

# COST CONTROL & COST REDUCTION





- CIMA, London has defined cost control as “the regulation by executive action of the cost of operating an undertaking particularly where action is guided by cost accounting”
- Cost Control is a process which focuses on controlling the total cost through competitive analysis. It is a practice which works to maintain the actual cost in accordance with the established norms. It ensures that the cost incurred on an operation should not go beyond the pre-determined cost.
- Cost Control involves a chain of functions, which starts from preparation of the budget in relation to the operation, thereafter evaluating the actual performance, next is to compute the variances between the actual cost & the budgeted cost and further, to find out the reasons for the same, finally to implement the necessary actions for correcting discrepancies.

## Steps in Cost control

- **Establishing norms:**

**The first step in cost control is to set norms or standards which may serve as yardsticks for measuring performance. these standards are set on the basis of past performance adjusted for changes in future and on the basis of studies conducted.**

- **Comparison with actual:**

**The actual cost incurred are compared with established standard costs to know the level of achievement. The variations are analysed so as to arrive at the causes which are controllable.**

- **Corrective Action:**

**Remedial measures are taken to avoid the recurrence of variation in future and for revision of standards wherever necessary**



# Cost Reduction

Cost Reduction is a process, aims at lowering the unit cost of a product manufactured or service rendered without affecting its quality by using new and improved methods and techniques. It ascertains substitute ways to reduce the cost of a unit. It ensures savings in per unit cost and maximisation of profits of the organisation.

Cost Reduction aims at cutting off the unnecessary expenses which occur during the production, storing, selling and distribution of the product. To identify cost reduction, the following are the major elements:

- Savings in per unit cost.
- No compromise with the quality of the product.
- Savings are non-volatile in nature.

# Key Differences Between Cost control and Cost Reduction

- The activity of maintaining cost as per the established norms is known as cost control. The activity of decreasing per unit cost by applying new methods of production in such a way that it does not affect the quality of the product is known as cost reduction.
- Cost Control focuses on decreasing the total cost while cost reduction focuses on decreasing per unit cost of a product.
- Cost Control is temporary in nature. Unlike Cost Reduction which is permanent.
- The process of cost control is completed when the specified target is achieved. Conversely, the process of cost reduction has no visible end as it is a continuous process that targets for eliminating wasteful expenses.
- Cost Control does not guarantee quality maintenance, however 100% quality maintenance is assured in case of cost reduction.
- Cost Control is a preventive function as it ascertains the cost before its occurrence. Cost Reduction is a corrective action.

- **Cost control** is the achievement of pre- determined targets of costs.  
**Cost reduction** is the achievement of the real and permanent reduction in costs.
- **Cost control** tends to assume a static state of affairs and that standard once set are not challenged.  
**Cost reduction** assumes the existence of concealed potential saving in the standards or pre- determined costs set for cost control and that these standards are always subject to challenge.
- **Cost control** is concerned with predetermining costs, comparing it with actual costs, analysing the variances and taking corrective measures.  
**Cost reduction** is not concerned with maintenance of performance according to predetermined targets. it is rather concerned with finding out new product design, methods,etc
- **Cost control** is a part of cost accounting function  
**Cost reduction** may be achieved even when no cost accounting system is in operation
- **Cost control** lacks dynamic approach to cost improvement  
**Cost reduction** is more dynamic approach to cost improvement

## Comparison Chart

<b>BASIS OF COMPARISON</b>	<b>COST CONTROL</b>	<b>COST REDUCTION</b>
<b>Meaning</b>	<b>A technique used for maintaining the costs as per the set standards is known as Cost Control</b>	<b>A technique used to economise the unit cost without lowering the quality of the product is known as Cost Reduction</b>
<b>Savings in</b>	<b>Total Cost</b>	<b>Cost Per Unit</b>
<b>Retention of Quality</b>	<b>Not Guaranteed</b>	<b>Guaranteed</b>
<b>Nature</b>	<b>Temporary</b>	<b>Permanent</b>
<b>Emphasis on</b>	<b>Past and Present Cost</b>	<b>Present and Future Cost</b>
<b>Ends when</b>	<b>The pre-determined target is achieved</b>	<b>No end</b>
<b>Type of Function</b>	<b>Preventive</b>	<b>Corrective</b>

# Scope and Areas of Cost Reduction

- **(1)Product Design**

**#One area in which manufacturers are finding ways to meet this challenge is the often-overlooked area of product design. The design of the product provides the greatest scope for cost reduction.**

**#There are two basic points that need to be remembered while effecting cost reduction in product design**

(a) the product should perform all the functions for which it was intended, and

(b) the product should retain its esteem or aesthetic value.

