AN ANALYSIS OF INVENTORY MANAGEMENT WITH REFERENCE TO NANDHINI ENTERPRISES

Miss. H. GOWRI, Mrs. S. RATHIKA, Mrs. D. PRAVEENA

[1] *H. GOWRI MBA, Prince Shri Venkateshwara Padmavathy Engineering College, Tamil Nadu, India*
[2] *S. RATHIKA MBA, Prince Shri Venkateshwara Padmavathy Engineering College, Tamil Nadu, India*
[3] *D. PRAVEENA MBA, Prince Shri Venkateshwara Padmavathy Engineering College, Tamil Nadu, India*

ABSTRACT

The study is on inventory management is a vital part manufacturing organization to be more competitive. Inventory are raw materials, work- in- process goods and completely finished goods that are consider to be the portion of business assets that are ready or will be ready for sale. Formulation a suitable inventory is one of the major concerns for an inventory. Therefore the purpose of this research is to identify the problem of inventory management faced by the manufacturing of an enterprise.

The data used for the study is secondary data collected through the journals, magazines, and websites. The data was evaluated with the help of financial tools i.e., economic order quantity, stock level, Trend analysis, inventory turnover ratio. The analytical research design has been used for the study.

The study on inventory management in cumi reveals that the company can take measures for maintenance of proper stores and spares so as to avoid the frequent breakdown of the machinery. To understand and measure economic order quantity for the selected raw material. The stock level is required for an efficient and effective control of materials and to avoid over and under – stocking of materials. The inventory turnover ratio has been increased by sales level and maintaining the required level of inventory.

Keyword : - *Analysis of Inventory Management, EOQ, Stock levels*

1. INTRODUCTION

Inventory control is vitally important to almost every type of business, whether product or service oriented. Inventory control touches almost every facets if operations. A proper balance must be struck to maintain proper inventory with the minimum financial impact on the customer. Inventory control is the activities that maintain stock keeping items at desired levels. In manufacturing since the focus is on physical product, inventory control focus on material control.

Meaning:

"Inventory" means physical stock of goods, which is kept in hands for smooth and efficient running of future affairs of an organization at the minimum cost of funds blocked in inventories. The fundamental reason for carrying inventory is that it is physically impossible and economically impractical for each stock item to arrive exactly where it is needed, exactly when it is needed.

Inventory management is the integrated functioning of an organization dealing with supply of materials and allied activities in order to achieve the maximum co-ordination and optimum expenditure on materials. Inventory control is the most important function of inventory management and it forms the nerve center in any inventory management organization. An Inventory Management System is an essential element in an organization. It is comprised of a series of processes, which provide an assessment of the organization's inventory.

1.1 TYPES OF INVENTORIES

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

- **Raw Materials**

Materials and components scheduled for use in making a product. These are the basic inputs, which are converted into finished products through manufacturing process. Raw material inventories are those units, which have been purchased and stored for future production.

- **Work in process / Progress**

Materials and components that have begun their transformation to finished goods. Materials issued to the stop floor, which have not yet become finished products they are value added materials to the extent of labor cost incurred.

- **Finished Goods**

A finished goods is a completed part that is ready for a customer order. These goods have been inspected and have passed final inspection requirements so that they can be transferred out of work-in-process and into finished goods inventory.

1.2 NEED FOR THE STUDY

Inventory is a necessary evil that every organization would have to maintain for various purposes. Optimum inventory management is the goal of every inventory planner. Over inventory or under inventory both cause financial impact and health of the business as well as effect business opportunities. There is a need to measure the economic order quantity of the selected raw material.

1.3 OBJECTIVES OF THE STUDY

PRIMARY OBJECTIVE:

To Analyse the Inventory Management with reference Nandhini Enterprises.

SECONDARY OBJECTIVES:

- To understand and measure economic order quantity for the selected raw material.
- To find out the corrective measures taken up by the company to enhance its business with respect to inventory management.

1.4 SCOPE OF THE STUDY

The scope of study is to understand the material requirement of the company and managing the inventory level. The development of information system helps in improving the productivity, save time and cost etc., By conducting Trend analysis of the given items, the information system helps in decision making and better understanding about the material.

1.5 LITERATURE REVIEW

Jan de Vries *"Identifying inventory project management conflicts":* Results of an empirical study it has been published in the International Journal of Production Economics In press, corrected proof, Available online, Article 107620 , 15 January 2020**.** Although conflicts are being studied in many different management fields there seems to be a rather restricted number of studies on inventory management-related conflicts and it is for this reason why we conducted a study on exploring the different types of conflicts, their causes and the emerging character of conflicts during the shaping, implementation and usage of inventory systems. In doing so, a framework for assessing different types of conflicts is taken as a starting point. From our case studies, it can be concluded that each of the archetypical conflicts addressed in our framework manifested itself in the companies studied. Our exploratory case studies strongly indicates that during the process of redesigning and implementing improvements inventory management conflicts can evolve in time. Furthermore, in almost all companies studied, the identified conflicts had

a multidimensional character and were a mix of the archetypes addressed in our theoretical framework. For project managers it seems to be important to be aware of the different potential conflicts that might arise during the course of inventory projects. The results presented in this article may therefore help project managers to guide projects in the area of inventory management more effectively.

