Unit 10: Control and Quality management

Controlling is the process of evaluation and correction of the performance in order to make sure that the objectives of the enterprises are accomplished through the plan, formulated to attain them. In other words, controlling is the systematic effort through which the manager assures that actual activities match to the planned activities.

According to DeCenzo, "Controlling is the process of monitoring activities to ensure that they are being accomplished as the plan and taking corrective action in any significant deviation".

Similarly, According to Henri Fayol," Control consist of verifying whether everything occurs in conformity with the plans adopted, the instruction issued and the principle established. It has for its object to point out weakness and errors in order to rectify them at prevent recurrence".

Thus, controlling is the process of decreasing the deviation between actual and standard activities.

Controlling Process:

Following steps are involved in controlling process;-

Fig. from book.

1. Setting Standard: The first step in the controlling process is to set the standard of performance. It is a reference point against which the actual performance is measured. Usually, planning sets standard of performance. The standard should be stated in definite measurable terms such as cost, income, unit of services, man-hours speed etc.
2. Measuring the actual Performance: After setting the standard, the information related to the individual performance and their activities are gathered and evaluated. The evaluation or measurement can be done through personal observation or through report writing. It is a continuous process, which gives the clear idea about the individual's ability and his/her actual performance.
3. Comparing actual performance against standard: In this step, actual performance of an individual or group is compared with the standard performance. It helps to determine any deviation that may occur between actual and standard activities.
4. Taking Corrective actions: If any deviation occurred between standard and actual performance after comparison, the remedial measure will be adopted. It helps to correct the differences and put the actual performance in the track to standard performance. The corrective action may involve a change in method, machineries, rules, procedures, improving physical condition of work, changing the nature of supervision etc.

Types of control system

Fig. from book

Types of control are as follows:

1. **Feed-forward controls,** sometimes called preliminary or preventive controls, attempt to identify and prevent deviations in the standards before they occur. Feed-forward controls focus on human, material, and financial resources within the organization. These controls are evident in the selection and hiring of new employees. For example, organizations attempt to improve the likelihood that employees will perform up to standards by identifying the necessary job skills and by using tests and other screening devices to hire people with those skills.

2. **Concurrent controls** monitor ongoing employee activity to ensure consistency with quality standards. These controls rely on performance standards, rules, and regulations for guiding employee tasks and behaviors. Their purpose is to ensure that work activities produce the desired results. As an example, many manufacturing operations include devices that measure whether the items being produced meet quality standards. Employees monitor the measurements; if they see that standards are not being met in some area, they make a correction themselves or let a manager know that a problem is occurring.

3. **Feedback controls** involve reviewing information to determine whether performance meets established standards. For example, suppose that an organization establishes a goal of increasing its profit by 12 percent next year. To ensure that this goal is reached, the organization must monitor its profit on a monthly basis. After three months, if profit has increased by 3 percent, management might assume that plans are going according to schedule.

Characteristics of Effective controlling

1. Integrated with planning: Controlling will be effective only when it is linked with planning . Thus while planning, expected problems that may arise on performing the task should be considered and determine the necessary control measures.
2. Suitability: Controlling function should be able to meet the need of the organisation. Otherwise, It may lead to over costing, ambiguity, conflict.
3. Accurate: The information provided by the control system must be reliable and accurate.
4. Flexibility: Control function should not be too rigid. It must changeable according to the changing environment.
5. Understandable: Control system must be understood by employees working under it.
6. Assuring quality performance: Control system must assure the quality performance in an organisation. It must help to maintain the quality in overall managerial function.
7. Acceptable: Control system must be accepted by the employees to be effective and efficient.
8. Economical: An expensive control system will raise the operation cost. Therefore, the control system should be justified in terms of cost and benefits.

Problems with control system:

1. Problem with over control: Controlling does not mean to guide or instruct employees in each and every activity. It is performed only when it is required. In addition, over controlling leads to anxiety to the subordinates. Thus there should not be over controlling in an organization.
2. Fails in reporting: Controlling can be effective only when, there is reliable and accurate information. Sometimes due to carelessness and negative attitude subordinates may pass-on invalid and incorrect information which may lead to over costing, confusion in an organisation..

