

Inventory Management: Meaning, Methods, Types and Benefits

Inventory management is monitoring and controlling a firm's stocked goods for maximum supply chain effectiveness. Inventory management includes tracking inventory quantities, ordering supplies, and keeping products stored and shipped effectively. Firms employ inventory management strategies to lower costs while making products available. A successful inventory management system aids organisations in sustaining a demand and supply balance, minimising wastage, and increasing profitability.

What is Inventory Management?

Inventory management is the orderly process of procuring, warehousing, and selling products while ensuring the correct quantity is offered properly. Inventory management is an essential function for the maintenance of <u>supply chain</u> efficiency as well as customer satisfaction.

Objectives of Inventory Management

Proper inventory management aids companies in managing stock levels, minimising costs, and enhancing customer satisfaction. It smoothes things out by managing shortages, reducing waste, and improving cash flow.

- Avoid stockouts and overstocking: Manage stock optimally to avoid losing money. This will help you maintain the right stock levels by tracking real-time <u>demand</u> patterns. Inventory software is made to track stock in real-time.
- 2. **Reduce storage costs:** Wise storage planning reduces the costs of the storeroom. Plan to use inventory space wisely. Purge slow-moving goods to reclaim space.
- 3. **Enhance cash flow:** Effective management of inventory leads to improved cash flow. Rapidly dispose of excess stock to free up cash. Don't get money trapped by unnecessary inventory.
- 4. **Improve order fulfilment:** Make sure that the <u>customers</u> get the products on time, which helps boost your brand reputation. Have stock ready to ship quickly. Automation to process orders faster

Inventory Management System

An inventory management system is a computer program or tool used to track inventory levels and sales and fill business orders. It automates stock control, minimises manual mistakes, and increases the efficiency of operations.

How Does Inventory Management Work?

Inventory management operates on carefully planned steps, allowing a business to meet its demand without stockpiling excess.

- 1. **Stock Tracking:** Barcode scanning or RFID systems are used by businesses to keep track of their warehouse inventory levels. Monitor stock movements to reduce mistakes. For accuracy, update inventory records in real-time.
- 2. **Demand Forecasting:** Minor suppliers can easily track their footfall by leveraging these IoT devices. Monitor trends so stocks can be adjusted accordingly.



- 3. **Reordering Process:** Automated reorder points assist in maintaining optimal stock levels. Create notices for low inventory to avoid stock-outs. Make sure to order supplies in advance to prevent slowing things down.
- 4. **Storage and Warehousing:** Storing under the right conditions minimises the risk of damage and loss. Store in labelled areas for easy access. Use climate control to protect sensitive products.
- Supply Chain Coordination: Good <u>communication</u> with suppliers will lead to restocking at the right time. Communicate inventory changes to prevent delays. Develop relationships for better pricing and service.
- 6. **Stock Audits:** Regularly check inventory to avoid discrepancies and losses. Be sure to do stock counts regularly to identify differences for quick rectification to maintain the records.

Methods of Inventory Management

Smart inventory management enables the business to monitor inventory levels, cut costs, and increase efficiency. Based on business needs and industry requirements, various methods such as ABC analysis, JIT, EOQ, FIFO, and LIFO maintain optimal stock control of stock.

ABC Analysis in Inventory Management

ABC Analysis classifies stock into three categories based on inventory value and sales frequency. These split <u>products</u> grades A, B, and C according to the frequency and value of sales. Category B includes moderate-value items with moderate sales frequency that require attention in moderation. Low-value items with low sales frequency require the least control; thus, they fall in category C. This approach ensures businesses prioritise managing important stock effectively, leading to improved resource allocation and inventory optimisation.

Just-in-Time (JIT) Inventory

Just-in-time (JIT) inventory management acts as a key factor in preventing overstock of products in which goods are ordered only if required. It reduces storage expenses, reduces waste and enables greater cash flow. On the other hand, it needs accurate demand forecasting and reliable suppliers so that stockouts do not occur. JIT, when executed effectively, allows businesses to optimise processes, minimise overstock, and improve overall profitability.

Economic Order Quantity (EOQ)

EOQ (Economic Order Quantity) finds the perfect order quantity to minimise total inventory costs. The model balances ordering and holding costs, which helps businesses avoid running short on stock and accumulating excess inventory. The goal of using EOQ is to minimise unnecessary costs and optimise company inventory turns. EOQ can help companies make smarter purchasing choices and build an effective supply chain.

