

EXECUTIVE SUMMARY:

WAREHOUSE MANAGEMENT

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Preparing Your Warehouse for Omnichannel Fulfillment

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With U.S. ecommerce sales surpassing the \$200 billion mark it is increasingly important that merchants develop a process to integrate these channels and manage fulfillment efficiently and effectively.

In the order fulfillment industry, change is the new normal. Whether it involves a manufacturer, packager or supplier, merchants must be equipped to adapt to different and modified processes on a regular basis. A rocky transition can lead to shipment problems and delays, as well as issues further down the road.

Each individual incoming order immediately triggers a sequence of events that will begin the fulfillment process, ensuring same-day shipment.

Since many merchants offer comparable products at similar prices, access to products and fast delivery have emerged as major shopping decision-makers. Even slim errors in replenishment oversight can lead to big problems for ecommerce merchants.

On top of that, omnichannel order fulfillment practices such as ship-from-store, ship-to-store and in-store ordering

for home delivery require awareness and changes in the warehouse.

Meanwhile, more merchants are looking into using third-party fulfillment solutions as an option to avoid increases in staff, warehouse size, and technology investments. But for some considering outsourcing, the basic hang-up is giving up control of the contact center and fulfillment operations.

So how should you manage your warehouse to accommodate today's demanding omni-channel customers?

Warehouse Management Systems

According to MCM Outlook 2013, 43.7% of respondents are using a warehouse management system (WMS), and an additional 15.1% are considering the purchase of one.

While a WMS can help with tracking and management of labor in the warehouse processes and management of the four-walls inventory functions, they can also be complicated and labor-intensive to implement.

As a result, merchants often decide to take their implementations live with only the essentials in place and a long list of nice-to-have functionality deferred until later. Several items typically miss the cut when merchants go live with their WMS, but can add tremendous value when implemented later.

Let's start with a labor management system. A well-engineered labor standards program, driven by an LMS, can routinely drive savings of up to 20% in distribution center labor throughout the facility. By including an incentive program, that number can often be improved to 30% or more.

Task interleaving, in its simplest form, can improve productivity of the interleaved operation by up to 30%, and can be configured to include a variety of other tasks, including cycle count, audit and empty pallet removal.

Most tier-one WMSs include or make available a slotting module that integrates with RF-directed tasks to relocate product to more appropriate types of pick locations in response to changes in the cubic velocity of SKUs. Correct and frequently updated





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slotting plans increase pick density and efficiency while streamlining replenishment, resulting in significant increases in productivity. The range of opportunity is wide here, but fixing poor slotting can cut up to 20% of picking labor.

In the rush to go paperless, merchants sometimes forget that certain business imperatives dictate label or packing list distribution to pickers. In large operations, this has often meant that all pickers line up at a central control desk to receive their labels. Merchants are getting around this stationing label-distribution kiosks with PC-and-printer combos throughout the pick area and letting each picker scan their ID to print the appropriate labels for their pick assignment.

Wave balancing and sizing will balance replenishment and picking in such a way that neither part of the operation runs out of work or has to wait on the other to finish. Although execution can be daunting, the result is well worth the effort.

The WMS should also include optimized in-wave replenishment quantities and trigger points. Different types of product, based on size, velocity and the type of pick location (single pallet versus flow rack, for instance) demand tailored replenishment configurations. Pickers arriving to empty locations or stock overflowing a location are good indicators that something is amiss, and using analysis to determine optimal in-wave replenishment levels can help eliminate these problems.

RF works great in many warehouse operations, but some others will show a marked improvement in productivity with voice picking. Prime candidates for voice

picking include situations that require workers to use both hands, or if workers have to wear gloves when handling products such as frozen foods.

Off-peak replenishment can not only impact productivity, it can directly affect the operation's speed in flowing orders out the door during peak operating hours before carriers pick up at the end of day. Sometimes it's worth topping off your pick locations overnight to speed order-to-ship time during a warehouse's busiest hours.

Linking wave status inquiries, task completion inquiries and other work-tracking screens to large display screens installed on the warehouse floor allows managers and associates to spend more time on the floor to quickly assess progress. Updated SOPs and job aids such as wearable shortcut guides allow users to confidently and accurately perform work in cross-functional areas outside their normal department.

Putaway and pick zones should be optimized. Sub-optimal configurations are not obvious until after go-live. The originally specified zones sometimes result in unwanted congestion or unnecessary travel. While the operation can still get shipments out the door, real productivity gains often go unrealized. In addition, those who implemented with user-directed putaway often find efficiency and throughput improvements by turning on system-directed putaway.

Is Automation a Wise Investment?

By automating your distribution center, you can provide substantial benefits and

significant labor savings. Unfortunately, if you make the wrong choices, your attempt at automation can be a waste of money and not yield any operational improvements. But is warehouse automation for everyone?