3. Problems in fixing standard: There are some behavioral aspects of employees such as job satisfaction, motivation, leadership etc. which cannot be quantified exactly. Thus, fixing standard in such abstract term is one of the problems in controlling.
4. High Cost: Different professionals, tools, equipments, are used in the controlling process. So it increases the cost of an organization.
5. Resistance: Controlling process is not always accepted by employees. There may be chances of refusal to accept new ideas or change by employees in an organisation. E.g. Downsizing due to environmental factors may be opposed by employees.

Managing information for effective control:

1. Management Information System (MIS): According to Griffen, MIS is defined as, "a system that gathers comprehensive data, organizes and summarize it in a form valuable to managers and provides those managers with information they need to do their work.
   In other words, MIS is defined as, the system which provides the required information to each level of management at the right time and in the right form.
   It provides information about past, present and projected future and about relevant events both inside and outside the organization.
2. Decision Support System(DSS): It is a specialized MIS design to support the managerial decision making.
   According to Girffen,: " a system that automatically searches for manipulates and summarizes information needed by managers to make specific decisions"
   A DSS is an interactive computer system that is easily accessible to and operated by managers to assist them in planning, controlling and decision making.

Budget:

Budget is a financial and or quantitative statement prepared prior to a definite period of time of the policy to be pursued during that period for the purpose of obtaining a give objective

A. **Budgetary Control**: I t refers to the use to a budget in regulating and guiding these business activities concerned with the acquisition and use of the resources.

Objectives of Budgetary control:

1. To determine the expected expenditure and revenue of an organization.
2. To control the unnecessary cost in an organization.
3. To perform the activity or task effectively under the cost limitation.
4. To know allocated cost for the respective departments and section or units.
B. **Financial Control:** According to Griffen," Financial control is the control of financial resources as they flow into organization(i.e., revenues, shareholder's investment) are held by the organization (i.e., working capital, retained earnings and flow out of the organization(i.e., pay expenses).
   In other words, financial control deals with inflow and outflow of financial resources in an organization.
   The tools used for financial controls are:
   1. Financial Statements: Financial statements are the document which provides the information of organization's financial position, its expenditure and income along with profit and loss. E.g. profit and loss a/c, cash flow, fund flow statement, Balance sheet, trading a/c.
   2. Financial ratio analysis: Financial ratios are calculated on the basis of the information available in the financial statements that help to find the financial health of a firm over time. E.g. liquidity ratios, profitability ratios, leverage ratios etc.

3. Financial audit: Auditing is an independent evaluation of an organization's books of accounts and financial statement. It is done to know whether the accounting are maintained as per the stated rules and regulation or not as well as to verify the accuracy of financial and accounting procedure in an organization.

Quality Concept: Quality is an abstract term, it is perceived differently by different people .However, and quality can be defined as the totality of features and characteristics of a product or revenues that bear on its ability to satisfy stated or implied needs.

Characteristics of quality as suggested by David A. Garvin (1987) are as follows:

a. Performance.
b. Features (Functioning characteristics)
c. Reliability(Consistency-giving same performance)
d. Conformance (meet established standard)
e. Durability (life long period)
f. Serviceability(ability to repair, availability of spare parts, easy to access etc)
g. Aesthetics (looks, taste , sound ,smell)
h. Perceived quality (as seen by customer)

Quality control:

Quality control is determining the minimum standard of acceptability. It includes the following activities:

a. Determining the minimum range of deviation that can be tolerated.
b. Identifying the cause of deviation.
c. Separating non qualitative products from qualitative products.
d. Inspection, monitoring and testing of material, machine etc. are performed.
e. Provide necessary suggestion to improve quality.

Total Quality Management:

It is a comprehensive approach /method to improve product quality and thereby customer satisfaction.

According to Arthur R. Tenner and Irving J. Detoro (1992), "TQM is creating an organizational culture committed to a continuous improvement of skills, team work, process, and product and service quality and customer satisfaction."

