A Complete Guide to Calculate, Manage and Reduce Inventory Carrying Cost

Introduction -

An inventory doesn’t only cost you when you buy it; it also takes a considerable investment to preserve that inventory and manage it. In many cases, especially in small businesses, owners tend to ignore the effort and the cost of that effort and systems that go in to keep their inventory safely in their warehouse.

The inventory carrying cost is the term for all the efforts gone in to preserve goods bought by an ecommerce seller or offline seller. It is undoubtedly a vital part of the inventory operations for many companies over the years because it affects the profit of any ecommerce company. Yet, many small and medium businesses use dated techniques to reduce Inventory carrying cost.

If you consider this fact that inventory carrying cost generally can be somewhere around 20%- 30% of the total inventory costs, it is very much clear that it is essential to track and manage inventory efficiently to keep inventory carrying cost in control.

In the article ahead you will get to learn

- The meaning of inventory carrying cost
- How to calculate it
- What are the components that are involved in the calculation
- Why companies fail to reduce the carrying cost
- How to minimize inventory carrying cost using Automated inventory management software

Let’s begin -

What is Inventory Carrying Cost?

Inventory carrying cost is an accounting term that considers all the investments involved in storing and holding the unsold goods.
Majorly, the total inventory carrying cost is a collective figure of the expenses of

- Salaries of warehouse employees
- Warehousing
- Transportation and handling
- Insurances/taxes
- Shrinkage
- Opportunity costs(the opportunity or sales leads lost by an individual, company or small business owner when he/she decides to go with one alternative over another)
- Depreciation costs.

Inventory carrying cost depends on inventory turnover rate, number, and variety of SKUs present in the stock and whether you fulfill your orders or hire someone else for it.

To take a rough idea of the inventory carrying cost of your stock, you can add all the inventory costs and divide it by four. Retailers often take the costs associated with the Inventory and the Inventory itself as a percentage of their current assets on the balance sheet because effective management of inventory flow can affect the inventory carrying cost hugely.

Why is the Calculation of Inventory Carrying Cost Important?

- Inventory carrying costs can also be shown as a percentage of the total business inventory cost to understand the amount they can earn, considering the current inventory levels.
- Calculation of the carrying cost is also crucial as it will give you a whole idea of the expenses that a company is doing on its inventory, thus making it easier for you to control the unwanted investments.
- Also, the inventory carrying cost can be used to decide on the productions or purchases - whether to cut down on productions or increase it to manage the revenue and profit flow.
- Inventory carrying cost levels can indicate whether the inventory flow is at its optimum level or if there is a slowdown or if there is loss through opportunity losses(if money is invested in a wrong product or strategy) or write-off through unsold perishable products.
- Increased inventory carrying cost is alarming for a company, and if small businesses take a risk to ignore, it can lead to decreased profits and increased losses.

Components of Inventory Carrying Cost

1. **Cost of Capital:** It constitutes the money paid for carrying goods, the opportunity cost of the acquired inventory interest paid while purchasing goods, and interest lost on the money that was used to buy the products. Capital cost is a significant part of the total inventory carrying costs and makes about 7 – 12% of the carrying cost.

2. **Cost of Space:** The name itself is self-explanatory. The cost of space is rent or mortgage of the warehouse or the place where inventory is kept, basically the money spent on storing the stocks in a safe and secure place. This component is around 2-5% of the total carrying cost.

3. **Administrative Costs:** Manpower and system cost required to run an inventory effectively with tasks like cycle counting, barcoding products, warehouse, supervision, inventory transaction processing, Electricity bill, and other utility charges to run a facility. Administrative costs are 3-6% of the carrying costs.

