



---

## **A Study of Inventory Management Technique on Automotive Industry with Reference PF Mahindra CIE Automotive Ltd**

*Yash Shah<sup>1</sup>, Dr. Ashka Thakkar<sup>2</sup>*

1Student, PIMR(MBA), Parul University, Vadodara391760, India

2 Head, Parul Institute of Management & Research (MBA), Parul University, Vadodara 391760, India

---

### **ABSTRACT**

People are not working efficiently due to a lack of facilities provided by the organization, which has an indirect impact on their performance and outcome so Assessing their needs,

-Working conditions,

-Providing the development opportunities,

-Helping skill development through training interventions and planning.

---

### **Introduction**

#### **INVENTORY MANAGEMENT**

The backbone of any business operation is inventory management and supply chain management. Inventory management has changed dramatically as a result of technological advancements and the availability of process-driven software systems. All functions in any business or organization are interconnected and tied to one another, and they frequently overlap. The backbone of the business delivery function is supply chain management, logistics, and inventory management. As a result, both marketing managers and finance controllers rely heavily on these functions.

Inventory management is a critical function that affects the supply chain's health and has an impact on the balance sheet's financial health. Every business seeks to maintain optimal inventory levels in order to satisfy its needs and avoid overstocking or understocking, which can have a negative influence on financial results.

Inventory is always changing. Inventory management necessitates a regular and rigorous assessment of external and internal components, as well as control via planning and review. Inventory planners are a separate department or job function that continuously monitors, controls, and reviews inventory and interfaces with production, procurement, and finance departments in most corporations

#### **INVENTORY MANAGEMENT TECHNIQUES**

Inventory management may be a difficult undertaking, and if done incorrectly, it can cost a firm thousands of dollars. With increased sales volume and product diversification, inventory management becomes increasingly difficult.

However, inventory management is only as effective as how you use it.

Having inventory management set up by the software's creators is well worth the extra effort and money. Work with them to make sure you're using the right approaches and features to obtain the best results.

Let's take a look at some inventory-control strategies you could implement in your own warehouse.

##### **1. Order amount that is cost-effective.**

Economic order quantity, or EOQ, is a formula that calculates the optimal order quantity for a company's inventory based on a set of characteristics such as total costs of production, demand rate, and other variables.

The overall purpose of EOQ is to reduce connected costs as much as possible. The formula is used to determine the largest number of product units to order in order to reduce purchasing. The number of units in the delivery and storage of inventory unit costs is also taken into account by the formula. For most businesses, this helps free up tied cash in inventory.

##### **2. The minimum order amount.**

Minimum order quantity (MOQ) refers to the smallest amount of fixed stock that a supplier is willing to sell. If retailers are unable to meet a product's MOQ, the supplier will not sell it to you.

Inventory products that cost more to produce, for example, often have a lower MOQ than inexpensive things that are easier and more cost efficient to supply.

**3. Perform an ABC analysis.**

This method of inventory classification divides subjects into three groups in order to find items that have a significant impact on overall inventory costs.

- Your most valued products are in Category A, and they contribute the most to overall earnings.
- Products in Category B are those that lie in between the highest and least valuable.
- Category C is for modest transactions that are important for overall profit but have little impact on the organization as a whole.

**4. Inventory management that is just-in-time.**

Just-in-time (JIT) inventory management is a method of coordinating raw material orders from suppliers with manufacturing schedules. JIT is an excellent technique to save money on inventory. Instead than ordering too much inventory and risking dead stock, businesses receive product as needed. Before being removed from sale status, dead stock is goods that was never sold or used by customers

**Literature Review**

Inventory management may be a difficult undertaking, and if done incorrectly, it can cost a firm thousands of dollars. With increased sales volume and product diversification, inventory management becomes increasingly difficult.

However, inventory management is only as effective as how you use it.

Having inventory management set up by the software's creators is well worth the extra effort and money. Work with them to make sure you're using the right approaches and features to obtain the best results.

Let's take a look at some inventory-control strategies you could implement in your own warehouse.

**1. Order amount that is cost-effective.**

Economic order quantity, or EOQ, is a formula that calculates the optimal order quantity for a company's inventory based on a set of characteristics such as total costs of production, demand rate, and other variables.

The overall purpose of EOQ is to reduce connected costs as much as possible. The formula is used to determine the largest number of product units to order in order to reduce purchasing. The number of units in the delivery and storage of inventory unit costs is also taken into account by the formula. For most businesses, this helps free up tied cash in inventory.

**2. The minimum order amount.**

Minimum order quantity (MOQ) refers to the smallest amount of fixed stock that a supplier is willing to sell. If retailers are unable to meet a product's MOQ, the supplier will not sell it to you.

Inventory products that cost more to produce, for example, often have a lower MOQ than inexpensive things that are easier and more cost efficient to supply.

**3. Perform an ABC analysis.**

This method of inventory classification divides subjects into three groups in order to find items that have a significant impact on overall inventory costs.

