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Inventory management process: A Review

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Abstract

Inventory management are the backbone of any business operations. With the development of technology and availability of process driven software applications, inventory management has undergone revolutionary changes. In the last decade or so we have seen adaptation of enhanced customer service concept on the part of the manufacturers agreeing to manage and hold inventories at their customers end and thereby effect Just In Time deliveries. Though this concept is the same in essence different industries have named the models differently. Manufacturing companies like computer manufacturing or mobile phone manufacturers call the model by name VMI - Vendor Managed Industry while Automobile industry uses the term JIT - Just In Time where as apparel industry calls such a model by name - ECR - Efficient consumer response. The basic underlying model of inventory management remains the same.

Key words: Inventory, management, Google, demand**,** necessary, etc.

Introduction

Inventory management is a systematic approach to sourcing, storing, and selling inventory—both raw materials (components) and finished goods (products). In business terms, inventory management means the right stock, at the right levels, in the right place, at the right time, and at the right cost as well as price. As a part of your supply chain, inventory management includes aspects such as controlling and overseeing purchases from suppliers as well as customers maintaining the storage of stock, controlling the amount of product for sale, and order fulfilment. Naturally, your company's precise inventory management meaning will vary based on the types of products you sell and the channels you sell them through. But as long as those basic ingredients are present, you'll have a solid foundation to build upon. Small-to-medium businesses (SMBs) often use Excel, Google Sheets, or other manual tools to keep track of inventory databases and make decisions about ordering.

Definitions:

As per the APICS (American Production and Inventory Control Society) Dictionary,

"*Inventory is defined as those stocks used to support production, such as raw material and work in Process, supporting activities, such as maintenance, repair, and operating supplies, and finally Customer Service in the form of finished goods and spare parts.*"

According to the Author of Operations Management, Lee J. Krajewski,

"*Inventory is created when the receipt of materials, parts, or finished goods exceeds their disbursement; it is depleted when their disbursement exceeds their receipt*."

1. Determine customer needs & forecast demand

This can be a difficult first step, but it's absolutely necessary to a solid inventory management process. Take a look at your past sales, inventory records, and seasonal selling patterns, and be sure to forecast future demand. If you're a new business who doesn't have this kind of data, concentrate on market research and overall revenue predictions. This will allow you to make sure that you have the optimal amount of inventory on hand at any one time—while avoiding both stock-outs and excess carrying costs.

2. Categorize your inventory

Categorizing your inventory can help you run your warehouse more smoothly and optimize the use of your warehouse space. Organize your inventory by which items experience the highest sell-through, those items that sell at a more moderate pace, and items that are slower to move.

3. Decide on a method

Take a look at which inventory management techniques work best for your business. For instance, you may choose to maintain minimum stock levels in your warehouse and replace inventory only when it reaches that minimum threshold. If you're worried about demand uncertainty, on the other hand, you may choose to keep safety stock. Or if you need to concentrate on reducing carrying costs, a "just-in-time" inventory strategy may be the best method. For more detail on these inventory management techniques, check out this post.

4. Figure out how you'll track incoming/outgoing inventory

It's important to know the exact number and cost of all the items you have in your warehouse, as well as how inventory is moving in and out of that warehouse. Some smaller businesses often start by doing this manually on paper or Excel spreadsheets, but there are also many software options out there for both SMBs and large businesses to help automate the process. These solutions help businesses develop forecasts, track inventory across multiple warehouses, and generate reports.

5. Conduct inventory counts to ensure accuracy

Even if you have inventory management software in place, it is important to also figure out how (and how often) you're going to check the accuracy of your system. This can be done by conducting physical inventory counts, and one of the most common methods is cycle counting. This involves specifying a certain set of inventory to physically count each day, and comparing those numbers with the records in your inventory management system. This allows you to catch potential problems and inaccuracies without having to do the overwhelming job of conducting a complete physical count.

Inventory Classification - ABC Classification, Advantages & Disadvantages

Inventory is a necessary evil in any organization engaged in production, sale or trading of products. Inventory is held in various forms including Raw Materials, Semi Finished Goods, Finished Goods and Spares. Every unit of inventory has an economic value and is considered an asset of the organization irrespective of where the inventory is located or in which form it is available. Even scrap has residual economic value attached to it. Depending upon the nature of business, the inventory holding patterns may vary. While in some cases the inventory may be very high in value, in some other cases inventory may be very high in volumes and number of SKU. Inventory may be help physically at the manufacturing locations or in a third party warehouse location. Inventory Controllers are engaged in managing Inventory. Inventory management involves several critical areas. Primary focus of inventory controllers is to maintain optimum inventory levels and determine order/replenishment schedules and quantities. They try to balance inventory all the time and maintain optimum levels to avoid excess inventory or lower inventory, which can cause damage to the business.

Advantages of ABC Classification

- This kind of categorization of inventory helps one manage the entire volume and assign relative priority to the right category. For Example A Class items are the high value items. Hence one is able to monitor the inventory of this category closely to ensure the inventory level is maintained at optimum levels for any excess inventory can have huge adverse impact in terms of overall value.
- A Category Items: Helps one identify these stocks as high value items and ensure tight control in terms of process control, physical security as well as audit frequency.
- It helps the managers and inventory planners to maintain accurate records and draw management's attention to the issue on hand to facilitate instant decision-making.
- B Category Items: These can be given second priority with lesser frequency of review and less tightly controls with adequate documentation, audit controls in place.
- C Category Items: Can be managed with basic and simple records. Inventory quantities can be larger with very few periodic reviews.

Disadvantages

- Inventory Classification does not reflect the frequency of movement of SKU and hence can mislead controllers.
- B & C Categories can often get neglected and pile in huge stocks or susceptible to loss, pilferage, slackness in record control etc.

Conclusion

In any business or organization all functions are interlinked and connected to each other and are often overlapping. Some key aspects like supply chain management, logistics and inventory from the backbone of the business delivery function. Therefore these functions are extremely important to marketing managers as well as finance controllers.

Inventory management is a very important function that determines the health of the supply chain as well as the impacts the financial health of the balance sheet. Every organization constantly strives to maintain optimum inventory to be able to meet its requirements and avoid over or under inventory that can impact the financial figures. Inventory is always dynamic. Inventory management requires constant and careful evaluation of external and internal factors and control through planning and review. Most of the organizations have a separate department or job function called inventory planners who continuously monitor, control and review inventory and interface with production, procurement and finance departments.

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