

## **To Study the Methods Available For Inventory Management**

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### **Introduction**

Inventory is a total goods use in production it include raw material work in progress material,finished goods and all king of spare which was help in production process.

Inventory = Row material + Work in progress goods + finished goods + Supporting spare

### **Inventory Management**

Inventory management is a process of planning, controlling, organizing all activity related with inventory, it include planning about how to acquire raw material, how to maximum use of inventory by reducing cost of production for controlling inventory separate inventory department is established called as quality control department

### **Objectives of Inventory Management**

1. To maintain a large size of inventory for efficient and smooth Production and sales operation.
2. To maintain a minimum investment in inventories to maximize profitability.
3. To ensure a continuous supply of raw materials to facilities Continuation of production.
4. To maintain sufficient stocks of raw materials in periods of short supply and anticipate price change.
5. To maintain sufficient finished goods inventory for smooth Sales operation and efficient customer services.
6. To minimize the carrying cost and time.
7. To Control investment in inventories and keep it at an optimum level.

### **Inventories Included**

Inventories play an important role in a business or depending on nature of the businesses. The inventories may be classified as under.

#### **1.Raw Materials**

Row material is the material which is use to further process & after process it will be convert in to finished goods which is ready for sale .e.g. cotton is use a raw material in cotton mill

#### **2.Work in process / Progress**

Work in progress material means a material which was not fully convert in to final product which is in under process.

#### **3.Finished Goods**

Finished goods is a material which is ready to sale to customer and it have capability to satisfied customer need.

#### **4.Stores & Spares**

Production is the process of convert raw material in to finished goods with help of machinery and equipment .for maintain machinery and equipment need to various spar part lubricant oil it is also included in inventory under store & spares this material not included in product but it is necessary to production process

### **Advantages of Inventory management**

The following are suggested advantages:

- 1.Eliminates wastages in use of material.
- 2.It reduces the risk of loss from fraud and theft.
- 3.It helps in keeping perpetual inventory and other records to facilitate the preparation of accurate material reports management.
- 4.To reduce the capital tied up in inventories
- 5.It reduces cost of storage.

### **Technique of Inventory Management:**

- ABC analysis
- Material Requirements planning
- Re-Order Level

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- Just in Time Manufacturing

### • ABC Analysis

ABC technique total inventory distribute on the basis of cost and quantity in A categories include high cost and minimum quantity item ,in B categories average cost and quantity item and in C categories maximum quantity and low cost of item.

Category	% of items	% of total cost of materials
A	5 - 10	70 - 85
B	10 - 20	10 - 20
C	70 - 85	5 - 10

### Material Requirements planning

Material requirement planning (MRP) is product oriented computerized technique aimed at minimizing inventory and maintain delivery schedules MRP is a computer based system that is use to control production planning .it can be used to determine how much of each material need to be purchased or produced in the planning horizon to ensure that order are fulfilled on time. To complete this task it utilized the Master Production Schedule (MPS) the bill of material inventory status data and the forecast of order .Material requirement planning provides requirement oriented operation which is important to manufacturing firm. A requirement oriented operation mean that the part and assembly requirement can be determined with the aid of the bill of material analysis for the final product

### The Re-Order Level

The re-order level is the level of inventory at which the new order for that item must be placed to obtain fresh supply. The re-order level depends upon.

- 1.Length of time between the placement of an order and receiving the supply.
- 2.The usage rate of the item. The inventory is constantly being used up. The rate at which the inventory is being used up. The rate at which the inventory is being used up is called the usage rate.

The reorder level can be determined as follows:

$$R = M + TU$$

R=Reorder level

M=Minimum level of inventory

T=time gap/delivery time

U=Usage Rate

### Just – In – Time manufacturing

Just in time is an inventory strategy that strives to improve a business return on investment by reducing in process inventory and associated carrying coast .As a concept JIT means that virtually no inventories are held at any stage of production and that exact number of unit is brought to each successive stage of production at the right time Just in time manufacturing is strategy used in the business manufacturing process to reduce coast by reducing the in process inventory level.it is driven by a series of signals that tell the production line to make the next pieces for the product as and when it is needed .The signal used are usually simple visual signal, such as the absence or present of a piece needed in the manufacturing process

### Conclusion

Today inventory management is very important of any types of business because in competitive world it is necessary to reduce the cost of production, and in inventory maximum capital investing in inventory so some method are used in inventory management .In ABC methods Inventory are grouped in three categories in A categories include costly product, in B group Average cost goods and in c group involved lower cost goods. Same way the re-order level is the level of inventory at which the fresh order for that item must be placed to procure fresh supply. The re-order level depends upon.in material requirement planning used to determine how much of each material need to be purchased or produced in the planning horizon to ensure that order are fulfilled on time. Just in time no inventories are held at any stage of production and that exact number of unit is brought to each successive stage of production at the right time Just in time manufacturing is strategy used in the business manufacturing process to reduce coast by reducing the in process inventory level

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