



What is Inventory Management?

Computerisation has brought about enormous change in the modern business. Tasks which once took weeks are now possible in seconds, and costly inefficiencies and miscommunications are slowly being eradicated. Self service automation allows us to manage our banking, groceries and parking tickets remotely – and it seems only a matter of time before this encroaches into other areas of modern life as well.

Machines, to be sure, are not capable of replacing their human masters just yet. But they are capable of doing some tasks extremely well. Even the most primitive computer is capable of performing calculations that would be beyond any human – and they're capable of doing it in just a tiny fraction of a second. Moreover, computers are able to memorise an astonishing amount of numbers, and of recalling them more-or-less instantly.

These two virtues make computers ideally suited to one task in particular: Inventory Management. Being able to maintain an enormous database, and oversee all of its constantly-moving parts, is a boon to any business which deals in stock. In this article, we'll examine the impact such a database might have on your business.

Inventory and the problem of visibility

If you're dealing with a large amount of stock, then it's easy for things to get lost. Whether you're a manufacturer or a distributor, the relevant items will need to be accessed from various parts of your business when they're required, and in the right quantity. Assuming the item isn't immediately visible upon entering the warehouse, the person looking for it will need information. Firstly, they'll need to know whether the item is in stock. Secondly, they'll need to know where it is. If your warehouse is very small, then this might not be such a problem. If your warehouse is enormous, then it might well be.

Let's consider a few information bottlenecks. An order has been placed by your company's purchasing department. It will arrive at a given time, and be of a given size. These two pieces of information may be crucial for the other members of your business. Imagine that a customer places a large order shortly afterward, and wants to know whether the item will be delivered on time.

In this situation, your sales department are going to run into considerable difficulty. They'll need to frantically place calls in order to determine whether the item in question is there, and in sufficient quantity. This will take time. To your customer, this delay will seem amateurish.

Of course, this isn't just going to impact your business' ability to cater to the short-term demands of its customers; it's also going to place longer-term strain on the relationships between the various departments of your business. By putting in place a system which can provide everyone with the information that they need, at the point in time that they need it, and without any additional labour, the various cogs which make up your organisation will mesh together more fluidly, and the entire machine will consequently work more effectively.



There are a few simple ways in which one might keep track of stock levels. The most obvious is through the use of a spreadsheet. Every time an item is sold or moved, a spreadsheet might be manually updated in order to reflect the new stock level.

On the face of it, this might seem a perfectly sensible solution. But it relies on every physical stock movement being manually entered into the spreadsheet. In the real world, this doesn't always happen. If an item is sold without the system being updated, then further headaches are sure to arise down the line when the item someone else expected to be in stock isn't there. Such headaches can be avoided with the help of an automated system.

The Benefits of an Inventory Management

Let's take a moment to outline a few of the benefits an automated, integrated, inventory management system might bring about.

Reduced labour costs

Once stock levels increase beyond a certain point, it becomes difficult for a single person to effectively monitor them. So you might need to hire additional staff to help. If you have a warehouse the size of several football pitches, the labour involved in managing its stock would quickly become exorbitant. But even in small-scale operations, it can represent a significant amount of labour.

Fortunately, there's a solution at hand in the form of inventory management software. Rather than having an army of human beings devoted to the task, we can have a single computer system do the job. But that's not the end of it – you'll save money as well by not having other members of your workforce dragged away from their respective tasks in order to find out whether an item is in stock, or when it's going to arrive – the system will provide that information for them.

Speed

Manually updating an inventory system is something which takes time. In an automated inventory management system, the warehouse stock levels can be integrated neatly with the POS system. This means that, whenever an item is sold – whether through the bleep of a barcode scanner at a physical store, or the click of a mouse at an online one – the stock level in your warehouse will be updated automatically.

This avoids the problem of having your staff manually communicate the change in stock level – a practice which not only consumes valuable time, but it introduces the potential for error – and ensures that your stock levels are accurate across all of your channels.

Fewer Mistakes

One of the crowning virtues of computerisation is that computers don't make mistakes. Any mistakes which do occur, to quote HAL 9000, can only be attributable to human error. The less human involvement in the process, the fewer mistakes will be made.

Clearly, there is still work for humans to do in a supervisory capacity, in order to check that the system is working as intended. An inventory management system should not, therefore, be thought of as a replacement for human beings, but as a useful tool which can make life that much easier – in much the same way that shoes are not a replacement for feet.

Analysis

Information that is recorded into a computer database is very useful when it comes to self-evaluation. Every entry in the database will be automatically timestamped and logged. This allows for further efficiency savings to be made, and for management to make better decisions about how the business should be run.

They might do this by consulting graphs, charts and other visual aids, which can be easily created using the reams of data, collected over years.

You might have long had the impression that Wednesday mornings in your warehouse are slightly busier than Thursday mornings. With the help of the data provided by your inventory management system, you'll be able to see the precise extent to which this is so – if it even is – and you'll be able to take accordingly precise action.

With the help of margin analysis and real-time stock value calculators, it becomes easy to see at a glance which items are making the greater profit. This information can be used when considering future purchases, and can be constantly referred to. This helps to fine-tune the decision-making machinery of the business, as well as the everyday tasks on the warehouse floor which keep it running.

Drop Shipping

As well as improving the way in which you currently do business, a reliable automated inventory management system makes it possible to do business in new and better ways. Perhaps the best example of this is drop shipping.

The shortest distance between two points is, and likely always will be, a straight line. And so it's preferable for all parties that a product be shipped directly from a manufacturer. Now, this doesn't mean that there needn't be third parties to facilitate these transactions (indeed, modern, globalised trade would be impossible without retailers), just that such third parties need not ever see the goods themselves.

Drop-shipping is a practice where a product is shipped directly from the manufacturer to the consumer. This helps to save on warehouse space, and thereby cuts costs for the retailer – and reduces waiting times for the customer.

But if this practice is so wonderful, and the efficiency savings it yields so substantive, then why isn't everyone doing it? The answer lies again in information. If businesses throughout the supply chain had to frantically request information from one another every time an order were placed, the result would be a lot of unnecessary work and stress. Moreover, if the information exchanged were anything less than reliable, then the whole system would come grinding to a halt. Keeping a stockpile of goods ready as a buffer therefore helps to smooth the whole process.

For decades, this solution has been the accepted one. But this orthodoxy is being challenged. Thanks to integrated inventory management, information on stock levels can be instantly and reliably exchanged between retailers and their suppliers. This means that it's possible for a retailer on one side of the country to view the stock levels of their supplier on the other side of the country. They can then arrange for a desired item to be shipped from the supplier's warehouse to the customer. This transaction will then instantly update the stock level in the database.

This practice is still in its infancy, but it's one with enormous logistical promise – thanks in no small part to advances in inventory management technology!