UNIT – 2

INTRODUCTION TO OPERATIONS MANAGEMENT

Plant location:

Plant location is a strategic decision several factors influence this decision. The main objective of any business is to optimize its cost and revenue that is, minimize its costs and maximize its returns. The degree of significance for the selection of location for any enterprise mainly depends on its size and nature large scale industries requiring huge amount of investment there are many considerations other than the local demand in the selection proper plant location these plants cannot be easily shifted to other place and an error of judgment in the selection of site can be very expensive to the organization. However, small-scale industry mainly selects the site where in accordance with its capacity; the local market is available for its products. It can easily shift to other place when there is any change in the market.

Factors affecting plant location:

1. Nearness to Market:

If the plant is located close to the market the cost of transportation can be minimized. This also helps the producers to have direct knowledge of the requirements of the customers.

2. Nearness to supply of raw materials:

As far as possible the site selected should be near the source of raw materials, so that the cost of transportation can be minimized and storing cost can be reduced due to shorter lead time.

3. Availability of labour:

Availability of right kind of labour force in required number at reasonable rates is also a deciding factor in selection of site

4. Transport and communication facilities:

Generally, industries have a tendency to locate the industrial units near the railway station, highway or port areas. Availability of power and fuel: Coal, electricity, oil and natural gas are the important sources of power in the industries.

Eg: Tata iron and steel industry is established near the coalmines of Bihar.

5. Climatic conditions:

Climatic conditions largely affect certain production processes and also the efficiency of the employees.

Ex: Textile mills require moist climate that why these plant located at Mumbai and Ahmedabad.

6. Availability of water:

Water is used in industries for processing as in paper in chemical industries, for generation of power in hydroelectric power, plants and also required for drinking sanitary purpose also.

7. Ancillary industries:

Many industries such as processing and assembly industries are not producing all the parts of their product but purchase some of the parts from ancillary industries producing it.

8. Financial and other aids:

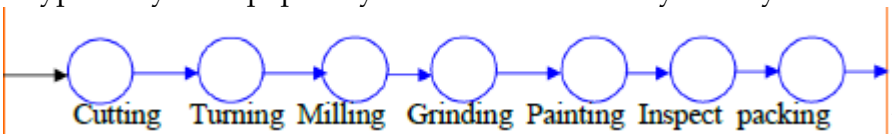
For the development of backward regions central as well as state government provide certain incentives and facilities such as cash- subsides, concession financial assistance, land, power and other facilities at cheaper rates, tax concession etc.

Plant Layout: A technique of locating machines, processes and plant services within the factory in order to secure the greatest possible output of high quality at the lowest possible total cost of production

Types of plant layout:

1. Product or line layout:

This type of layout is developed for product-focused systems. In this type of layout only one product, or one type of product, is produced in a given area. In case of product being assembled, this type of layout is popularly known as an assembly line layout.



The work centers are organized in the sequence of appearance. The raw material centre at one end of the line and goes from one operation to another rapidly with minimum of work-in-process storage and material handling.

Advantages:

1. Faster and cheaper production
2. Lower cost of material handling
3. Effective utilization of floor space
4. Easy monitoring
5. Team work benefits

Disadvantages:

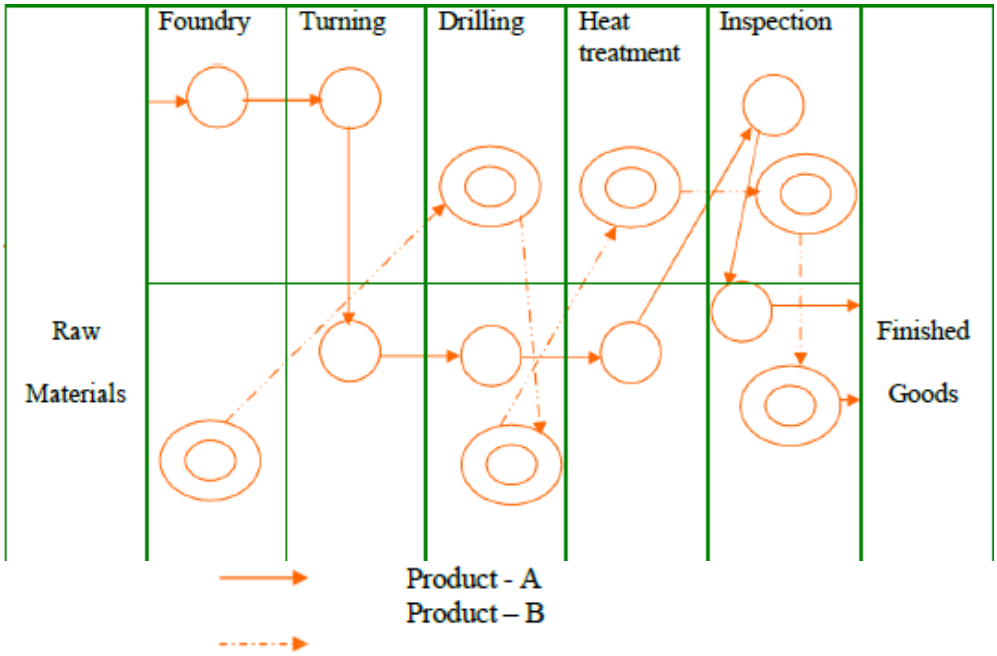
1. Huge Capital outlay
2. Little flexibility
3. Discontinuity in Production likely
4. Monitoring each worker made difficult

Applicability:

Product Layout can be better employed where;

a. The machines can be continuously handled for longer periods.
b. Time & motion study can be conducted.
c. The products so manufactured do not require high degree of Inspection.

2. Process or Functional layout: This type of layout is developed for process focused systems. The processing units are organized by functions into departments on the assumption that certain skills and facilities are available in each department similar equipments and operations are grouped together, e.g., milling, foundry, drilling, plating, heat treatment etc.



The use of process-focused systems is very wide in both manufacture and other service facilities such as hospitals, large offices, municipal services, etc.

Advantages:

1. Optimum utilization of resources
2. Flexibility
3. Continuity
4. Monitoring

Disadvantages:

1. Higher material handling costs
2. Larger production cycle
3. Monitoring may be complex
4. Higher inspection costs
5. Higher wage bill

Applicability:

a. More varieties of products are manufactured in fewer quantities.
b. Close quality inspection is required.
c. It is necessary to use the same machine for more than one product.

3. Project or Fixed position Layout:

This is the layout for project type systems in which the major component is kept at a fixed position and all other materials, components, tools machines, work etc. are brought and assembly or fabrication is carried out. This type of layout is now not used very commonly as the machines required for manufacturing work are big and complicated. The fixed position layout is used only when it is difficult to move the major component and fabrication is to be carried out. Ex: production of ships.

Advantages:

1. It does not involve large investment.
2. High degree of flexibility in matters relating to product design, product mix and production volume.
3. Workers find it very interesting since Job-enlargement can be effectively practiced.

Job-enlargement:

It refers to the practice of providing the workers a bigger role to play in the job when he gets bored with present job.

Factors influencing plant layout:

1. Management policy:

Management has to decide on many matters e.g. nature and quality of products, size of the plant, integration of production process, plans for expansion, amount of inventory in stock, employee facilities

2. Manufacturing process:

The type of manufacturing process e.g. synthetic/analytical, continuous/intermittent and repetitive/non-repetitive, will govern the type of plant layout.

3. Nature of product:

Small and light products can be moved easily to the machines, whereas for heavy and bulky products the machines may have to be moved.

4. Type of equipment:

The use of single purpose and multi-purpose machine substantially affects the plant layout. Similarly, noisy and vibrating machines require special attention in the plant layout decision.

5. Types of buildings:

The plant layout in a single storey building will be different from that in a multi storey building. The covered areas, the number of storey's, elevators and stairs, parking and storage area all affect the layout.

6. Availability of total floor area:

The allocation of space for machines, work- benches, sub-store aisles etc., is made on the basis of the available floor area use of overhead space is made in case of shortage of space.

