

# INVENTORY MANAGEMENT SYSTEM FOR

## RETAILERS

### INTRODUCTION

The inventory management system is an application that is helpful for business operations. Inventory management is a challenging problem area in supply chain management. Companies need to have inventories in warehouses to fulfill customer demand, meanwhile, these inventories have holding costs and this is a frozen fund that can be lost. Therefore, the task of inventory management is to find the number of inventories that will fulfill the demand, avoiding overstock. This paper presents a case study for the assembling company on inventory management. It is proposed to use inventory management to decrease stock levels and to apply an agent system for the automation of inventory management processes. Inventory management system (IMS) use for a departmental store. This system can be used to store the details of the inventory based on the sale details, generate sale and inventory reports periodically, etc. This is one integrated system that contains both the user component (used by salespersons, sales managers inventory managers) and the admin component (used by the administrators for performing admin-level functions such as adding new items to the inventory), etc

### LITERATURE REVIEW

Inventory Management Systems, To generally accepted accounting principles, businesses can use either a periodic or a perpetual inventory management system. Regardless of the inventory system adopted, it is a good practice for businesses to conduct a manual inventory at least once a year. Before computerized inventory systems, most businesses used periodic or non-continuous inventory systems. However, developments in technology make it possible for most retail businesses to implement perpetual inventory systems. The perpetual or continuous inventory system can, however, still lead to some errors because of overstatements and understatements.

#### [\[1\]](#) Automated Reordering and In-Stock Information, And System Crash

**ADVANTAGE:** Computerized inventory informs employees and customers within seconds whether an item is in stock. Because the inventory is synced with sales, there is a **running tally of what is in stock and what isn't**. This helps flag reordering needs and provides better service to customers. As inventory drops below a specific threshold, new orders are placed with vendors and tracked to let customers know when the new products will arrive.

**DISADVANTAGE:** One of the biggest problems with any computerized system is the **potential for a system crash**. A corrupt hard drive, power outages, and other technical issues can result in the loss of needed data. At the least, businesses are interrupted when they are unable to access the data they need. Business owners should back up data regularly to protect against data loss.

## [2] Integration With Accounting and Malicious Hacks

**ADVANTAGE:** Many of the computerized inventory platforms **integrate with accounting software to track cash flow**. This makes the process of transferring inventory costs and assets between programs seamless and reduces the need for additional bookkeeping costs. Financial statements are more easily generated with shared data between inventory and bookkeeping.

**DISADVANTAGE:** Hackers look for any way to get a company or consumer information. An inventory system connected to point-of-sale devices and accounting is a **valuable resource to hack into** in search of potential financial information or personal details of owners, vendors, or clients. Updating firewalls and anti-virus software can mitigate this potential issue

## [3] Forecasting and Planning and Reduced Physical Audits

**ADVANTAGE:** Inventory management software does more than track where inventory is located and when to reorder it. A data collection system is used to create needed **forecasting and strategic planning reports**. Business owners review trends regarding which products do well in certain months or during specific cyclical seasons. Business owners use this data to plan for growth and order inventory intelligently to best utilize cash flow resources.

**DISADVANTAGE:** When everything is automated, it is easy to forego time-consuming physical inventory audits. They may no longer seem necessary when the computers are doing their work. However, it is important to continue to do regular audits to identify losses such as spoilage or breakage. Audits also help business owners identify potential internal theft and manipulation of the computerized inventory system.

## [4] Simplicity and Technical Issues

**ADVANTAGE:** Most business owners are not accountants or bookkeepers by trade and find it challenging to do most accounting tasks. This is where accounting software programs give a business owner advantages. A wide variety of accounting software programs are consumer friendly. Business owners can shop around to find a program that is easy to install, learn and use. Many programs provide prompts for the type of data that should be entered in each section. Once the system is established with bank accounts, debts, and vendors, the business owner only needs to update information as it comes in

**DISADVANTAGE:** When dealing with computers, issues can arise. You may be completing year-end data for your accountant and experiencing a power outage. Computers might acquire a virus and fail. There is also the potential of users incorrectly performing software tasks that they are not familiar with. If a user tries to do one thing but inadvertently does something else, it might take some work to undo the error

## [5] Reliability, Cost-Effectiveness, and Incorrect Information

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**DISADVANTAGE:** Business owners can do a lot to mitigate the disadvantages and potential problems associated with computerized accounting with proper planning and software integration. Taking the time to establish it correctly is easier and cheaper than trying to backtrack because when a problem occurs.

