

# The Last 100 Yards: Shelf-driven SCM

## Optimizing Your DC Can Actually Hurt Your Supply Chain

Counter-intuitive as it sounds, often companies make decisions to optimize DC operations that negatively impact their supply chain. In this article we examine why companies are taking a closer look at how their efforts to streamline operations may actually be hurting their overall efficiency. We also discuss ways to ensure efficiencies gained in the DC are not lost in store receiving and restocking operations, which make up the last 100 yards of the supply chain.

Efforts to streamline distribution operations can be foiled through inefficient receiving, sorting and stocking processes, and product damages by the time product gets delivered to the store. This often results in store personnel being diverted away from customer-facing, value-adding roles. This can have a negative impact on the overall effectiveness of your supply chain. You need to take a holistic view across the organization and balance DC optimization with overall supply chain optimization. The good news is that the business case for change can often be justified with significant labor savings.



### Why the Last 100 Yards Matters

Best-in-class retailers are integrating shelf planning into their supply chain management (SCM) strategies for a variety of reasons:

- Store labor costs are high compared to DC labor. Picking and packing product in such a way that it makes receiving and stocking tasks easier in the store means that less expensive labor is being used when “sorting” product. This has the added benefit of freeing up time for more expensive store labor to focus on value-adding activities such as selling product and servicing customers. This effect is even more pronounced for retailers with a large number of stores.
- High real estate costs mean that stores must maximize every square foot of space available, with less space dedicated to receiving and storage at the back of the house. Store deliveries must be received and stocked quickly and efficiently so as not to clog the back room with inventory that should be on the sales floor.
- Significant reductions in the amount of product damages that take place in transit and store receiving can be achieved with relatively minor adjustments in the way that products are slotted, picked and packed at the warehouse.

Retailers are gaining competitive advantage with shelf-driven SCM by taking a holistic view, getting better alignment of KPIs between DC and store operations, and re-examining processes and systems related to sorting, slotting and picking.



**“That last 50 feet of the supply chain is our ‘Red Zone.’ To score, we have to execute flawlessly inside the store and get product to the shelf.”**

*-State of the Retail Supply Chain Report  
Published by Retail Industry Leaders Association & Auburn University*

### Slotting for Success

One retailer saw an opportunity for process improvements and significant reduction in store-level labor costs with some adjustments to their product slotting strategy. They found that the amount of time associates spent travelling from one side of the store to another to restock shelves was wasteful. Not only was it inefficient, but it also took away from their availability to service customers. They also noticed that products were arriving in stores damaged, having been packed under heavier items on mixed pallets. They were able to build more stable pallets and reduce damages by adding a “crushability factor” into their slotting strategy. And because their planograms have consistent product groupings in each of their 1,000+ stores, they were able to reduce the amount of time it took to restock store shelves by slotting their DCs by product category, SKU velocity and SKU affinity.

The physical slotting of a DC can have one of the biggest impacts on optimizing store receiving, backroom management, and shelf-restocking operations. But systems changes, such as those to the WMS, represent another, less obvious way, to make last 100 yard improvements.

### Wave Goodbye to Ineffective Waving Strategies

Shelf-driven SCM can also be applied to waving strategies with favorable results. Waving orders by product or family type can result in product being picked and/or packed in a sequence that improves store receiving and shelf-stocking processes, while reducing damages – remember the “crushability factor.” These kinds of changes are less visible in the DC than they are in the store. Picking, continuing as it always has, results in products grouped in a way that improves store receiving and shelf-stocking efficiencies. At one sporting goods retailer, this strategy is employed to build pallets for store-friendly unloading. It starts with sequencing by family and category and is driven by the store planogram.

Similar thinking can be used in automated environments. A leading auto parts retailer uses unit sortation technology at its DCs. Product is bulk-picked by product category (driven by the WMS) and then optimized and routed via business rules by the WCS (Warehouse Control Software). The sortation logic has been set up to group product by store. This results in store-friendly shipments for easier re-stocking at the store. The store-friendly merchandise is stacked by sequence into physical rolltainers that are loaded and unloaded on delivery trucks daily using unattended nighttime delivery. This strategy has influenced and led to a number of benefits at the store level:

- Increased shipments per week, leading to more manageable put-away quantities, fewer out-of-stocks, and increased sales.
- Receipt and put-away efficiency of store-friendly merchandise.
- Better accessibility and size of stock room receipt location.



Take a look at the following comparison of store associate comments:

Before	Now
<ul style="list-style-type: none"><li>• "It is frustrating when it takes a week to get product back in stock when we sell out."</li><li>• "We have to sort through large shipments weekly, and it takes forever to get the product put away."</li><li>• "Our deliveries are a jumbled mess; it takes forever to sort them."</li></ul>	<ul style="list-style-type: none"><li>• "It is amazing. We always seem to have the product our customers need in stock, and they seldom have to wait."</li><li>• "When we come in every morning, there is a shipment there waiting for us of what we need. It is not that large so we can put it up easily."</li><li>• "Our deliveries are sorted nicely for where they go in the store. They are really simple to put up."</li></ul>

**"We've sped up the supply chain and reduced costs, but we aren't aligned with what is happening at the store shelf. So now we need to get into space planning."**

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### The Planogram Moves Upstream

The ability to build display-ready shipments is a huge opportunity for some retailers. Picking display-ready product directly to metal rolltainers is an approach that has been adopted extensively in the European grocery industry. Rolltainers can be easily pushed out directly to store shelves that need replenishing which eliminates the need to transfer product from a pallet to a cart or trolley. In some cases, the rolltainers themselves act as the store shelf so all that's needed is to roll the product out to the proper location on the store floor and leave it there. This works best in closed network environments, but variations on this concept may be possible for those companies utilizing third-party transportation networks.

### Aligning the Warehouse with the Storefront

Shelf-driven SCM also involves alignment of shelf capacity and store reorder points with shipping quantities and frequencies. Retailers are shifting toward more piece picking and "less than full case" ordering to align with store demand and shelf space. Using different processes for new store openings, product launches and promotions versus day-to-day store replenishment is another strategy to consider. A multi-channel retailer, driven by changes in their channel mix and changes in their customer service requirements, needed to make changes to their picking (more each picking) and packing operations (to align with the store planogram). Their operating cost went up slightly but was offset by revenue improvements and reduced mark downs caused by better in stock position on the retail floor. Realigning KPIs to customer requirements/store operations can be one of the most difficult shifts your company makes. But you can no longer afford to take a view of optimization that ends at the dock door of your DC.



### Take a Closer Look at Your Last 100 Yards

Companies can get so caught up in optimizing their DC that they don't take a holistic enough view of how their product reaches the store shelf. They end up making well-intentioned decisions that improve DC efficiency, but negatively impact overall cost and efficiency. Do you need to take a closer look at the "Last 100 Yards" of your supply chain? Ask yourself:

- Are my company's store planograms relatively consistent? If product groupings are consistent, then you might benefit from slotting by product category.
- Am I seeing improved efficiencies in picking productivity, but declining efficiencies in back room and shelf replenishment activities at the store?
- Do you have a large number of stores (or a large number of store associates involved in stocking and replenishment activities)?
- Do your DCs and stores operate under multiple P&L's? Are there KPIs around which you can get alignment across the organization?

If you answered yes to one or more of the above questions, then it may be worth taking a broader view of your supply chain efficiency. It's a bit of a balancing act between one part of the supply chain and the supply chain as a whole, but when you take a holistic approach and align the organization around a common set of KPIs, a solid business case for change can often be built on labor savings alone.

### About Fortna

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### How Can We Help?

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