7. Arrangement of materials handling equipment:

Provide sufficient aisles for free movement of material handling equipment such as hand truck, fork truck etc. Service facilities: The layout of factory must include proper service facilities required for the comfort and welfare of workers. These include canteen, lockers, drinking water, first aid etc.

8. Possibility of future expansion:

Plant layout is made in the light of future requirement and installations of additional activities.

Principles of plant layout:

Principle of integration: The best layout is one which integrates the men, materials, machinery, supporting activities and any other such a factors that results in the best compromise.

Principle of minimum movement: The number of movement of workers and materials and the distance moved should be minimized. The materials should be transported in bulk rather than in small amounts.

Principle of smooth and continue flow: It states that bottlenecks, congestion points and bulk tracking should be removed by proper line balancing techniques.

Principle of cubic space: Space of a room, it the ceiling height is also utilized, more materials can be accommodated in the same space.

Principle of satisfaction of safety: Working places-safe, well-ventilated and free from dust, noise fumes, odors and other hazardous conditions, help to increase the efficiency of the workers and improve their morale.

Principle of flexibility: It means the best layout in one which can be adopted and re-arranged at a minimum cost with least inconvenience.

Productivity:

Definition:

Productivity is defined as the rate at which the goods and services are produced. It refers to the relationship between the inputs and the output. It is calculated as a ratio between the amount produced and the amount of resources (land, labour, capital, technology etc.) used in the course of production in other words

$$Productivity = \frac{Output}{Input}$$

And also defined productivity as human efforts to produce more and more with less and less inputs of resources as a result of which the benefits of production are distributed among maximum number of people.

Method of Production:

1. Job production: In this system, goods are produced according to the orders with this method, individual requirements of the consumers can be met. Each job order stands alone and is not likely to be repeated. This type of production has a lot of flexibility of operation and hence general purpose machines are required. Factories adopting this type of production, are generally small in size.

Advantages:

1. It is the only method, which can meet the individual requirement.
2. There is no managerial problem, because of very less number of workers, and small size of concern.
3. Such type of production requires less money and is easy to start.

Disadvantages:

1. There is no scope for continuous production and demand
2. As the purchase of raw materials is less, hence cost of raw materials per unit will be slightly more.
3. For handling different type of jobs, only skilled and intelligent workers are needed, thus labour cost increases.

2. Batch production: This type of production is generally adopted in medium size enterprise. Batch production is in between job production and mass production. Batch production is bigger in scale than the job production. While it is smaller than that of mass production, batch production requires more machines than job production and fewer machines that the of mass production.

Advantages:

1. While comparing with mass production it requires less capital
2. Comparing with job production, it is more advantageous commercially.
3. If demand for one product decrease then production, for another product may be increased, thus the risk of loss is very less.

Disadvantages:

1. Comparing with mass production cost of scales and advertisement per unit is more
2. Raw materials to be purchased are in less quantity than that in mass production; therefore it is slightly costlier than that of mass production because less quantity discount is available.

3. Mass production: This method of production is used by concerns where manufacturing is carried on continuously in anticipation of demand though demand of the product may not be uniform through the year. In mass production, simplification and standardization of products are made with the help of specialized (one purpose) machine; articles of standardized nature can easily and economically be produced on a large scale. There is a small difference between mass production and continuous production. This is mainly in the kind of product and its relation to the plant. In mass production plant and equipment are flexible enough to deal with

other products, involving same production process. Where as in continuous or process production only standardized product in a sequence produced.

Advantages:

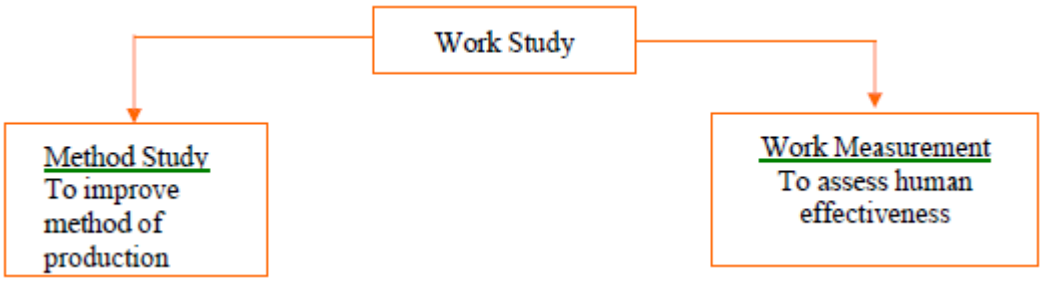
1. A smooth flow of materials from one work station to the next in logical order.
2. Since the work from one process is fed directly into the next, small in process inventories result 3. Total production time per unit short
4. Simple production planning control system is possible
5. Little skill is usually required by operations at the production line; hence training is simple, short and inexpensive.

Disadvantages:

1. A breakdown of one machine may lead to a complete stoppage of the line that follows the machine. Hence maintenance and repair is challenging job.
2. Since the product dictates the layout, changes in product design may require major changes in the layout.
3. Generally high investments are required owing to the specialized nature of the machines and their possible duplication in the line.

Work Study: Work study is one of the most important management techniques which is employed to improve the activities in the production. The main objective of work study is to assist the management in the optimum use of the human and material resources.

Definition: Work study refers to the method study and work measurement, which are used to examine human work in all its contexts by systematically investigating into all factors affecting its efficiency and economy to bring forth the desired improvement.



1. Method Study:

Definition: The systematic recording and critical examination of existing and proposed ways of doing work, as a means of developing and applying easier and more effective methods and reducing cost it is also called motion study.

2. Work Measurement:

Definition: Work measurement is the application of techniques designed to establish time for a qualified worker to carry out a specified job at a defined level of performance. Work study has two parts, Method Study and Work Measurement. Method study deals with the techniques of analyzing the way to do a given job better, Work Measurement seeks to measure the time required to perform the job.

STATISTICAL QUALITY CONTROL

Introduction: Quality is the determining factor the success of any product or service large resource is committed in every organization to ensure quality

Definition: It is defined as customer satisfaction in general and fitness for use in particular. Both the external consumer who buy the product and services and the internal consumers that is, all divisions or departments of the business organization are equally interested in the quality.

Statistical quality control: The process of applying statistical principles to solve the problem of controlling the quality control of a product or service is called statistical quality control.

Quality elements:
a) Quality design
b) Quality conformance

a) Quality design: Quality of design refers to product feature such as performance, reliability durability, ease of use, serviceability
b) Quality conformance: Quality conformance means whether the product meets the given quality specification or not.

Inspection: The process of measuring the output and comparing it to check whether it meets the given specified requirements or not, is called inspection.

Inspection Methods:
The following are the methods of inspection based on merits
1) Incoming inspection: In this method, the quality of the goods and services arriving into the organization is inspected. This ensures that the material suppliers adhere to the given specifications with this defective material cannot enter into the production process. This focuses on the vendor's quality and ability to supply acceptable raw materials.
2) Critical point inspection: Inspecting at the critical points of a product manufacture gives valuable insight into the completely functional process. At the points of manufacture that involve high costs or which offer no possibility for repair or rework, inspection is crucial further operation depend on these results critical point inspection helps to drop the defective production, and thereby, facilitate avoiding unnecessary further expenditure on them.
3) Process inspection: This is also called patrolling inspection or floor inspection or roving inspection. Here the inspector goes around the manufacturing points in the shop floor to inspect the goods produced on random sample basis from time to time.
4) Fixed inspection: It provides for a centralized and independent where work is brought for inspection from time to time. This method is followed where the inspection equipment cannot be moved to the points of productions.
5) Final inspection: This is centralized inspection making use of special equipment. This certifies the quality of the goods before they are shipped.

