

WHITE PAPER

Using WMS to Create Your Optimal Warehouse





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Using WMS to Create Your Optimal Warehouse

When used as part of an overall warehousing approach, Warehouse Management Systems (WMS) help companies create more efficient operations, save money and better utilise their valuable labour resources.

Expected to be the largest retail channel in the next two years, ecommerce sales will account for 60% of total global retail sales increase. Ecommerce has changed the way companies set up, organise and orchestrate their warehouse operations. With the focus on delivering smaller orders faster and more accurately than ever, more companies are incorporating warehouse management systems (WMS) into their overall fulfilment strategies. In return for their investments, those organisations benefit from:

reduced operating expenses, improved inventory visibility, better labour management and higher customer satisfaction.

In this white paper, we explore:

- Key challenges companies face as they strive to meet the demands of today's high order volume and transaction buyers.
- The role WMS plays in succeeding in today's commerce driven environment.
- Overcoming fulfilment issues.
- How to create the optimal warehouse.

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CHAPTER 1

WMS Helps Companies Meet Ecommerce Challenges Head-On

Ecommerce is expected to be the largest retail channel in the world within the next two years, with the [Asia Pacific region being considered as the industry's growth engine, generating the three-quarters of the global retail growth and about two-thirds of online growth.](#)

As ecommerce sales continue to rise, the need for a viable, integrated fulfilment process scales exponentially. A complex process that can impact literally thousands of different items in any single order, ecommerce fulfilment has pushed more companies to invest in warehouse management software and new equipment such as mobile devices, pick to light/voice, and conveyors, all of which contribute to automation, increased accuracy, and boosted speed and efficiency.

According to [Peerless Research Group's 2019 Warehouse and Distribution Centre \(DC\) Operations Survey](#), 42% of companies are involved in ecommerce sales, up 2% from last year. The increase in ecommerce sales and shortage of labour are two of the major pain points for warehouses and distribution centres today. Over 90 percent of companies are using some type of WMS in their operations, Peerless

reports, and 23% said “adding automation equipment to processes” was a key action taken to lower costs.

“With the increased transactional volumes almost everyone is experiencing and the real push into ecommerce, when those factors come up against the lack of labour resources and the competitive nature of the market, you simply have to find ways to gain efficiencies,” St. Onge Company analysts told Logistics Management. “Even if you can get orders out the door on time, that’s not good enough.

It really does have to be a perfect order that gets done under a narrower time window with scarcer resources of all types throughout the network.”

Companies are also paying closer attention to their physical warehouse and distribution design, which has morphed to accommodate these new technology tools while maximising costly real estate and labour resources. With many warehousing processes still performed manually, companies need technology that helps them increase efficiencies while enabling better inventory visibility, fewer errors and faster delivery times.

¹ <https://www.census.gov/retail/index.html>
<https://www.statista.com/statistics/534123/e-commerce-share-of-retail-sales-worldwide>

CHAPTER 2

Creating an Efficient, Organised Warehouse Operation

Focused on meeting the needs of individual customers, companies need efficient warehousing operations that are well-organised and productive. To create their optimal warehouses, many of these companies are using WMS solutions that not only effectively manage their traditional fulfilment operations, but that also address key challenges associated with ecommerce fulfilment. As part of a larger fulfilment/warehousing strategy, WMS helps companies manage these and other challenges.

Smart businesses understand that controlling inventory, fulfilment and shipping costs is essential for success.

Companies are constantly striving to improve their warehouse operations by increasing agility, visibility and labour efficiency. This requires use

of best practices combined with a sophisticated WMS that optimally manages all resources within the distribution operations while minimising the total cost of operation or ownership (TCO).

As a critical element of increasing labour productivity, reducing overall operational costs and increasing inventory accuracy, warehouse management systems help systemically drive common warehouse functions with user-defined picking and putaway, cycle counting, and work order and assembly processing.

