Materials Management

- Materials are any commodities used directly or indirectly in producing a product such as raw materials, component parts or assemblies.

- Materials management is the grouping of management functions supporting the complete cycle of material flow, from the purchase and internal control of production materials to the planning and control of work in process to the warehousing, shipping, and distribution of finished product.

The flow of materials into an organization to the point, where, those materials are converted into the firm's end product(s)

The executive who engage in materials management are concerned with three basic activities: buying, storage of materials and movement.

Functions of Materials Management

- Materials planning and programming
- Raw material purchase
- Receiving, store keeping, and warehousing
- Issuing of material
- Inventory control
- Value engineering
- Transportation of materials
- Vendor development
- Vendor rating
- Disposal of scrap and surpluses

Focus of Material Management

To procedure of Right Materials:-

In such a manner

- In Right Quantity
- Of Right Quality
- At Right Time
- From Right sources
- At Right prices

Primary Objectives :-

- Buying the best item at the lowest cost
- Reduction in inventory cost and High inventory turnover
- Maintaining the flow of production
- Maintaining the consistency of quality
- Optimization of acquisition and possession, resulting in lower cost
- Cordial relationship with suppliers
- Maintaining good records
- Contribution towards competitiveness
- Personnel development

Secondary Objectives :-

- Promotion of standardization with suppliers
- Development of reciprocal relations with customers
- Committees to decide on economic make –or- buy decisions
- Development of inter departmental relationships
- Can undertake acquisitions

Advantages of Material Management

- Material cost can be lowered (Sales price can be brought down to a reasonable level)
- Controlling of indirect cost (such as materials movement)
- Risk of inventory loss minimized (theft, pilferage)
- Reduction in loss of time of direct labor
- Cost of material used in different department ascertained
- Control of manufacturing cycle
- Material congestion in storage places avoided
- Improvement in delivery of the product

Phases In Material Management

- Planning (Plans for capacity or production levels and required inventory levels
- Material utilization (efficiency of the flow of materials through the plant)
- Physical (storing, receiving and issuing of materials and physical checking of inventory of raw materials, work in process, finished goods, record keeping)
- Control or follow up (feedback and corrective action involved)

Challenges of Material Management

- Selection of appropriate vendors
- Land and storage cost increase
- Difficulty in forecasting demand accurately
- Scarce capital for investment in materials inventory
- Diversification of product lines
- Optimizing time and quantity for products
- Management of information

Definition of Inventory

1.Inventories means the stock of the product of a company and components thereof that makes up the product. It includes the raw materials, work in progress and finished goods.

1.It is the physical stock of items a business or production organization kept in hand for the efficient running of business or its production.

Inventories are :-

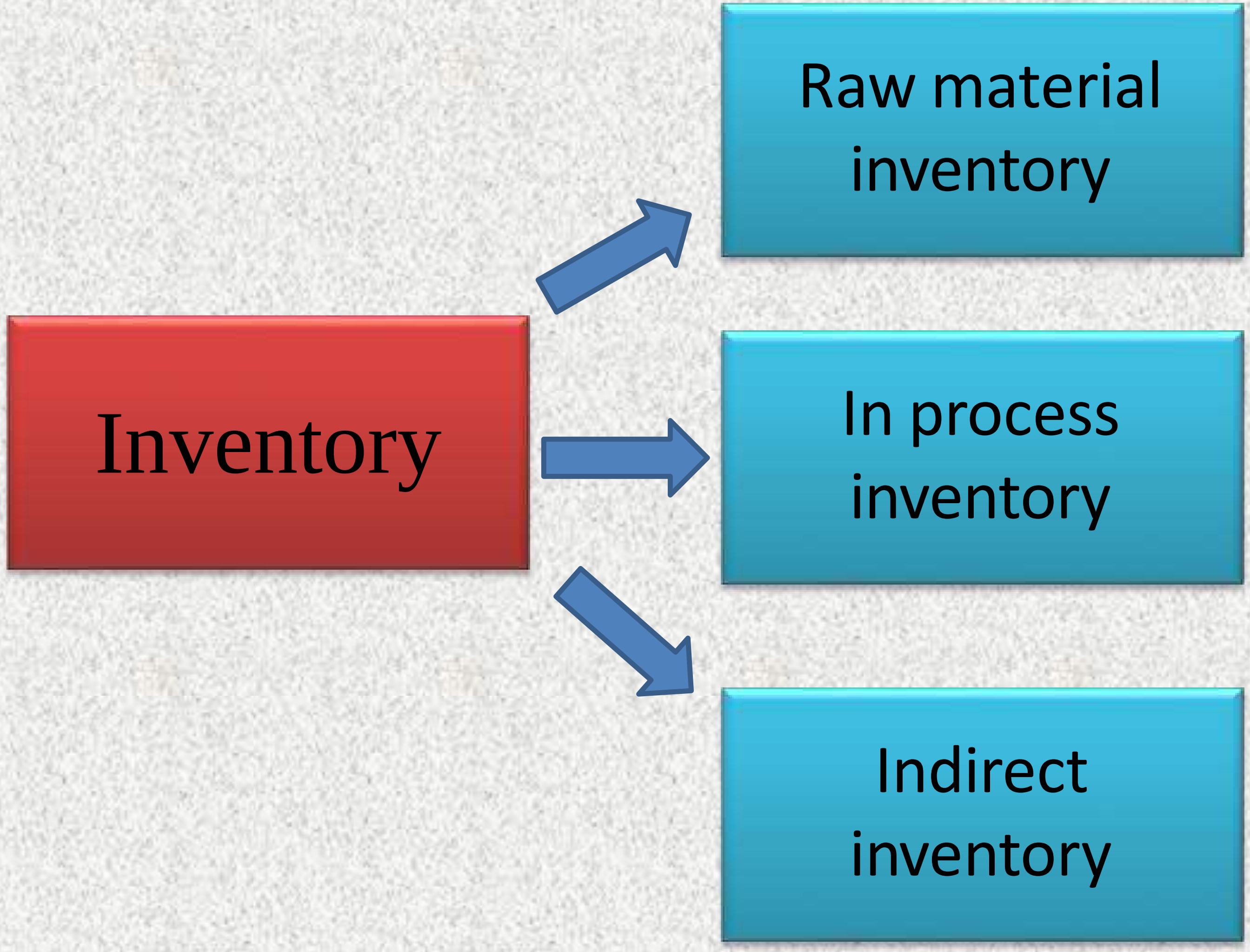
1. Items in stock.