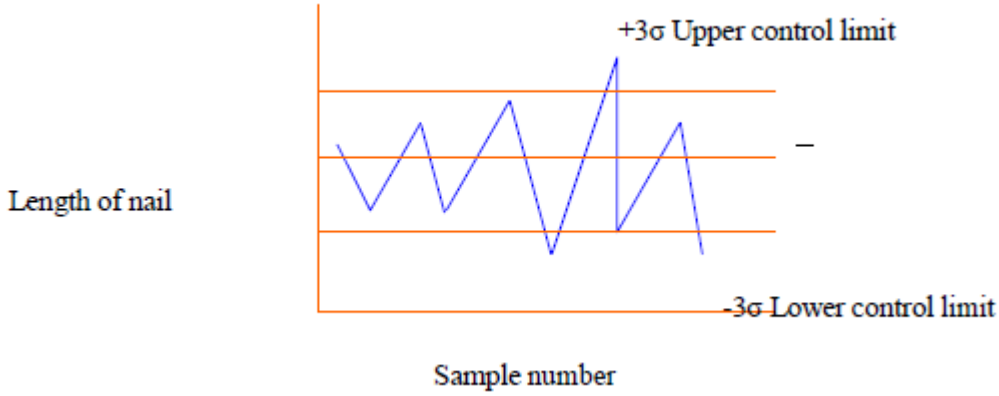
Elements of statistical Quality Control: The technique under SQC can be divided in to two parts a) Process control b) Acceptance sampling

a) Process control: Process control is a technique of ensuring the quality of the products during the manufacturing process itself. If a process consistently produces items with acceptable or tolerable range of specification. It is said to be statically under control. Process control is achieved through control charts. Process control aims to control and maintain the quality of the products in the manufacturing process. Statistical control charts: A control chart compares graphically the process performance data to computed statistical control limits. These control limits act as limit lines on the chart control chats are the tools to determine whether the process is under control or not. The quality of the production process may be affected by chance cause or assignable cause. Chance cause: such causes, which may or may not affect the manufacturing

process are called chance cause, chance cause cannot even be identified. It is not possible to always maintain the given specification. Assignable Cause: Assignable causes affect the quality of the production process. These causes can be identified and specified. Causes such as change in the labour shift, power fluctuations, or excessive tool wear are said to be assignable causes as they affect the quality of manufacturing process in different ways. Process capability: Process capability refers to the ability to achieve measurable results from a combination of machines, tools, methods, materials and people engaged in production.

Confidence limits and control limit: Confidence limit: It indicates the range of confidence level. A confidence level refers to the probability that the value of measurement or parameter, such as length of screw, is correct. **Ex**: If a component is required with measurement of 50 mm. across, then the buy accept all components measuring between 48 mm and 52 mm across, considering a five percent confidence level. **Control limit**: Control limits are found in the control charts. There are two control limits 1) Upper control limit (UCL) and 2) Lower control limit (LCL). These are determined based on the principles of normal distribution

Ex: In a pilot investigation of the length of the nails produced in the shop floor, it is found that the mean length is cm, the S.D 3σ, the measure of variability of the nails produced 0.2 cm. How do you construct the control chart for this data.



Control charts for variables: A variable is one whose quality measurement changes from unit to unit. The quality of these variables is measured in terms of hardness, thickness, length, and so on. The control charts for variables are drawn using the principles of normal distribution. There are two types of control charts for variables X and R chart.

$\bar{X}$ and R Chart: The $\bar{X}$ chart is used to show the process variations based on the average measurement of samples collected. It shows more light on diagnosing quality problem when read along with R chart. It shows the erratic or cyclic shifts in the manufacturing process. It can also focus on when to take a remedial measure to set

Inventory:

It defined as a comprehensive list of movable items which are required for manufacturing the products and to maintain the plant facilities in working conditions.

Inventory Control:

The systematic location, storage and recording of goods in such a way the desired degree of service can be made to the operating shops at minimum ultimate cost.

Objectives of Inventory Control:

1. To support the production departments with materials of the right quality in the right quantity, at the right time and the right price, and from the right supplier
2. To minimize investments in the materials by ensuring economies of storage and ordering costs
3. To avoid accumulation of work in process
4. To ensure economy of costs by processing economic order quantities
5. To maintain adequate inventories at the required sales outlets to meet the market needs promptly, thus avoiding both excessive stocks or shortages at any given time
6. To contribute directly to the overall profitability of the enterprise

Functions of inventory control:

- To develop policies, plans and standards essential to achieve the objectives
- To build up a logical and workable plan of organization for doing the job satisfactory
- To develop procedure and methods that will produce the desired results economically
- To provide the necessary physical facilities
- To maintain overall control by checking results and taking corrective actions.

Factors affecting Inventory Control:

Inventory Control function gets increasingly complex due to;

1. Sudden changes in the production plans.
2. Increase in the material process
3. Excessive storage costs
4. Stock Out Costs
5. Increasing Lead time

Stock out Costs:

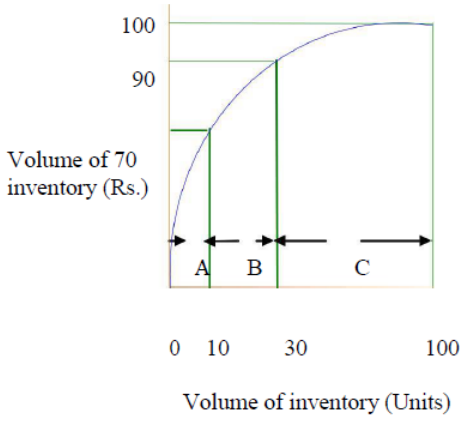
It is the cost of breakdown in the production line as result of non-availability of inventory

Lead Time:

The lead time is the difference between the point of placing order and the time of procurement of stocks.

ABC Analysis:

ABC analysis is a technique of controlling inventories based on their value and quantities. It is more remembered as an analysis for „Always Better Control" of inventory. Here all items of the inventory are listed in the order of descending values, showing quantity held and their corresponding value. Then, the inventory is divided into three categories A, B and C based on their respective values.



A – Refers to high value item
B – Refers to medium value item
C – Refers to low value item

A category comprises of inventory, which is very costly and valuable. Normally 70% of the funds are tied up in such costly stocks, which would be around 10% of the total volume of stocks. Because the stocks in this category are very costly, these require strict monitoring on a day-to-day basis.

B category comprises of inventory, which is less costly. Twenty percent of the funds are tied up in such stocks and these accounts for over 20% of the volume of stocks. These items require monitoring on a weekly or fortnightly basis.

C category consists of such stocks, which are of least cost. Volume-wise, they form 70% of the total stocks but value-wise, they do not cost more than 10% of the investment in the stocks. This category of stocks can be monitored on a monthly or bi-monthly basis.

The following table summarizes the concept of ABC analysis;

Category	Value (%)	Volume (%)	Desired Degree of Control
A	70	10	STRICT
B	20	20	MODERATE
C	10	70	LOW

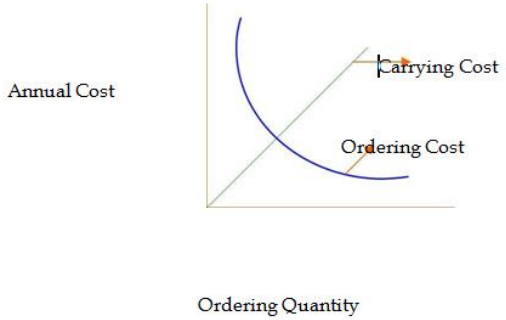
Economic Order Quantity (EOQ):

Economic order quantity is defined that quantity of materials, which can be ordered at one time to minimize the cost of ordering and carrying the stocks. In other words, it refers to size of each order that keeps the total cost low.

Inventory costs:

The inventory costs can be classified into two categories,

1) Inventory ordering cost
2) Inventory carrying cost.



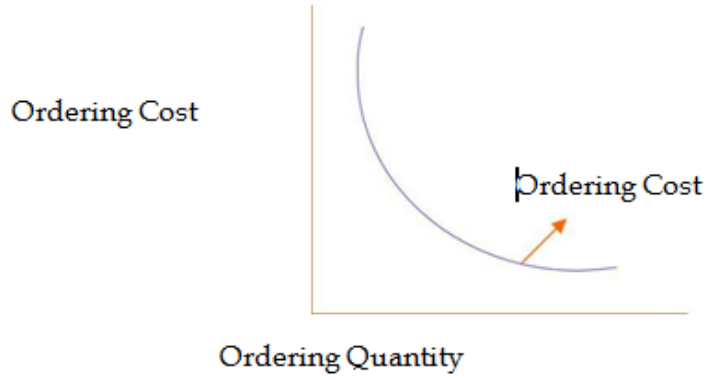
Inventory Ordering Costs (Co):

The cost refer to the cost incurred to procure the materials particularly in large organizations, these cost are significant. This is also called as procurement cost.

