



Inventory Management Analysis

**Dr. B. Venkateswara Prasad¹ , Malathi² , Sneha Dixit Sharma³ , Binayak Mall⁴,
Dr.V.Anbazhagan⁵**

1.Dr. B. Venkateswara Prasad Associate Professor, SIMS, Sri Sai Ram Engineering College, Chennai -44

2. Malathi MBA Student

3.Sneha Dixit Sharma, Marketing Manager, Leo Techno Soft Pune.

4.Binayak Mall, Asst Professor, Khatmandu University of Management Sciences

5. Professor, Sri Sairam Engineering College, Chennai.

Abstract Inventory management is a challenging problem area manufacturing company. Companies need to have inventories in warehouses in order to fulfill customer demand, meanwhile these inventories have holding costs and this is frozen fund that can be lost. Therefore, the task of inventory management is to find the quantity of inventories that will fulfill the demand, avoiding overstocks. This study presents a case study for the company on inventory management. It is proposed to use inventory management in order to decrease stock levels and to apply an agent system for automation of inventory management process. Inventories must be managed if the radiology manager is to maintain an efficient budget. Technologists must pay close attention to inappropriate uses of inventory items so that the radiology manager is provided with appropriate information regarding current usages and misusages

Key Words: Inventory Management, Raw Material, Finished Goods

1. INTROUCTION

Inventory management systems are central to how companies track and control inventories. It usually made up of a combination of goods, raw materials and finished products. The effective management of these items is essential to ensure optimal stock levels and also to maximize the earning potential of the company. Having the ability to measure inventory in a timely and accurate manner is critical for having uninterrupted business operations because inventory is often one of the largest current assets on a company's balance sheet. Because of the substantial size of inventories maintained by firms, a

considerable amount of funds is required to be committed to them. Inventory management involves keeping track of a company's stocked goods. It monitors their weight, dimensions, amounts and location. This helps business owners know when it's time to replenish products, or buy more materials to manufacture them. Effective inventory management is essential for ensuring a business has enough stock on hand to meet customer demand. If inventory management is not handled properly it can result in a business either losing money on potential sales that can't be filled or wasting money by stocking too much inventory. An inventory management system can help prevent these mistakes.

2. REVIEW OF LITERATURE

Burcu Balcik, et al (2016) In this paper, a review and analysis of studies focused on humanitarian inventory planning and management. Specifically, we focus on papers which develop policies and models to determine how much to stock, where to stock, and when to stock throughout the humanitarian supply chain. We categorize papers according to the disaster management cycle addressed; specifically, we focus on pre-disaster and post-disaster inventory management. We evaluate existing literature in terms of problem aspects addressed such as decision makers, stakeholders, disaster types, commodities, facility types, performance measures as well as methodological aspects (i.e., types of policies, models, and solution approaches). We identify current gaps in the literature and propose directions for future research.

3. Sagar S. Mehta (2016) Inventory is a major element of many organizations. Consequently, its proper control is crucial for the profitability of the organization and development of circumventing communities. Inventory Management System (IMS) enables the specification, and documentation of a software-intensive system, the software was tested for enhancing the workflow and providing a timely and efficient handling. The manual system requires everyday counting of items in the inventory, human errors are very prevalent during counting and recording and all the manual inventory records will be damaged and irretrievable. [In light of the discoveries this paper highlights the possible solutions to the above quandaries; a computerized IMS to issue and update the stocks.

4. Jayanth.I, V.Samathkumar (2018) Construction materials comprises over half of the aggregate cost of the task. Proficient materials administration assumes a key part in the effective consummation of the task inside evaluated cost and time. Consequently, endeavors ought to be done taken to diminish material cost. In real practice most exertion are done to diminish work cost. The

cost, quality and time are essential target of material administration. Stock administration includes capacity, distinguishing proof, recovery, acquirement, and transport and development techniques.

5.NazarSohail, Tariq Hussain Sheikh (2018) Inventory management is a challenging problem area in supply chain management. Companies need to have inventories in warehouses in order to fulfill customer demand, meanwhile these inventories have holding costs and this is frozen fund that can be lost. Therefore, the task of inventory management is to find the quantity of inventories that will fulfill the demand, avoiding overstocks. This paper presents a case study for the steel manufacturing industry (Small Scale Industry) on inventory management. The relationship between the inventory management and company performance was determined based on inventory days and return on asset (ROA) analysis.