4. **Depreciation and Obsolescence Costs:** The costs involved in refurbishing the old or damaged inventory, including the money lost when perishable inventory becomes non-saleable, is called depreciation or obsolescence cost. Moreover, damaged returns, product redesigns, or reduction in the value of the products are also the additions that can be added to this component.
5. **Insurance / Taxes:** This component is somewhere 3-9% of the total inventory carrying cost.
6. **Material Handling:** Many companies add the costs of moving inventory now and then to accommodate the new stock or replace old with new ones. The cost of picking and packing the products is also sometimes added, mostly by manufacturers. It primarily constitutes about 2-5% of the total cost of carrying.
7. **Lead Time:** Yes, lead time also affects the inventory carrying cost. The relation between the work in progress inventory and the time taken to respond, hence if there is an increase in the number of products in the WIP, the more time it will take to move the products. It will impact the market share because the company will lag behind its competitors in responsiveness.
8. **Shrinkage:** This is one of the components which makes most of the business owners unhappy as it contains the cost of lost or stolen products, misplaced, or its parts.
9. **Delay Of Innovation:** If the inventory flow is not at an optimum level, it might take some time for the old products to sell, thus delaying the introduction of innovations.

Inventory Carrying Cost Formula and Calculation

Calculation of Inventory carrying cost is not a difficult task because nowadays, there are automated inventory management softwares in the market that help you calculate the inventory carrying cost.

However, if you want to calculate on your own, the formula for the annual inventory carrying cost is -

Inventory Carrying Cost = *(Capital + Taxes + Insurance + Warehouse costs + (Scrap - Recovery cost) + (Obsolescence costs- Recovery cost))/ Average annual inventory costs*

Inventory carrying cost as a percentage of revenue is also an important aspect associated with the carrying costs and here is the formula for that -

(Actual Inventory carrying cost/ Annual revenue of a company)

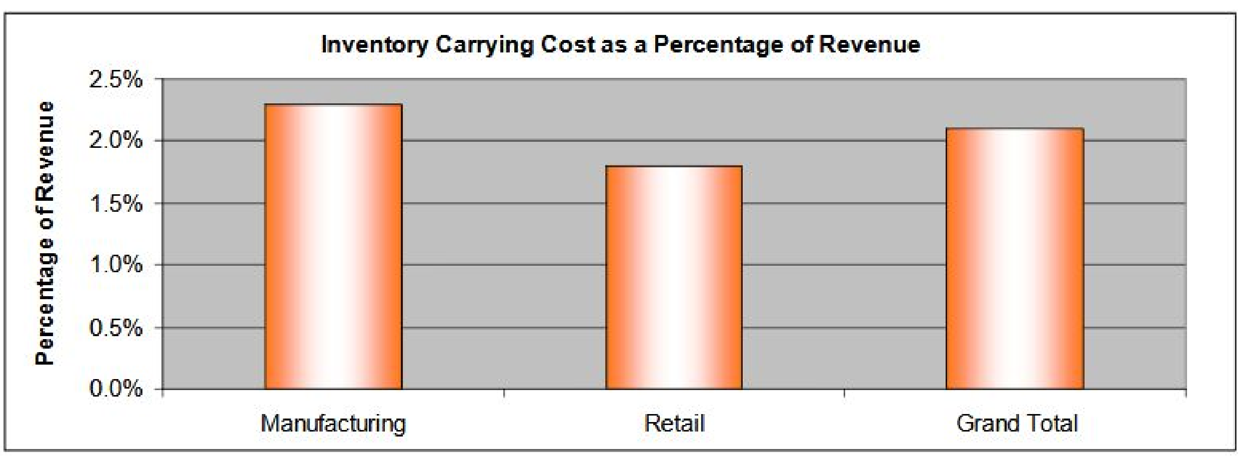

Image courtesy - supplychainconsortium.com

You can see in the image that inventory carrying cost is around 1.5% -2.5% of the revenue for manufacturing and retail businesses.
So, just by looking at this, you can understand how important it is to reduce inventory carrying costs.

Why Many Companies Fail to Reduce Inventory Carrying Cost

Almost everyone would want to bring down the inventory carrying cost. Still, many fail to do that. The shocking thing is that many companies don't even bother about trying to reduce inventory carrying cost.