Definition:

It is the cost of placing an order from a vendor. This includes all costs incurred from calling for quotation to the point at which the item is taken into stock.

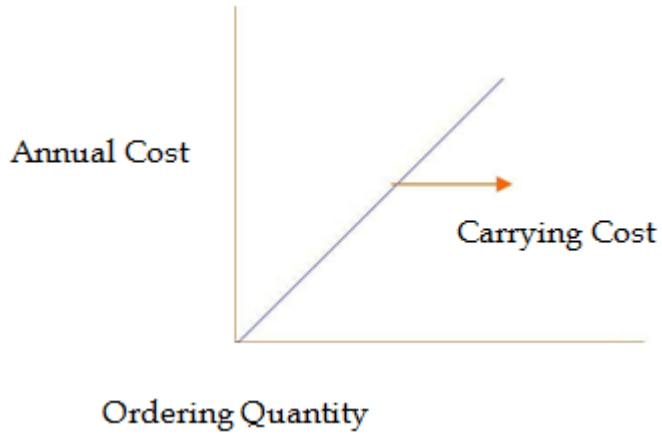
Eg: Receiving quotations, Processing purchase requisition, Receiving materials and then inspecting it, Follow up and expediting purchase order, processing sellers invoice.



Inventory Carrying cost:

Carrying cost which is also known as holding costs are the costs incurred in maintaining the stores in the firm. They are based on average inventory and consist of:

Eg: Storage cost includes: Rent for storage facilities, Salary of person and related storage expenses, Cost of insurance, Cost of capital.



Determine EOQ:

Step1:

Total Ordering cost per year =

No. of orders placed per year x ordering cost per order

= (A/S) x O

A = Annual demand

S = Size of each order (units per order) O = Ordering cost per order

Step2:

Total Carrying cost per year = Average inventory level x Carrying cost per year

= (S/2) x C

A = Annual demand

S = Size of each order (units per order) C = Carrying cost per unit

Step3:

EOQ is one where the total ordering is equal to total carrying cost

$$A/S \times O = S/2 \times C$$

$$2AO = S^2 \times C$$

$$S^2 = \frac{2AO}{C}$$

$$EOQ\ 'S' = \sqrt{\frac{AO}{C}}$$

Eg: A biscuit manufacturing company buys a lot bags of 10,000 bags wheat per annum. The cost per bag is Rs.500 and ordering cost is Rs.400. The inventory carrying cost is estimated at 10% of the price of the wheat determine EOQ and number of orders required per year.

Solution:

Annual demand (A) = 10,000 bags

Ordering cost per order (O) = Rs.400

Carrying cost per unit (C) = 10% of Cost price

= 0.10 x 500 = Rs.50/-

$$EOQ = \sqrt{\frac{2AO}{C}}$$

$$= \sqrt{\frac{2 \times 10{,}000 \times 400}{50}}$$

$$= \sqrt{1{,}60{,}000}$$

$$EOQ = 400 \text{ bags}$$

$$\text{The number of orders to be placed during the year} = \frac{\text{ANNUAL DEMAND (UNITS)}}{EOQ}$$

$$\frac{10{,}000}{400} = 25 \text{ ORDERS}$$

In the above case, the company has to place 25 orders to optimize its ordering and carrying costs.

Marketing Management

Marketing:

Marketing as a social process by which individuals and groups obtain what they need and want through creating, offering exchanging products and services of value with others.

Marketing Functions:

Buying:

Buying involves both the marketing and the customers. The marketing manager must know about the type of customers, their consuming habits demands and buying pattern.

Selling:

It creates a demand for a product selling function involves.

1. Product planning and development
2. Finding out or locating buyers
3. Demand creation through salesmanship, advertising and sales promotion
4. Negotiation of terms of sales such as price, quantity and quality etc.

Transporting:

It involves the creation of place utility. In order to have value goods must first be transported from the place they are produced to the place where they are needed.

Storage:

It concerned with storing finished products properly without any damage, until they are dispatched to the customers it is also concerned to the customers it is also concerned with maintaining stock of raw materials with maintaining stock of raw materials, components etc. to meet production schedules.

Standardization and grouping:

These two functions are supplementary and complementary to each other. A standard is a measure of fixed value. The standard could be based on color, weight, quality, and number of items, price, or any other parameter. Both domestic and export markets rely extensively on this function. Grading is the process of sorting the goods. The price varies with the grade of the goods. This function enables the marketer to fix a uniform price for a given grade of the goods. It further promotes good understanding between the buyer and the seller.

Finance:

Finance is the life blood of business value of goods is expressed is money and it donated by price to be paid by buyer to seller credit is necessary in marketing it plays all important role in retail trade particularly in the sales of costly consumer goods.

Marketing research:

The marketing personnel must study the trends in market demand, supply prices and related market information. The knowledge about the latest market information may help the firm to reduce risk loss in purchasing, in pricing, in forecasting market demand and in facing competition in the market.

Marketing Mix: It refers to the combination of four basic elements, viz., product, price, promotion and the place, known as the four P's of marketing.

Product Mix: It is used to describe the assortment of different product types (product lines) and their varieties (product depth). In addition, different tangible and intangible features of the product also form the product mix. Certain policy decisions relating to returns and warranties have to be considered.

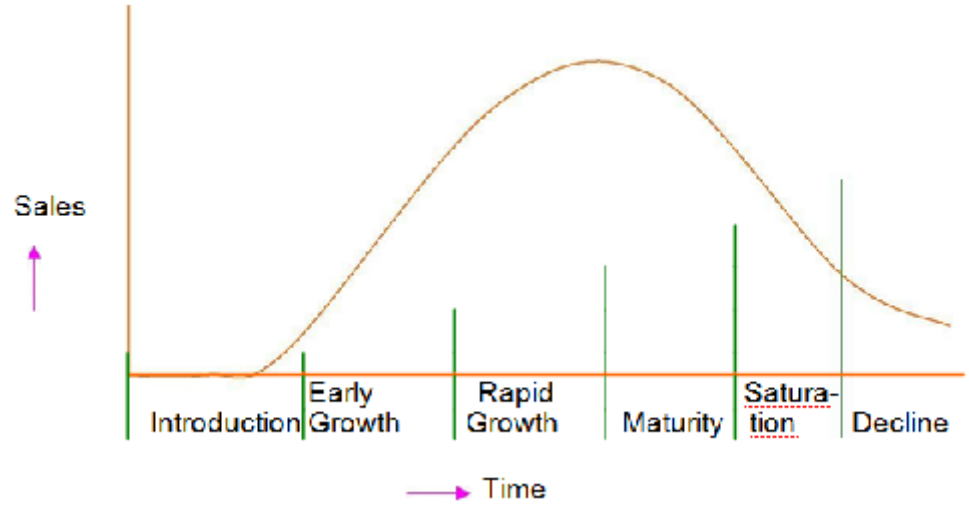
Price Mix: Price mix refers to the decisions relating to the price charged for the product, service or idea. It aims at providing at right price to customer. The issues that optimize the sales are; what should be the price? Cash discounts? Margins for negotiations? Average payment period? Credit terms?

Promotion Mix: Refers to the activities relating to promotion of the product, service or idea. It aims at reaching the customer by enhancing the awareness of the product. The issues that influence the volumes of sales are; what should be the % of personal selling efforts (Direct Marketing)? and % of non person selling efforts (Advertisement)?

Place Mix: Place or physical distribution mix refers to the activities that are involved in transferring ownership to consumers at the right time and price. It ensures delivering the product to the customer in the most convenient manner. Eg; Types of channels, extent of coverage, locations transportation facilities are some of the key issues that need personal attention while considering price factor.