6.PunamKhobragade, et al (2018) Inventory Management System is software which is helpful for the businesses operate hardware stores, where storeowner keeps the records of sales and purchase. Mismanaged inventory means disappointed customers, too much cash tied up in warehouses and slower sales. This project eliminates the paper work, human faults, manual delay and speed up process. Inventory Management System will have the ability to track sales and available inventory, tells a storeowner when it's time to reorder and how much to purchase. Inventory Management System is a windows application developed for Windows operating systems which focused in the area of Inventory control and generates the various required reports.

7.NEED AND RELEVANCE

An effective management of inventory helps in reducing costs which further keeps accounts and finances in check. The following solution can help in achieving certain benefits like keeping track of inventory and offering a centralized view of stock, improves delivery by managing stock-outs and meeting customer's expectation, manages planning and forecasting by analyzing data trends, and reduces time for managing inventory by keeping records in place.

8.OBJECTIVES OF THE STUDY

To ensure that the supply of raw material & finished goods remain continuously, so that the production process is not elapsed

To eliminate duplication in ordering or re-stock.

To classify the various components based on its value and movements.

To identify the inventory requirements of the company for upcoming year.

9. RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a research in studying his research problem along with the logic behind them. Data inputs were collected from Secondary data was obtained from the past records and files of the organization and also from financial statement and books, journal, magazines and internet. ABC Analysis, Economic Order Quantity and Turnover Ratio used analyze the data.

10. RESULTS AND DISCUSSION

In 2014, the percentage of revenue is 0.68%, which is increased in the year 2015 to 15.70%. It is even more increased in 2017 to 70.63%, and decreased in 2018 to 4.49%. The percentage of revenue is 52.17%, which is decreased in the year 2015 to 20.87%. It is even more decreased in 2017 to 10.43%. In 2014, the percentage of revenue is 1.78%, which is increased in the year 2015 to 44.43%. It is decreased in 2017 to 2.67%, and increased in 2018 to 11.14%. The ratio can be continuously decreased from the year 2014-17. The turnover ratio of the form is 15.76 in the year 2014. The decreased turnover shows good consumption of raw material. The ratio decreased to 11.83 in the year 2017 but it is increased in the year 2018 is 41.21. The ratio can be continuously decreased from the year 2014-17. The turnover ratio of the form is 4.79 in the year 2014. The decreased turnover shows good consumption in the year 2016 is 1.99. It is increased in the year 2018 is 8.04. The ratio can be continuously decreased from the year 2014-17. The turnover ratio of the form is 4.44 in the year 2014. It is increased in the year 2018 is 16.26. The above graph shows inventory turnover ratio of the form. The ratio can be continuously decreased from the year 2014-17. The turnover ratio of the form is 16.33 in the year 2014. It is increased in the year 2018 is 41.21. The above graph shows inventory turnover ratio of the form. The ratio can be continuously decreased from the year 2014-17. The turnover ratio of the form is 11.37 in the year 2014. The decreased turnover shows good consumption in the year 2016 is 9.73. But it is increased in the year 2018 is 50.61. With a continuous review system, the organization normally order the same quantity of items with each order placed. It must be monitor inventory levels, and whenever the quantity of an item drops below a set level, you would then replenish your stock. It is recommended to keep low stock levels to lower costs of operation. In turn, cash flow increases because you're not weighed down by the high price of maintaining stock for long periods of time. Options of having a dedicated inventory management, or purchasing inventory software or hiring an consultant Inventory Management should be done not only on the basis of cost or monetary value of items in use other factors should also be considered like availability,

lead time, sources of supply etc. Stock records must be reconciled periodically with physical balance. Effective implementation of FIFO for raw material and finished goods. Optimize inventory levels through effective deployment of system like KANBAN/JIT. Focusing on preventing loss by utilizing security cameras to reduce customer and employee theft and limiting access to inventory.

11. CONCLUSION

Inventory management is done by keeping the accurate record of goods that are ready for shipment. This means having enough stock of goods to the inventory totals as well as deducting the recently shipped finished goods to buyers. It is important for keeping costs down, while meeting regulation. Supply and demand is a delicate balance, and inventory management hopes to ensure that the balance is undisturbed. Highly trained inventory management and high quality software will help make inventory management a success. Inventory management is important for keeping costs down, while meeting regulation. Supply and demand is a delicate balance, and inventory management hopes to ensure that the balance is undisturbed. Highly trained Inventory management and high-quality software will help make Inventory management a success. The ROI of Inventory management will be seen in the forms of increased revenue and profits, positive employee atmosphere, and on overall increase of customer satisfaction.

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