2. Usable but idle resources.

Inventory control

Process of maintaining optimum needed quantity of inventories for the smooth operation of organization.

Classification of inventories

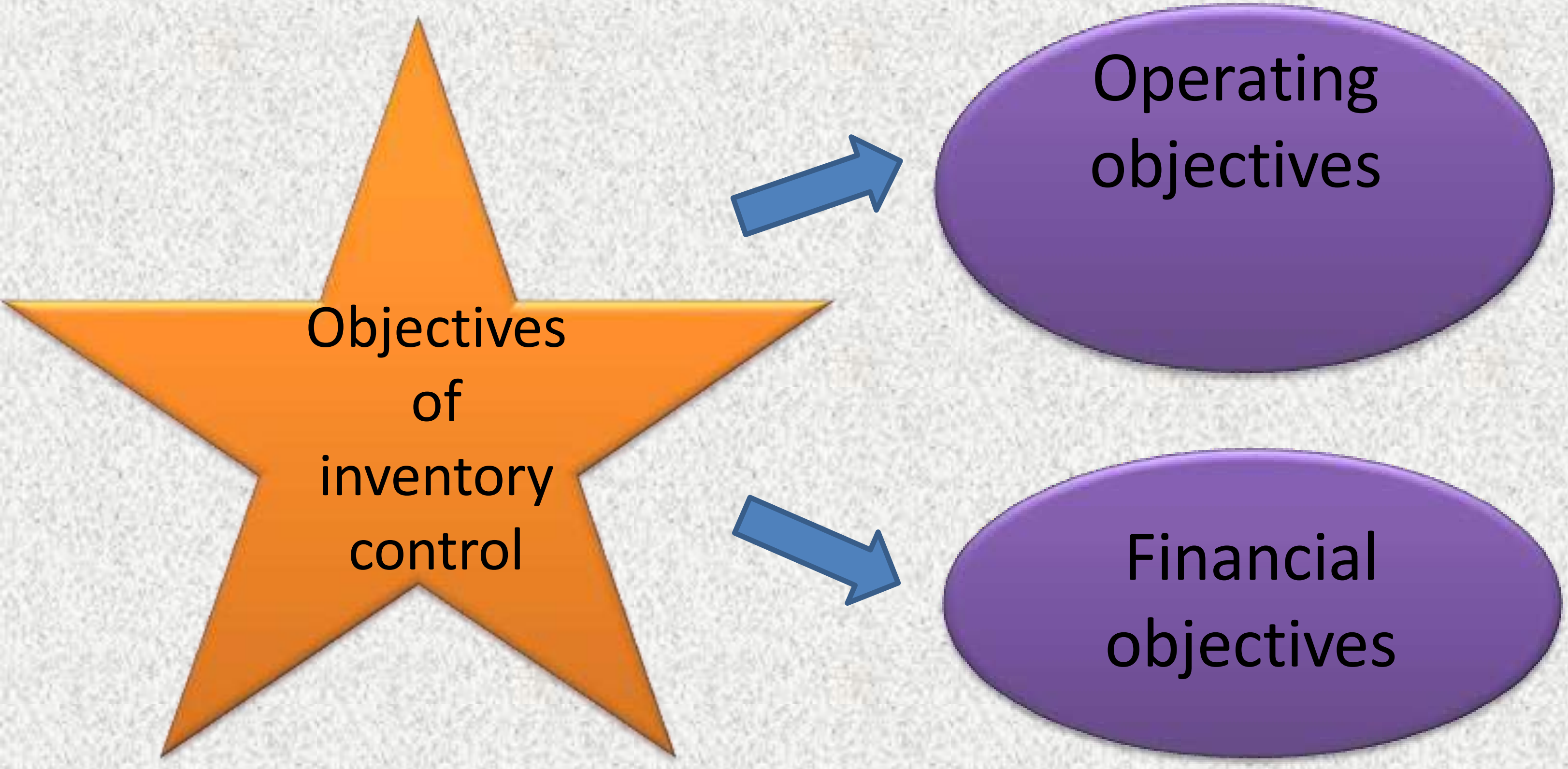


Objectives of inventory control

The basic managerial objectives are 2 fold:-

1. Avoid over/under investment in inventories.

2. To provide right quantity and quality goods at right time at proper value.


Objectives of inventory control
Operating objectives
Financial objectives

Operating objectives

1. Availability of Materials: All type of material available at all time so that production may not be held up for want of supply of materials.

2. Minimizing the wastage : permit only uncontrollable wastage. Avoid wastage by leakage theft, embezzlement, spoilage(rust, dust , dirt)

3. Promotion of manufacturing efficiency: When right type of raw material is available at the right time.

4. Better service to the customers: Maintain proper production flow to produce sufficient finished goods to meet the demand of of the customers

5. Control of production level: To increase or decrease the production as per the demand as well as to maintain proper buffer stock to meet any eventuality in difficult times.

6. Optimal level of inventories: It is done in view as per the operational requirements.it also avoids the out of stock danger.

Financial objectives

1. Economy in purchasing: management makes every attempt to purchase the raw materials in bulk quantity and to take advantage of favorable market condition.

2. Optimum investment and efficient use of capital: The finance management should set up maximum and minimum levels of stocks to avoid deficiency or surplus of stock position.

3. Reasonable price: Management should ensure supply of raw materials at a reasonable low price without sacrificing the quality of it thereby helping the cost of production and quality of finished goods.

Advantages of inventory

1. Delivery in time: as inventory stored aids smooth production, the manufacturing company can earn reputation as a reliable supply.
   - our finished goods can be raw materials for buyers.
   - reputation can get more customers

2. Possibility of discount on bulk purchase

3. Efficiently handle unforeseen circumstances: harthal, bandh or other transportation difficulties do not hinder production.

4. No idling of workers and machineries.

Disadvantages of inventory

1. Working capital tied up: cant utilize the amount for other purposes nor it yield any interest.