Esha Saha, Pradip Kumar Ray " *Modelling and analysis of inventory management systems in healthcare*" it has been published in the journal of A review and reflections Computers & Industrial Engineering ,Volume 137, Article 106051 , November 2019.Inventory management in a healthcare system needs to be compatible with its operations and critical characteristics ensuring minimization of inventory- related cost as well as maximization of service level with a significant reduction in the price of treatment and wastage of resources. Over the years, numerous approaches and methodologies has been developed by the researchers and practitioners for modeling and analysis of varieties of inventory management systems in the healthcare sector considering these aspects. In this paper, the existing modelling approaches and solution methods concerning inventory systems in healthcare are classified and critically reviewd. An integrated research framework as applicable in the present context is presented as a direct consequence of the review of the literature with future research directions.

1.6 RESEARCH METHODOLOGY

Research methodology is the specific procedure or techniques used to identify, select, process, and analyze information about a topic. In a research paper, the methodology selection allows the reader to critically evaluate a study overall validity and reliability. This project research has been carried out by an analytical research. In Analytical Research, the researcher has to use facts or information already available, and analyze them to make a critical evaluation of the material. Analytical research is specifying and interpreting relationship, by analyzing the facts or information already available. In this research, the data collection is made only on secondary data. Secondary data involves the data collected through 5 years annual reports of the Nandhini Enterprises. The data collection was aimed at study of inventory management of the Nandhini Enterprises. Financial tools to be used in this analysis are EOQ , Trend Analysis, Inventory Turnover Ratio and Stock Levels.

1.7 LIMITATION OF THE STUDY

- Detailed study about all the material was not possible.
- Some of the information was kept confidential by the stories department.
- Study was confined only to the selected components in the stores department.

2. DATA ANALYSIS AND INTERPRETATION

Table 2.1: Table showing Economic Order Quantity for the financial years from 2014-15 to 2018-19

YEAR	AMOUNT OF EOQ
2015	4847.6798
2016	7165.19
2017	8373.77
2018	11737.5
2019	15491.9

Interpretation:
The above table shows the economic order quantity of the firm. Then it was gradually increased from the financial year 2015-16 to 2018-19 (ie):- 7165.19, 8373.77,11737.5.

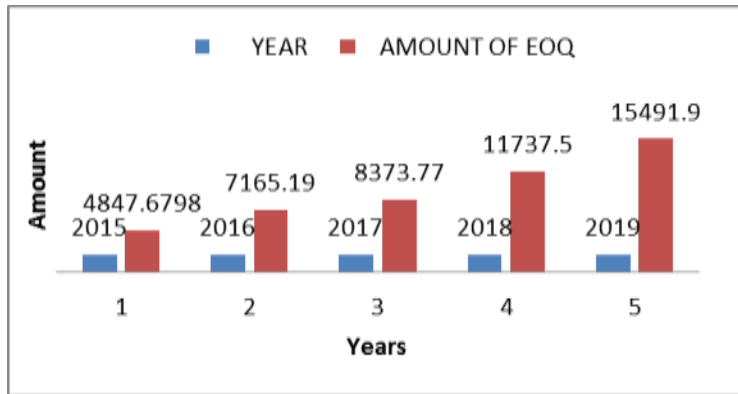**Chart 2.1(a): Chart showing Economic Order Quantity for the financial years from 2014-15 to 2018-19**

Table 2.2 Table showing levels of stock for the financial year 2018 - 19

LEVEL OF STOCK	AMOUNT
REORDER LEVEL	640
MINIMUM STOCK LEVEL	400
MAXIMUM STOCK LEVEL	15971.9
DANGER LEVEL	320
AVERAGE STOCK LEVEL	8185.95

Interpretation:

The above table shows the stock levels of the firm for the financial year 2018 - 19. The maximum stock level is Rs.15971.9 and the reorder level is Rs.640, average stock level is Rs.8185.95 , minimum stock level is Rs.400 and the dander stock level is Rs.320

**Chart 2.2(a) Chart showing levels of stock for the financial year 2018 - 19**

Table 2.3 Table showing Inventory Turnover Ratio for the financial year from 2015-19

PARTICULARS	2015	2016	2017	2018	2019
Cost of goods sold	5454.95	5568.98	5296.29	6585.38	7589.38
Average value of inventory	412.505	447.485	504.36	559.215	729.755
Inventory Turnover Ratio	**13.22**	**12.45**	**10.50**	**11.78**	**10.40**

Interpretation:

The above table shows the inventory turnover ratio of the firm. In 2015 turnover ratio is 13.22, In 2016-17 it has decreased to 12.45 & 10.50, In 2018 it is increased to 11.78. But in 2019 it is decreased to 10.40.

