work.
- Leaders should give responsibility with the required authority to their employees. Then only employees will get a feeling a commitment.

- Leaders should focus on key values & objectives that will make employees understand and follow them for uniformity in approach.
- Leaders should see his leadership as responsibility
- Leaders should have vision, enthusiasm, integrity & should love what he does.
- Leader should have curiosity to learn, be generous
- Leader should be effective in communication and delegation

Habits for quality leaders

1. Being proactive

- This is to take responsibility for one self.
- Moreover proactive people think carefully & then respond.

2. Beginning with the end in mind

- This is to begin with an appropriate plan that will produce the necessary end result.

3. putting first things first

- This helps in managing time effectively, This is all about self management.
- The time management matrix is used to priorities and work on activities

4. Thinking win-win

- This is to approach anything & everything with positive attitude with empathy.

5. Seeking first to understand, then to be understood

- This is to master the first step towards effective communication, that is listening.

6. Gathering people together for team work

- Teams (Together Each Activities More Success). Always the whole is greater than the parts. Only when people work together better and higher order results can be achieved.

7. Renewing

- This is to fine tune oneself for achieving better performance.
- This is done on the following 4 dimensions (Regular exercise, proper food habits, relaxation etc)
- Spiritual dimension (this is to develop the intellect of oneself by reading, writing, education)
- Social and emotional dimension (by maintaining good relationship with others)

ROLE OF SENIOR MANAGEMENT

1. Management by Wandering Around (MBWA).
2. Strategy of problem solving and decision making.
3. Strong information base.
4. Recognition and Reward system.
5. Spending most of the time on Quality.
6. Communication.
7. Identify and encourage potential employee.
8. Accept the responsibility.
9. To play a role model.
10. Remove road blocks.
11. Study TQM and investigate how TQM is implemented elsewhere.
12. Establish policies related to TQM.
13. Establish 'priority of quality' and 'customer satisfaction' as the basic policy.
14. Assume leadership in bringing about a cultural change.
15. Check whether the quality improvement programs are conducted as planned.
16. Become coaches and cheer leaders to implement TQM.
17. Generate enthusiasm for TQM activities.
18. Visit other companies to observe TQM functioning.
19. Attend TQM training program
20. Teach others for the betterment of society and the surroundings.

2.2 CUSTOMER COMPLAINTS

From any statistical analysis of customer satisfaction, the following conclusion were made

1. A totally satisfied customer contribute 2.6 times as much as revenue to a company as a some what satisfied customer.
2. A totally satisfied customer contribute 17 times as much revenue to as a some what dissatisfied customer
3. A totally dissatisfied customer decreases revenue at a rate equal to 18 times of what a totally satisfied customer contributes to business.
4. Thus the number of dissatisfied customers should be reduced as much as possible. In order to do so, customer feedback must be continuously solicited & monitored

Necessary for customer complaints

- To discover customer satisfaction
- To Identify customer needs
- To discover relative priorities of quality
- To compare performance with the competition
- To determine opportunities for improvement

Tools for collecting customer complaints are:

Listening to the voice of the customer can be accomplished by numerous information collecting tools.

1. Comment Card: It is a card , normally attached to the warrantee issued with the product
2. Customer Questionnaire: It includes
 - Surveys through mail
 - Surveys through telephone

	<u>Highly</u>		<u>Neutral</u>		<u>Highly</u>
	<u>Satisfied</u>				<u>Dissatisfied</u>
1. Trash removal	5	4	3	2	1
2. Personal hygiene	5	4	3	2	1
3. Romance	5	4	3	2	1
4. Thoughtfulness	5	4	3	2	1
5. Listening skills	5	4	3	2	1
6. Faithfulness	5	4	3	2	1
7. Respect for Mother – in - law	5	4	3	2	1
8. Overall, how satisfied are you with your marriage?	5	4	3	2	1

To make surveys more useful, it is best to remember eight points

- Clients and Customers are not the same
- Surveys raise customers expectations
- How you ask a question will determine how the question is answered
- The more specific the question, the better the answer
- You have only one chance and only 15 minutes
- The more time you spend in survey development, the less time you will spend in data analysis and interpretation
- Who you ask is as important as what you ask
- Before the data are collected, you should know how you want to analyze and use the data

3. Focus Groups

These groups are very effective for gathering information on customer expectations and requirements.

4. Toll – Free Telephone Numbers
5. Customer Visits
6. Report Card

7. The Internet and Computers
8. Employee Feedback
9. Mass Customization

Handling the Complaints

Organization can handle the complaints as follows:

1. Complaints must be collected from all sources viz., letters, phone calls, meeting & verbal words.
2. Data should be collected
3. Complaints must be resolved quickly as possible and customer must be contacted and conformed
4. All customers must get a response within 15 days
5. Issues which are generally locally, must be resolved locally, preferably on the complaint
6. On regular basis, data must be identified, resolved and eliminate
7. Issues- beyond the control of local entity must be solved at the central coordinator
8. Performance measure must be identified and monitored
9. There must be a regular promotion and facilitation system for constant nurturing [reduction of complaints]

2.3 CUSTOMER RETENTION

- It represents the activities that produce the necessary customer satisfaction that creates customer loyalty, which actually improves the bottom line.
- Customer satisfaction surveys, focus groups, interviews and observations can help to determine what customer think of a service or a product.
- Customer retention moves customer satisfaction to the next level by determining what is truly important to the customers and making sure that the customer satisfaction system focus as valuable resources on things that really matter to the customer.
- Customer retention is the connection between customer satisfaction & the bottom line.
- High employee retention has a significant impact on high customer retention.
- Customer retention really moves the customer satisfaction to the next level called customer delight.

2.4 EMPLOYEE INVOLVEMENT

- It is one approach to improve quality and productivity. It is the backbone of a TQM movement.
- An effective TQM effort requires the total involvement from every person at all levels in the organization.
- It leads to meet the organization goals and objectives.
- Employee involvement is one approach to improve quality and productivity.
- It is a means to better meet the organization's goals for quality and productivity.

2.5 EMPLOYEE MOTIVATION

- Knowledge of motivation helps us to understand the utilization of employees involvement to achieve process improvement.

Importance of motivation

1. Motivation improves employee involvement
2. Motivation promotes job satisfaction and thus reduces absenteeism & turn over.
3. Motivation helps in securing a high level of performance and hence enhances efficiency & productivity.
4. Motivation creates a congenial working atmosphere in the organization & thus promotes interpersonal cooperation.

Theories of motivation

Maslow’s Hierarchy Of Needs :

- One of the first and most popular motivational theories was developed by Abraham Maslow.
- Motivation could be best explained in terms of hierarchy of needs and that there were five levels

Level 1: Physiological/ survival needs

Level 2: safety/ security needs

Level 3; Social needs

Level 4: Esteem needs

Level 5: Self actualisation needs

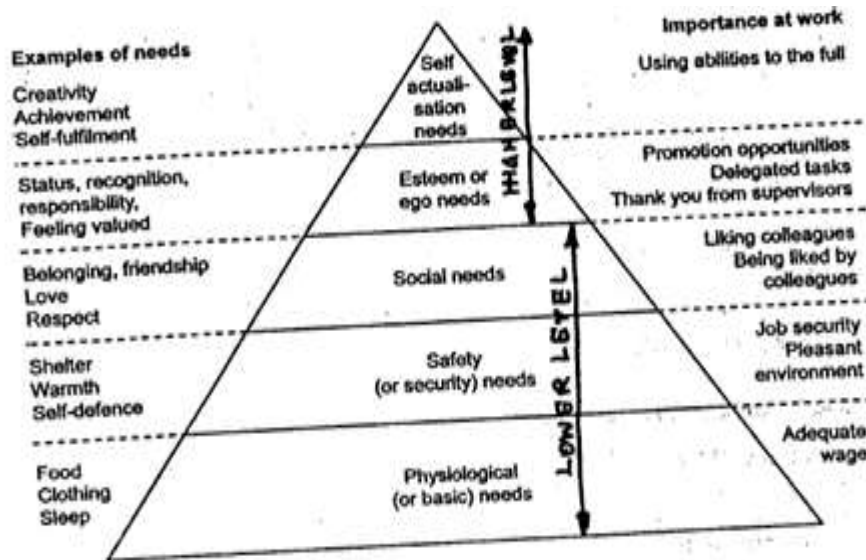


Figure: 1 Maslow’s Hierarchy of needs

Maslow has set up a hierarchy of five levels of basic needs. Beyond these needs, higher levels of needs exist. These include needs for understanding, esthetic appreciation and purely spiritual needs. In the levels of the five basic needs, the person does not feel the second need until the demands of the first have been satisfied, nor the third until the second has been satisfied, and so on. Maslow's basic needs are as follows:

Physiological Needs

These are biological needs. They consist of needs for oxygen, food, water, and a relatively constant body temperature. They are the strongest needs because if a person were deprived of all needs, the physiological ones would come first in the person's search for satisfaction.

