

A Study on Inventory Management at Hindustan Coca Cola Beverages Pvt Limited

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Abstract: In day-to-day management of the firm, it is essential to manage the inventory so as to maintain proper supply of goods at proper time. Inventory represents an important decision variable at all stages of product manufacturing, distribution and sales, in addition to being a major portion of current assets of many organizations. Too much and too low inventories bring down the level of profitability of an organization. Therefore, whether it is a manufacturing or merchandized organization, the goal should always be the same that is, to ensure the inventory is ready and at the same time inventory is at a low level. Inventory management is functional field of finance and production that covers the efficient and effective use of raw materials and spares which are consumed in producing the finished goods in manufacturing concern. A firm ignoring the management of inventories will be jeopardizing its long run profitability and may fail finally. The reduction in 'excessive' inventories carries a favourable impact on a company's profitability. This paper consists of different parts where the inventory management concepts are discussed, and different inventory control techniques are discussed. This paper also introduces the various costs incurred due to the storage inventory, economic order quantities, stock levels, shortage costs, inventory methods.

Keywords: Inventory Management, Level of Profitability of an Organization.

I. INTRODUCTION

Inventories are assets of the firm and require investment and hence involve the commitment of firm's resources. The inventories need not be viewed as an idle asset rather these are an integral part of firm's operations. But if the inventories are too big, they become a strain on the resources, or if they are too small, the firm may lose the sales. Therefore, the firm must have an optimum level of inventories.

A. Concept of Inventory Management

Definition from the material management angle would be "Items of stores or materials kept in stock to meet future demands of production, repairs, maintenance, construction etc". Since the materials held in the inventory are idle resource, another definition of inventory would be "an idle resource of any kind which has an economic value". The inventory means and includes the goods and services being sold by the firm and

the raw materials or other components being used in the manufacturing of such goods to be offered to customers whenever demanded by them.

B. Definition of Inventory Management

"Material management is that coordinated function responsible to plan for, acquire, store, move and control materials, to optimize usage of families, personnel, capital funds and to provide service to the user in line with the organizational aims".

C. Meaning of Inventory

The inventory refers to the stockpile of the product a firms offering for sale and the components that make up the product. In other words, Inventory is composed of assets that will be sold in future in the normal course of business operations. The assets which firms store as inventory in anticipation of need can be classified into

- 1.Raw Materials
- 2.Work-in-progress (Semi finished goods)
- 3.Finished Goods

1.Raw Materials:Inventory contains items that are purchased by the firm from others and are converted into finished goods through the manufacturing process. They are important inputs for the final product.

2. Work-In-Progress: Inventory consists of items currently being used in the production process. They are normally partially or semi-finished goods that are at various Stages of production in a multi stage production process.

3. Finished Goods: It represents final or completed products, which are available for sale, the inventory of such goods consists of items that have been produced but are yet to be sold. The job of the final manager is to reconcile the conflicting viewpoints of the various functional areas regarding the appropriate inventory levels in order to fulfill the overall objectives of maximizing the owner's wealth.

D. Importance of Inventory

Inventory plays cardinal role in every organization. The profit of the organization mainly depends on the inventory. Inventory is the second largest value in the organization. It is the liquid asset and the current asset of the organization. Inventory storage is an important activity in the organization.

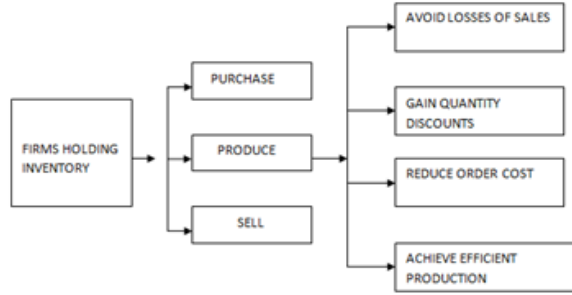


Fig1. Role of Inventory Management

E. Objectives of Inventory Management

The objectives of the inventory management consist of two counter balancing parts:

- To maximize the firm’s investment in inventory
- To meet a demand for the product by efficiently organizing the firms production and sales operation.

II. THE MAIN AIM OF INVENTORY MANAGEMENT

The main aim of Inventory Management they should be to avoid excessive and in adequate levels of Inventories & to maintain sufficient Inventory for the smooth production & sales operations effort should be made to place an order at the right time with the right source to acquire the right quality at the right place & quantity.

- Ensure a continuous supply of Raw Materials to facilitate uninterrupted production.
- Maintain sufficient stocks of Raw Materials in periods of short supply & anticipated price customer service.
- Minimize the carrying and time, and
- Control investment in Inventories & keep it at an optimum level.

A. Causes of Inventory

- External causes: - Customers, Suppliers etc.
- Internal causes: - Market, policy, production and SCM.
- Problems with high inventory
- Interests, Insurance costs.
- Quality deterioration.
- Wear and tear
- Storage and pilferage.
- Inventory Turnover Ratio
- $ITR = \text{Cost of production/inventory}$
- Higher ITR → Low inventories
- Low ITR → High inventories
- High inventory Reasons
- Production:
 - More & Low volume products
 - Large cycle times
 - New and campaign product
 - Non-moving products.