Product life cycle

1. Products have limited life.
2. Products sales pass through distinct stages, each passing different challenges, opportunities and problems to seller.
3. Profits rise and fall at different stages of product life cycle.



Early growth:

When the results of usage of product start flowing into the market and the results are encouraging, more and more buyers come forward to try. The sales revenue remains very low till this point of time. This is also a very critical stage, as the manufacturer cannot avail scale economies.

Rapid growth:

A new product enters the stage of rapid growth when it satisfies the needs of the customers. The sales start picking up with repeat purchases and by word of mouth publicity, coupled with continued promotion outlay from the manufacturer's side. As new customers get attracted to the product for the first time, sales soar, sales revenues increase faster than costs, and profits start accruing. This trend attracts the attention of the competitors who release a similar product copying the best features of the new product.

Maturity:

When the product's sales growth slows down, it is called maturity. Due to this slow down, the industry as a whole suffers from overcapacity. At this stage, firms tend to attract the customers away from their competitors through cheaper prices and larger promotional efforts and outlay. Those who cannot afford such large promotional outlay and woo customers of the competitors.

Saturation:

When the sales growth slows down to zero, such a stage is called saturation. This size of the market does not increase beyond this stage. In other words, old customers who have stopped buying the product replace any new customer entering the market. All sales are simply replacement sales or repeat purchases by the same customers.

Decline:

When sales of a product tend to fall, such a stage is called decline. When a product ceases to satisfy the customer's needs in relation to those available in the market, it is no more preferred. As a result, its competing products offering superior benefits take over the market. This leads to weakened profitability.

Marketing Strategies based on Product Life Cycle:

Introduction Stage:

- To create wide product awareness and encourage product, so that the more profitable growth stage can be entered as early as possible.

- To start off with fairly basic product form, which satisfies core customer needs but offers a minimum of additional features
- To add certain additional features later as customer taste and preferences start to develop.
- Skimming price involve high initial price with a view of reducing it as the market grows.
- Penetration price involve setting a lower price that is likely to be maintained over the long term, to expand the market quickly
- Encourage selected number of distributors to sell new products.
- To follow a fairly promotional activity aiming at both distributors and end users markets to follow the skimming price or penetration price

Growth Stage:

- Maximize his own market share in the face of new competitors entering the growing market.
- Sacrifice sort term profitability by the way of incurring high costs to improve product features and distribution intensity and in extending promotional activity to reach mass markets.
- Establish a strong brand image that will be valuable asset during maturity.
- Reduce process slightly to reach the more price sensitive potential customers.

Maturity Stage:

- Focus on more profitability.
- Modify the product lines or extend he same to include latest versions that appeal to specific segments.
- Match prices in general to beat the competition but not at the cost of profitability.
- Spend more on Sales promotion instead of resorting to cut the price.

Decline Stage:

- Minimize the marketing expenditure.
- Alternatively go for the new products
- Cut prices and rationalize the product range and retain only those items that are more profitable.
- Withdraw distribution licenses from the least effective distributors.
- Reduce promotional expenses to a minimum level.

Type of Channels of Distribution:

Channels of distribution refer to the ways and means of reaching the customer through the intermediaries such as wholesalers, retailers, and other agencies, if any.

Manufacturer – consumer:

This is a direct marketing channel where the manufacturer contacts the customer directly without involving middlemen or intermediaries. The manufacturers of industrial goods such as aero planes, turbo-engines, ships, and other high-value capital goods mostly follow this route.

However, consumer product manufacturers also through Internet, mail order operations, and door-to-door selling are following this method. It is common sight to find the representatives of the manufacturers going from house to house to sell their products, which are normally used in the households.

Manufacturer – wholesaler – consumer:

This channel is primarily used in the case of industrial goods and high-value consumer durable products. The wholesaler, who may also be called as distributor in this channel, carries out the functions of retailing to large customers who may in themselves be the manufacturers also. The wholesalers in this channel buy goods from many manufacturers, stock, and subsequently, sell them through internet or directly to the customers in a wider geographical area. An example of the use of this method can be observed in the computer hardware industry.

Manufacturer – retailer – consumer:

Here, the large retailing chains, including supermarkets, use this channel to buy products in large quantities from manufacturers at a very competitive price and sell the same to the ultimate consumers. As the retailers enjoy large discounts in this process, they share this benefit with their

customers by keeping their products competitively priced. The consumers patronage this channel because they can buy in small quantities from a wide variety at lower prices.

Manufacturer – wholesaler – retailer – consumer:

This is a chain widely followed for fast moving consumer goods, which are likely to have mass markets. When the consumers are large in number, widely dispersed geographically, and products are of low value, this channel is favored. Manufacturers would find it prohibitively expensive to set up their own outlets in such circumstances. For manufacturers of consumer goods such as hosiery, food items, confectionery, clothes, and readymade garments, cosmetics, and so on, intermediaries are indispensable in the distribution chain.

Advertisement & Sales Promotion

Definition:

Littlefield defines it as "Advertising is mass communication of information intended to persuade buyers as to maximize profits."

Hall defines it as "Salesmanship in writing, print or pictures or spreading information by means of the written and printed word and the pictures."

Stanton says, "Advertising consists of all the activities in presenting to a group a non-personal, oral or visual, openly sponsored message regarding a product, service or idea."

American Marketing Association defines advertising as any paid form of non-personal presentation and promotion of ideas, goods, or services by an identified sponsor".

From the above definitions, it is stated that advertising indicates that:

(a) Advertisement is a message to large groups.
(b) It is in the form of non-personal communication.
(c) It persuades the general public to purchase the goods or services, advertised.
(d) It is paid for by advertiser to publisher.
(e) Advertising messages are identified with the advertiser.

Basic Features:

After a careful scrutiny of the above definitions, the essential elements of advertising can be listed as follows:

1. Matter of Record:

It is a matter of record furnishing information for the benefit of buyers. It guides or helps buyers to make satisfactory purchases. The contents of an advertisement are what the advertiser wants.

2. Non-personal Communication:

It is a mass non-personal communication, reaching large groups of buyers. It is not delivered by actual person. It is not addressed to a person. Whatever the form of advertisement-spoken, written or visual, it is directed at a mass audience and not at the individual as in personal selling.

3. Persuasion of Buyers:

Advertising complements or may substitute for personal selling. To persuade the buyers the advertiser makes his products buyer-satisfying. It is an art of influencing the human action to possess one's product.

4. Paid Form of Publicity:

Advertising is a paid form and hence commercial in nature. Thus any sponsored communication designed to influence buyer's behaviour is advertising because advertiser pays for it.

Advertising Objectives:

Personal selling and other forms of promotions are supported by advertisement. It is the main objective. The long-term objectives of advertising are broad and concerned with the achievement of overall company objectives.

1. To do the entire selling job (as in mail order marketing).
2. To introduce a new product (by building brand awareness among potential buyers).
3. To force middlemen to handle the product (pull strategy).
4. To build brand preference (by making it more difficult for middlemen to sell substitutes).
5. To remind users to buy the product (retentive strategy).
6. To popularize some change in marketing strategy (change in price, improvement in the product etc.).
7. To provide rationalization (i.e., socially acceptable excuses).
8. To combat or neutralize competitor's advertising.
9. To improve the morale of dealers and/or sales people (by showing that the company is doing its share of promotion).
10. To acquaint buyers and prospects with the new uses of the product (to extend the product's life cycle).

Importance of Advertising:

The standard of living of the public is raised by introducing modern products and the latest techniques through advertising. Mass production followed by large-scale consumption facilitates to earn more profits. Large- scale production decreases the unit cost. The selling price is also reduced, but not to the extent of decreased cost of production.

It means, the price of the product is decreased, thereby consumers are satisfied and dividend rate is increased, thereby shareholders are satisfied. All these happen because of advertising. Items like, pens, radios, scooters, watches, refrigerators, television sets, cameras, foot-wares and many other modem amenities are examples. Advertising reaches the masses, whereas salesmen find it difficult. Advertising covers a vast area. In the field of competition, advertising is a good helper to the producer to boost his products.