Safety Needs

When all physiological needs are satisfied and are no longer controlling thoughts and behaviors, the needs for security can become active. Adults have little awareness of their security needs except in times of emergency or periods of disorganization in the social structure (such as widespread rioting). Children often display the signs of insecurity and the need to be safe.

Needs of Love, Affection and Belongingness

When the needs for safety and for physiological well-being are satisfied, the next class of needs for love, affection and belongingness can emerge. Maslow states that people seek to overcome feelings of loneliness and alienation. This involves both giving and receiving love, affection and the sense of belonging.

Needs for Esteem

When the first three classes of needs are satisfied, the needs for esteem can become dominant. These involve needs for both self-esteem and for the esteem a person gets from others. Humans have a need for a stable, firmly based, high level of self-respect, and respect from others. When these needs are satisfied, the person feels self-confident and valuable as a person in the world. When these needs are frustrated, the person feels inferior, weak, helpless and worthless.

Needs for Self-Actualization

When all of the foregoing needs are satisfied, then and only then are the needs for self-actualization activated. Maslow describes self-actualization as a person's need to be and do that which the person was "born to do." "A musician must make music, an artist must paint, and a poet must write." These needs make themselves felt in signs of restlessness. The person feels on edge, tense, lacking something, in short, restless.

If a person is hungry, unsafe, not loved or accepted, or lacking self-esteem, it is very easy to know what the person is restless about. It is not always clear what a person wants when there is a need for self-actualization. The hierarchic theory is often represented as a pyramid,

with the larger, lower levels representing the lower needs, and the upper point representing the need for self-actualization. Maslow believes that the only reason that people would not move well in direction of self-actualization is because of hindrances placed in their way by society. He states that education is one of these hindrances.

HERZBERG’S TWO FACTOR THEORY

1. Motivation Factor: People are motivated by recognition, responsibility, achievement, advancement and the work itself. These are called as motivators
2. Dissatisfies or Hygiene Factor: Low salary, minimal fringe benefits, poor working conditions, ill defined organizational policy, mediocre technical supervision are dissatisfies which implies they are preventable.

This theory is also called motivation-hygiene theory. This theory is based on two factors: 1. Motivation factors or satisfiers, and 2. Hygiene factors or dissatisfies. Various motivation and hygiene factors are listed in Table.

Motivation and hygiene factors

Motivation Factors	Hygiene Factors
<ul style="list-style-type: none"> • Achievement 	<ul style="list-style-type: none"> • Supervisors
<ul style="list-style-type: none"> • Recognition 	<ul style="list-style-type: none"> • Working conditions
<ul style="list-style-type: none"> • The work itself 	<ul style="list-style-type: none"> • Interpersonal relationships
<ul style="list-style-type: none"> • Responsibility 	<ul style="list-style-type: none"> • Pay and security
<ul style="list-style-type: none"> • Advancement and growth 	<ul style="list-style-type: none"> • Company policy and administration

According to Herzberg, maintenance or hygiene factors are necessary to maintain a reasonable level of satisfaction among employees. These factors do not provide satisfaction to the employees but their absence will dissatisfy them. Therefore these factors are called dissatisfiers.

On the other hand, motivational factors creates satisfaction to the workers at the time of presence but their absence does not cause dissatisfaction. It can be noted that Herzberg’s dissatisfiers are roughly equivalent to Maslow’s lower levels, and the motivators are similar to the Maslow’s upper levels.

Thus the knowledge of motivation is required for any organization to understand the utilization of employee involvement.

People were motivated by

- Recognition
- Responsibility
- Achievement
- Advancement
- The work itself

Bad feeling were associated with

- Low salary
- Minimal fringe benefits
- Poor working conditions
- Ill- defined organizational policies

These job related factors were labeled dissatisfiers or hygiene factors. Dissatisfiers are extrinsic in nature and motivators are intrinsic

EMPLOYEE WANTS

Employee wants tend to follow the theories of Maslows and Herzberg. Table below shows employeewants and managers perception of employee wants.

What employee want

Factor	Employee rating	Manager rating
Interesting work	1	5
Appreciation	2	8
Involvement	3	10
Job security	4	2
Good pay	5	1
Promotion/growth	6	3
Good working condition	7	4
Loyalty to employees	8	7
Help with personal problems	9	9
Tactful discipline	10	6

ACHIEVING A MOTIVATED WORK FORCE BY THE MANAGERS

Know thyself, Know employees, Establish a positive attitude, Share the goal, Monitor progress, Develop interesting work by job rotation, job enlargement(Horizontal) and job enrichment (Vertical), Communicate effectively, Celebrate success. Concept to achieve a motivated work force are as follows.

1. Know thy self
2. Know your employees
3. Establish a positive attitude
4. Share the goals
5. Monitor progress
6. Develop interesting work
7. Communicate effectively
8. Celebrate success

These 8 concepts can be used at all levels of the organization.

2.6 EMPOWERMENT

It is an environment in which people have the ability, the confidence and the commitment to take his responsibility and ownership to improve the process and initiate the necessary steps to satisfy customer requirements within well-defined boundaries in order to achieve organizational values and goals. Job Enrichment: Is expanding content of the Job. Job Empowerment: Is expanding the context of the job.

The two steps to empowerment are

1. To arm people to be successful through coaching, guidance and training.
2. Letting people do by themselves.

In order to create the empowered environment 3 conditions are necessary.

1. Every one must understand the need for change
2. The system needs to change to the new para diagram
3. The organization must enable its employees.

General principles of empowering people are given below.

1. Tell people what their responsibilities are.
2. Give them authority equal to the responsibility assigned to them
3. Set standards for excellence.
4. Provide them with training that will enable them to maintain standard.
5. Give them knowledge and information.
6. Provide them with feedback on their performance
7. Trust them and create trust worthiness
8. Allow them to fail but guide them and counsel them when needed
9. Treat them with dignity & respect

Characteristics of empowered employees

- They feel responsible for their own task
- They are given a free hand in their work
- They balance their own goals with those of the organization
- They are well trained, equipped, creative and customer oriented
- They are critical, have self- esteem & are motivated
- They are challenged and encouraged
- They monitor & improve their work continuously
- They find new goals & change challenges

The ten steps to employee empowerment are listed

- a) Define the reasons for change to the employee
- b) Change the behavior of senior management
- c) Determine what decisions employees are to take
- d) Establish natural work teams
- e) Share information with empowered employees
- f) Select the right employees who can do best in an empowered and team based environment.
- g) Provide training to the selected employees in decision making, problem solving, conflict management and conducting effective meetings
- h) Communicate expectations through performance management plans
- i) Align reward & recognition programs Don't recognize individual jobs/ tasks but instead recognize initiatives

2.7 TEAMS

Teams and Team works A team can be defined as a group of people working together to achieve common

objectives or goals Team work is the cumulative actions of the team during which each member of the team subordinates his individual interest and opinions for the fulfilling of objectives of the group.

BENEFITS OF TEAM WORK

Improved solutions to quality problems, ownership of solutions, communication and integration

- Objectives – Short Term Planning
- Goal – Long Term Planning

A team is defined as a group of people working together to achieve common objectives or goals. Employee involvement is optimized by the use of teams. Teamwork is the cumulative actions of the team during which each member of the team subordinates his individual interests and opinions to fulfill the objectives or goals of the group.

WHY TEAMS WORK:

1. Many heads are more knowledgeable than one.
2. The whole is greater than the sum of its members.
3. Team members develop a rapport which each other.
4. Teams provide the vehicle for improved communication.

TYPES OF TEAMS:

1. Process improvement team.
2. Cross – functional team.
3. Natural work teams.
4. Self – Directed / Self – Managed work teams.

Process improvement team:

Involved in improvement of sub processes or processes. Usually has 6-10 members. Disbanded when the objective is reached. May include the local supplied and customer depending on the location

Cross functional teams:

6-10 members temporary team. Members are Top management level from various functional areas of management. Discuss complex problems and break down into smaller parts to refer it to various departmental teams for further solution.

Natural work teams:

Not voluntary and the total work unit is part of the team. Manager also a part of the team and the management selects the projects to be improved. Managers must also ensure that the entire team is comfortable with each other.

Self directed / self managed work team:

Extension of natural work teams but here the group of individuals is empowered not only to do work but manage it. No manger will present but a coordinator (Which will be normally rotated among members) will be appointed. Additional responsibilities of the team hiring/ dismissal, performance evaluation, customer relations, supplier relations, recognition/rewards and training.

CHARACTERISTICS OF SUCCESSFUL TEAMS:

- | | |
|-------------------------------|------------------------------------|
| 1. Sponsor | 2. Team Charter |
| 3. Team Composition | 4. Training |
| 5. Ground Rules | 6. Clear Objectives |
| 7. Accountability | 8. Well-Defined decision procedure |
| 9. Resources | 10. Trust |
| 11. Effective Problem Solving | 12. Open Communication |
| 13. Appropriate Leadership | 14. Balanced Participation |

15. Cohesiveness

Sponsor:

In order to have effective liaison with quality council, there should be sponsor. The sponsor is a person from the quality council, he is to provide support to the organization

Team Charter:

A team charter is a document that defines the team's mission boundaries, the background of the problem, the team's authority and duties and resources. It also identifies the members and their assigned roles – leader, recorder, time keeper and facilitator.