- For example, HTC Sweden, a global flooring systems company whose diamond grinding machines turn ordinary concrete floors into luminous work surfaces, has used "digital prototyping" to cut product development costs by approximately 97%. The previous method -- building physical models of new products -- cost HTC up to \$500,000 per prototype, with some products requiring five such models. With digital prototyping, HTC created a computer-based workflow where conceptual design, engineering, manufacturing, and procurement teams are connected by a single digital model. This digital model simulates the complete product, and gives HTC engineers the ability to design, visualize, and simulate their products digitally.

- Improvement in product design may result in cost reduction as illustrated below :
- (a) Material Cost: change in design of the product may result in saving the material cost. Economical substitution for existing material may also be considered. Eg: in manufacturing kitchen utensils, brass may be substituted with cheaper alloys. in curtain rings, metal may be substituted with plastic.
- (b) labour cost: improvement in design may result in reduced operating time.
- (c) factory overhead: reduce labour time will also reduce factory overhead.
- (d) packing and transporting: compact design will reduce cost.
- (e) cost of tools jigs and fixtures can be reduced.

- **(2) Organisation**

Cost reduction may also be achieved by improving factory organisation in the form of clear-cut lines of authority and responsibility, well-defined channels of communication, co-ordination and co-operation conducive to efficiency

- **(3) Production**

A cost reduction programme should make a study of sequence of operations to find out the best one, to use the most suitable machines for the work, to use jigs and fixtures to reduce operating time, to reduce idle time, to reduce scrap by the use of better quality tools ,to provide better working conditions conducive to efficiency

- **(4) Administration**

An organisation should make efforts to reduce the cost of administrative expenses, as there is ample scope to do so. A company may evaluate and reduce the cost of following expenses, but not the cost of efficiency:

Modifying range of discounts

Modifying internal and external communication

Telephone expenses

Travelling expenses

Salary by reducing staff

Reduction in cost of stationery Postage and

Telegrams

Eliminate Subscriptions and Memberships

- **(5) Marketing**

In this function, costs can be reduced by revising the methods of remuneration of salesmen, rearrange territorial responsibilities of sales representatives, modifying current methods of advertising, improving product design and production quality so as to reduce after sales service, economising channels of distribution, improving packing etc.

- **(6) Finance**

Finance is an important area where cost reduction is possible through the following measures

- 1) control over utilisation of finance meant for both working capital and fixed capital needs.
- 2) proper evaluation of investments in new projects.
- 3) appropriate control of capital expenditure.
- 4) profitable employment of capital with the objective of maximum return.

# Tools and techniques of cost Reduction and cost control

- **(1) Standard Costing**

Standard costing is one of the prominently used systems of cost control. It aims at establishing standards of performance and target costs which are to be achieved under a given set up working conditions. It is a pre-determined cost which determines what each product or service should cost under certain situation.

Standard costing is defined as the preparation and use of standard costs, their comparison with actual costs and the measurement and analysis of variances to their causes and points of incidence. Standard costs should be obtained under efficient operations.

- It starts with an estimate of what a product should cost during a future period given reasonable efficiency Standard costs are established by bringing together information collected from various sources within the company.
- The degree of success is measured by a comparison of actual performance and standard performance

# Advantages of Standard Costing

- (i) It helps in establishing a yardstick with which the efficiency of performance is measured that helps to exercise control.
- (ii) It provides how the clear goal is to be achieved by providing incentive and motivation to work.
- (iii) It provides the management the basic information to fix selling price, transfer pricing, etc.
- (iv) It facilitates delegation of authority and fixation of responsibility.
- (v) It helps in achieving optimum utilisation of plant capacity.
- (vi) It provides means for cost reduction.
- (vii) Variance analysis and reporting is helpful for taking corrective measures.

