

Order Fulfillment in Warehouse Management

ORDER FULFILLMENT PROCESS IN WAREHOUSE MANAGEMENT

Right from the moment inventory enters the Warehouse to the moment it reaches customers



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A Completely functioning order fulfillment process is what most warehouse managers crave to achieve and why won't they because nearly [38% of customers](#) have admitted that they would stop buying from a company that doesn't provide an excellent overall delivery experience. It's axiomatic that order fulfillment in warehouse management is the pivot around which everything revolves, and as a warehouse manager, you can't afford to mess this process up.

Therefore, the write up ahead will educate you about the order fulfillment process, it's strategies, and how to optimize the entire process.

What is the Order fulfillment Process in Warehouse Management?

Order fulfillment encompasses receiving, putting away, processing, managing, picking, packing, and shipping it to the customer or a retailer that has ordered the product/products.

According to the [business dictionary](#), Order fulfillment can also be defined as "Sequence of steps involved in processing an order to the satisfaction of the customer and making the necessary changes in the inventory records. It may also include processing of returns and re-adjustment of the records. Also called order processing."

Order Fulfillment Process

The steps of order fulfillment, as mentioned in the order fulfillment process, are receiving, picking, packing, and shipping. So, let's go through them one by one.

[Receiving & Put Away](#)

Order fulfillment starts from procuring the products to selling them away, and as soon as the products you have ordered reach your warehouse, that's when receiving and putting away starts. Receiving includes the unloading of the inventory and documenting it and putting it away in the warehouse by allotting a serial number and SKU.

You can also click on the title to know about this process in detail.

Picking

Right from creating a picklist to picking the correct products in the correct quantity and good condition and making it available for the packing, this procedure is called picking.

You can also click on the title to know about picking strategies in detail.

Packing

After the picked products reach the packing station, a specialized table, the products are packed, sorted, and barcoded before dispatching for shipment.

You can also click on the title to know about packing procedures and packing stations in detail.

Shipping

Shipping is an essential part of order fulfillment, and one needs to choose an efficient shipping partner that is not costly, safe and fulfills the order in less time so that you can compete in today's ecommerce market. Make sure that the shipping partner also provides a convenient return process because it is where you can reclaim a lost customer who might be mad at you for a faulty delivery.

Strategies to Optimize Order Fulfillment

The level of competition each ecommerce company faces is enough to understand that no matter how good your sales are, you still need to optimize your order fulfillment process using different strategies. The write-up ahead will give you an insight into some of the very effective ways to increase the productivity of your order fulfillment process.

Use Automation to Reduce Errors and Increase Perfect Order Percentage

Automated softwares like warehouse and inventory management softwares that automatically calculate, manage, analyze, and prepare reports about inventory & warehouse performance are very helpful in reducing the discrepancies and losses occurring due to them. Moreover, machines powered by automation like cobots, AGVs, articulated arm robots, Goods to Person, and AS/RS(automated storage and retrieval system) can be used to move, manage and store fast-moving products in a quicker way to fulfill the orders.

However, managing fast-moving products is not the only thing you have to do for optimizing your order fulfillment process. You also need to optimize your medium and slow-moving inventory so that you don't overstock them, miss the opportunity to sell them, and let them go bad or depreciate.

The benefits of using automation in the warehouse order fulfillment

- **Save Space:** You can save between 30 and 85% of floor space using the vertical cube of a warehouse.
- **Enhanced Throughput** – Boosts order turnover and increases the cut-off time.
- **Better Productivity and Accuracy:** Automated machines like pick-to-light systems boost picking rates by 600 percent, reduce the labor costs, and also reduce errors upto 99% + picking accuracy.
- **Improved Inventory Control** – You have full control of your inventory because all the tasks are completed in time with fewer efforts. Moreover, you have all the information about inventory status in realtime.
- **Improved Ergonomics** – Employees don't have to bend and reach the products because the machines hand them the products at the correct height called the "Golden Zone," which is waist-high.

Get Your Business Systems Connected to Centralize Your Inventory Information to Maximize Visibility

Integrating all the softwares like -

- ERPs - enterprise resource planning
- Warehouse management systems(WMS)
- Labor management systems(LMS)
- Slotting software
- Workforce performance management(WPM)
- Warehouse control system (WCS)

Makes the tasks of managing an entire warehouse time saving and efficient.