Team Composition:

Not exceeding 10 members except natural work team and self managed teams.

Training:

The team members should be trained in the problem solving techniques team dynamics and communication skills

Ground Rules:

The team should have separate rules of operation and conduct. Ground rules should be discussed with the members, whenever needed it should be reviewed and revised

Clear objectives

Without clear objectives and goals the team will have difficulty

Accountability

Periodic status reports should be given to the quality council

Well defined decision procedure

Effective acceptable & timely decisions have to be made by the team

Resources:

The team cannot be expected to perform successfully without the necessary tools

Trust by the management,

Management must trust the team to perform the task effectively

Effective problems solving:

Decisions are based on the problem- solving method

Open communication,

Members actively listen without interruption to other members, speak with clarity and directness, ask questions and say what they mean

Appropriate Leadership,

All teams need leadership

Balanced participation

All members must be involved in the team's activities

Cohesiveness

Members should be comfortable working with each other

TEAM MEMBER ROLES:

TEAM LEADER

The team leader who is selected by the quality council, sponsor or the team itself,

- Ensures the smooth and effective operation of the team.
- Facilitates the team process.
- Serves as a Contact Point.
- Organizes the implementation of changes.
- Prepares the meeting agenda.

FACILITATOR

- Supports the leader.
- Focuses on the team process.
- Acts as a resource to the team.
- Provides feedback to the team.

RECORDER

- Documents the main ideas of the team's discussion, the issues raise, decisions made, action items etc.
- Presents the documents and distributes the MOM.
- Participates as a team member.

TIMEKEEPER

- Ensures that the team maintains the schedule.
- Participates as a team member.

TEAM MEMBER

- Contributes best, without reservation.
- Respects other people's contributions.
- Listens carefully and asks questions.
- Works for consensus on decisions.
- Supports the decision of the team.
- Understands and is committed to the team objectives.

- Respects and is tolerant of individual differences.
- Acknowledges and works through conflict openly.
- Carries out assignments.

DECISION MAKING METHODS :

Non decision, Unilateral decision, Handclasp decision (Two members with a good idea of the subject decide), Minority-rule decision, Majority rule decision, Consensus (Not everyone need to accept, But every one should be willing to implement)

1. Non-decision.: A team will discuss a subject extensively and not arrive at a decision
2. Unilateral decision.: This type of decision is made by one person, usually the leader
3. Handclasp decision.:
4. Minority-rule decision. When a few team members dominate the discussion and impose their will on the majority, this type of decision occurs
5. Majority-rule decision.: This method is widely used when most of the team agree on the best alternatives
6. Consensus.: This method requires sufficient discussion for all members to feel they can support the decision

ELEMENTS OF EFFECTIVE TEAM WORK

Regular scheduling with a fixed time limit, purpose, role and responsibilities, activities, decision, results and recognition.

TEAM MANAGEMENT WHEEL

To make a lean more effective a team management wheel has been evolved. The activities are advising, innovating, promoting, developing, organization, producing, inspecting, maintaining and linking. The roles of wheel are advisor, explore, organizer and controller.

STAGES OF TEAM DEVELOPMENT

Forming stage- Initial stage with only group of individuals and no team work. Team purpose, roles are created.

Storming Stage -Initial agreement roles are challenged. Hostilities, emerge which may be resolved

Norming Stage-Formal informal relations get established.

Performing Stage -Team operates in a successful manner with trust, openness, healthy conflict and decisiveness among the members.

Maintenance stage – Functioning should not deteriorate with time Q

Evaluating Stage – Evaluating team performance

COMMON BARRIERS TO TEAM PROGRESS :

Insufficient training, Incompatible rewards and compensation, First-line supervisor resistance, Lack of planning; Lack of management support, Access to information systems, Lack of union support, Project scope too large, Project objectives are not significant, No clear measures of success and No time to do improvement work

- Insufficient training.
- Incompatible rewards and compensation.
- First-line supervisor resistance.
- Lack of planning.
- Lack of management support.
- Access to information systems.
- Lack of Union support.
- Project scope too large.
- Project objectives are not significant.
- No clear measures of success.
- No time to do improvement work.

2.8 RECOGNITION AND REWARD

Recognition is a process whereby management shows acknowledgement (Verbal or written) of an employee outstanding performance. Recognition is a form of employee +ve motivation. Reward is a tangible one such as increased salaries, commission, cash bonus, gain sharing etc., to promote desirable behavior.

It can be even theatre tickets, dinner for two, a small cash awards, etc., The employees are recognized to improve their morale, show the company's appreciation for Better Performance, create satisfied and motivated workplace and stimulate creative efforts. Recognition is a process by which management shows acknowledgement of an employee's outstanding performance.

Various ways for Recognition and Rewards are

1. Recognition can be expressed using verbal and written praise.
2. Rewards may be in the form of certificates and plaques.
3. Reward is normally in the form of cinema tickets, dinner for family etc.
4. The financial compensation (for recognition) can be paid in terms of increased salaries, commissions, gain sharing etc.
5. The efforts of employees can be recognized by promotions, special job assignments etc.
6. A letter of appreciation from the CEO or the Top Management will increase the employee's involvement.
7. Reward may be delayed but recognition should be in a timely basis.
8. Rewards should be appropriate to the improvement level.
9. People like to be recognized than any reward.

10. Special forms of recognition include pictures on the bulletin board, articles in news letters, letter to families etc.
11. Supervisors can give on-the-spot praise for a job which is done well.

EFFECTS OF RECOGNITION AND REWARD SYSTEM :

1. Recognition and reward go together for letting people know that they are valuable members for the organization.
2. Employee involvement can be achieved by recognition and reward system.
3. Recognition and reward system reveals that the organization considers quality and productivity as important.
4. It provides the organization an opportunity to thank high achievers.
5. It provides employees a specific goal to achieve.
6. It motivates employees to improve the process.
7. It increases the morale of the workers.

INTRINSIC VS EXTRINSIC REWARDS

INTRINSIC REWARDS	EXTRINSIC REWARDS
Related to feeling of accomplishment or self worth	Related to pay or compensation issues
<ol style="list-style-type: none"> 1. Non monetary forms of recognition to acknowledge achievement of quality improvement goals 2. Celebrations to acknowledge achievement of quality improvement goals 3. Regular expression of appreciation by managers and leaders to employees to acknowledge achievement of quality improvement goals 4. 360o performance appraisals feedback from co-workers, subordinates or customers is incorporated into performance appraisal 5. Formal suggestion system available for individuals to make quality improvement suggestion 6. Developmental based performance appraisals 7. Quality based promotion 	<ol style="list-style-type: none"> 1. Profit sharing 2. Gain sharing 3. Employment security 4. Compensation time 5. Individual based performance systems 6. Quality based performance appraisals

STEVE SMITH'S TWENTY DIFFERENT WAYS TO RECOGNIZE THE EMPLOYEES

- Send thank letter whenever possible
- Develop behind the scenes award
- Create the best ideas of the year booklet
- Feature the quality team of the month and put their picture in prominent place
- Honor peers by recognizing them
- Allow people to attend meetings in your name when you are not available
- Involve teams with external customers and suppliers by visiting them
- Invite a team for coffee or lunch whenever possible
- Create a visibility wall displaying posters, pictures, to thank the contributions of employee
- Credit the team to higher authorities when their ideas are accepted
- Take interest in employee's development
- Get the team picture in company newspaper
- Mention the ideas of others during your meetings, so that they are recognized
- Write a letter of praise to contributed team member and copy to boss
- Ask people to help you with the project which is difficult but challenging
- Send a team to special seminars, workshops to cover topics they are really interested in
- Ask your boss to send a letter of acknowledgement and thanks
- Honor outstanding contribution with awards
- Have a stock of small gifts to give to people on the spot whom you catch doing things right
- Promote or nominate for promotion, those people who contribute most

2.9 PERFORMANCE APPRAISAL

The performance appraisal is used to let employees know how they are performing. The performance appraisal becomes a basis for promotions, increase in salaries, counseling and other purposes related to an employee's future.