# Limitations of Standard Costing

- (i) Application of standard costs is quite difficult in practice.
- (ii) Frequently, standards become rigid over time and do not keep pace with changes in conditions.
- (iii) If the standards are outdated, loose, inaccurate and unreliable, they are more harmful.
- (iv) If standards set are higher than reasonable, they act as discouraging factor.
- (v) When there are random factors, it is difficult to explain variance properly.
- (vi) Standard costing may be found to be unsuitable and costly in the case of firms dealing in non-standard products.
- (vii) It is difficult to distinguish between controllable and non-controllable variances.
- (viii) Setting the standard costing are highly technical and mechanical.

- **(2) Budgetary Control**

**Budgetary control is a system of controlling costs through preparation of budgets. budgeting is thus only a part of the budgetary control**

### **Characteristics**

**(a) Establishment of budget for each function/department of the organisation**

**(b) comparison of actual performance with the budgets on a continuous basis**

**(c) Analysis of variation of actual performance from that the budgeted performance to know the reasons**

**(d) Taking suitable remedial action, where necessary**

**(e) Revision of budgets in view of changes in condition**

- **Objective of Budgetary Control**

(1) Planning

(2) Co-ordination

(3) Communication

(4) Motivation

(5) Control

(6) performance evaluation

- **Limitations of budgetary control**

(1) The budget plan is based on estimates

(2) Danger of rigidity

(3) Budgeting is only a tool of management

(4) Opposition from staff

(5) Expensive technique

- **(3) Inventory Control**

**ICAI defines inventory as tangible property held,**

**i) for sale in ordinary course of business.**

**ii) in the process of production for such sale.**

**iii) in the form of maintenance and supplies to be consumed in the process of production.**

### **Meaning of inventory control.**

**The process whereby the investment in materials and parts carried in Stock is regulated within predetermined limits set in accordance with the inventory policy established by management.**

- It involves :
  - i) fixation of limits within which inventory is to be held.
  - ii) laying down of inventory policies.
  - iii) setting out the investment pattern.
  - iv) Examining the work of inventory policy and effecting changes when needed.

- Techniques of inventory control
  - i) min max plan
  - ii) two bin system
  - iii) order cycling system
  - iv) ABC analysis.
  - v) VED analysis
  - vi) inventory turnover ratios

- **(4) Production Planning and Control**

**Production planning is a plan for the future production, in which the facilities needed are determined and arranged. A production planning is made periodically for a specific time period, called the planning horizon. It can comprise the following activities:**

**Determination of the required product mix and factory load to satisfy customers needs.**

**Matching the required level of production to the existing resources.**

**Scheduling and choosing the actual work to be started in the manufacturing facility"**

**Setting up and delivering production orders to production facilities.**

In order to develop production plans, the production planner or production planning department needs to work closely together with the marketing department and sales department. They can provide sales forecasts, or a listing of customer orders.

Different types of production methods, such as single item manufacturing, batch production, mass production, continuous production etc. have their own type of production planning. Production planning can be combined with production control into production planning and control, or it can be combined and or integrated into enterprise resource planning.

Production planning is used in companies in several different industries, including agriculture, industry, amusement industry, etc.

The planning process, then, provides for two types of control mechanisms: feedforward, which provides a basis for control at the point of action (the decision point); and feedback, which provides a basis for measuring the effectiveness of control after implementation. Management's role is to feedforward a futuristic vision of where the company is going and how it is to get there, and to make clear decisions coordinating and directing employee activities. Management also oversees the development of procedures to collect, record, and evaluate feedback.

- **(5) Standardisation and Simplification**

**Simplification is a process of product analysis through which unnecessary varieties and designs are eliminated. Only a limited number of grades, types and sizes of the product are retained.**

**Standardisation is the second step after simplification towards interchangeable manufacturing. Having selected the varieties and grades of the products to be retained as much of its manufacturing details are standardised as possible.**

- Since manufacturing involves a large number of decisions from selection of raw material to the process used for finishing, standardisation of some of these items reduce unnecessary repetition of work.
- Use of standard components reduces inventory costs, ensures interchangeability and makes future maintenance easier.
- It also reduces component cost since standard components are manufactured by mass production methods and are cheaper.