Based on the concept of product life cycle, one may differentiate the stages:

(a) Introductory Stage:

In this stage, the marketer develops a new product and there is no assurance that consumers will perceive a need for it. Unless consumers perceive a need for the product, it will not sell. The job of advertising is to introduce the idea that the product is better able to meet the consumer needs than the existing ones.

It must effectively communicate that the new product has overcome the limitations of earlier alternatives that consumers tolerated for long. The role of advertising message in this stage is to furnish product knowledge, change existing habits, develop new usage, cultivate new standards of living, and implant a new way to look at existing approaches of problem solution.

(b) Competitive Stage:

The consumers have accepted the product and the competition has moved into the market-place sooner rather than later. The consumer faces the question, "Which brand should I buy?" Generally, in the early stages of competition, the combined total effect of competitors creates significant growth for the product category. The key objective of advertising is to clearly and convincingly differentiate the company's brand and effectively communicate its position.

(c) Reminder Stage:

When products reach maturity in their life cycle and are widely accepted, they are in their reminder stage. Marketers may not feel much need for competitive advertising, as consumers already know all about the product. Some consumers like it and some others don't like it, or may be neutral.

However, if marketers do not advertise, consumers are likely to forget about it and switch to other alternatives being advertised regularly. This is sufficient reasons to switch to reminder advertising and keep the brand in front of consumers for top- of-mind recall. Advertising alone almost never "sells" products, services or ideas. But it "helps" to sell through persuasion.

Types of Advertising:

The following are the important types of advertising:

1. Brand Advertising:

These types of advertisements are done to build brands and develop unique brand identity for the firm. This is the most popular form of advertising in all possible media including TV: for examples, Pepsi, Coke etc.

2. National Advertising:

These advertisements are uniform across the nation and are released through national media covering the nation.

3. Local Advertising:

These advertisements are carried out in local and vernacular media to promote the product in a local region.

4. Retail Advertising:

These advertisements are brought to promote retail outlets and dealer points.

5. Political Advertising:

These are done for political parties, politicians and individual candidates during elections.

6. Social Advertising:

These advertisements are brought out for a social cause like against AIDS, child-labour, women trafficking.

7. Directory Advertising:

These are the advertisements done in directories and yellow pages and followed by people while collecting a telephone number or a home address.

8. Business-to-Business Advertising:

These kinds of advertisements are carried out targeting business and organizational marketers. These messages are directed towards retailers, wholesalers and distributors.

9. Institutional Advertising:

Institutions like colleges, universities, missionary of charities and large corporate bring out these advertisements. The purpose of such advertising is to create a positive goodwill, which will ultimately contribute towards achieving to overall marketing and brand building goal of the organization.

10. In Film Advertising:

These are new forms of advertising in which brands are placed inside the film and actors are shown using these products during the movie for increasing the usage among the audience.

11. Electronic Advertising:

These forms of advertising use electronic media like, TV, radio, video, audio-cassettes, etc.

12. Interactive Advertising:

These are typical internet based advertisements, which are delivered to individual consumers who have access to the World Wide Web.

Definition of Sales Promotion

Promotion refers to the set of activities that communicate the merits of a product, service or brand to persuade target customers to buy it. It is one of the four elements of the marketing mix. It is a way of attracting, inducing and creating awareness among the people to initiate the purchase.

The ways of promotion include, discount coupons, free distribution of samples, rebate, offers like giving two items at the price of one, trial offers, offers on festivals and occasions, contest, value added services, etc. Due to these methods, the companies get an instant boost in their sales because customer response is impulsively when they know that they will get more at the price of less. It involves activities like:

Direct Marketing:

It is a technique in which companies sell their products directly to the customers, by eliminating the middleman.

Advertising:

Advertising (as explained above) is a paid announcement, wherein the message is conveyed to attract the customer and bring is attention towards the product, through a medium.

Public Relation:

Every company wants to build and maintain an image in front of the public, through various channels.

Personal Selling:

In this technique, the salesman sells the company's product by directly visiting and influencing them to buy the product.

Key Differences between Advertising and Promotion

The following are the major differences between advertising and promotion:

- ✓ A monolog activity, which draws the attention of prospective customers towards a product, brand or service, is known as Advertising. Promotion is a communication tool that includes all the activities which aware and persuade customers to buy the product or service.
- ✓ Advertising is a part of the promotion. Therefore, it can be said that advertising is also an act of promoting the product.
- ✓ Advertising is done to build brand image and increase sales, whereas Promotion is used to push short-term sales.
- ✓ Advertising is one of the elements of promotion while the promotion is the variable of the marketing mix.
- ✓ Advertising has a long term effect but at the same time promotion has short term effects.
- ✓ The results of advertising are shown by the passage of time. Conversely, the results of the promotion are seen immediately.
- ✓ Advertising is an expensive tool. Unlike promotion which is an economical tool.
- ✓ Advertising is suitable for medium and big enterprise whereas Promotion is for all kinds of enterprises irrespective of its size.

Comparison Chart

BASIS FOR COMPARISON	ADVERTISING	PROMOTION
Meaning	Advertising is a technique of driving public attention towards a product or service, through paid network.	The set of activities that spread a word about the product, brand or service is known as promotion.
What is it?	Subset	Superset
Objective	Building brand image and boosting sales.	Short term sales push
Strategy	Promotional strategy	Marketing strategy
Effects	Long term	Short term
Results	Generally slow, can be seen over time.	Instant
Cost involved	Highly expensive	Cost Effective
Best suited for	Medium and big enterprises	All enterprises

Decision Making Process:

Decision making is the process of making choices by identifying a decision, gathering information, and assessing alternative resolutions.

Using a step-by-step decision-making process can help you make more deliberate, thoughtful decisions by organizing relevant information and defining alternatives. This approach increases the chances that you will choose the most satisfying alternative possible.

Step 1: Identify the decision

You realize that you need to make a decision. Try to clearly define the nature of the decision you must make. This first step is very important.

Step 2: Gather relevant information

Collect some pertinent information before you make your decision: what information is needed, the best sources of information, and how to get it. This step involves both internal and external "work." Some information is internal: you'll seek it through a process of self-assessment. Other information is external: you'll find it online, in books, from other people, and from other sources.

Step 3: Identify the alternatives

As you collect information, you will probably identify several possible paths of action, or alternatives. You can also use your imagination and additional information to construct new alternatives. In this step, you will list all possible and desirable alternatives.

Step 4: Weigh the evidence

Draw on your information and emotions to imagine what it would be like if you carried out each of the alternatives to the end. Evaluate whether the need identified in Step 1 would be met or resolved through the use of each alternative. As you go through this difficult internal process, you'll begin to favor certain alternatives: those that seem to have a higher potential for reaching your goal. Finally, place the alternatives in a priority order, based upon your own value system.

Step 5: Choose among alternatives

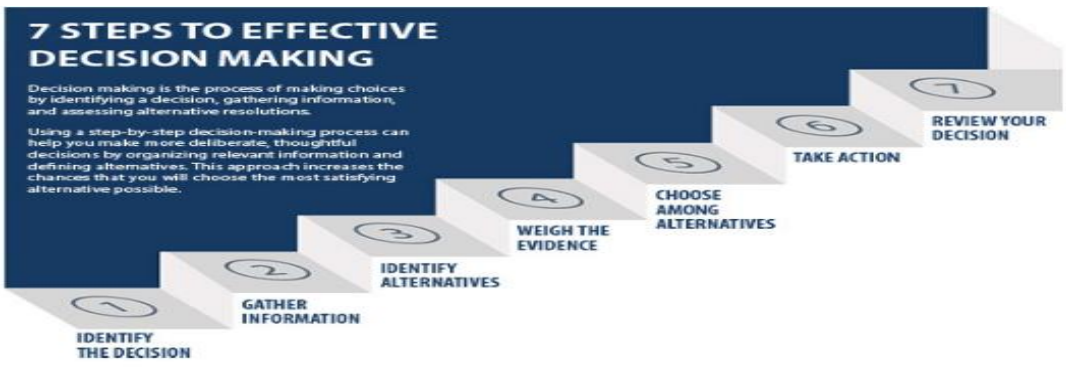
Once you have weighed all the evidence, you are ready to select the alternative that seems to be best one for you. You may even choose a combination of alternatives. Your choice in Step 5 may very likely be the same or similar to the alternative you placed at the top of your list at the end of Step 4.