2. More space required: more inventories more is the space needed and space accounts for rent.

3. Increase insurance charges: Increased cost of handling and manufacturing.

4. Increased over head expenses: Security personnel required to guard inventory.

5. Chances of damage: Pilferage, replacement, etc more.

6. Increased chance of obsolesce.

Inventory Control

- Inventories constitute a significant part of the working capital.

- Inventory control used in unit/physical control(purchase and production unit) and value control (Accounts unit)

- When a firm feel shortage of finance it should take more care in its inventories rather than anything else.

Ordering cost or procurement cost or purchasing cost

- The cost that has to be spent in making purchase order.

- Includes all the expenditure associated on placing an order.

  - postal service expense

  - expenditure on stationary and consumables.

  - travelling expense.

  -time spent by purchase department for order and its equivalence in terms of money.

  - expenses on supplies.

  - rent for premises occupied by purchase department

  - legal fee for lawyers in case such situations arises.

Inventory carrying cost

Cost of blocking material as inventory . This includes:-

1. Cost of interest for the value of items stored as inventory.
2. Salaries of personnel managing various position including security personnel.
3. Rent for the space occupied by the inventories.
4. The potential scope of loss , pilferage, obsolescence, etc.
5. Cost involved in the insurance of inventories.
6. Stationeries and consumables used by the store people.

Under stocking or shortages

It is the cost of not having an item when it is needed, thus affecting the sales of the company.

This may lead to 2 situations:-

1. Back logging
2. Cancellation of orders.

Backlogging: work is delayed beyond its schedule and eats away the schedule time of next order thereby delaying the next order.

Cancellation of order: When buyer is not in a position to wait .

Both the above results in:

1. Penality cost: Purchase order will have an in built provision for penality eg, 20% payment reduced for 2 days delay, etc

2. Emergency replenishment: In an urgent situation if you want good quality we may have to spent extra amount eg. Emergency transportation cost,etc.

3. loss of good will

Over stocking cost

This results when stock is left on hand when the demand for the item has ended.

The left over inventory may be

- Utilized at a later stage.
- Thrown out as scrap.