- Selection of standard materials ensures physical performance and guarantees failure-free operation. Use of standard methods of production enables comparisons to be made of the standard and actual manufacturing time
- The purpose of standardisation is, therefore, on one hand, efficiency and economy in the use of human effort and on the other economy of material varieties and stock quantities and therefore reduction in cost and increase in turnover.

# The Zero-Based Standardisation Approach

- This is a very effective technique to reduce the number of different parts (part types) by standardising on certain preferred parts.
- The zero based approach, literally, starts at zero and adds only what is needed, as opposed to reducing parts from a overwhelming list. An analogous situation would be cleaning out the most cluttered drawer in a desk, a purse, or a glove compartment; removing unwanted pieces would take much effort, and still not be very effective.
- The more effective zero-based approach would be to empty everything, and add back only the items that are essential. Where the "clutter" ends up is the difference in the approaches: in the drawer, purse or glove compartment or in the garbage can.

- Similarly, parts reduction efforts have to work hard to remove the clutter (excess part variety) in the system, whereas zero-based approaches exclude the clutter from the beginning. The clutter is the unnecessary parts that would have not been needed if products were designed around common parts. Not only do these excess parts incur overhead costs to administer them, they also lower plant efficiency and machine utilization because of the setup caused by product that are designed to have more parts than can be distributed at every point of use.

# COST SAVINGS FROM STANDARDISATION

- **Purchasing Leverage.** Being able to order larger quantities of standard parts and materials provides purchasing leverage where buyers can benefit from suppliers economies-of-scale and arrange more frequent deliveries, to support just-in-time operations.
- **Lowering Material Overhead.** There is far less material overhead to procure standard parts and materials, which are more common, more readily available, and have more sources.
- **Spontaneous Resupply Possible.** Many costs can be reduced by arranging spontaneous resupply of parts and materials, instead of the more expensive forecast-based purchase orders and holding inventories.

# STANDARDISATION BENEFITS

- Cost Reduction
- Purchasing costs reduced through purchasing leverage
- Inventory cost reduction
- Floor space reduction
- BOM/MRP/ordering expense avoided when common parts are simply drawn as needed from spontaneous resupply
- Overhead cost reduction
- Quality:
  - Product quality
  - Continuous Improvement
- Vendor reduction

- Flexibility:

Eliminating setup

Inventory reduction

Simplify supply chain management

Internal material logistics

Flexible manufacturing

- Responsiveness:

Build-to-Order

Parts availability

Quicker deliveries from vendors

- **(6) Operational research and statistical techniques**

**The Operation Research approach is particularly useful in balancing conflicting objectives (goals or interests) where there are many alternative courses of action available to the decision-makers. In a theoretical sense, the optimum decision must be one that is best for the organization as a whole it is often called the global optimum. A decision that is best for one or more sections of the organization is usually called suboptimum decision. Operation Research attempts to resolve the conflicts of interest among various sections of the organization and seeks the optimal solution which may not be acceptable to one department but is in the interest of the organization as a whole.**

- **(7) Value analysis**

Value analysis is an approach to cost saving that deals with product design. Here, before buying any equipment or materials, a study is made as to what purpose these things serve? Would other lower- cost design work as well? Is there a cheap material which can serve the same purpose? So value analysis is a procedure which specifies the function of products or components, establishes appropriate costs, determines the alternatives and evaluates them.

Thus the objective of value analysis is the identification of such costs in a product that do not in any manner contribute to its specification or functional value. Thus, it is the process of reducing the cost without sacrificing the predetermined standards of performance. It is a supplementary device in addition to the conventional cost reduction methods.

Value analysis is closely related to Value Engineering. It is very helpful in industries where production is done on a large scale and in such cases even a fraction of savings in cost would help the firm significantly.

- **(8) Automation**

**Automation is certainly a means of reducing costs. It also reduces human interaction. It is the advance of automatic techniques which has changed the face of industry and commerce. The proportion of people working in manual and semi-skilled jobs has been drastically reduced.**

**Automation is the use of automatic control equipment to operate and control machines. Automation is being used at an increasing speed, spurred on by the development of the large scale integrated circuits printed on to silicon chips. The next stage in the development of automated controls was the use of analogue computers. It is a machine designed to process electronic signals.**

- There are three tasks for which automatic equipment can be used to replace the human being.