B. Role of Finance Manager in Inventory Management

Optimum level of inventory and finding ensures to the problems of EOQ are the recorder point and the safety stock. These techniques are very essential to economize the use of

resources by minimizing the total inventory cost. The techniques of inventory management are very useful in data mining. The cases the board frame works for maintaining inventories. To the majority of the companies, inventory represents a substantial investment. Thus the goal of wealth maximization is related to the financial manager has an important role to play in the management of inventory. The financial should see that only an optimum amount is invested in inventory. He should be familiar with in inventory control techniques and ensure that inventory is managed well. Effect would be reduce inventory investment and increase the firm’s prospects of making profits.

C. Stores, Spares and Purchases

1. Store Keeping.
2. Store system
3. Various stores operation.
4. Methods of pricing the material issues.
5. Receiving section and issue department.
6. Purchase department.
7. Stores and Spares.
8. Purchasing system.
9. Inventory
 - Different towards inventory.
 - Structure of inventory mocks.
 - Factors influencing inventory.
 - Classification of inventory.

D. Store Keeping

It is serving facility, inside of an organization responsible for proper storage of the material and then issuing it to respective department on proper requisition. Those items, which are not in use for some specific duration example Spare parts and the Raw materials, are called stores and the building or space where these are kept is known as Storeroom. According to Maynard “the duties of stock keeping are i.e. to receive materials are to protect them while in storage from damage and unauthorized removal, to issue the materials the right quantities at the right time to the right place and to provide these service promptly at least cost”. It is an establishment fact that more than government of the current assets is invested in stores. Thus for efficient and economic utilization of fund –the importance of store cannot be ignored.

E. Functions of Store Keeping

The main functions of store keeping can be outlined as

1. Receiving of goods in stores against damage and pilferage.
2. Custodian of goods in stores against damage and pilferage.
3. Effective utilization of stores space.
4. To provide service to the organization in most economical way.
5. Proper identification and easy location of them.

G. Objectives of Store Keeping

1. Easy location of the items in store.
2. Proper identification of items.

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3. Speed issue of material.
4. Efficient utilization of space.

H. Functions and Activities of Material Department

- Material department has the following
- Activities
- Indenting of materials
- Procurement of materials
- Receipt of materials
- Inspection of materials
- Storage of approved material
- Return/Replacement of rejected material
- Issue of material to user departments
- Disposal of waste materials

III. INVENTORY CONTROL

Inventory control renders to “The process whereby the investment in materials and parts carried in stock is regulated within predetermined limits set in accordance with the inventory policy established by the management. Inventory control refers to a planned method of purchasing and storing the material at lowest possible cost without affecting the sales scheduled. Inventory control therefore, is a scientific method of determining what, when and how much to purchase and how much to have to stock for a given period of time.

A. The Need for Inventory Control

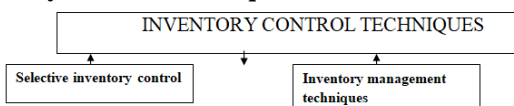
The rewards of inventory control system cannot be overlooked in the Indian context the idea behind this is,

1. Conserving valuable foreign exchange.
2. Release of capital.
3. Reduction in cost.

B. The Primary Objective of Inventory Control

To minimize the idle time caused by shortage of inventory and inventory Availability of inventory.

C. Inventory Control Techniques



1. ABC Analysis
2. EOQ (Economic Order Quantity)
3. XYZ Analysis
4. Ordering Cost.
5. VED Classification.
6. Carrying Cost.
7. FNS Classification.
8. System of Re-ordering.
9. SOS Classification.
10. S-D-E Analysis
11. HML Analysis
12. JIT Analysis

IV. REVIEW OF LITERATURE

T.Karnakar, K.Neeraja (2018) Stock or stock is the merchandise and materials that a business holds for a definitive objectives to have a motivation behind resale (or

repair). Inventory administration is a teach principally about indicating the shape and situation of loaded products. It is required at various areas inside an office or inside numerous areas of a supply system to go before the standard and arranged course of creation and load of materials. Stock constitutes the hugest piece of current resources of bigger greater part of Indian glass fabricating enterprises. The primary destinations to know the money related execution on stock administration. The examination utilized Economic Order Quantity (EOQ) model and chi-square technique. Thus, proposals on the correct amount, quality and timing of material and no more good cost finish up the examination consider.

P.Shivakumar, Mrs. K.Neeraja (2018) The venture work entitled Inventory Management incorporates detail learn about stock, its significance and adequately it ought to be overseen for smooth activities of business. Inventories are resources of the firm and require venture and thus include the dedication of association's resources. Every firm is required to deal with the inventories so as to get the best returns. The goal of stock administration is to decide the ideal level of the stock that is the level at which the enthusiasm of the considerable number of divisions is taken care of. The stock administration looks to expand the abundance of the investors by limiting the cost of acquiring and maintaining. The goal of the stock administration is keeping up adequate load of crude materials guaranteeing ceaseless supply to a creation procedure for continuous generation plan and limiting the aggregate yearly cost of keeping up inventories. Inventories are resources of the firm and subsequently include the dedication of association's assets; administrators must guarantee that the firm keeps up inventories at the right level.