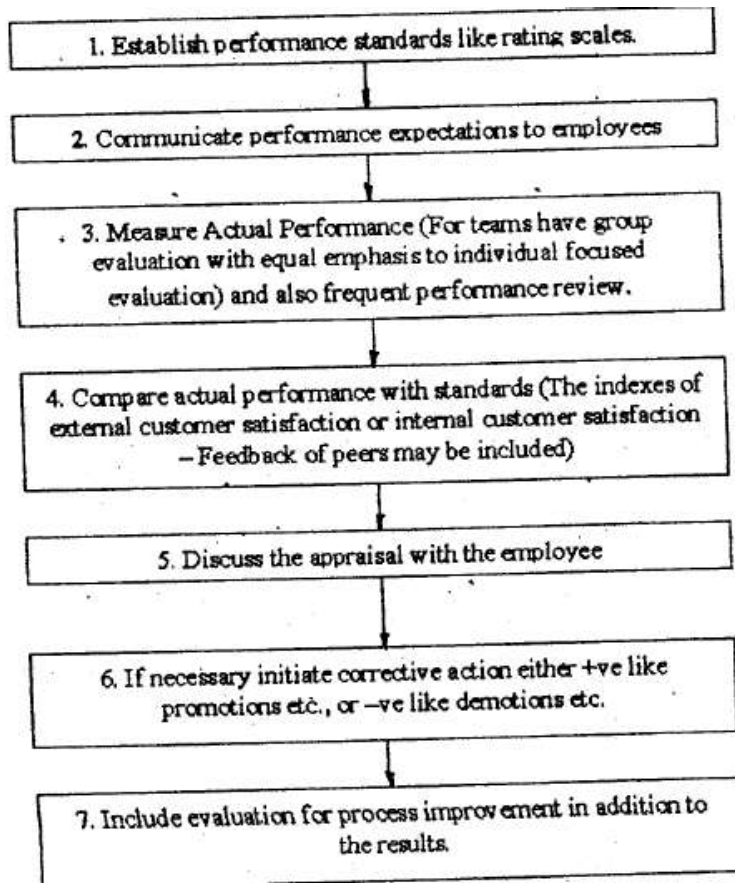
It is a systematic and objective assessment or evaluation of performance and contribution of individual needs

- Identifying employees for salary revision, promotion, transfer, demotion, lay off
- To determine training needs of employee
- To take organizational inventory of people
- To know personal strength and weakness of individuals
- To validate the selection procedure

IMPORTANCE OF PERFORMANCE APPRAISALS :

1. It is necessary to prevail a good relationship between the employee and the appraiser.
2. Employee should be informed about how they are performing on a continuous basis, not just at appraisal time.
3. The appraisal should highlight strength and weakness and how to improve the performance.
4. Employee should be allowed to comment on the evaluation and protest if necessary.
5. Everyone should understand that the purpose of performance appraisal is to have employee involvement.
6. Errors in performance evaluations should be avoided.
7. Unfair and biased evaluation will render poor rating and hence should be eliminated.

APPRAISAL PROCESS



BENEFITS OF PERFORMANCE APPRAISAL

1. Provides a feedback to identify employees for salary revision, transfer, lay-off
2. Helps in determining training needs of employee
3. Provides organization inventory of people
4. Helps to evaluate personal strength and weakness of individuals
5. To validate the selection procedure.
6. Provide the basis for promotion, demotion etc
7. May provide some information on external factors like family circumstances, health, financial or personal matters that may be affecting the performance

2.10 STRATEGIC PLANNING

Many organizations are finding that strategic quality plans and business plans are inseparable. For instance, at Corning, the 1995 Malcolm Baldrige national Quality Award Winner, if you ask them to show you their quality strategy, they will show you their business strategy; if you ask them to show you their quality plans, they will show you their business plans. In fact, term quality is not used too much. The time horizon for strategic planning is for three to ten years, and short-term planning is for one year or less.

Goals and Objectives:

Goals and objectives have basically the same meaning. However, it is possible to differentiate between the two by using goals for long-term planning and objectives for short-term planning. The goal is to win the war; the objective is to capture the bridge.

Concrete goals are needed to provide a focus, such as improve customer satisfaction, employee satisfaction, and processes. Goals can force changes in leadership style from reward and punishment to identifying and improving system problems.

Goals must be based on statistical evidence. Without statistical knowledge of the system, goals merely reflect the assumption that slogans, exhortations, and hard work will miraculously change the system. Goals must be definitive, specific, and understandable, using concrete results rather than behaviors or attitudes. The most important characteristic of goals is that they be measurable. Only measurable goals can be evaluated.

Goals must have a plan or method with resources for its achievement. If there is not a cause -and -effect relationship between the goals and the method, then the goal is not a valid one. In addition, a specific time frame or deadline for achieving the goal should be given.

Goals must be challenging yet achievable. Those individuals, work groups, departments, and functional areas that are affected by the goals should be involved in their development. Stretch goals are satisfactory, provided they are based on benchmark data.

The characteristics of objectives are identical to those given here for goals. They are operational approaches to attain the goals.

Seven steps to strategic planning

There are seven basic steps to strategic quality planning. The process starts with the principle that quality and customer satisfaction are the center of an organization's future. It brings together all the key stakeholders.

1. Customer needs

The first step is to discover the future needs of the customers. Who will they be? Will your customer base change? What will they want? How will the organization meet and exceed expectations?

2. Customer positioning

The planners determine where the organization wants to be in relation to the customers. Do they want to retain, reduce, or expand the customer base? Products or services with poor quality performance should be targeted for breakthrough or eliminated. The organization needs to concentrate its efforts on areas of excellence.

3. Predict the future

The planners must look in to their crystal balls to predict future conditions that will affect their product or service. Demographics, economic forecasts, and technical assessments or projections are tools that help predict the future. More than one organization's product or service has become obsolete because it failed to foresee the changing technology. Note that the rate of change is continually increasing.

4. Gap analysis

This step requires the planners to identify the gaps between the current state and the future state of the organization. It is an excellent technique for pinpointing gaps.

5. Closing the gap:

The plan can now be developed to close the gap by establishing goals and responsibilities. All stakeholders should be included in the development of the plan.

6. Alignment

As the plan is developed, it must be aligned with the mission, vision, and core values and concepts of the organization, Without this alignment, the plan will have little chance of success.

7. Implementation:

This last step is frequently the most difficult. Resources must be allocated to collecting data, designing changes, and overcoming resistance to change. Also part of this step is the monitoring activity to ensure that progress is being made. The

planning group should meet at least once a year to assess progress and take any corrective action.

Strategic planning can be performed by any organization. It can be highly effective, allowing organizations to do the right thing at the right time, every time.

Annual Quality Improvement Program

An annual program is developed along with a long-term strategic plan. Some of the strategic items will eventually become part of the annual plan, which will include new short-term items.

In addition to creating the items, the program should develop among all managers, specialists, and operating personnel. The sense of responsibility for active participation in making improvements. The skills needed to make improvements. The habit of annual improvements so that each year the organization's quality is significantly better than the previous year's.

As pointed out in the section on goals and objectives, operating personnel should be involved with setting objectives, and management should support them with training, projects, and resources. Employees should be asked for suggestions on what they need to improve their process.

Most likely there will be more quality objectives than available resources for accomplishing them. Therefore, those that have the greatest opportunity for improvement should be used. Many objectives will require multifunctional project teams.

Some organizations have well-structured annual quality improvement programs. In organizations that lack those programs, any improvements must come from the initiative of managers and specialists. It takes a great deal of determination by those people to secure results, because they lack the legitimacy and support that comes from an official, structured program designed by the quality council.

2.11 CUSTOMER SATISFACTION:

As emphasized so far, in today's buyers market 'the customer is the king'. Even the definition of quality, 'quality is what customer wants', emphasizes on the customer requirements. In other words, quality is a measure of customer satisfaction. It is obvious that business cannot survive without satisfied customers. Therefore TQM's purpose is meeting or exceeding customer expectations, so that the customers are delighted.

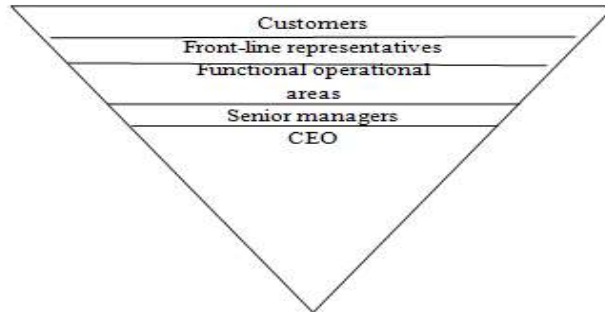


Figure 2 Customer satisfaction model

It is understood that the customer satisfaction must be the primary goal of any organization. Therefore it is essential that every employee in the organization understands the importance of the customer.

Customer Satisfaction Model

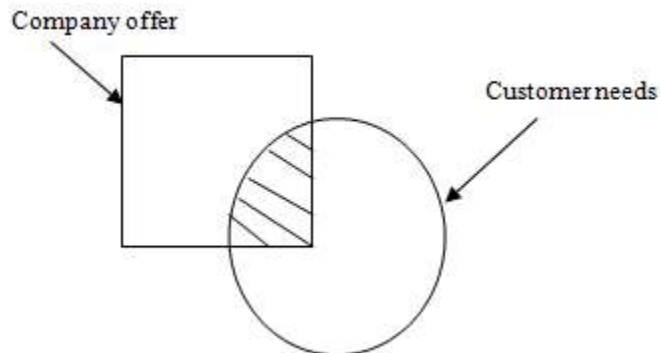


Figure 3: Teboul's model of customer satisfaction.