They are:

(a) Measurement,

(b) Control, and

(c) Data Processing.

- There are a variety of reasons for introducing automation among which is the following:

(i) To reduce costs,

(ii) To increase quality, and

(iii) To meet shortages in skilled people.

- **(9)Job evaluation and Merit rating**

job evaluation is the process of analysis assessment of jobs to ascertain their comparative labour worth.

Each job factor is given a relative weightage and is allotted a number of points depending upon its nature and requirement of different factors in its performance, a job secures a number of points.

- **Merit Rating** is the comparative appraisal of individual merits of an employee. it is the qualitative or quantitative assessment of an employee's performance or his personality made by his supervisor or any other competent person

- **Importance of Job evaluation**

**(1) Fixation of structure**

**(2) Discloses Anomalies**

**(3) Helps in Recruitment of New workers**

**(4) Improves Labour Relations**

- **Importance of Merit Rating**

(1) it helps in ascertaining the suitability of the worker for a particular job. the objective is achieved by linking merit rating with job evaluation

(2)it helps in ascertaining an employee's merit for grant of promotion, increment etc

(3)it helps in introducing a system for incentive, wage payment and simplification of the wage structure

(4)it analyses the worker's defects and bring out the strong points and special abilities

- **Factors taken into account for Merit Rating Purposes**

(1) Quality of work done

(2) Quantity of work done

(3) initiative

(4) Reliability

(5) Integrity

(6) Sense of Responsibility

(7) co-operation and Discipline

(8) Sense of judgement

(9) Knowledge and Skills

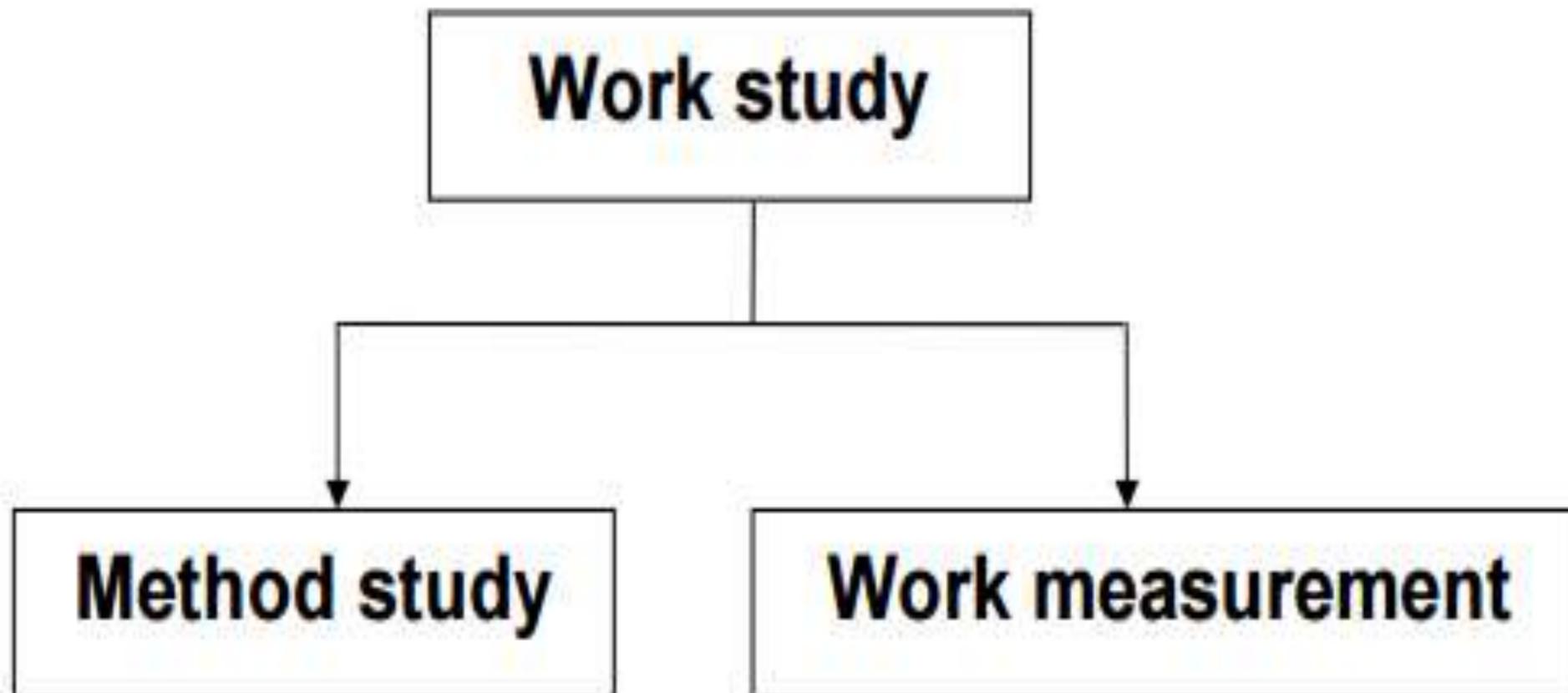
(10) Punctuality

Each of the above factors is assigned points and the employees are ranked in order of the points.

- **(10) Work Study**

Work Study is the systematic examination of the methods of carrying out activities such as to improve the effective use of resources and to set up standards of performance for the activities carried out.

- A generic term for those techniques, particularly method study and work measurement, which are used in the examination of human work in all its contexts, and which lead systematically to the investigation of all the factors which affect the efficiency and economy of the situation being reviewed, in order to effect improvement.



- **Method Study**

Method-study concerned with “the way in which work is done (i.e., method)”. It is used to simplify the way to accomplish a work and to improve the method of production.

Method-study results in a more effective use of material, plant, equipment and manpower.

Method study is essentially concerned with finding better ways of doing things.

It adds value and increase the efficiency by eliminating unnecessary operations, avoidable delays and other forms of waste

- **Work Measurement**