- Your most valued products are in Category A, and they contribute the most to overall earnings.
- Products in Category B are those that lie in between the highest and least valuable.
- Category C is for modest transactions that are important for overall profit but have little impact on the organization as a whole.

**4. Inventory management that is just-in-time.**

Just-in-time (JIT) inventory management is a method of coordinating raw material orders from suppliers with manufacturing schedules.

JIT is an excellent technique to save money on inventory. Instead than ordering too much inventory and risking dead stock, businesses receive product as needed. Before being removed from sale status, dead stock is goods that was never sold or used by customers

**Research Methodology****SECONDARY DATA SOURCES:**

Secondary data is information gathered by someone other than a researcher for objectives other than those involved in the current study effort.

The nature of the study, the investigator's status, the availability of financial resources, the time and degree of accuracy of the intended results are all elements that influence the data sources chosen to enhance the study's utility.

Secondary data is used to conduct this project's research.

**1. Internal Sources:** This information is gathered from within the company.

1. With the assistance of the organization's storage data as well as information obtained from the Store Manager, who provides a good understanding of how inventory management is carried out in the organization.

2. By looking at internal inventory reports and documents such as Bin Cards, Purchase Orders, Goods Receipts and Inspection Notes, and so on.

**2. External Sources: Company Website:** <http://www.cieautomotive.com> \ <http://www.mahidracie.com/>

Some data was gathered from the company's website.

Books: During the research, D K Agrawal's Logistics and Supply Chain Management textbook and L C Jhamb's Inventory Management textbook were employed.

---

## DATA ANALYSIS

The enormously large range of commodities held by various organizations is one of the key operating issues in scientific inventory control. There could be anywhere from 10,000 to 100,000 different types of stocked things, and applying rigorous scientific inventory control methods to all of them is neither practical nor desirable. As a result of this indiscriminate approach, the expense of inventory control may outweigh the advantages, making it counter-productive. As a result, inventory control must be used sparingly. Depending on the item's value, criticality, and frequency of use, we may need to choose an acceptable inventory policy. As a result, selective inventory management is critical so that we may focus our limited control efforts on the most important set of things. We categorize items in selective management into a few distinct categories based on their worth, criticality, and frequency of use. ABC, VED, and FSN Analysis are three examples of these types of analysis. This type of grouping could be a good place to start when it comes to implementing scientific inventory management in a company. ABC analysis is used to manage inventories at Mahindra CIE Auto. Ltd. As a result, this project includes an ABC analysis research.

**ABC ANALYSIS:** The notion The ABC (Always Better Control) Analysis is founded on the principle of "Think of the Best, Then the Rest." The ABC approach emphasizes a crucial principle: "Vital few: trivial many." In general, businesses are obliged to maintain significant inventories of items utilized in production and distribution. In actuality, maintaining and controlling a similar/appropriate amount of inventory for all items is not achievable due to resource restrictions. As a result, it is common practice to make earnest attempts to maintain proper control over the most widely circulated articles and the fewest frequently circulated goods. ABC analysis provides a framework for categorizing products based on their annual/monthly consumption value. In other words, even though an item's unit price is low, if it is widely distributed and its monthly/annual consumption value is high, it will be closely monitored, and vice versa. As a result, in ABC analysis, goods are divided into three categories based on their monthly/annual consumption value: A, B, and C.

---

## CONCLUSION

To study the role/importance of inventory system in relation to Mungi Brothers organization.

Today's market is a customer oriented market and customer satisfaction is the most important goal of every organization therefore it is inevitable to adopt integrated

Inventory Management approach for new product development strategy. Financial Material management for any product is a dynamic decision making process involving a series of inter-related activities.

In today's dynamic market "Every Bench marks are dynamic, challenge them for continual improvement". In order to remain in market any organization needs to define the process, Benchmark for the excellence, endeavor to achieve it by strategizing & creating environment, providing required resources & effective monitoring.

INVENTORY system is an extremely important problem area in the management of materials handling. It is quite susceptible to control and a very large amount of scientific models are available in the literature to enable us to choose an optimal inventory policy. Buying the optimal quantity can result only from a sound inventory control system that is achieved by judicious reconciliation of conflicting costs and departmental objectives. However, inventory is only an indicator of performance of materials management function and to cut down inventories we use not only scientific inventory management principles but also models along with it also take long-term measures to reduce inventories through strategies such as variety reduction and standardization, source development and optimization, and vendor rating, lead-time reduction through improvement in the systems and procedures of procurement. It is obvious that scientific inventory management has to be practiced selectively rather than indiscriminately to make it cost-effective. It is also important to have informational inputs like demand forecast, lead-time estimate, and other cost/

---

## REFERENCE

Companies websites: -<http://www.cieautomotive.com>  
<http://www.mahidracie.com>  
<http://www.tatamotors.com>  
[www.marutisuzuki.com](http://www.marutisuzuki.com)