In figure, the customers' needs are represented by the circle, and the square represents the product or service offered by the company. The intersection portion, shown with dots, is perceived as the customer satisfaction. So it is understood that the company should strive for increasing the intersection portion i.e. customer satisfaction.

WHO ARE THE CUSTOMERS?

The customers are :

1. The most important people in the business.
2. Not dependent on the organization. The organization depends on them.
3. Not an interruption to work but are the purpose of it.
4. Doing a favor when they seek business and not vice-versa.

5. A part of business, not outsiders.
6. Life blood of the business.
7. People who come with their needs and jobs.
8. Deserve the most courteous and attentive treatment.

Types of Customers

Customers are two types. They are :

1. Internal customers, and 2. External customers.

1. Internal Customers

1. The customers inside the company are called internal customers.
2. As there is a flow of work, product and service in the organization, each department is dependent on the other. In this, each department or each quality management unit is considered as a customer by the previous department and as a supplier for the next department. Similarly every person in a process is considered as a customer of the preceding operation. This explains the concept of internal customer.

2. External Customers

- The customers outside the company are called external customers.
- In other words, an external customer is the one:
 - who uses the product or service ;
 - who purchases the product or service; or
 - who influences the sale of the product or service.
- Customer is the Boss or 'King'
- Customer dictates the market trends and direction
- Customer not only has needs to be supplied(basic performance functions)
- Also he 'wants what he wants!'(additional features satisfy him and influence his purchase decision)
- Hence the Suppliers and Manufacturers have to closely follow at the heel of the customer.

Customer – Supplier Chain

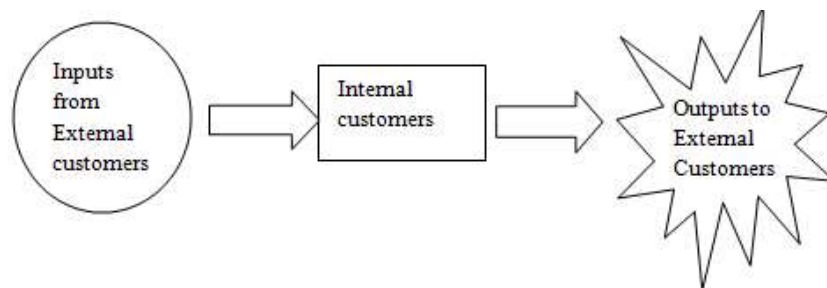


Figure 4 Customer – Supplier Chain

What is customer satisfaction?

- Is it due to Product quality?
- Is it due to pricing?
- Is it due to good customer service ?
- Is it due to company reputation?
- Is it something more?

Customer types

- External and Internal customers
- External – current, prospective and lost customers
- Internal – Every person in a process is a customer of the previous operation.(applies to design, manufacturing ,sales, supplies etc.) [Each worker should see that the quality meets expectations of the next person in the supplier-to-customer chain]
- TQM is commitment to customer-focus - internal and external customers.
- Customer/supplier chain

Internal customer/Supplier relationships

- Questions asked by people to their internal customers
- What do you need from me?
- What do you do with my output?
- Are there any gaps between what you need and what you get?
- Good team-work and inter-Departmental harmony is required. Also the leaders role in supervising the internal customer-supplier chain.

TQM and customer quality percepts

- TQM is quality management and management of quality – there is no full stop and no break in the chain!
- Continuous process (quality) improvement is all its about.
- Why? One important reason is the customer quality level is not static and his expectations keep changing and his demands too!
- Also plant process dynamics- how to achieve maximum efficiency , optimizing cost and performance in the process operations, minimizing waste etc.

User purchase perceptions- from survey

- Performance
- Features
- Service
- Warranty
- Price
- Reputation

Customer satisfaction/ dissatisfaction feedback

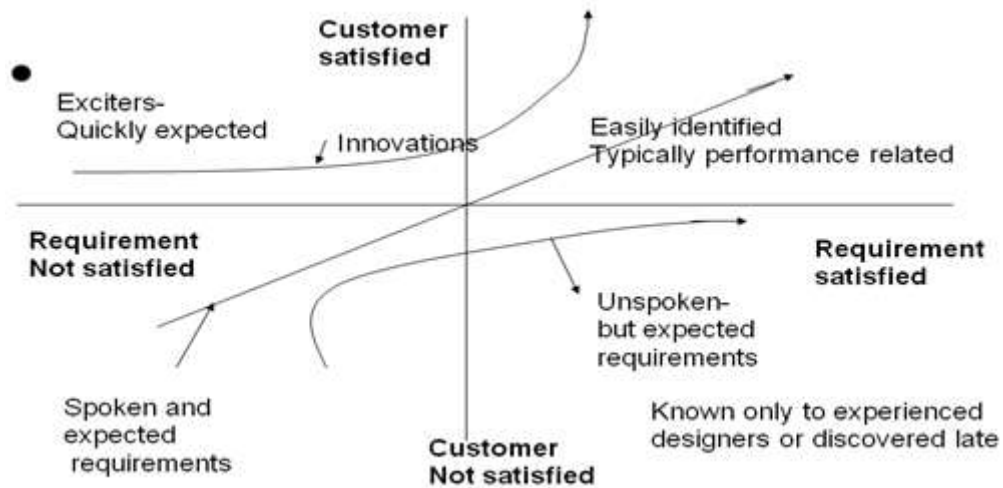
- Customer feedback has to be continuously sought and monitored - not one-time only!(Pro-active! Complaints are a reactive method of finding out there is a problem)
- Customer feedback can be relayed to Mfgr.
- Performance comparison with competitors can be known
- Customers needs can be identified
- Relative priorities of quality can be obtained from the horses' mouth!
- Areas for improvement can be noted.

Customer feedback methods

- Comment cards enclosed with warranty card when product is purchased.
- Customer survey and questionnaire
- Customer visits
- Customer focus groups
- Quarterly reports
- Toll-free phones
- e-mail, Internet newsgroups, discussion forums
- Employee feedback
- Mass customization.

Customers- Handle with care!

- Employers don't pay wages but it is the customer who pays the wages!
- So take good care of your customers.
- Customer-care centers not just profit-centers!
- The entire organization must in effect revolve around the customer – whether the customer is being well served and if he is really pleased, contented and satisfied with the service you have to offer.
- (i) Organization
- Identify each market segment
- Write down the requirements
- Communicate the requirements
- Organize processes
- Organize physical spaces



2.12 QUALITY STATEMENTS

Quality statements are the part of the strategic planning process. It includes

- Vision statement
- Mission statement
- Quality policy statement

The utilization of the 3 statements varies considerably from organization-to-organization. The small organization may use only the quality policy statements.

1. Vision statement

- The vision statement is a short declaration of what an organization aspires to do tomorrow.
- It is the ideal state that might never be reached but which you continually advise to achieve.
- It should be noted that the vision statement is to be realistic and achievable that is it should not be an outcome of only a purely wishful thinking process
- Successful vision are timeless, inspirational and become deeply shared within the organization.
- It is important that the leader articulates & acts upon the vision and those employees understand the vision and can connect their work with the well being of the organization.

It should typically include

- Organization mission
- Basic strategies & performance criteria
- Decision rules & ethical standards Expected of all employees

An example for one sentence vision statement

“To be world-class enterprise in professional electronics”

BHARAT ELECTRONICS

An example of a more elaborate vision statement is

L&T shall be a professionally- managed Indian multinational, committed to total customer satisfaction and enhancing shareholder value.

L&T shall be an innovative, entrepreneurial team constantly creating value and attaining global benchmarks.

L&T shall foster culture of caring, trust and continuous learning while meeting expectations of employees, stakeholders and society.

LARSEN & TURBO

2. Mission statement

- It refers to what an organization wishes to do & become with in & beyond its mandate.
- It answers the following questions:
 - Who we are?
 - Who are the customers?
 - What we do/
 - How we do it?

This statement is usually one paragraph or less in length, is easy to understand , and describes the function of the organization. It provides a clear statement of purpose for employees, customers, and suppliers. An example of mission statement is

Ford Motor Company is a worldwide leader in automotive-related products and services as well as the newer industries such as aerospace, communications, and financial services. Our mission is to improve continually our products and services to meet our customers needs, allowing us to prosper as a business and to provide a reasonable return to our shareholders, the owners of our business.

FORD MOTOR COMPANY

A simpler mission statement is

Our mission is to help our customers achieve their business goals through excellence in global product realization. We will enable this through solutions based on innovative technologies, efficient processes and world- class competencies in our people.

