

# Omni-Channel Changes Wholesale Distribution

**Pressured by market changes, wholesale distribution executives are assessing solutions to meet consumer and profit expectations**

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**A**t \$4.8 trillion annual revenues, the wholesale distribution (WSD) market is huge. WSD industry revenues are nearly 100 percent more than sales of consumer packaged goods and slightly greater than U.S. retail sales revenues.

WSD is a fragmented market, with many sub-sectors, including grocery and foodservice, oil and gas, pharmaceutical, motor vehicle parts, computer equipment and software, agricultural products, apparel, building products, industrial products, office products, home furnishings, chemicals and plastics, hardware and plumbing, and beer, wine and liquor. Every aspect of consumer and industrial products is in some way influenced by wholesale distribution.

Despite its enormity, the WSD market is currently experiencing the impact of several challenging industry-wide factors, not the least of which is being immersed in a heavy period of industry consolidation. In the midst of this environment of corporate change, WSDs are dealing with rising offshore product procurement costs.

For certain sub-sectors, 95 percent of product brought into wholesale distribution facilities is now sourced offshore. Fueled by rising off-shore labor rates and higher transportation costs due to steady increases in fuel, inventory carrying costs are continually being driven up. Because of long

lead times, off-shore supplies increase the need for more inventory, yet excess inventory leads to poor cash flow, excessive debt servicing, higher interest expense and lower operating profits.

It's a tight balancing act, but one that can be advantageous for wholesale distributors who can provide precise inventory planning, deployment and management — critical to realizing expected gross margins. But now, even this model is coming under serious challenge, as WSDs grapple with the necessity to accommodate direct-to-consumer e-commerce orders and the needs of their retail customers involved in e-commerce fulfillment.

## Shifting to Omni-Channel Fulfillment

WSDs are getting more pressure from large e-commerce companies to become the fulfillment arm for many of their products, particularly slow-turning SKUs that an e-retailer would not want to carry in its distribution center. The bigger e-commerce retailers do not carry all of the products that they sell. Some only ship about 50 percent of the products that they offer. The other 50 percent are shipped from manufacturers, 3PLs and wholesale distributors. Essentially, e-commerce retailers are leveraging their wholesalers to become shipping points for direct-ship to customers. The thought process is, "Why build distribution infrastructure and carry a full line of inventory if suppliers, like wholesale distributors and manufacturers, can be leveraged to do it?"

Traditional fulfillment structure within a wholesale distribution operation originates from a central distribution center (DC) through three main channels: a.) direct-to-consumer delivery — from phone, catalog and online ordering; b.) store replenishment — direct to stores from the DC, including parcel delivery, then from the stores to consumers or commercial accounts via delivery, or cash and carry; and c.) shipping to local distributors, then from there to commercial accounts and consumers.

This multi-channel model of distribution is now shifting to accommodate omni-channel fulfillment (OCF), driven by evolving consumer demands and expectations. Instead of one cen-



Evolving customer demands and expectations are causing distribution models to accommodate omni-channel fulfillment.  
Source: APL Co.

tral DC, regional DCs would be better utilized. An example is in the U.S., where networks often include eastern and western region DCs.

In addition to the three conventional distribution models already described, to accommodate the increased volume of orders coming through the Internet and mobile devices, along with regional DCs, local distributors and stores would provide same-day or next-day direct-to-consumer and direct-to-business delivery. Retail stores would accommodate same-day in-store order pickup.

To achieve this faster level of delivery requires a streamlined, interconnected distributed order management system, which tracks and optimizes inventory throughout the entire distribution network — from regional DCs, through stores and local distributors. To facilitate optimized delivery, the distributed order management system assesses order parameters for fulfillment and delivery options for each order placed and then initiates an optimized solution to fill the customer's order in the most cost-effective, service-sensitive manner possible.

In an OCF model, retailers are trying to push fulfillment back up the supply chain to wholesale distributors, with an increased number of channels to pick, pack and ship small orders directly to consumers.

### Serving Business Customers

Not only are wholesale distributors increasingly being leveraged by e-retailers, the WSD industry is also being pressured by B2B consumers to provide next-day and same-day delivery. That pressure is certainly dominant in many retail markets, and consumers increasingly expect wholesale distributors to provide the same options. These factors are putting tremendous pressure on WSD supply chains that are largely unprepared to handle these delivery turnaround times.

A large number of wholesale distributors rely on paper-based picking operations, with little or no automation for processing orders. Some are equipped with modest, light automation, such as a warehouse management system (WMS), and possibly powered conveyors and bar code scanning solutions. Of the automated distribution systems in place, many were built in the 1980s and 1990s and were not designed for the volumes and complexities of the orders WSDs are handling today, especially smaller, more frequent each-pick orders.