Step 6: Take action

You're now ready to take some positive action by beginning to implement the alternative you chose in Step 5.

Step 7: Review your decision & its consequences

In this final step, consider the results of your decision and evaluate whether or not it has resolved the need you identified in Step 1. If the decision has not met the identified need, you may want to repeat certain steps of the process to make a new decision. For example, you might want to gather more detailed or somewhat different information or explore additional alternatives.



Common Challenges of Decision Making

Although following the steps outlined above will help you make more effective decisions, there are some pitfalls to look out for. Here are common challenges you may face, along with best practices to help you avoid them.

Having too much or not enough information:

Gathering relevant information is key when approaching the decision making process, but it's important to identify how much background information is truly required. "An overload of information can leave you confused and misguided, and prevents you from following your intuition.

In addition, relying on one single source of information can lead to bias and misinformation, which can have disastrous effects down the line.

Misidentifying the problem:

In many cases, the issues surrounding your decision will be obvious. However, there will be times when the decision is complex and you aren't sure where the main issue lies. Conduct thorough research and speak with internal experts who experience the problem firsthand in order to mitigate this. It will save you time and resources in the long run, Corporate Wellness Magazine says.

Overconfidence in the outcome:

Even if you follow the steps of the decision making process, there is still a chance that the outcome won't be exactly what you had in mind. That's why it's so important to identify a valid option that is plausible and achievable. Being overconfident in an unlikely outcome can lead to adverse results.

Purchasing Process: Definition and Steps

What is the Purchasing Process?

It's often considered interchangeable with the term procurement process, but the purchasing process itself is more confined to actually obtaining goods and services, while procurement refers to the overall framework established to optimize that purchasing for maximum value, savings, and efficiency. A better synonym for the purchasing process is the procure-to-pay (P2P) process. **The purchasing process is, at its most basic, as simple as conducting a transaction.** Much in the same way a consumer might research and purchase the best appliance for their home, your procurement team uses the purchasing process to requisition goods and services through your supply chain.

The primary benefit of a formal process for purchasing is avoiding waste due to fraud, rogue spend, theft, and other financial pitfalls that accompany undocumented, non-optimized buying habits. But because procurement sits at the heart of the value creation process for your company, formalizing and optimizing your purchasing process is also important to:

Creating and efficient and effective buying process for not just direct spend (e.g., raw materials) but indirect spend (e.g., office supplies, IT services, etc.).

- Successful supplier relationship management.
- Optimal supply chain management and strategic sourcing (for both cost savings and value)
- Streamlining the procurement cycle and all its sub-processes.
- Providing a solid audit trail for internal and external review.
- Establishing a model for business process management that can be applied across your entire organization.

Whether you're a small business or a multinational corporation, having a formalized purchasing process is essential to competing in the modern marketplace.

The Purchasing Process

Traditionally, the purchasing process is a cycle, with each step requiring the exchange of information and various approvals to move forward. Every business will have its own unique touches to add, but generally speaking, the purchasing process follows a well-established pattern of events.

1. Needs Analysis

At this stage, the company recognizes and documents a need for goods or services to solve a particular problem. The procurement team describes the need to be met, and works with others to determine how best to do so. For example, a company facing high travel expenses might invest in more fuel-efficient company transportation for its sales staff, or reduce the amount of travel required for remote employees by investing in advanced telecommunication software.

2. Purchase Requisition to Purchase Order

The "purchasing" portion of the purchasing process kicks off with a purchase requisition submitted to the purchasing department or purchasing manager by the individual, team, or department requesting the goods or services. The purchase requisition contains full details on the items or services to be obtained. Purchase requests below established budget thresholds are automatically updated to purchase orders, and submitted to the preferred supplier for that item or service.

More expensive purchases, or unexpected purchases not in the budget, will be forwarded to the appropriate individuals for review and approval before they can be transferred to POs. Rejected purchase requisitions are returned to the issuing party for review and correction or clarification as needed.

3. Purchase Order Review and Approval

Approved purchase orders are sent to accounting to verify the funds exist in the appropriate budget to cover the requested goods and services.

4. Requests for Proposal

POs that receive budget approval are returned to the procurement department and, as required, used to create requests for proposal (RFPs), also known as requests for quotation, or RFQs. These are dispatched to vendors to solicit bids to fulfill the order for goods or services. Potential suppliers submit their bids, and are carefully reviewed based on their performance history, compliance records, and important characteristics such as average lead times, reputation, and price.

5. Contract Negotiation and Approval

The vendor with the winning bid is then awarded a contract, which is further refined before signing to ensure optimal terms and conditions and to ensure a mutually satisfactory arrangement for both parties. Once the contract is signed, the purchase order is a legally binding agreement between buyer and seller.

6. Shipping and Receiving

The supplier delivers the goods or services within the agreed-upon timeframe. Once they've been received (in the case of goods) or performed (in the case of services), the purchaser carefully reviews the goods and services to ensure they've received what was promised, and notifies the vendor of any issues.

7. Three-Way Matching

A cornerstone of spend management, three-way-matching is the comparison of shipping documents/packing slips with the original purchase order and the invoice issued by the supplier. This comparison is used to ensure all the information related to the transaction is accurate. Discrepancies must be rectified as soon as possible to avoid additional charges, delays in production and payment, or damage to supplier relationships.

8. Invoice Approval and Payment

Successfully matched orders are approved for payment. Any modifications or additional charges may require another layer of approvals before payment can be issued. Once approved, payment is issued to the vendor. Ideally, such payments are made with the goal of capturing early payment discounts and other incentives while avoiding late payment fees.

9. Accounting Records Update

Completed orders are recorded in the company's books, and all documents related to the transaction are securely stored in a centralized location.

Stores Management

Definition of Store Management

According to Afford and Beatty, "Store management is that aspect of material control concerned with the physical storage of goods".

According to Maynard, "Store management is to receive materials, to protect them while in storage from damage and unauthorized removal, to issue the materials in the right quantities, at the right time to the right place and to provide these services promptly and at minimum cost".

Objectives of Store Management

The various objectives of store management are as follows:

1) Minimizing Cost of Production:

The store's primary goal is to produce services at the lowest possible cost by minimizing production costs. The total material cost in production includes the cost of materials, the cost of procurement, and the cost of transporting and transferring materials. The costs of the store include preservation, accounting, insurance, and store equipment. These costs have a direct or indirect effect on the total cost of the product. So, the company is trying to minimize these costs.

2) Maintaining the Worth of Stock:

The primary goal of store management is to keep materials at a minimum on a regular basis in order to make the best use of working capital. It also contributes to lower storage costs. The stock-keeping in the store is completed in a shorter period of time. The storekeeper tries to prevent the inventory from becoming obsolete and also tries to minimize the warehouse time for the stock. The storekeepers work tirelessly to keep the store's merchandise valuable.

3) Services to Organisation:

The store management helps in providing different types of services to the organization. The service consists of monitoring all the stages, i.e., raw materials and work-in-progress, finished goods, and controlling the scrap.

There is the proper movement of raw materials, components, tools, equipment, and any other commodities required for the production of products and services.

They assist with the upkeep of materials, spare parts, and stores as needed.

They help in maintaining a proper supply of materials at the time of work in progress.

They assist in obtaining and storing scrap items.

They help with keeping records of all the receipts, issues, and goods in

4) Establishing Co-ordination with other Departments:

Management relies heavily on coordination. The basic objective of store management is to have proper communication with the material control department. The store manager, for proper functioning, needs to cooperate with another department. They give a continuous flow of information and materials for providing and maintaining services to other departments.

5) Advising Materials Manager:

The store plays an important role in material management. Management is reliant on the store's formulation of various types of investment policies. The store manager needs to have proper knowledge of the store and the store's items for framing various kinds of policies. Other departments can use this information to keep the stock at the proper quality, quantity, and order level.