Interconnecting these softwares can centralize the inventory information, which reduces the effort of repeatedly entering the information in different softwares and spares you from the errors data entry can cause.

Increased visibility to all the stakeholders involved in the order fulfillment process, and with the help of that, you can make some critical decisions and generate combined reports so that you don't have to and print and compare different reports.

The integration shows its real merits when it comes to the sales season or holiday seasons. In those times of the breakneck work environment, you don't want to waste your energy by analyzing each software individually.

Put Inventory following the Storage Technology

The process of arranging inventory in a way that each SKU is stored in the most appropriate warehouse is called the slotting process. This process, though not considered very important, is a very crucial part of warehouse management that hugely impacts the order fulfillment process. The slotting process aims to achieve -

- Increased proficiency and productivity
- Balanced Workflow
- Smart space utilization
- Enhance inventory, and it's the accuracy
- Minimize Parts Handling
- Better Worker Ergonomics
- Decreased Search Time of a Product
- Reduce Travel Time To Product

You can purchase slotting software, or you can include this in your warehouse management software. Slotting needs a lot of inventory data, so it's always

recommended that you combine your slotting software with your WMS. However, if you are using an excel, make sure you have the following information about your inventory.

- SKU hits - number of times a product is picked
- Pick quantities (number of SKUs picked per order)
- Number of pallets, broken case, and cartons of each SKU
- Total SKU quantity, reorder quantity, and reorder point.
- SKUs that are frequently picked together
- SKU numbers and descriptions
- SKU sizes and weights
- SKU picking methodology

The slotting of the products should be done according to the pick velocities of each SKU. Fast and medium moving SKUs should be kept in a more accessible location and require fewer efforts. Furthermore, determining the storage equipment for each SKU by considering the weight, height, breadth, and volume of each type of SKU along with the way the products are picked(For instance, by hand, fork truck, ladder, or scissor lift) from that sort of storage technology. For example, heavy products with high volumes are best to be kept in equipment that is not very high.

Classify Your Inventory and Treat Accordingly

Inventory needs to be classified in a warehouse to make the order fulfillment process error-free and speedy. Customers want their products as quickly as possible, with companies promising same-day shipping to same-day delivery the fulfillment game is getting very competitive.

Classifying inventory as per its picking velocity(fast-moving, slow-moving, very slow-moving, and medium moving), picking the size, types of products, picking cost, and inventory value. You can group the fast movers, slow movers, and medium movers and plot their movement against time to get the picking to cost you are incurring for moving each SKU. Bifurcating inventory based on its progress through a warehouse to customers can be done with [FSN analysis that is fast-moving, slow-moving and non-moving analysis.](#)

Another way you can classify inventory is based on the value of products. According to the Pareto Principle or 80-20 rule, 80% of the effects come from 20% of the causes. This

means that 20% of the inventory is responsible for 80% of the company's sales, and so on.

Therefore, with the help of the principle, you can classify inventory into three classes A - it's the 20% of the total products and constitutes for 80% of sales, B- it's the 30% percent of items and is responsible for 15% of sales and C - it's the remaining 50% of the inventory that brings in 5% of the revenue. This method is called [the ABC analysis](#).

Many companies tend to focus their picking optimization efforts entirely on the products lying in Fast movers or A group, which brings in 80% of the revenue, which is a practical move. Never ignore the remaining inventory because it's the remaining 80% of the stock, which, if appropriately managed, can increase efficiency, bottom-line, throughput, and inventory cost savings.

Design and Follow Processes and Workflows

There is always a need for flawless picking methodologies that improve the order fulfillment process, increase throughput, and reduce efforts. You can rely on many picking methods in line with your needs.

Zone picking - The warehouse is divided into different zones, and pickers are assigned those zones. Pickers need to pick products from the zones allotted to them and pass them on to the next zone. This process is also called "pick and pass."

Zone picking is a clever technique for a company with high orders and SKUs with low to moderate picks per orders. Separate zones give you the freedom to treat each zone separately, like using automation in one zone and manual product handling in another zone.