For example, [NetSuite WMS](#) introduces concepts of wave release and multi-order picking that allow for clustering and picking together, in a single efficient pass of the warehouse, orders that fit the “ecommerce profile” (high volume, few lines, similar/same items). Furthermore, orders are picked using mobile radio frequency (RF) devices that allow for barcode scanning of items and bin locations, which contributes to higher pick accuracy and real-time inventory updates.



CHAPTER 3

Four Things You May Not Know About WMS Implementation and Usage

As the advanced technology and operating processes that enable and improve all warehousing functions, WMS starts when an order comes in and ends when a shipment leaves the dock, covering all of the inventory movements and information sharing that takes place in between. It sounds straightforward enough, but there are some WMS nuances that any company that's investing in a new system should factor into their decision.

Here are four to keep in mind:

1. **Just installing a WMS won't solve all of your fulfilment challenges.** Making that happen requires a holistic warehousing approach that includes efficient design of the physical facility and proper systemic representation, thorough configuration of items and their attributes, incorporation of putaway and picking logic, well-designed standard operating procedures (SOP's), and more.
2. **You won't be able to move to shipping thousands of boxes overnight.** If you've been using spreadsheets and paper to manage your operations, don't expect an overnight miracle. As your operations stabilise to your WMS, you can continue look for optimisation
- opportunities. Your WMS will work hand-in-hand with your other solutions to systematically ramp up and/or improve your distribution operations.
3. **Get ready to make some changes to your operations.** To get the most out of your WMS and create an optimal warehouse, take a flexible approach to implementation and integration. That could mean changing the way your operators pick and pack orders, how orders are slotted or even the layout of your facility.
4. **You may be trading speed for accountability, better inventory management and fewer stock-outs.** Don't assume that technology is going to automatically speed up your operations, especially in the beginning. Once the learning curve is complete, processes will speed back up as your company starts to get more information and better controls. For example, having workers scan items and enter quantities via the WMS mobile (versus using paper) may take a bit longer (than physically "grabbing" the items as was done in the past), but will introduce real-time updates, create more accountability and reduce costly mis-pick scenarios.

CHAPTER 4

Making the Move From Manual to Automated

With over 40 percent of companies still using spreadsheets and paper to track inventory as it moves through the warehouse, the need for better product tracking information remains imperative for a wide range of organisations. By implementing more defined, standard operating procedures and then supporting those processes with technology, companies can effectively streamline their fulfilment operations in ways that paper, clipboards and spreadsheets cannot. In fact, these approaches often result in the wrong products (or product quantities) being sent to customers, the need to sort through paper and spreadsheets to find order history, high administration costs and a lack of real-time order visibility.

To get the most benefit from these defined processes, companies should look first at their order profile data and consider using a velocity-based approach, where the fastest-moving 15%-20% of items are positioned in such a way that they are more accessible than the slower moving items. Consider this real-life example:

A company was concerned about why its picking velocity didn't speed up when it implemented mobile devices for scanning items. After observing the company's fulfilment operations, they found it was clear that, while the item scanning was in fact reducing mis-picks, operators were moving through the warehouse very inefficiently (in some cases across buildings), to pick the necessary items.

Controlled release of orders and/or lines for fulfilment in conjunction with well thought out picking strategies and real-time mobile device execution allows for more efficient and accurate

order processing. In combination with well-defined standard operating procedures (SOP's) for managing exceptions a well-designed WMS is a win-win.

A simple review of their items and associated transactions/transaction volume allowed for identification of that fast-moving 10-15%. By moving those "A-Velocity" items into the same area of the warehouse, it allowed for mobile operators to complete their work more efficiently and effectively without traversing the warehouse.

The missing link in this scenario was a concept known as SKU affinity, whereby companies group items according to their propensity to "go with" one another. An athletic apparel retailer, for example, can group their top-selling shoes with socks and other items that typically appear on the same order. Or a women's retailer can cluster purses with matching belts and scarves that are featured together on its website. In a world where labour is any fulfilment center's biggest expense, these simple moves can produce significant cost savings while also helping companies maximise their technology investments.