Functions of Stores/Stores Department

Before the material moves into the store, the function of the store begins. In terms of day-to-day operations, the store department must communicate with the user's office department.

Storekeeping has the following functions:

Receipt: To receive and account for the inventories that is received.
Storage: To receive and safely keep the inventory and avoid loss on account of damage, deterioration and pilferage.
Retrieval: It ensures the materials are easily accessed and space is optimally utilized. It further ensures that the materials are retrieved as and when required.
Issue: The demand arising on account of the consuming departments is satisfied upon the receipt of the goods.
Records: To record the receipts and the issues.
Housekeeping: Emphasis is given on neatness and cleanliness and the same is kept in a manner that the receipts, issue, and storage are satisfactory.
Surplus Stock: The surplus stock should be properly disposed of.
Verification: To avoid loss of stock, physical verification should be timely conducted.
Coordination and Cooperation: To provide for interface with the inspection and the production department

Types of Stores

Based upon the classification, a few items discussed below are separately stored as per the scale and the scope of the operations. For example, there are separate stores for waste materials. The same is true for storing specific chemicals and explosives. In other cases, the same items or products may also be stored together.

For example, raw materials procured from the outside and produced within the organization can be stored together. Because fixtures and jigs are durable, they can be stored alongside equipment and machinery. Further, the consumables and the maintenance equipment can be stored separately. As a result, one can see that there are no stereotypical rules for managing stores.

However, the stores can be classified as follows:

1) Main or Centralized Stores:

This denotes the main or the key store which is responsible for providing supplies to the departments, units or even the sub-stores, which are primarily responsible for issuing goods to the users directly. All the receipts and the issues are managed by a single store located centrally.

2) Branch or Decentralized Stores:

Such stores are often located within the plant itself and are of significant size. This is most appropriate when a single store is unable to meet the needs of plants located in different locations.

3) Central Store with Sub-Stores:

This type of system is found in large factories where there are a number of product lines. Under this arrangement, there exists a main lead store which is further connected to small sub-stores, which are responsible for meeting the demand for a respective production unit that is closely located.

The centralized store replenishes all the requirements of the sub-store at periodic intervals. The storekeeper attached to each of the stores maintains a complete record of the inventory and submits all the records to the head storekeeper. This system is also known as the impressed inventory control system or the periodic store control system.

4) Tool and Miscellaneous Stores:

Such stores generally possess the required tools and the equipment that is required by production and manufacturing units. Taking into account the volume of work, the inventory of tools and equipment should be kept up to date. The store is responsible for meeting all the requirements related to the tools for the various units. The tools are issued first and then the central store or main store makes the supply.

The main store is actually not responsible for making the supplies for the individual departments. Like others, the periodic inventory is accounted for and any deviation is sought out. All the obsolete and defective materials are either replaced or repaired before they are kept on the racks for the purpose of the issue.

5) Warehouses:

This is another term used for going down. They constitute the place where goods are kept and stored either for a short tenure or a long tenure and assist manufacturers as well as traders who intend to store goods for one reason or the other. It is not possible for all to have their own storage units, so, in such cases; the services of warehouses can be taken up. In lieu of a certain rental payment, the goods are stored in reasonably good conditions and efforts are made so that the value of the goods is not lost.

6) Centralized Stores

A centralized store is normally the main store that is responsible for providing supplies for the other stores, the sub stores, and the departments which also issue goods to the users. The material is received and issued from a core location. The departments are not authorized to make purchases on their own. For any requirement, they have to approach the central store and the requisition is fulfilled accordingly.

The following are the primary functions of the centralized store:

1) Receiving the materials, equipment, and tools.
2) Issue of materials to the departments and the branch stores
3) Taking remedial measures for stock replenishment.

A store officer is usually appointed to oversee the operations of the store, with store assistants on hand to handle physical receipts and issues.

A centralized store helps in keeping the inventory in one common place and, moreover, the labor requirement is also reduced to a considerable extent. But, if the departments and the units to whom the supply is to be made are widespread, there can be difficulty in meeting their requirements. Problems with material handling can also arise in the case of centralized stores. Ideally, this concept is best suited for small organizations.

Advantages of Centralized Store

The following are some of the benefits of centralized stores:

- ✓ A small location is enough to meet the requirements of different users for different goods.
- ✓ As the capacity of the store is limited, less inventory is required. As a result, less money will be invested in inventory.
- ✓ The amount of manpower required is reduced.
- ✓ Materials can be manipulated a lot better.
- ✓ These materials are only stored in a small amount of space. This facilitates economical storage. 6) Bulk inventories are avoided.

Disadvantages of Centralized Store

The following are some of the drawbacks of centralized stores:

- This system is not appropriate for big manufacturing concerns.
- The number of people needed to transport the material to various locations is large.
- This system is distinguished by material scarcity and waste.
- If the stores are large, it requires adequate safety measures for the inventory.
- It is hard to manage records.

Decentralized Stores

Those plants and the manufacturing units which are large in size have their own decentralized stores to cater to the needs of the respective plants. It saves time and money and is an easy method to use in decentralized stores. Departments may set up their own stores to fulfill their requirements. Centralized stores have certain constraints and they are removed under this system. Since setting up different stores requires huge investment and operational costs, this makes the decentralized store system unpopular.

Advantages of Decentralized Store

- ➢ The following are the benefits of decentralized stores:
- ➢ The costs of material handling and associated costs are reduced.
- ➢ Bottlenecks have been reduced considerably.
- ➢ The damage caused by fire and theft has been reduced.
- ➢ Early delivery of materials to the departments.
- ➢ Time and money saved on transportation.

Disadvantages of Decentralized Store

- The following are the drawbacks of decentralized stores:
- The inventory cost increases as there is a duplication of inventory.
- Human and manpower resources are underutilized.
- Accounting and clerical functions have also grown in importance.
- There is a problem with managing and coordinating different stores.

Importance of Stores

The system of storekeeping plays an important role in the welfare and profitability of an organization. An efficient store-keeping function is beneficial in the following manner:

1) Minimum Investment:

Because material costs account for a sizable portion of a company's total production costs, their importance cannot be overstated. An effective store-keeping system facilitates deciding various levels of material-holding, minimum level, maximum level, and re-order level. This, in turn, makes it possible to invest at the optimum level in each category of inventory. The capital saved in this manner is now available for profitable deployment elsewhere.

2) Continuous Flow of Material:

A robust store-keeping system ensures the uninterrupted flow of various materials to the concerned departments engaged in the production process. Situations like reduced production or stoppage of production are totally eliminated and the organization is able to adhere to the production schedule.

3) Protection and Preservation:

A storeroom or warehouse is a place where various materials are physically stored subsequent to their receipt from the suppliers, up to the time they are requisitioned by the concerned production department. The storage period may vary depending upon a number of factors, including the organization's policy on the matter.

The entire function of storekeeping is carried out in an orderly and scientific manner, with the goal of protecting the materials from damage and loss caused by natural (normal deterioration) or unnatural (pilferage, theft, etc.) causes. against deterioration, various preservation techniques, like suitable packaging, application of protective covering, etc., are used. Appropriate security arrangements are put in place to ensure protection against pilferage and theft.

4) Good Quality at Minimum Cost:

In the context of today's culture of fierce competition among peer business organizations, most companies pursue a two-pronged strategy, namely (i) maintaining product quality and (ii) lowering production costs. An efficient store-keeping system facilitates the implementation of the strategy.

5) Proper Storage for Improved Output:

The importance of keeping everything in its proper place is, of course, paramount.It is helpful for the smooth flow of work. Materials requisitioned from different production departments are delivered promptly.

6) Minimum Wastage:

Maintenance of proper records of stores keeps the store-keeper well informed with regard to the levels of inventories in respect of various materials stored. It removes the need for him to count various items frequently, which not only saves time and energy but also the possibilities of pilferage, theft or other malpractices to a great extent. Wastage is kept to a minimum when materials are being cared for.

7) Co-ordination and Co-operation:

As the store department has to deal with various departments of the organization, it acts as an important link between them. It ensures full cooperation and coordination between them.