Let's go through some reasons as to why these firms are failing to decrease the carrying cost.

- **Using Excel and obsolete methods** -
  It is indeed the most prominent reason, and many are still adamant about using excel or old techniques or free inventory management software to calculate inventory carrying cost and manage their inventory. Excel is not a proactive software, and it requires us to feed information, which again is a stressful and time taking task. Due to these methods, an individual loses on time(and hence loss of sales

and customers because of longer lead time), manual errors made can be again a reason for increased inventory cost.

- **Flawed demand forecasting and demand forecasting accuracy** -
  The inability to accurately forecast the demand leads to unsold products, which ultimately leads to a lower inventory turnover ration and an increased carrying cost.
- **Failure in understanding the trends especially in the fashion industry -**
  Again this is somewhat similar to the above point because if an ecommerce retailer can follow the trends accurately, he/she will be able to forecast inventory requirements more accurately.

- **Overstuffing and low inventory turnover ratio -** Unnecessary stuffing leads to high inventory levels that decrease inventory turnover ratio and ultimately affect inventory carrying cost.

- **Flawed order fulfillment process leading to a decrease in orders -** In today's world, everybody wants their order to be delivered as fast as possible, and using old techniques affects the order fulfillment process. Thus, you lag on order fulfillment lead time from your competitors.

You might ask, what should I do to reduce inventory carrying cost? You might also say that I am already using a paid inventory management software, but still, I am not able to reduce my Inventory carrying cost, what should I do then?

We have probably the aptest answer for your questions read on-

How to Reduce Inventory Carrying Cost

Without wasting much of your time, we would suggest that it’s time that you opt for SaaS-based “automated” inventory management software for your business.

Now answering your questions -

- The automated inventory management software is proactive, and you don’t have to feed every piece of information manually. It can be integrated to almost all types of POSes, Marketplaces(like Shopify, Magento, and Amazon), CRMs, Accounting Softwares, 3PLs, shipping portals, etc. This makes most of the tasks easy and doable while you sit and manage everything through one portal. As a result, you reduce human efforts and errors(thus money lost due to mistakes reworks is saved), saves time, which means you are ahead of your competitors in every aspect.
- The software checks the demand forecast accuracy, which will help you to keep track of your demand forecasts and ultimately lead you towards forecasting demand accurately.

- The software comes with on-demand automation, even the mid-level or necessary subscriptions come(which is why you should shift from your inventory management software to automated software, like orderhive asap) with automation that helps you to **[automate your order fulfillment process]**. Flawless order fulfillment means shorter lead time and increases perfect order percentage, which ultimately will increase inventory turnover ratio and hence decrease Inventory carrying cost.

- Since SaaS-based software is easy to modify and customize, it gives you the freedom to scale up and the ability to handle thousands of SKUs seamlessly as your business grows.

  This is again an added advantage because, with the help of the software, you can track each product of every SKU, and if you find that a particular SKU is not doing well, you can design a marketing or sales strategy around it.

- So, automated inventory management software gives you a tool to identify and track the journey of each SKU so that you don’t miss out on a less non-performing product. At the same time, you are busy selling on-demand products and end up creating a dead or obsolete stock - again leading to increased inventory carrying costs.

Conclusion

Inventory carrying cost plays a vital role in increasing or decreasing the profit of any ecommerce retailer or manufacturer and hence should be curbed down as much as you can. And to cut down on inventory cost, age-old techniques or excel won’t help it; instead, you need to resort to automated inventory management software to decrease inventory carrying cost to grow exponentially.

And, to grow exponentially, you can sign up and get a **free 15- day trial** of one such automated software that encompasses all types of software(purchase, return, order, analytics, and report, shipping, and product management software) in one portal. Thus, saving you time and money. Just login to one portal and you're sorted for the day.

Constant innovations with changing times are the key to overcome hurdles in any business.