is the application of techniques designed to establish the time for a qualified worker to carry out specified jobs at a defined level of performance or at a defined rate of working.

Technique of work measurement: a) Time study: short cycle repetitive jobs b) Work sampling: Long cycle jobs c) Predetermined motion time standards: manual operations confined to one work centre.

# Objective

- To analyse the present method of doing a job, systematically in order to develop a new and better method
- To measure the work content of a job by measuring the time required to do the job for a qualified worker and hence to establish standard time
- To increase the productivity by ensuring the best possible use of human, machine and material resources and to achieve best quality product/ service at minimum possible cost

## Benefits

- Increased productivity and operational efficiency
- Reduced manufacturing costs
- Improved work place layout
- Better manpower planning and capacity planning
- fair wages to employees
- Better working conditions to employees
- improved work flow
- Reduced material handling costs
- provides a standard of performance to measure labour efficiency
- Better industrial relations and employee morale
- Basis for sound incentive scheme
- provides better job satisfaction to employees

- **(11) Organisation and Methods study**

Organisation and Methods are defined as, “The systematic examination of activities in order to improve the effective use of human and other material resources”. It is generally accepted to be concerned with improving the administrative work, the way it is organised and the way methods and procedures are used.

## **O & M services include the following activities**

- (i) Organisation analysis
- (ii) Activity analysis
- (iii) Information analysis
- (iv) Interviewing
- (v) Systems design
- (vi) Flow charting
- (vii) Form design
- (viii) Paper work flows.

- **(12) Quality Control**

**Quality Control refers to all those functions or activities that must be performed to fill the company's Quality objectives. Quality Control aims at investigating the root cause for defects indentified by inspection and take corrective action to overcome the defects for future production. Quality Control helps to minimize the cost of Inspection and Rejection. Quality Control is an approach to prevent the defects rather than detecting the defects. The ultimate aim is to provide products which are dependable, Satisfactory, Economical.**

# CONCLUSION

- The two techniques cost control and cost reduction are used by many manufacturing concerns to diminish the cost of production
- Cost Reduction has a larger scope than cost control as cost reduction is applicable for all the industries, but cost control is applicable only to the industries where pre- optimisation of the cost which is not yet incurred is possible.
- Cost Control works as a road map for the organization to incur costs as per the set standard. On the other hand, cost reduction challenges the established standards by decreasing the costs and increasing the profit.

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