FIFO (First-In, First-Out) and LIFO (Last-In, First-Out)

The first in, first out (FIFO) system allows for the oldest stock to be sold before all else, minimising your chances of having expired or out-of-date products. It is used in industries that produce perishable products, such as food and medicine. As the name implies, LIFO sells the newer stock first, which can be an advantage when inventory costs change. This is a popular method in non-perishable goods industries. Since both FIFO and LIFO impact financial reporting and tax calculation, choosing between them is significant to inventory management strategies.



Types of Inventory Management

Proper inventory management aids businesses in keeping track of stock, reducing costs, and increasing efficiency. The various types, including perpetual, periodic, manual, and automated inventory management, serve different businesses and operational sizes.

- Perpetual Inventory Management: Automated inventory management using software and barcode scanners. Gives real-time stock quantities appropriate for enterprise retail stores and e-commerce merchants. Instantly updates stock on each sale or purchase. This goes a long way to help prevent stockouts and overages.
- 2. **Periodic Inventory Management:** The stocks are counted over the defined intervals (week, month, year). Great for small businesses with limited inventory volumes. It assists in identifying stock differences over time. Manual effort but helps in better inventory records.
- 3. **Traditional/Manual Inventory Management:** Stock is tracked via spreadsheets and physical counts economical but fallible due to human mistakes. Best for small businesses with few products in stock. Extra time and effort to keep everything accurate.
- 4. **Automated Inventory Management:** It's all software and Al-driven for tracking stocks and predicting the needs. Minimises mistakes and boosts productivity. Automates stock updates, Saves time and leverages smarter insights for better purchase decisions.

Benefits of Inventory Management

Good inventory management saves costs, increases efficiency and raises customer satisfaction. It simplifies operations by balancing stock availability, minimises waste, and contributes to overall financial health.

- Reduce Storage Costs: Helps avoid the costs associated with excess stock storage.
 Minimises loss of outdated/spoiled goods. Reduces the inefficiencies in the supply chain.
 Avoids waste and over-purchasing. Which helps businesses to save money in inventory management.
- 2. **Higher Customer Satisfaction:** Guarantees product availability at the disposal of customers. Decreases order fulfilment lags. Enhances business reputation. Instills customer confidence through stock reliability. Boosts repeat purchases and brand loyalty.
- 3. **Better Financial Management:** It keeps a regular cash flow flow. Lowers excess capital spent on inventory holding. This enhances budgeting and financial forecasting. Avoids unnecessary spending on unnecessary stock. Promotes sustainable fiscal health.
- 4. Improved Efficiency: It helps simplify warehouse operations. It lets customers keep track of their stock and order it automatically. Also, it minimises human intervention, reducing errors. Speeds up tracking and managing inventory. It enhances the workflow and increases productivity.

Inventory Management Challenges

Inventory management allows companies to manage stocks and orders as efficiently as possible, which is a blessing in disguise. Stock discrepancies, demand fluctuations, supply chain disruptions, or high holding costs can hamper efficiency and profitability.

1. **Stock Discrepancies:** Discrepancies between recorded and actual stock can contribute to financial loss. The reasons for this are theft, human mistakes, and supplier payment errors. Errors can be identified and corrected as part of a stock audit. A barcode or RFID system helps to track shipments accurately.



- 2. **Demand Fluctuations:** Unforeseen demand fluctuations can lead to both overstock and stockouts. The answer is better forecasting with historical data and market trends. Seasonal trends help adjust stock levels. An investment in stock management software leads to better demand forecasts.
- 3. **Supply Chain Disruptions:** Too few U.S.-based suppliers could cut supply availability. The answer is supplier diversification and safe stock. Strong supplier relationships lead to timely deliveries. Third, you stock emergency stock to avoid sudden shortages.
- 4. **High Holding Costs:** Extra inventory takes up space and costs you money. The application of JIT or EOQ methods can maintain optimum stocks. More storage space in the warehouse saves money. Losing money on slow-moving stock is avoided by selling fast.

Inventory Management FAQs

What is an inventory management system?

An inventory management system is computer software used by businesses to monitor stock levels, sales, and orders in order to maximize inventory control.

What are the objectives of inventory management?

The goals are reducing stockouts, lowering storage expenses, increasing cash flow, and increasing customer satisfaction.

What is ABC analysis in inventory management?

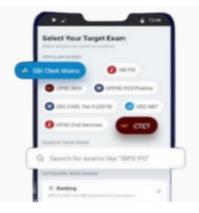
ABC analysis categorizes stock into three types (A, B, and C) according to value and frequency of sales to make maximum control of stock.

In what ways does a stock inventory management system assist companies?

A stock inventory management system computerizes stock tracking, decreases manual errors, and enhances supply chain management.

What are some typical inventory management problems?

Problems include stock differences, demand variations, supply chain breakdowns, and high holding costs.





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