



Distribution's New Strategies

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Operations used to be strictly manual at BiRite Foodservice Distributors' 235,000-square-foot warehouse near San Francisco; pickers were simply given a stack of labels and told to go out and pick. Things ran pretty smoothly, with an average of one mistake for each 1,200 cases picked.

But by 2005, with fuel prices surging and the company shipping around 33,000 cases per day, those mistakes were becoming very expensive. When a Marie Callender restaurant in Fresno, Calif., got frozen strawberries instead of apple pies, the pies had to be delivered immediately, even though it was a 400-mile round trip. And fuel costs were more than \$250,000 higher in 2005 than in 2004.

That's when the company decided to automate. With a warehouse management system and voice recognition technology in place, order accuracy has improved by more than 90 percent.

That's helped cut BiRite's logistics costs and put the Brisbane, Calif., company in the growing group of shippers and distributors that are finding important new efficiencies in an area where dynamic technology developments contrast with the seemingly static world of goods storage. The new technologies, the company says, provide new possibilities for managing inventory and lining up warehouse systems with transportation systems.

"These days you better run as efficiently as possible," said Dennis Collins, general manager at BiRite, one of the largest foodservice distributors in Northern California with more than \$240 million in annual sales. "You don't want to be making mistakes at the far edges of your market area."

To deal with rising fuel costs, capacity crunches and driver shortages, companies are implementing new logistics strategies that stretch back to the warehouse, leading them to reassess fundamental inventory management and distribution priorities. Those aisles of stacked goods at warehouses are an increasing focus for logistics planners undertaking what appears to be a fundamental rethinking of distribution strategies as an era of leaner inventory and tighter supply chains gives way to greater attention to managing distribution as transportation costs rise, capacity concerns grow and components and consignees are spread around the globe.

To support the new strategies, providers of warehouse management systems expanded beyond traditional warehousing capabilities -- receiving, pick and pack, and shipping -- into supply chain execution suites that incorporate functionality like labor management and voice-recognition software.

That's the finding of a 2005 AMR Research report, "Considerations for Selecting Today's Warehouse Management Systems," one of a series of reports from the research firm that looks at the changing role of the warehouse in today's supply chains.

Those supply chains are linking warehouse management more than ever to the distribution side, including transportation management, putting new pressure on managers to blend often disparate disciplines to create the seamless enterprise that most corporations believe is essential to profitability and growth.

Among the new distribution strategies are demand-driven supply networks, which require new sets of warehouse capabilities.

Such networks have three strategic anchors, and each has a significant impact on warehouse operations; channel-driven fulfillment, which requires a higher level of customer/supplier interaction based on service

agreements and other factors; demand-driven replenishment, which closely aligns distribution and manufacturing, and agile networks comprised of a broad range of supply chain partners.

As companies align new warehousing and distribution strategies, the market for WMS software is heating up.

In a survey of 256 supply chain executives from companies with \$500 million or more in revenue, 67 percent invested in WMS; of those AMR estimates half will replace existing systems in coming years.

In response to new strategies for improving inventory accuracy and flow WMS providers are adding functionality in radio frequency identification, voice and wireless; integration of warehousing and distribution processes with manufacturing and transportation management; analytics and business intelligence for measuring key performance indicators; voice-recognition technologies; labor and yard management; collaborative supplier portals and the use of service-oriented architecture to customize applications.

Such features are needed to meet the new demands placed on today's warehouses.

In many industries, the warehouse evolved into a late-stage assembly center as companies implement demand-driven networks and configure products as close to customers as possible, said Greg Aimi, research director at AMR Research.

"It's a combination of direct to store delivery and seeing the warehouse as a flow center or cross dock to reduce network inventory," he said.

Plainfield, Ind.-based Brightpoint, one of the world's largest distributors of wireless devices, is one of a growing number of companies matching warehouse capabilities with the network demands of specific vertical industries.

The company provides assembly, kitting and logistics services to mobile phone manufacturers, and is often the last touch point before the customer. Efficient, highly specialized warehouse operations are essential; each of the 42 million devices the company handled last year had to be customized for specific retailers and regions, and each had a serial number that required full transparency.

"For the most part, it is about value-added and industry specialization, and a high degree of flexibility," said Philip Sheingold, vice president of North American operations for Brightpoint.

Labor management and voice recognition technology are key tools for improving efficiency in demand-driven networks.

On the warehousing side, companies such as Ozburn-Hessey Logistics, based in Brentwood, Tenn., are investing in voice technology, labor management and reporting tools to improve inventory fill rates. A voice picking system at one of its 19 U.S. facilities helped the company realize efficiency gains of around 18 percent, said Randall Hargrove, senior vice president of operations. At least half of the company's facilities have labor management systems in place, which have resulted in productivity improvement rates of more than 20 percent.

According to AMR, worker productivity has become more important in demand-driven and direct-to-store distribution models. Labor management is "a growing requirement" in four main categories of business, including discrete manufacturing, fast-moving goods, traditional retail and third-party logistics.

Labor management software benchmarks current work with engineered labor standards for the safe, efficient completion of tasks such as picking and packing. Some companies are offering incentive-based pay around it rather than flat increases in hourly rates, Aimi said.

But the focus on the goods remains the biggest part of WMS, experts say.

The key to effective warehouse management is inventory visibility on a real-time basis, says Leslie Ajlouny, vice president of business development for Evans Distribution Systems, a Melvindale, Mich.-based provider of warehousing and logistics services.

There are unlimited numbers of ways to define inventory with user definable fields, or UDFs, from SKUs to project numbers. Engineers might want it defined one way, financial managers another. A WMS must be able to track and define information and issue reports in myriad ways, even within a single organization.

Because Evans handles so many different types of commodities, from beer to auto parts, there was a lot to consider in selecting a WMS. For example, voice recognition technology doesn't make sense for a multi-client facility, but labor management software does; it enables Evans to prepare productivity reports for clients based on minute-by-minute tracking of employees and functions.

The establishment of metrics, which are developed for each customer, opens up avenues of communication so that customers understand what they can do to improve warehouse labor efficiency. Some may be able to change packaging labels or load configurations, for instance.

"They are very receptive to that," Ajlouny said. "They value a proactive partner."

The company is installing a WMS from Provia Software, which was recently acquired by SSA Global. The selection process represented a huge investment in time and money. It has taken the better part of a year, beginning with the creation of a cross-functional selection team that evaluated numerous systems and visited user sites.

"It was an extensive process," Ajlouny said. "Even before defining the functionality we needed we had to determine which technology and processes we needed to retain and what we needed to change."

The company selected the Provia WMS for its capacity to customize UDFs. Labor management capability was a factor, as was ease of use. Implementation is taking longer than expected, but Ajlouny said the company decided early on that quality was more important than meeting time of budget goals.

"We rolled it out in a way that best suited our management of customer inventory," she said.