Some of the technology being utilized by these systems is no longer receiving tech support, making upgrades difficult and costly. Many WSDs have tried to patch up their distribution systems and keep them going, but without much latitude for handling the growing volumes of single-item orders and fast-turnaround deliveries. Inefficient facility layout, misaligned DC locations, time-consuming picking and packing operations, and outdated WMS are more the rule than the exception in a number of WSDs. These systems do not possess the functionality and flexibility necessary for today's emerging omni-channel fulfillment landscape.

Investment in automated distribution infrastructure for WSD facilities has, for well over a decade, been inadequate to keep up with the escalating growth in online ordering and evolving distribution models. Only a small percentage of WSDs have fully-assessed and implemented long-term strategic distribution solutions that would give them the flexibility to adapt to these demanding and changing wholesale distribution challenges.

### Embracing Strategy

Evaluating the tremendous volumes of information required and making the correct decisions throughout every step of the process can be a risky and daunting task for any logistics team, no matter how talented they may be, particularly with the complexity in WSD.

To navigate this properly, well-designed WSD distribution facilities always start with a facilities operations strategy. No matter what improvements are planned for a WSD distribution operation, the first step should always be a full conceptual design to define the distribution center's role and requirements. Such a strategy includes: a.) order volume/velocity requirements that drive DC size, capacity and layout; b.) a capital estimate for the recommended solutions from a material handling standpoint and/or a facility build-out perspective; c.) warehouse management system requirements definition and solutions selection, transportation management system requirements definition and solutions selection, storage media and material handling solutions,



Source: APL Co.

and delivery solutions; d.) labor planning and requirements including labor management systems; and e.) a complete return on investment analysis, comparing current operating procedures to the new, proposed operating structure.

Moving forward with certainty on a DC expansion plan requires the utilization of appropriate analytical tools to provide straight-forward, unbiased plans. A thorough conceptual design analysis must be in place before a DC's executives even begin to look at material handling equipment selection. Too many supply chain executives make the fundamental mistake of thinking that technology should be the basis and starting point of their distribution solution. In fact, a thorough conceptual design aimed at process improvement should be the central aspect of any solution, rather than focusing solely on the material-handling equipment solution.

Such a plan ensures that the right amount of technology will be implemented into the WSD distribution facilities to accommodate current requirements and future growth. Too much equipment is capital absorbing. Too little equipment will necessitate higher operating costs by increasing labor.

## Assessing Distributed Order Management

An objective examination of all fulfillment options for a WSD facility is incorporated into an in-depth omni-channel strategy,

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as a component of the overall conceptual design. The OCF strategy is the program which puts into place a distributed order-management capability. The distributed order-management capability is the physical implementation of the various fulfillment options, executed as a distributed order-management software application, processes and infrastructure.

In the development of a distributed order-management platform, the following criteria are assessed:

- Design order capture and management from all channels;
- Identify and design defined fulfillment channels;
- Enable fulfillment location optimization with simultaneous factoring of inventory, transportation cost, labor

and service level;

- Design/re-design store backrooms and operating processes to enable store fulfillment operations;
- Develop cost-effective, efficient fulfillment and replenishment;
- Optimize inventory, capital and expense to reduce cost and increase margin.

## Network Optimization

Because of the changing dynamics of wholesale distribution, WSD logistics executives frequently ask: "How can we reduce inbound and outbound transportation costs, inventory and inventory carrying costs, and fixed and variable costs within our distribution network? How many distribution facilities are needed to optimize our customer service at the lowest total cost, factoring transportation, facility, labor, equipment and inventory? What should our optimal distribution network look like to maintain or improve customer service while lowering overall distribution costs? Where should these DCs be located? What size and configuration should they be?"

These questions can be answered with a refined distribution network strategy and an associated distribution network optimization initiative. The distribution network strategy encompasses many supply chain factors influencing a WSD's initiatives to bring products to market, including strategic product sourcing, supply chain vulnerability, throughput capacity, mergers and acquisitions, inventory, omni-channel fulfillment requirements, distributed order management options, warehousing, transportation, outsourcing, labor, capital investment, ROI and profitability.

## Guidance

For WSD executives, the ability to successfully adapt to changing market conditions — and arrive at fulfillment solutions that meet consumer expectations is critical. At the same time, they must maintain their profit margins and maximize their return on investment while ensuring that a thorough and realistic design strategy is put into place. **WT**

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