MULTICHANNEL MERCHANT
OMNICHANNEL INVENTORY SPECIAL REPORT

Inventory Management in an Omnichannel World

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Retail inventory management, never an easy proposition under the best of circumstances, has gotten considerably more complex with the new anytime-anywhere-anyhow reality of omnichannel commerce. And today's demanding consumers don't particularly care about the strain this places on supply chains, networks and operations—they just want their stuff now, shipped free, with the ability to return much of it, also free.

In the old days before the advent of ecommerce—think 1980s and 1990s—there was a very predictable flow of merchandise through the supply chain, from manufacturer to distributor/wholesaler to retailer and then to consumer. Now it can flow in all different directions, seemingly at once. Without a high degree of inventory visibility in near-real time, the process can quickly break down. Products don't arrive where they should or on time, or are unavailable to offer; shipping costs increase; sales are missed; and markdowns, even liquidations, increase.

The traditional hub-and-spoke model of retail distribution is also being challenged by the rise of omnichannel and the growth in direct-to-customer commerce, as it often doesn't fit the new reality and inefficiencies are exposed. Companies are being forced to explore newer, more nimble approaches, such as forward inventory placement in smaller fulfillment facilities closer to high-demand concentrations in urban areas.

As well as using less traditional forward-stocking strategies, more companies are moving to a multiple DC network structure. How these strategies are executed is different for every company depending on sales concentration by location, along with the breadth of product offerings. They also need to balance the operational and inventory carrying costs in the context of their overall financial model.

Other retailers are looking to gain efficiency and cut costs by reducing their owned inventory levels, relying on a larger base of vendors to blow out their product offerings through drop shipping and cross-docking.

Jason Acevedo, senior director of logistics and ecommerce operations for Limited Stores, said that the challenge of omnichannel inventory is balancing cost, client

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satisfaction—the overriding principle—and infrastructure. Acevedo said also it involves working the financial dials, getting a bead on what works, then thinking through the operational implications. "What is the impact on things like store labor, what are the costs?" he said. "We'll then filter those back and reassess. It's an intense analytics exercise but at the conclusion, we have a better understanding of the best way to deliver omnichannel in the context of our stores. Buy anywhere and get anywhere sounds great, but there are layers of what that may mean to any specific business. It's a constant evolution of what makes sense."

Merchants have to find a balance between fulfilling customer needs and doing so at a reasonable cost, versus the liability of carrying inventory through to the tail end where it's marked down, not every store is going to have the merchant's entire inventory available, or even consolidated to one source point to reduce overall expenses. This involves working the financial dials, getting a bead on what works, then thinking through the operational implications.

Omnichannel Inventory and Fulfillment Challenges

As a company executes its omnichannel strategy, it becomes increasingly critical to have extremely accurate real-time inventory data across all channels, including suppliers, to ensure proper communication to the customer of availability, time in transit and delivery dates. The worst scenario is to overpromise on delivery even by a day because the product is not available in the location where the order was initially scheduled to be shipped from.

This phenomenon becomes increasingly more complex as additional sales channels are added to the network. And as the omnichannel strategy continues to mature, the need to plan inventory demand across multiple sales channels based on the end distribution point becomes a much higher priority and needs to be addressed through sophisticated predictive modeling. This becomes even more imperative as the assortment and SKU count grows to address customer demand.

Douglas Smith, vice president of direct-to-consumer operations at Sheplers, said some of the particular challenges of omnichannel inventory management include internal expectations of the benefits; the requirements of a seamless real-time inventory picture across all channels that is consistently available to all stakeholders; the increased complexity in operational execution as distribution points continue to expand; and the necessity of a strong reverse logistics system that is cost conscious.

Asked how he sees these challenges being addressed, Smith said solutions include increased use of intelligent inventory management systems, handling disparate inventory across channels.

"You're also seeing more specialized planning systems with intelligent algorithms to complete predictive modeling being utilized that can plan demand across multiple locations and channels," Smith said.

Old vs. New Supply Chain Models and Inventory Management

In the 1980s and 1990s, as retailers built out economies of scale in a more mass-market economy, pre-ecommerce, they reduced the number of suppliers, eliminating redundancies while increasing volume from each one. Today, they're moving in the opposite direction, looking to address consumer demand for greater choice by blowing out product assortment and SKU count, especially in the face of competition from Amazon, Walmart and others. But as it's too expensive to hold massive amounts of inventory, as previously noted, more companies are turning to drop shipping and cross-docking to address demand.

Wayfair, which has built its business on drop shipping and uses it for nearly all its sales, has partnerships with

7,000 suppliers, giving it access to 7 million products. "The key benefit of drop shipping for us is bringing a great selection to our customers so they have one place to shop for the whole home," said David Raymond, vice president of operations process improvement for Wayfair. "Tied to that, because drop shipping reduces inventory risk, we're able to partner with folks to bring their products to the marketplace in a compelling way."