MornéEloff, Stephen Carstens (2013) stated that Inventory management is a crucial aspect of managing a company successfully. This is even more apparent in the case of maintenance inventories for production equipment, which impact directly on production equipment efficiency. This is a typical inventory management issue for a cement manufacturer that faces the problem of managing its maintenance inventories optimally when certain maintenance items have exceptionally long lead times (100 weeks) and values in excess of R500 000. An assessment of the cement manufacturer's approach to managing its maintenance inventories indicated various shortcomings, which have resulted in a significant level of obsolescence. One approach to managing maintenance inventories efficiently is to implement a classification of the inventory items in terms of their criticality to the cement production process. The critical nature of a component could be established through a risk-based approach (minimisation of the risk of production loss) and taking into account the type of maintenance (planned vs unplanned) that the component is required for. A risk-based approach should form the basis of the maintenance inventory management of the cement manufacturer as this would allow the cement manufacturer to utilise other inventory management methods effectively. In addition, it is important

to ensure that employees are well versed in the different inventory management approaches utilised and that high levels of integration between departments are pursued.

V. METHODOLOGY OF THE STUDY

A. Objectives of the Study

- To study about the ordering levels for the important components of inventory.
- To understand and measure economic order quantity for the selected raw material items.
- To analyze its inventory management methods with the help of ABC analysis, VED analysis etc.
- To evaluate the inventory management practices of Hindustan Coca Cola Beverages Pvt Limited.
- To offer suitable suggestions for the improvement of inventory management practices.

B. Research Methodology

1. Research Design: The Descriptive type of research has been applied in the study. This research the researcher has no control over the variables. Only reports what has happened or what is happening. The research can only discover causes but cannot control the variables.

2. Data collection:

Primary data: Primary data relating to the inventory management of Hindustan Coca Cola Beverages Pvt Limited, Hyderabad have been collected through personal interviews hold with the officials of the selected concern under study.

Secondary data: The necessary data calculated from annual report, books, journals and websites.

Period of study: This study covers a period of five years from 2016-17 to 2020-21. The accounting year commenced from April and ending with March of the next year.

Area of study: This study was conducted in Hindustan Coca Cola Beverages Pvt Limited, Hyderabad, Telangana

3. Findings

- 1.Raw Material of Hindustan Coca Cola Beverages Pvt Limited From 2016-17 to 2020-21 Raw Material increased year to year. Inventory was recorded at 9190.97 during the year 2020-21.
- 2.Inventory Turnover Ratio was increased from 2016-17 to 2017-18. The ratio was 10.62 in 2016-17 and 11.03 in the year of 2017-18. In 2018-19 the ratio was decreased from 11.03 to 9.80 again increased from 2018-19 to 2019-20. The ratios are 10.69 in 2019-20 and 10.79 in 2020-21. Overall highest ratio of Investment turnover ratio is 11.03 in the year of 2017-18.
- 3.The lowest inventory conversion period was recorded at 33.09 days in the year 2017-18 and the highest inventory conversion was recorded at 37.24 days in the year 2017–2018.
- 3.Inventory to current asset ratio was increased from 2016-17 to 2018-19 decreased from 2018-19 to 2019-20. 2019-20 to 2020-21 Inventory over current asset ratio is increased from 55.72 to 63.97.
- 4.Inventory over total current assets and fixed assets ratio was decreased form 2016-17 to 2019-20. The lowest

inventory over total assets ratio was recorded at 0.069% during the year 2019-20 and the highest inventory ratio was recorded at 0.076 % during the year 2016-17.

5.Inventory over current liabilities ratio was increased From 2016-17 to 2018-19. 2018-19 to 2019-20 the ratio was decreased. Compare to 2019-20 the ratio of 2020-21 year was increased. The highest ratio 27.54 in the year 2018-19 and the lowest ratio 20.26 in 2016-17.

6.Hindustan Coca Cola Beverages Pvt Limited Current Ratio was increased from 2016-17 to 2017-18 and decreased from 2017-18 to 2020-21. The lowest current ratio was recorded at 2020-21 which is 0.41 and the highest current ratio was recorded at 0.59 % during the year 2017-18.

VI. CONCLUSION

The inventory management technique is more useful to determine the optimum level of inventory and finding answers to problem of safety stock and lead time. Inventory management is an important activity in manufacturing concern. And since the production of glass involves different raw materials like clay ash, bauxite and lime stone etc. The results of the analysis show that the efforts to increase efficiency of inventory used must be directed towards several directions: speeding inventory rotation because by shortening its stationing period within the economic cycle it transforms rapidly into money; increasing turnover to the level demanded by the market; improving the whole trading system for products; reducing specific consumptions, etc

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