WMS and the automation it introduces, while valuable, will only take you so far. A well-laid out facility that optimally feed WMS capabilities is a crucial aspect of getting the most bang for your buck. For example, the best WMS on the market can't create new efficiencies if the warehouse itself isn't organised the right way, or if the facility's picking and shipping strategies are inefficient.

CHAPTER 5

Using SKU Affinity to Your Advantage

In the warehouse, shipping can either dictate how the warehouse operates or the warehouse can operate and dictate the shipping process. For example, some companies opt to plan loads upfront—be it parcel or less than truckload (LTL)—with those loads being built out before being released out to the warehouse. This prebuilding helps companies optimise shipping costs, but they can also create less efficient operations based on how the load planning was handled. For example, if you manage the load planning upfront, and if two products need to be combined in the same box—yet those two items are situated far from each other in the warehouse—then it will take extra labour to pick and pack that box.

A better approach would be to optimise the warehouse first by picking and packing those two items into two different boxes. That would help the warehouse get the order out of the door

faster because it's shipping two boxes versus one. Selecting the best approach is highly individual, and depends on the operational versus shipping costs. In many cases, companies turn to order management as a solution, with transportation decisions occur place as soon as the order entry or fulfilment process takes place in the WMS.

Chicken or the egg? Which comes first when it comes to order management and fulfilment decisions versus shipping and loading management is usually very individual and can depend on so many things, including but not limited to item and order profile and distribution model. While focusing on or prioritising one over the other often has to happen, it is recommended to consider both: how can the warehouse be designed to efficiently pick for supporting more common shipping/loading scenarios and how can shipping/loading decisions help accommodate common item/order profiles.



CHAPTER 6

Measuring the Benefits of WMS

When companies implement WMS as part of a larger warehousing/fulfilment approach, key wins include better inventory accuracy, lower labour costs, increased storage capacity, better organisation, improved order accuracy and a more flexible operation overall. In an era where ecommerce and other outside forces are pushing companies to rethink how they manage their warehouses and distribution centres, these and other WMS-related benefits ensure new levels of customer satisfaction and competitive advantage.

Other top benefits include reliable, real-time reporting that provides accurate insights into how your operations are performing, what orders need to be shipped, where activities are lagging, and so forth.

NetSuite's WMS, for example, includes reports that are built around specific tasks, to-do's, and in-progress activities. This eliminates guesswork and the need to search through stacks of paper to find the data that you're looking for.

Having real-time updates on what orders are coming in, which are fulfilled and which need attention is an invaluable benefit. The visibility allows for proper preparations to be made (resources, space) for efficient fulfilment. The traceability makes it possible to adjust on the fly and ensures a higher level of accountability. The transparency allows for all business units to perform in harmony.

With a real-time system like in NetSuite, you can run a search and see how many orders you completed and let your boss know how many orders are completed, and how many are in progress."

These and other benefits are best achieved when a company implements an integrated warehouse management approach that includes—but doesn't rely solely on—a WMS.

From the products to their packaging to how they're arranged in the warehouse, there are a myriad of considerations to think about when developing your optimal warehouse. A WMS is just one piece of the puzzle and it's important to understand how they all fit together.

CHAPTER 7

It's Time to Make Your Move

With more supply chains being designed to enable the fast, efficient movement of goods to meet the needs of individual customers, more companies will be tossing out their paper-based warehouse management systems and using a combination of hardware and software to orchestrate their fulfilment operations.

The companies that garner the highest potential value from those investments will be

the ones that take a birds-eye view of their operations, including their physical setups, labour resources, technology solutions and customer requirements. By including WMS under this broader umbrella, organisations can reduce their total cost of ownership (TCO) while ramping up their operations in a way that meets the demands of today's (and tomorrow's) consumers.