Fast and Free, and the Distributed Order Model

Two major factors driving changes in inventory management and supply chain strategy are also related to customer demand and largely a result of Amazon's business model: delivery speed and shipping charges. Offering "free" shipping is fast becoming a cost of doing business. While some of the cost may be rolled into the product or taken out of margins, getting product closer to where the customer is can reduce the cost and help get it there faster. And that means distributed inventory—and use of distributed order management (DOM) systems.

The idea behind DOM, which sits between an order management system (OMS) and a warehouse management system (WMS), is to figure out the most profitable way to fill and ship an order based on customer expectations or some other parameter. It does this by executing a series of filters, seeking the first identified feasible source. Orders are then assigned according to how a merchant can deliver immediate gratification in the most cost-effective manner. Ultimately, retailers are not afforded the detail to understand at the time of demand fulfillment if the transaction was profitable or the impact the decision has on future demand.

"The closer the buyer is to where you're sourcing product from, your own or a partner's facility, the lower the cost," said Bill Gibson, CEO of cloud-based supply chain application firm Deposco. "Shipping parcels from one end of the country to another will kill you. In the old model, you consolidate in the hub and distribute to the spokes. You wouldn't lose a sale, it was just postponed—she would just ask an associate when the item would be in stock. Today if it's not available in store or online, you lose the sale—there are too many choices." If a customer in Boston orders a pair of shoes online, ideally you pick, pack and ship from a Boston store or DC. If they're in a Kansas City DC, she doesn't want to

get it in four days, and it costs too much to ship. "So you want to have the product as close as possible to where she is," Gibson said.

Abir Thakurta, vice president of global supply chain for Haverty Furniture, said the challenges of omnichannel inventory have led to increased DC-to-DC and DC-to-store product transfers for his company. "It's also caused us to rethink our product flow strategies, postponing store allocations and converting sales order types based on demand—for instance, from ecommerce to store, or from store 1 to store 2," Thakurta said.

Thakurta said Haverty Furniture is dealing with these challenges by looking to increase supply chain visibility and partner collaboration through use of a cloud-based platform to gain a single version of the inventory "truth"—whether it sits in a store, in a DC, is on order or in transit.

"We are looking at enhancing our product flows to accommodate strategies like virtual warehousing, delayed allocation, reserved expedites and 'hold and flow,'" Thakurta said. "We are also looking to partners to provide production visibility so we can manage production cuttings based on demand."

Using hold and flow, retailers analyze sales after goods are in stores and allocate based on actual selling patterns, at the store level and regionally. This reduces stock-outs on vendor replenishment items, increases sell-through, sharpens forecast accuracy, improves margins and demand planning, and reduces transfer costs.

Returns, Overstocks and Out-Of-Stocks: The Ghost Economy

Returns, overstocks and out-of-stocks have a major impact on omnichannel inventory management, and the retail ecosystem in general. According to a 2015 report from retail analyst firm IHL Group, $1.75 trillion in retail value is lost to what it calls the "ghost economy," a triumvirate of returns ($262.6 billion), overstocks ($471.9 billion) and out-of-stocks ($634.1 billion).

For the majority of retailers, the combined impact of overstocks, out-of-stocks and preventable returns add up to 11.7% of lost revenue. Addressing organizational inefficiencies and data disconnects could mean the equivalent of adding $117 million in revenue for every $1 billion in retail sales.

Retailers all too often focus on a variety of ways to drive revenue and increase comparable year-over-year sales, but they can realize huge gains by addressing opportunities that are within their grasp," said Greg Buzek, president of retail consulting firm IHL Group.

"Solving these problems requires more than data, more than business intelligence," said Buzek. "It requires understanding the root causes of inventory and data disconnects and implementing the technology solutions and operational changes to address these issues."

Let's just consider returns. Say you're a sporting goods retailer, and you have stores in Atlanta and Seattle. Hiking boots are a hot ticket in Seattle, but hardly ever move off shelves in Atlanta. But there's a guy in Marietta who likes to hit the Appalachian Trail in nearby Springer Mountain, GA, and he buys a couple pairs of Merrill boots online and has them shipped home. When he returns the pair he doesn't want to the local store, the associate doesn't know what else to do besides issuing the credit, so they end up languishing in a backroom—and on the store's books.

Deposco's Gibson said retailers could turn that weakness of returns processing into a strength by implementing systems that provide near-real-time inventory and order visibility enterprise wide, across channels.

"If those boots come back to the Atlanta store, you want them picked, packed and shipped that day to where they're needed," Gibson said. "You don't want to lose that inventory, or even have it marked down."

The Compounding Effect of Peak Season

During peak seasons, the requirement for accurate real-time inventory is escalated even further as demand can quickly change the inventory landscape in a matter of minutes instead of hours or days, merchants said. Thus, inventory issues have to be resolved in shorter timeframes, which are difficult to achieve, given supply chain constraints.

Labor planning also becomes more complicated during peak demand, due to the nature of completing omnichannel orders, which are more labor intensive than normal off-the-shelf sales, said Smith from Sheplers.

"Another aspect companies need to consider is not only where the inventory is located, but also does the location have the labor required to fulfill the order in the necessary timeframe to ensure proper delivery timelines?" Smith said.