WHITE PAPER

Pick or Sort for Retail Fulfillment

Finding the Right Path to Meet Rapid Retail Growth



FORTE

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Introduction

Many of today's retail distribution professionals have experienced a major shift in the fulfillment requirements that need to be efficiently supported through their distribution center (DC). Much has been written about the explosion of retail e-commerce and the challenges associated with processing extremely large numbers of small consumer orders. Despite the multitude of existing white papers, articles and blogs offering insights to solve these e-commerce fulfillment operational issues, there is less focus on the other side of retail DC operations: retail fulfillment.

Retailers now face substantial challenges deriving from the following factors:

- ***Accelerated store openings***
- ***Increasing frequency of new product launches***
- ***SKU proliferation***
- ***Rapidly increasing overall throughput***

Each of these factors can impact operations in a variety of ways, as described below.

Accelerated Store Openings

Retail fulfillment is typically segmented into two types of orders: allocation and replenishment. Allocation (or distro) orders are pushed out to stores based on forecasting and allocation planning. Replenishment orders are created to replace stock at each retail store as product is sold. Each of these order types may vary so widely that completely different processes, and often different material handling systems, may need to be deployed to support each of them.

During periods of accelerated store openings, the retail fulfillment center must also support the store launches by pre-processing and staging extremely large orders consisting of a mixture of product as well as store furniture and fixtures. These orders can rapidly consume DC staff time and resources in addition to physical space as these items accumulate for shipment on a specific date.

Increasing Frequency of New Product Launches

Today's retailers introduce new products at an ever-increasing pace to maintain and increase market share. In addition to receiving large launch orders that must be processed in a short time frame, the DC is usually responsible for ensuring launch orders arrive at each location on the same date. Much like store-opening orders, product-launch orders can consume excess DC dock or storage space as orders are picked and staged for shipment.

SKU Proliferation

Retailers are increasing the footprint allocated to stores to provide a wider selection of product to their shoppers. Though most shoppers enjoy this breadth of offering on the consumer side of the counter, the DC operator must now process more SKUs from point of receipt through to order picking/packing. Additional pick faces are needed, the travel path for picking often multiplies, and the number of internal DC replenishment moves — from reserve to pick location — increases. In return, these factors further escalate DC space requirements and labor costs.

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Rapidly Increasing Overall Throughput

It is easy to understand that a major shift in order profile requires DC management teams to adapt with new methods and technology. Less obvious, however, is the need to invest and change as overall throughput increases, regardless of order type.

Let's assume that a retailer with no e-commerce business is now enjoying double-digit growth year after year. As the overall throughput climbs, the following pressures are applied on the operation:

- ***Constraints on dock doors, staging areas and yard space***
- ***Overall traffic congestion throughout the DC***
- ***Insufficient staff and equipment to keep pace with the reserve-to-pick location replenishment requirements***
- ***Pick aisle congestion, resulting in decreased picker productivity***
- ***Pack workstation capacity constraints***

Considering the challenges associated with continued retail fulfillment growth, it is clear that an operational overhaul is warranted for many retailers. With that understanding, we can further examine opportunities to replace outdated operational processes and technology with highly efficient solutions.

Pick or Put?

Most distribution center operations follow a consistent evolutionary path. Single-order picking to a tote or cart using paper pick lists, followed by order check and pack, is often employed in the very early stages of a DC's life cycle. Many DCs subsequently invest in warehouse management system (WMS) software to enable multi-order picking directly to the shipping carton and to eliminate the need for downstream order checking.

Automated zone-routed conveyor systems have been introduced to many DCs to shorten picker travel distances and reduce tote/carton handling during the picking process. With each step along this evolutionary path, the DC operator benefits from increased order handling capacity and improved productivity.

Consideration of a put methodology requires a shift in focus from improving pick/pack process efficiency toward avoiding the need to pick and pack altogether. The put approach merges receiving, put-away and picking steps into a single efficient process. As product is received, it is sorted to stores and/or customers, with residual set aside for more conventional put-away. Eliminating the put-away, replenishment and pick for every allocated unit at the time the product is received offers a clear operational advantage.

With each step along this evolutionary path, the DC operator benefits from increased order handling capacity and improved productivity.

The levels of automation and technology needed to deploy this methodology depend on the number of retail stores and/or customer destinations receiving allocated product and the total units to be put per day. At the low end of the automation/technology range, shipping cartons with store or customer ID labels or both can be placed on the floor to support the sort process. For more destinations, put-to-light walls with bin shelves sized to hold shipping cartons can be used to improve the process. At the higher end of the automation/technology range, conveyor and sort systems, integrated with put-to-light technology, tapers and automated print/apply systems are able to handle high throughput in units with hundreds or even thousands of destinations with extremely high productivity.

Now that we understand the challenges being faced and the range of options available, we can focus on answering the critical question: "Should I Pick or Put?"

This is not a simple analysis of yes or no when examined closely. The best solution depends on multiple factors:

- ***Percentage of total lines and units to be allocated and pushed to the stores and customers vs. the percentage to be replenished based on demand***
- ***Frequency of product launches and the order profile for retail allocation orders***
- ***Space availability to expand picking footprint***
- ***Current levels of productivity for put-away, replenishment and picking activities***
- ***Annual wages and cost of benefits for the hourly workforce***

Thorough examination of the various pick and put options to understand the space efficiency, labor requirements and investments required for each option is needed to ensure the best result.

There are, however, some questions to answer that can help DC managers determine if a put system could prove beneficial to operations.

- ***Is a high percentage of unit throughput allocated at time of receipt?***
- ***Is there the potential to fill one or more shipping cartons per day with allocated product destined to one store/customer?***
- ***Are there frequent product launches that require shipments to arrive at store or customer destinations or both on a common date?***
- ***Does a large number of SKUs extend the typical pick travel path?***
- ***Are the pick zones constrained by this volume of product and throughput?***

Final determination of the business case of converting to a put system, as well as the appropriate technology to employ, requires a thorough analysis of the current business model, projected growth and anticipated business changes. Analyses of space requirements, staffing impact and investment/operating costs, comparing more conventional options, along with multiple put system options can also provide the DC operator with the objective information needed to make a sound decision.

Why FORTE

Single-Source Accountability

Whether we're helping you develop a strategic plan, design and build a distribution facility, or optimize a distribution operation through performance metrics and analytics, FORTE provides a true single point of contact responsible for the complete performance of your distribution network. No finger pointing. No fragmentation of responsibility. No multiple suppliers for technical support. You have performance goals, and it's our job to make sure they're met on an ongoing basis.

Total Objectivity

We don't manufacture equipment. We don't develop WMS software. We don't have commercial arrangements with any suppliers for expected volumes of business. We're simply interested in delivering the most efficient distribution solutions at the lowest total cost. Our client-side service approach means our only allegiance is to our customers. So with every engagement, you know we'll choose the most appropriate level and blend of technologies integrated into an effective operational system.

Expertise

Our team is deeply rooted in the hands-on implementation of distribution center design and warehouse automation. FORTE's engineers and technicians integrate today's best practices in supply chain management and distribution center operations while developing next-generation technologies. As a result, our solutions employ the best combination of practical advice, data-driven analysis and technology-enabled systems. With FORTE, you get:

- More accountability than a consultant
- More experience than a systems integrator
- More objectivity than a manufacturer

That's why the world's fastest-growing companies are making distribution their FORTE.