Chart 2.3(a) Chart showing Inventory Turnover Ratio for the financial year from 2015-19
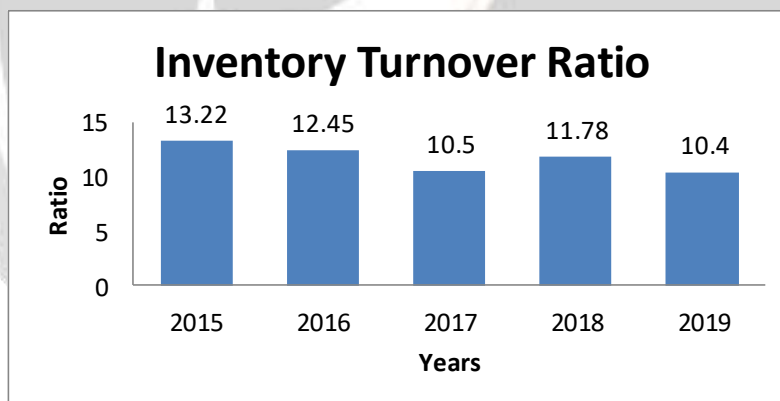
Table 2.4 Table showing Trend Analysis of Cash for the financial years from 2014-15 to 2018-19

Year	Cash	Trend
2014-15	13,17,398	100
2015-16	14,52,100	110.22
2016-17	18,78,900	142.62
2017-18	17,79,998	135.11
2018-19	18,42,864	139.88

Interpretation

The above table shows the trend percentages for current assets. The first year consider as base year 100% for the year 2014-15, 110.22% for the year 2015-16, it was 142.62% for the year 2016-17, 135.11% for the year 2017-18 and it was 139.88% for the year 2018-19.

Chart 2.4(a): Chart showing Inventory Turnover Ratio for the financial year from 2015-19
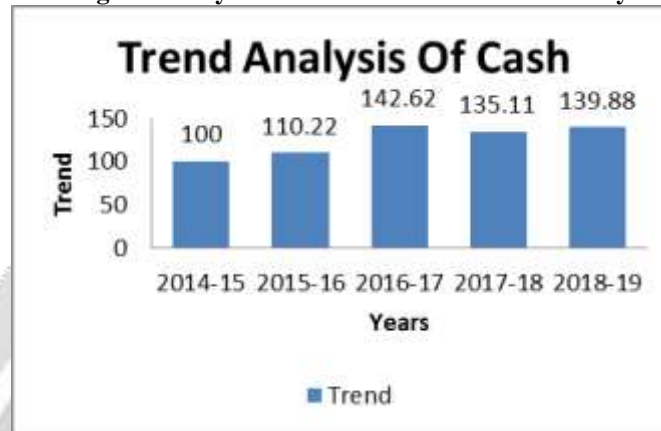
3.FINDINGS AND SUGGESTIONS

- In the year of 2019 EOQ has increased to 15491.9 comparing to past years.
- The inventory turnover ratio has increased from 13.22 in 2015 & 12.45 in 2016 for comparing to the year of 2018& 2019.
- In the year of 2018 & 2019 average stock level is high. But in the year of 2015 & 2016 it has decreased
- In 2018-19 the trend analysis of cash is high. But in the year 2017-18 it has declined.
- The proper communication has to be maintained between purchase and production department.
- The EOQ calculation is suggesting that the company can obtain its inventory requirements by placing order frequently to its suppliers rather than one time replenishment.

4. CONCLUSION

Inventory Management is important for keeping costs down, while meeting regulation. Supply and demand is a decline balance, vendors or suppliers are the main asset of the company, a better suppliers relationship speaks out the company goodwill. The research has come out with some valuable suggestion, which should be adapted in the "Nandhini Enterprises". When the suggestion are taken into consideration

Inventory is a vital part of current assets mainly in manufacturing concerns. Huge funds are committed to inventories as to ensure smooth flow of production to meet consumer demand. The company has to periodically review the inventory to avoid production loss. And the proper communication has to be maintained in the production department. This study reveals that the stock level of the company has been maintained properly. On the whole, it can be concluded that the inventory level of the company has been maintained effectively.

5. REFERENCES

- I.M. Pandy, Financial Management
- C.R. Kothri, Research Methodology, published by Tata Mc-Graw Hill Publishing Company Ltd.
- M.Y. Khan, P.K. Jain Management Accounting, Tata Mc-Graw Hill Publishing Company Ltd