Batch Picking - Multiple similar kinds of orders are grouped to make small batches or 4-12 orders. Pickers pick the orders in batch at the same time with the help of a picklist that has the location and other details. Batch picking requires a smart inventory and order management software that creates a picklist that can consolidate like orders. Warehouses with low picks per order, batch picking can be very helpful in reducing travel time.

Wave Picking AKA Parallel Picking - In wave picking, all the zones are picked simultaneously, and then the items are later consolidated to form a complete order. Warehouses with a large number of total SKUs and medium to high picks per order.

Match Inventory to Storage Equipments

Finding correct storage equipment for various types of inventory is crucial to ensure that the nature of storage technology doesn't slow down the picking process or make it difficult for the pickers.

Different types of storage technologies -

- **Shelving** – Shelvings are upright posts, formed steel sheet panels as horizontal shelves.
- **Pallet Rack** - Single or multi-level storage meant to support high stacking of single products or palletized loads.
- **Pick Modules** – This is apt for FIFO inventory management as gravity-based flow storage of pallets or cartons that employ elevated rails and wheels or rollers within a rack-supported structure.
- **Drawer Systems** - Held in cabinets that are shelving systems kept enclosed and can be drawn out. These are apt for smaller items.
- **Vertical Carousels** –A series of shelves stacked vertically can rotate around a track like a Ferris wheel. These AS/RS delivery and storage systems provide the products quickly and safely to a work counter that is ergonomically positioned at the operator's demand. This a new age storage technology that eliminates loss of time and effort.
- **Horizontal Carousels** – These are bins fixed on an oval track that can spin horizontally to bring the container near the operator so that he/she can pick or drop products in it. The carousels are equipped with AS/RS, i.e., automated storage and retrieval system.
- **Vertical Lift Modules (VLMs)** – An enclosed AS/RS with two columns of the tray with an inserter and extractor center. It automatically retrieves products when asked for. It is very efficient and reduces the time consumed in picking products.

Order Fulfillment Options for Companies

Order fulfillment options like third party fulfillment, merchant fulfillment, and dropshipping can be beneficial. You, depending on your business needs, you can choose any of the order fulfillment options.

Let's go through the various options -

Merchant Fulfillment

This type of fulfillment is also called in-house fulfillment. Generally, tiny businesses or large businesses can opt for this. The best thing about this type of fulfillment is that it gives you total control of your supply chain, and in the long run, it can be more profitable as well. However, to fulfill orders on your own, you need to invest money in setting up a warehouse, buying equipment, hiring laborers, etc. So, it's pretty tough to scale as long as you don't have enough available funds.

Dropshipping

It is an approach that is used by many ecommerce companies in which they act as a mediator and do all the marketing and sales staff and pass on the sales details to the manufacturers. Then, manufacturers/ suppliers ship the orders directly to the customers. It is beneficial for the new booming eCommerce startups. Click on the dropshipping title to learn more in detail.

Third-Party Fulfillment

Outsourcing of order fulfillment logistics, including inventory, orders, shipment, and returns management to a third-party company that charges a fee or takes a cut from the revenues is called Third-party fulfillment

Many companies often choose third-party fulfillment firms to manage tasks that require significant investments and are tough to handle. 3rd party fulfillment establishments offer the expertise that only qualified businesses can acquire and can be useful for small companies looking for smart and efficient order fulfillment assistance.

Summing Up

Indeed order fulfillment is a critical aspect of warehouse management, and there should be proper strategies to ensure that the process is flawless. The strategies mentioned above, if executed properly, can do wonders for your business because smooth order fulfillment and perfect order percentage are what every company strives for. Also, you need to choose the aptest way to fulfill orders from 3rd party fulfillment, dropshipping, and merchant fulfillment because every option has its benefits and requirements.

Essential resources:

- <https://www.oberlo.com/ecommerce-wiki/fulfillment>
- <https://www.purchasecontrol.com/blog/what-is-order-fulfillment/>
- <https://www.contalog.com/blog/successful-order-fulfillment-process/>
- https://www.mmh.com/wp_content/kardex_wp_sixtstepstooptimized_052913.pdf
- <https://www.shipbob.com/blog/order-fulfillment/>