3. Quality policy statement

The quality policy is a guide for everyone in the organization as to how they should provide products and service to the customers. It should be written by the CEO with feedback from the work force and be approved by the quality council. Common characteristics are

- Quality is first among equal
- Meet the needs of the internal and external customers

- Equal or exceed the competition
- Continually improve the quality
- Include business and production practices
- Utilize the entire work force
- A quality policy is a requirement of ISO/QS9000.
- A simple quality policy is

Xerox is a quality company. Quality is the basic business principle for Xerox. Quality means providing our external and internal customers with innovative products and services that fully satisfy their requirements. Quality is the job of every employee.

XEROX CORPORATION

A more elaborate quality policy statement is

Tata Motors is committed to maximizing customer satisfaction and services to achieve the goal of excellence, by continual improvement, through ongoing design and development, manufacture and sale of reliable, safe, cost-effective, quality products and services of international standards, using environmentally sustainable technologies, for improving levels of efficiency and productivity within its plants and ancillaries.

Tata Motors also has commitment towards improving the quality of life of its employees, both within and outside its plants and offices, through improved work practices and social welfare schemes.

RATAN N.TATA,CHAIRMAN

In summary, the quality statements consists of the core values and concepts given in a previous section, the vision statement, the mission statement, and the quality policy statement. The core values and concepts should be condensed considerably for simplicity and publication.

An example of a statement that includes vision, mission, quality policy, and core values is

Geon has a clear corporate vision.... To be the benchmark company in the polymers industry through superior performance, demonstrated by,

- Living up to its established principles of excellence in environmental protection, health and safety
- Fully satisfying the expectations of its customers
- Developing and commercializing innovative polymer technology
- Utilizing all resources productivity
- Continually improving processes and products
- Generating sustained value for customers, employees, suppliers and investors
- Creating an environment of Trust, respect, Openness and Integrity

THE GEON COMPANY

2.13 CONTINUOUS PROCESS IMPROVEMENT (CPI)

TQM has been defined as a philosophy based on quest for progress and continual improvement in the areas of cost, reliability, quality, innovation, efficiency and business effectiveness. It is a continuous learning process which never stops and is cyclic and iterative. To do CPI, we have different approaches such as Juran Trilogy, PDSA cycle, Kaizen and 5S concept input / output process model. The process refers to business and production activities of an organization. Example Purchasing, Engineering, Marketing and Accounting.

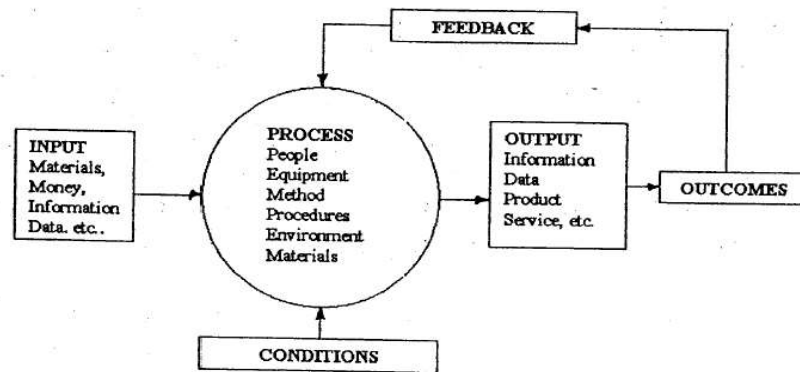


Figure 5 continuous process improvement (cpi)

Basic ways to improve process

- To reduce resources
- To reduce errors
- To meet exceed customer needs
- To make process safer
- To make process more satisfying to the person doing it.

Juran trilogy

Dr. Joseph M. Juran, who wrote a 1900 page text book on quality control handbook and other contributions to the total quality. Juran divides Quality Management into

- Quality Planning
- Quality control
- Quality improvement.

Quality planning

The components of Quality planning are listed below

- Establish quality goals
- Identify customers
- Determine customer needs
- Develop product and/ or service features corresponding to customer needs
- Establish process control and transfer plans to operations.

Planning process is crucial for improvement to become continuous activity with a long term view: The Juran Quality Planning road Map as given below.

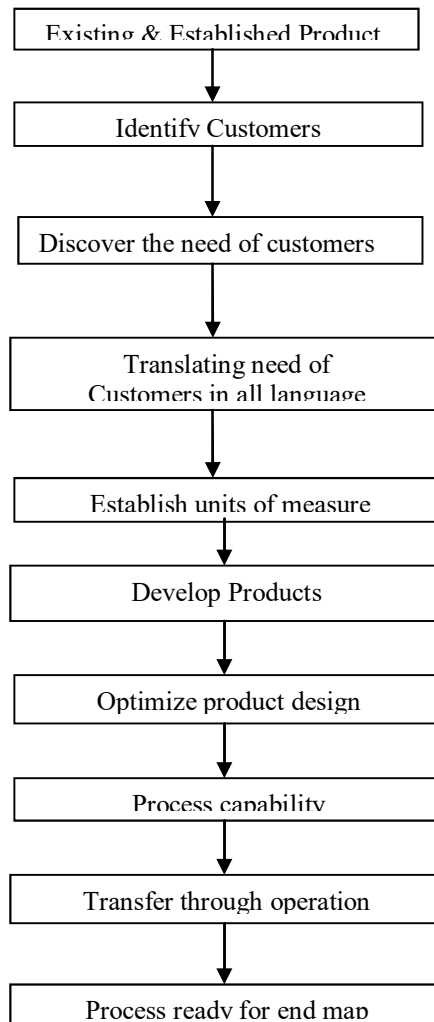


Figure 6 The Juran Quality Planning road Map

Quality control

At this stage, control processes are designed to meet and ensure the goals set in the planning stage.

Juran's Quality control Process as shown.

- Choose control subjects, decide items to control
- Choose units of measurement
- Establish standards of performance
- Measure actual performance

- Note difference between performance and standard
- Take action to close the performance gap

Quality improvement

- To find and remedy the basic causes of poor quality
- Aims to higher levels of performance that are significant to current level

Juran's ten steps to improvement are

- Build awareness of the need and opportunity for improvement
- Set for improvement
- Organize to reach the goals
- Provide training
- Carry out project to solve problems
- Report progress
- Give recognition
- Communicate results
- Keep score
- Maintain momentum by making annual improvement part of the regular system processes of company

Juran trilogy diagram

It describes the way in which Juran's trilogy is designed to the cost of quality over time which is a cyclic and ever-ending continuous improvement approach. - The sporadic waste should be identified and corrected through whereas the chronic waste requires an improvement process.

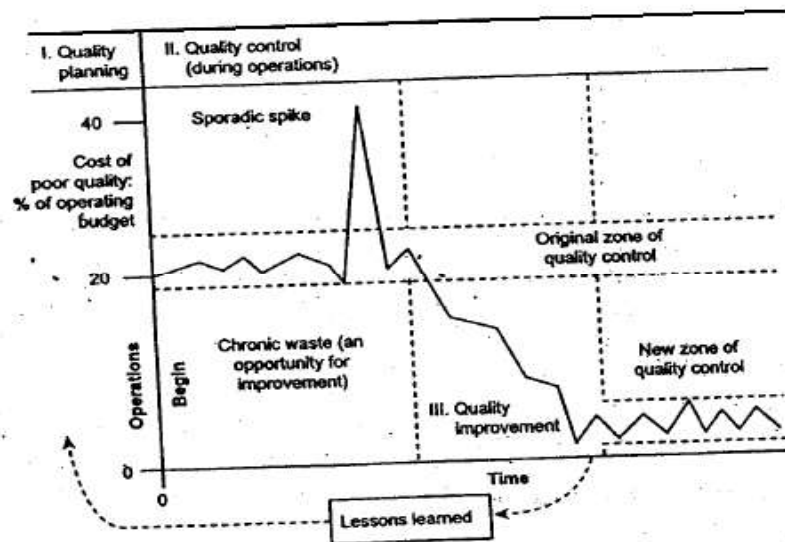


Figure7: Juran trilogy diagram

Summary of juran’s quality trilogy

Quality Planning	Quality Control	Quality Improvement
Identify the customers	Choose control subjects	Prove need for improvement
Determine the customer’s needs	Choose unit of measurement	Identify specific projects for improvement
Develop product features	Establish measurement and standard of performance	Organize to guide the projects
Establish quality goals	Measure actual performance	Organize for diagnosis for discovery of cause
Develop a process	Interpret the difference	Diagnose to find the causes
Prove process capability	Take action on the difference	Provide remedies
		Prove that remedies are effective under operating conditions
		Provide for control to hold gains

2.14 PDSA CYCLE

PDSA means the following

P(Plan): Plan carefully what is to be done

D-(Do): Carryout the activities as planned

S(Study): Did the plan work as intended, or were the results different?