The main objective of TQM is to build up quality commitments among the stakeholder (suppliers, employees, management etc.) for its long-term, sustained and continuous improvement to meeting customers' needs and expectation.

Factors affecting Quality:

1. People: People are directly involved in determining the quality of a product and services. Capable people are required to enhance effective quality. Therefore organisation must update the knowledge and skills by providing necessary training and education.
2. Materials: The material used in a product determines the quality of the product. So, qualitative materials should be used in produce qualitative products.
3. Technology: Company must use efficient and high performing modern technology instead of outdated technology instead of outdated technology to maintain qualitative product.
4. Control system and Standard: The quality control system and standard should be appropriately designed and implemented to maintain quality in the product.

5. Strategic commitment: There should be a total commitment of top level management for quality improvement.

TQM Tools:

1. Benchmarking: It includes the activities of measuring services, practices or products against organisation recognized as a leader in the industry.
2. Outsourcing: Outsourcing is the process of subcontracting some of the services or operation to the firms that can perform cheaper or better or both.
3. Speed: In today's dynamic speed is one of the competitive advantages for an organisation. It is taken as the strategy to gain market and maintain goodwill for longterm.eg delivery of services and goods.
4. ISO 9000: It is a set of global quality standards established by the International Standard Organisation in Geneva ISO 9000 has fixed provisions for five sets of standard quality, product testing, employee training , record keeping , supplier relation, repair policies and procedures.
5. Statistical Control: Several statistical tools can be used for maintain TQM. Such as Sampling Technique, probability etc.

Deming Management (W. Edwards Deming)

- American Statistician.
- Improving production in the U.S during World war II
- Contribution on the reconstruction after war in Japan and became popular among Japanese scientists and engineers.
- Deming advocated that improving quality will reduce costs while increasing productivity and market share.
- Deming Prize 1951, the prize is awarded for those who directly or indirectly contributed to for those who directly or indirectly contributed to the quality control and quality management in Japan.

Principles of Deming's Quality Management:

Deming has proposed the five principles of quality management.

a. Quality improvement drives the entire economy.
b. The customer always comes first.
c. A person should not be blamed for quality problems; a system of quality management must be fixed.
d. Plan-do-check act (PDCK) should be enforced.(fig from PR pants book)
e. Continuous improvement should be sought through extensive training, leadership, team work and self improvement.

Techniques of Deming's Quality Management:

Deming recommended fourteen techniques for improving quality. They are as follows:

1. Create consistency: Organisation must be consistent on improving product and services to remain competitive in the market.
2. Philosophy of co-operation: Adopting the philosophy of cooperation (win-win) helps everybody to win and put it into practice by teaching it to employees, customer and suppliers.
3. Stop dependence on mass inspection: Inspection for faulty products is unnecessary if there is the system of inbuilt inspection process from the very beginning.

4. Avoid the constant search for lowest-cost suppliers: Build long-term loyal ad trusting relationship with single suppliers.
5. Improve constantly: Continuous improvement in the system of production, services, planning and any activity should be there in an organisation. This will improve quality and productivity and decrease cost.
6. Institute training: There should be regular training to employees who need to up to date their skill and knowledge in changing context.
7. Leadership for management of people: Leader in an organisation must concentrate on helping people for better job instead of just telling them about jobs.
8. Drive fear and develop trust: It is essential to create an environment where employees work with fear and always ready to contribute, cooperate and delegate authority and responsibility.
9. No barriers between departments: There should be cooperation between departments and all should work as a steam for the achievement of quality goal.
10. Eliminate slogans and targets: The employees should not be pressurized for product quality. There should be direction and encouragement.
11. Eliminate numerical: Employees should not pressurized for numerical goals. Instead, there should e given autonomy in predication system in determining the production goal.
12. Remove barriers: Organisation must remove all kinds of barriers that hinder the joy of people at work.
13. Program for education and self development: There should be program for education and training which facilitates career development.

Transformation is everybody job: All the members of an organisation should contribute their effort with honestly for implementing quality management system.