

# CHAPTER I

## 1.1 INTRODUCTION

Inventory control has emerged as one of the most important preplexing task faced by modern management. Inventories are the physical stocks of items that a manufacturing unit keeps in hand for efficient running of manufacturing activities.

The investment in inventories for most firms is substantial further investments are often least stable and difficult to manage type of assets, styles, technological changes etc.all serve to make part and whole of inventory absolute. Inventory control is sometimes taken as synonymous with materials control. But the two terms differ each other so far as their fundamental activities are concerned. Material control is said to be process of providing quantity and quality of materials needed in manufacturing process with an eye on economy in storage and ordering cost, purchase price and working capital.

In our daily life we observe that a small retailer knows roughly the demand of his customer in a month or a week and accordingly places orders on the wholesaler to meet the demand of his customers. But, this is not the case with a manager of a big departmental store or a big retailer, because stocking in such case depend upon various factors e.g. demand, time of ordering, lag between orders and actual receipt etc. So, the real problem is to have a compromise between overstocking and understocking. The study of such types of problem is known by the term **Material Management and Inventory Control**. In broad sense , inventory may be defined as the stock of goods, commodities or other economic reasons that are stored or reserved in order to ensure smooth and efficient running of manufacturing activities.

Inventory control refers to the process whereby the investment in materials and parts carried in stock is regulated within predetermined limits set in accordance with inventory policy established by the management (Gorddon B. Carson).

The activity of inventory control includes the following.

- 1) Determination of limits of inventories to be held.
- 2) Determination of inventory policy
- 3) Setting out of investment pattern and its regulation as per individual and collective requirements.
- 4) Follow up to examine the working of the inventory policy and effecting changes as and when needed. From the above analysis it is clear that material control is operational process where as inventory control is management process.

Inventory control refers to the planned method of purchasing and stocking the material at the lowest possible cost without affecting the production and distribution schedule. Inventories, which comprises of raw materials, consumable stores, machinery and equipment, general stores, work in progress and finished goods are to be purchased and stored. Inventory control, therefore, is a scientific method of determining what, when and how much to purchase and how much to stock for a given period of time.

Thus the inventory control can be defined as the function of directing the management of goods through the entire manufacturing cycle from the requisitioning of raw materials to the inventory of finished goods in orderly manner to meet the objectives of maximum customer service of minimum investments and efficient (low cost) plant operation.

#### **1.1.1 FUNCTIONS OF INVENTORY :**

Inventories are essential for the effective and smooth working of the manufacturing unit. Following are the important functions of inventories.

- a) Inventories gear up production.
- b) Inventories advice the market.
- c) Inventories provide cushion to prevent stock outs.
- d) Inventories striking a balance between the objectives of the stores department and of the organisation as a whole.
- e) Inventories helps in avoiding unnecessary wastage and blocking up of valuable working capital.
- f) A well planned inventory scheme helps in efficient, smooth and effective service to customer at a lowest cost in low investment through planned but reduced inventories.

### **1.1.2 NEED FOR INVENTORY CONTROL**

So, as to achieve smooth and efficient working of the manufacturing unit with low investment it is necessary to have the inventory control because of the following reasons.

- i) It helps for smooth and efficient running of business.
- ii) It provides service to customer within short period.
- iii) Due to bulk purchases in planned manner earning of price discount is possible.
- iv) Inventory acts as a buffer stock in shortage to avoid rejection of sales orders.
- v) Inventory reduces production cost due to batching of purchase order.
- vi) Inventory maintain economy in seasonal fluctuations.

In traditional methods the access to the required information is slow, computers on the other hand helps in quick processing of the information as and when needed at various levels of management with accuracy and flexibility.

## 1.2 SCOPE

Inventory control plays an important role in decision making for any production unit. The control and maintenance of inventories of physical goods is the common problem to all organisations in a given economy. There are many reasons why organisation should maintain inventories of raw material and finished goods. The main reason for doing so is that it is either physically impossible or economically unsound to have goods in a given system when the demand occurs without sufficient inventories the customer would have to wait until their orders were filled from a sacree. In general customers can not be allowed to wait for a long period of time. For this reason the inventory carrying is necessary for all productive units which supply physical goods to the customer. Besides this there are other reasons for holding inventories. There are many raw material items used in manufacturing process for which the prices of such items may fluctuate season to season. In such case it is profitable to procure such materials when the price is low and produce the finished goods in sufficient quantum when the prices of such items go up. Another reason is that by keeping proper inventories in hand it is possible to increase sales and profits of the manufacturing unit.

There are two main questions while controlling the inventories of any product and manufacturing unit; these are (i) When to purchase (ii) How much to purchase, it is necessary to answer these questions by keeping scientific view in variety of circumstances.

There are many problems in inventory controlling but our concentration is towards these in which the organisation controlling the inventory has same freedom in determining when and in what quantity, the inventory should be replaced with the help of various mathematical analysis and techniques these problems can be solved.

In the present study **Computerised Scientific Inventory Control System** is developed for product manufacturing unit. The name of the product manufacturing cooperative unit selected here is Kolhapur Zilla Sahakari Dudh Utpadak Sangh's Mahalaxmi Cattle Feed Plant, Gadmodshingi. The software package developed here is useful to management for efficient working of the stores dept. at lowest cost in low investment.

The study is computerised as the traditional methods do not survive the purpose as quick availability of data according to the requirements can not made available. Computers help in great



measure to quick process of the data as per the needs of various levels of management. The importance of the computer control system lies in their ability to acquire, assimilate large amount of information with speed, accuracy and flexibility. Bulk of the inventory controlling work can safely be performed by the computer and thus leading enough time to the Materials Manager to concentrate on the other productive activities.

The developed software package can be used to generate Daily Reports, Monthly Reports and Yearly Reports etc.

The scope of the problem, can be stated in following manner.

- i) It generates the reports required for management regarding inventory control in scientific view with accuracy and by avoiding common human errors.
- ii) It includes study of input documents used for taking decisions which results in proper inventory control.
- iii) The reports developed almost all are internal but some reports can be submitted to the Government Offices i.e. to the National Dairy Development Board (NDDB), Maharashtra Rajya Sahakari Dudh Mahasangh Maryadit.

To develop the suitable model, it is essential to study existing manual system in detail. The study involves following steps.

- i) Present generated reports.
- ii) Frequency of each reports.
- iii) Record maintained by Stores Department.
- iv) In which manner Stores Department collects the information from the other departments.