A(Act); Now as the result is known, act on the result and find what worked and what did not work as per plan

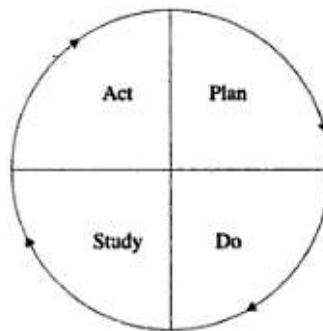


Figure:8 The PDSA cycle

Problem Solving Method :

- Now as it is a cycle, using what has been learnt, try to develop a better plan and repeat the cycle.

- It is a problem solving method.
- PDSA cycle was developed by Shewhart and then it was modified by Deming(which was called as PDSA cycle)
- PDSA cycle is used for process improvement. Continuous process improvement is the main objectives of the PDSA cycle. The PDSA cycle has seven steps. That is, completion of all the seven steps constitutes one PDSA cycle of the process improvement model. The seven steps are as listed
 Step 1: Identify improvement opportunity
 Step 2: Evaluate the current process
 Step 3: develop the optimal solution(s)
 Step 4: Take action
 Step 5: Study results
 Step 6: Standardize solution
 Step 7: Plan for the future

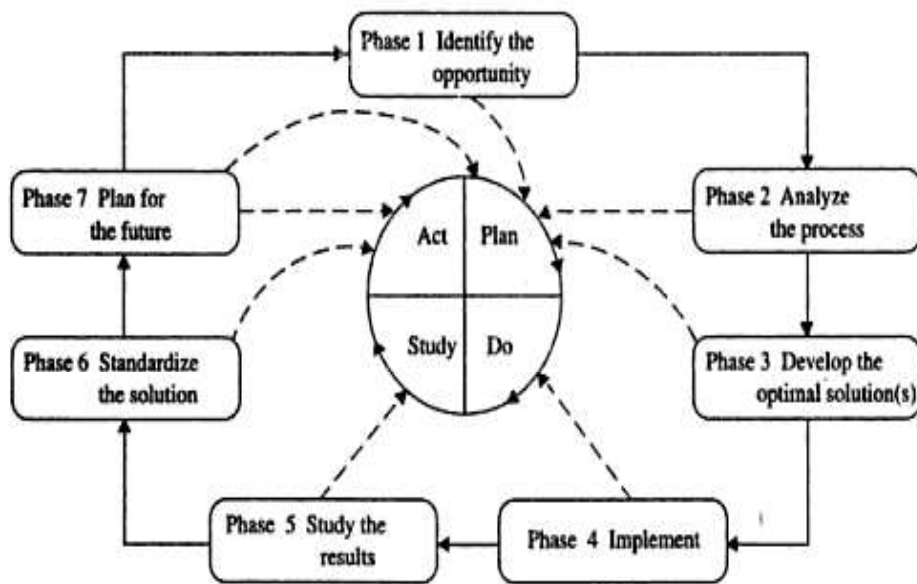


Figure: Continuous process Improvement cycle

Phase 1: Identify the opportunity

Objective: To identify the appropriate process for improvement. It consists of three parts: Identify the problem,, form the team(if one is not in existence) and define the scope.

- **Identify the Problem**

Problem identification answers the question, “What are the problems?” The answer leads to those problems that have the greatest potential for improvement and have the greatest need for solution. Problems can be identified from a variety of inputs, such as the following:

- Pareto analysis of external alarm signals. Such as field failures, complaints, returns, and others
- Pareto analysis of internal alarm signals (for example, scrap, rework, sorting, and the 100% test)
- Proposals from key insiders (managers, supervisors, professionals, and union stewards).
- Proposals from suggestion schemes.
- Field study of user’s needs.
- Data on performance of competitors (from users and from laboratory tests)
- Comments of key people outside the organization.(customers, suppliers, journalists and critics).
- Findings and comments of government regulators and independent laboratories.
- Customer surveys.
- Employee surveys.
- Brainstorming by work groups.

Problems identified provide opportunities for improvement. For a condition to qualify as a problem, it must meet the following three criteria:

- Performance varies from an established standard
- Deviation from the perception and the facts.
- The cause is unknown: If we know the cause, there is no problem.

Identifying problems for improvement is not difficult, as there are many more problems than can be analyzed. The quality council or work group must prioritize problems using the following selection criteria:

1. Is the problem important and not superficial and why?
2. Will problem solution contribute to the attainment of goals?
3. Can the problem be defined clearly using objective measures?

➤ **Form the Team**

- Team should be selected.
- Goals and milestones are established.

➤ **Define the Scope.**

Criteria for a good problem statement is as follows

- It clearly describes the problem. as it currently exists and is easily understood
- It states the effect.-What is wrong ,when it happens, and where it is occurring , not why it is wrong or who is responsible.
- It focuses on what is known, unknown and what needs to be done.

- It uses facts and is free of judgment
- It emphasizes the impact on the customer.

Phase2: Analyze the current process

The objective is to understand the process and how it is currently performed.

Step 1 : The team to develop a process flow diagram.

Step 2 : The target performance measures are defined.

Step 3 : Collection of all available data and information.

Common items of data and information are

1. Customer information
2. Design information
3. Process information
4. Statistical information
5. Quality information
6. Supplier information

Phase 3: Develop the optimal solution(s)

This phase has the objective of establishing potential and feasible solutions and recommending the best solution to improve the process.

- Creativity plays the major role, and brainstorming is the principal technique.
- There are three types of creativity:
 - Create new processes
 - Combine different processes
 - Modify the existing process

Phase 4: Implementation

This phase has the objective of preparing the implementation plan, obtaining approval and implementing the process improvements.

- Approval of the quality council.
- Obtain the advice and consent of departments, functional areas, teams, individuals etc.
- Monitor the activity.

Phase 5: Study the results

This phase has the objective of monitoring and evaluating the change by tracking and studying the effectiveness of the improvement efforts.

Phase 6: Standardize the solution

- Institutionalize by positive control of the process.
- The quality peripherals – the system, environment and supervision must be certified.
- Operators must be certified.

Phase 7: Plan for the future

The objective is to achieve improved level of process performance.

- Regularly conduct reviews of progress by the quality council.
- Establish the systems to identify area for future improvements.

- Track performance with respective internal & external customers.
- TQM tools and techniques are used to improve quality, delivery and cost.

2.15 5S

The 5S practice is a house keeping technique used to establish and maintain a productive and quality environment in an organization.

5S was invented in Japan. It stands for 5 Japanese words that start with the letter S. They are SEIRI, SEITON, SEISO, SEIKETSU & SHITSUKE.

Meaning of 5S elements:

Japanese term	English equivalent	Meaning in Japanese context
SEIRI	Tidiness	Throw away all rubbish and unrelated materials in the work place
SEITON	Orderliness	Set everything in proper place for quick retrieval and storage
SEISO	Cleanliness	Clean the work place, everything without fail
SEIKETSU	Standardization	Standardizing the way of maintaining cleanliness
SHITSUKE	Discipline	Practice ‘5S’ daily. Make it a way of life. This is also means commitment

SEIRI

Here the focus is to eliminate unwanted items from the workplace. Red tagging is an effective visual method used to identify the unwanted item.

A red tag is to be placed on all items that are not required to complete the job. Then the items with the red tag are taken to a holding area for evaluation. The items needed are retained and the items not required are disposed off.

The sorting process helps to group valuable floor space by eliminating broken tool, scrap material; and so on.

SEITON

- The focus is on efficient storage methods
 - Some strategies to effectively set in order are:
 - Painting floors to outline work areas and locations
 - Modular shelving & cabinets for needed items
 - Proper labeling & identification process
- Eg: 1. Locating notice boards where they are easy to see

2. Keeping fire extinguishers in easily accessible places.

- Here a system should be developed to easily return the item to its proper, place after it being used.

SEISO

The focus is to thoroughly clean the work area . Once the clutter and junk items have been eliminated from the work area. It is very essential to have daily follow-up cleaning to sustain the improvement.

- Workers take pride in a clean and clutter free work area.
- Workers get a sense of ownership of equipment and facility.
- Workers will be able to identify vibrations, misalignments, coolant leaks& so on.
- Eg:1. Check all electric connection for properness.
- 2. Clean all lighting bulbs, reflectors to be free from dirt.

SEIKETSU

The focus is to standardize the best practices in the workplace.

For this employees should be made to participate in the development of standards.

Objective is to prevent problems by keeping things standardized and maintain a good environment.

- Eg:1. Safe, clean & tidy clothing to be worn
2. resting , eating & smoking locations to be specified.
3. Keeping all surface clean and tidy.

SHITSUKE

Focus is on defining a new status and standards of work place organization.

This step is very important human beings by nature resists change. If good habits commitments& discipline are not maintained, then the work place will again become a dirty cluttered shop after a short period of implementing 5S.

Hence it necessary to sustain achievement by maintaining good habits and discipline.

For this act of sustaining achievements, follow are to be needed.

- Display current work procedure
- Give training to ensure use of correct procedures.
- Display safety regulations and insist every one to follow
- Establish inspection
- Keep private belongings away.