Some automated systems provide improved product security, some help with value-added processes, some speed up order selection, some reduce the space required to store your inventory. You should make a list of the key benefits you expect to realize through the purchase of an automated system.

If reducing selection time is your key goal, what more traditional methods might reduce picker footsteps? If improving space utilization, can you use compartmentalized totes or containers to better store your product on traditional storage?

The nice thing about people is that you can always add more of them during busy periods to get the work done. This is not always the case with automation. Most automated systems are designed based on fixed maximum production rates. If you have a seasonal or unpredictable business, make sure you don't disappoint customers on those very busy days.

A common mistake when purchasing automation is to assume that your operation will benefit in the same way someone else's would. Factors such as physical product characteristics, customer order profiles, and unit demand quantities can have a dramatic impact on the success of an automated system. Doing a technical analysis of historical order data and then mapping those results to the proposed automated solution can identify problems that might otherwise go unnoticed.

Everyone focuses on the initial investment cost of automation, but there is also ongoing personnel, management and maintenance cost. Make sure you consider the cost to operate, maintain and repair the equipment. Also consider how much of your labor resource will be tied up monitoring automated equipment and fixing problems each day.

At the least, you need to consider the



potential risks before making a major capital investment. In many situations, the actual problem may be totally unexpected, and therefore very difficult to predict ahead of time.

Improving Productivity

If you've determined your warehouse is not ready for automation, you may just want to see how you can make it more resourceful. Making your warehouse efficient is a never-ending cycle, but there are things you can do to make it run smoothly.

Creating a picking path determines the entire flow of the warehouse. Your picking begins at one end of the warehouse and ends at the wrapping staging area. Also, if your warehouse is properly binned, most of your picks will be done in the first 20% of the process. Re-evaluate the top hit items regularly. Inventory is a living, breathing animal that always changes.

Another way to make your picking more efficient is to save the bulk items for the end or separate from the small picks. For example, 50-pound cases are brutal picks. They should come directly from a pallet to the final staging area if it is not a giant conveyor warehouse.

If you use picking manifests, it allows multiple orders to be pulled at once. Large orders can be picked separately, but you can combine five or six small orders together in one picking manifest where they are separated in final boxing.

How low can your stocking levels go? When restocking, all items need to be ro-

tated. The more inventory on-hand, the harder it is to rotate.

Preparing for your Peak

Hopefully, your peak season planning started just after the last package was shipped last peak. Even if you did start early, it's never too late to ensure that your facility is ready for its peak season.

Projections have a way of migrating throughout the year, and now is a good time to ensure that your planning numbers still match the business projections.

All operational changes should be in the final stages of implementation to allow for stabilization prior to peak. Additionally, training and SOP documentation should be updated based on those changes. Finally, any required maintenance to your work measurement techniques should be wrapping up soon.

Your human resources department should always have a peak season hiring plan in place. Now is a good time to review that hiring and training plan, and if needed, test it during the dry runs.

As with operational changes, you should finalize any systems changes to ensure that there is enough time for stabilization. Also—make sure you have a contingency plan to protect your business from the unexpected.

In addition, clean up those shadow boards, do preventative maintenance on that conveyor, and take care of all the other items that may be neglected during peak. If you don't have a spotless warehouse go-

ing into peak, you will have a total mess coming out of it.

Simulating peak volumes for anywhere from four hours to two days can help ensure that your human resources department can hire and train the right staff, and the systems and material handling exchange can handle the extra volume. This can be done by planning around existing promotions or shutting down for a limited time to build the volume.

Keep It in House? Or Outsource?

Some merchants are looking into outsourcing as a way to fulfill customer needs and to handle the increased demand for more products. IT upgrade costs, fulfillment expansion, the need to serve customers on both coasts and international customers more efficiently, or the need for temporary fulfillment space during peak shopping seasons are just a few reasons why more and more ecommerce companies are considering outsourcing.

One way to ease the high demand for faster delivery can be found in a 3PL. It could produce substantial savings within the distribution sector of your ecommerce business. According to MCM Outlook 2013, 14.6% of merchants currently use an outside service for order fulfillment, and 3.1% were considering it.

If your strategy calls for delivering to a high percentage of customers within a day or two by ground shipment, using a 3PL may be an alternative to opening company-run fulfillment centers.

There are also management-time and labor-cost advantages to outsourcing. For instance, a 3PL relationship might be overseen by a liaison manager, rather than a director/VP of operations.

There seems to be more of a demand among the U.S.-based merchants that sell products overseas to house products at an international warehouse that they own or outsource. This move, many merchants are finding, not only greatly improves shipping times, but also improves the customer experience. ■