Benefits of 5S implementation are :

- Improve morale, safety, productivity& maintenance
- Create a sense of ownership of work place
- Productivity increase & quality improves
- Defects & maintenance are reduced.

2.16 KAIZEN

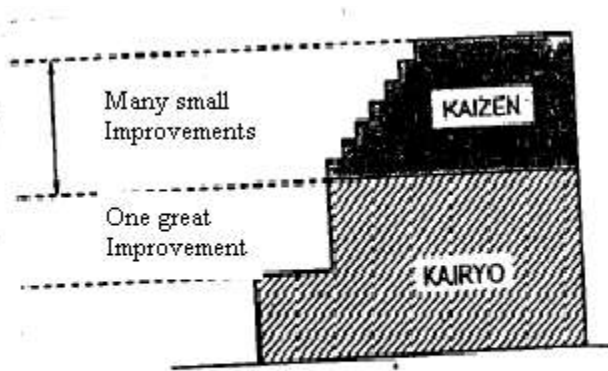
Japanese - word -means continuous improvement or improvement over

improvement - continuous improvement in small increments that make the process more

efficient, effective, controllable and adequate.

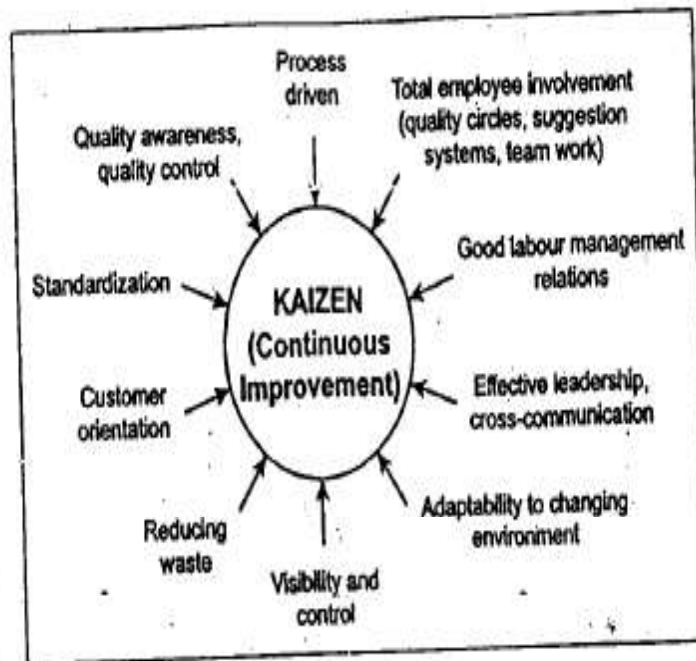
KAIRYO

Western philosophy - improvement through innovation, i.e., improvement in one or two great jumps



Comparison between Kaizen and Kairyo

KAIZEN	KAIRYO
It is achieved through conventional know how and PDCA	It is obtained by technological or organizational break through
It is employee oriented	It is technology oriented
It requires little investment but great effort to maintain	It requires large investment but little effort to maintain
It involves everybody in the company	It involves a selected few experts and researchers
It requires recognition of effort before results	It is motivated by expected results



Various aspects of Kaizen Philosophy

FEATURES OF KAIZEN

1. Value added and non value added work activities
2. Muda, which refers to the seven classes of wastes. Wastes are over production,
3. delay, transportation, processing, inventory, wasted motion, and defective parts
4. Principles of motion study and the use of cell technology
5. Principles of materials handling and use of one piece flow
6. Documentation of standard operating procedures
7. The 5S for workplace organization, which are five Japanese words that mean
8. proper arrangement (SEIRI), Orderliness (SEITON), Personal cleanliness
9. (SEISO), Standardization (SEIKETSU) and Discipline (SHITSUKE)
10. Visual management by means of visual display that everyone in the plant can use
11. for better communication
12. Just in time principle to produce only the units in the right quantities at the right
13. time and with the right resources
14. Poka-Yoke to prevent or detect errors
15. Team dynamics, which include problem solving, communication skills and conflict
16. resolution

ROLE OF PEOPLE IN IMPLEMENTING KAIZEN

1. Top management must be committed to introducing Kaizen as a company strategy
2. The executives just below top management must formulate and carry out Kaizen goals according to guidelines from top management
3. Supervisors like everyone else must use Kaizen in their activities
4. Workers must be involved in Kaizen through the suggestions systems and small group activities

2.17 SUPPLIER PARTNERING

It is defined as a continuing relationship, between a buying firm and supplying firm, involving a commitment over an extended time period, an exchange of information, and acknowledgement of the risks and rewards of the relationship.

BENEFITS OF SUPPLIER PARTNERING

- Improved Quality
- Reduced cost
- Increased Productivity
- Increased efficiency
- Increased market share
- Increased opportunity for innovation
- Continuous improvement of products/services. .

JAPANESE REVIEW OF PARTNERING

The Japanese partnering concept is **KELRESTU** – developing long term relationships with a few key suppliers rather than having short term relationship with many suppliers.

Key elements to Partnering

- Long term Commitment
- Trust
- Shared vision - To satisfy the end users is the common goal of both supplier and customer.

SUPPLIER SOURCING

1. **Sole sourcing** - only one supplier for the entire organization. This may be forced. to happen because of patent, technical specification, raw material location, monopolistic supplier
2. **Multiple sourcing** - For a single item having two or more supplier, resulting in better quality, better service at lower cost
3. **Single sourcing**- use of one supplier to one item when several sources are available leading to long-term partnering relationship.

BASIS OF SUPPLIER SELECTION

The supplier selection is based on Cost, Quality, Delivery, Reliability, Management compatibility, Goal congruence and Strategic direction of supplier firm.

STAGE IN SUPPLIER SELECTION & EVALUATION

Survey stage, enquiry stage, negotiation and selection stage, experience stage.

The supplier should understand and appreciate the management philosophy of the organization

- The supplier should have a stable management system
- The supplier should maintain high technical standards and have the capability of dealing with future technological innovation
- The supplier should provide those raw materials and parts required by the purchaser and those supplied meet the quality specifications
- The supplier should have the capability to produce the amount of production needed
- The supplier should not breach the corporate secrets
- The supplier should be easily accessible in terms of transportation and communication
- The supplier should be sincere in implementing the contract provisions
- The supplier should have an effective quality system and improvement program such as ISO / QS 9000
- The supplier should have a track record of customer satisfaction and organization credibility

2.18 SUPPLIER RATING

Also referred as score card system, is used to obtain and overall rating of supplier performance based on quality, price, performance and production capability

OBJECTIVES OF SUPPLIER RATING

- Obtain an overall rating of supplier performance
- ensure completer
- communication with suppliers
- provide each supplier about the details of problems for corrective action and
- maintain and improve the partnering relationship between the customer and the supplier.

THREE BASIC FACTORS FOR SUCCESSFUL SUPPLIER RATING SYSTEM

- An internal structure to implement and sustain the rating program
- A regular and formal review process
- A standard measurement for all the suppliers

EXAMPLE SUPPLIER SCORECARD

Item: Head stack assembly						
Period: 4Q94						
		Supplier A	Supplier B	Supplier C	Supplier D	Supplier E
QUALITY PERFORMANCE	MAXIMUM POINTS	ACTUAL POINTS	ACTUAL POINTS	ACTUAL POINTS	ACTUAL POINTS	ACTUAL POINTS
Line returns	30	27.66	29.61	28.11	28.71	28.65
PPM deduction (Maximum-10)		- 10	- 10	- 10	- 10	- 10
Certified yield multiplier		0.9	0.94	0.87	0.85	0.72
Penalty: Field issues (Maximum-15)						
Stop shipment (Maximum-15)						
Line purge (-5 each time)						
Subtotal (0-30)	30	15.894	18.433	15.756	15.904	13.428
Process control	8	6.5	6.5	5.5	5	6
Process technology	6	5.2	4	5.2	4.8	4.6
Sustaining technical support	6	2.3	1.6	3.5	4	2.8
On-time delivery	20	20	18	19	19	18
Product technology	10	9.7	6.7	9.1	7.4	8.2
Lead time	15	13	13	13	13	13
Purchasing and material support	5	5	3	2	5	2
Performance matrix total	100	77.594	71.233	73.056	74.204	68.028
Price index = target price/actual price	1	0.878	0.947	1	0.905	0.967
SCORE = performance matrix × price index	100	68.127	67.457	73.056	67.154	65.783
Total Cost of Supply = ((100 - SCORE)/100) + 1	1	1.3187	1.3254	1.2694	1.3285	1.3422

1.0 = perfect
2.0 = worst possible

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RELATIONSHIP DEVELOPMENT

Refers to maintaining the relationship development through the various techniques discussed previously. For maintainability and growth of relationship the following key factors are considered

- Inspection – 100% inspection, Sampling, Audit and identify check
- Training
- Team approach – Formation of customer supplier team in all the functional areas
- Recognition – Customers can recognize suppliers by non monetary / monetary rewards