



Using Cross-docking to Bridge the “Final Mile”

IN A TIME WHEN CONSUMER DEMAND is forcing retailers to get their products to market faster, a growing number of shippers are looking to non-traditional practices to help reduce the amount of time it takes to process orders and route products. Research shows the average company spent \$48 million on freight services in 2015 and nearly 20 percent of firms spent more than \$100 million. As eCommerce and omni-channel have become the key focus points in the retail industry, the need for streamlining warehouse and distribution center (DC) operations is becoming more evident.

One practice taking the supply chain industry by storm is cross-docking — a distribution system where items received at the warehouse or DC are not placed into stock, but instead are prepared for shipment to another location or for retail stores. Once received at the warehouse or DC, the materials are sorted, consolidated, and loaded immediately onto outbound trucks, trailers, or railroad cars. Often viewed as an alternative to traditional warehousing, cross-docking uses the DC as a “sorting center,” where materials pass through, but are never held in inventory. Cross-docking can realize a cost reduction by skipping stocking and retrieval steps.

Roughly one-half of today’s shippers use cross-docking, but another 40 percent either has no plans to use it, or, are unfamiliar with the practice. The strategy can be used in various applications and settings. From the manufacturing perspective, cross-docking consolidates inbound shipments and supports just-in-time assembly strategies. For distributors, it is used to more efficiently receive incoming shipments and then orchestrate deliveries once the last of those shipments is received.

Many of the world’s largest retailers are employing cross-docking practices in their supply chain operations. To support its vast network of retail stores, for example, Wal-Mart instituted cross-docking at its warehouses. There, products are taken from an arriving truck and packed in a truck bound for a store without lengthy storage in the warehouse. In return, Wal-Mart has lowered costs for inventory storage, reduced transportation costs, and ships products that spend less time in transit. Luxury retailer Neiman Marcus also optimizes cross-docking by using a high-speed conveyor and sortation system that flows goods from the receiving dock to the shipping dock, with some conventional storage and picking.¹

The use of cross-docking expands well beyond these two high-profile retailers. With speed, productivity, and efficiency becoming increasingly important to all organizations, cross-docking provides a viable option for companies intent on reducing labor costs and handling times, eliminating the need for picking and packing, and saving valuable order lifecycle time.

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“Our goal is to maintain minimum inventories while keeping enough on hand to fulfill our customers’ needs. We have taken closer looks at forecasting and inventory controls to help establish reasonable inventory levels.”

Purchasing Manager;
Manufacturing – Consumer
Packaged Goods; \$50M -
\$100M in annual revenues

“We mostly have problems on the international side, getting containers off of the terminal and into our warehouses with minimal delays and costs. Providing our own carrier/warehouse options along with providing our own chassis on pick up seems to alleviate the concern.”

Sr. Global Logistics
Manager; Manufacturing
– Food & Beverage; \$1B
– \$10B

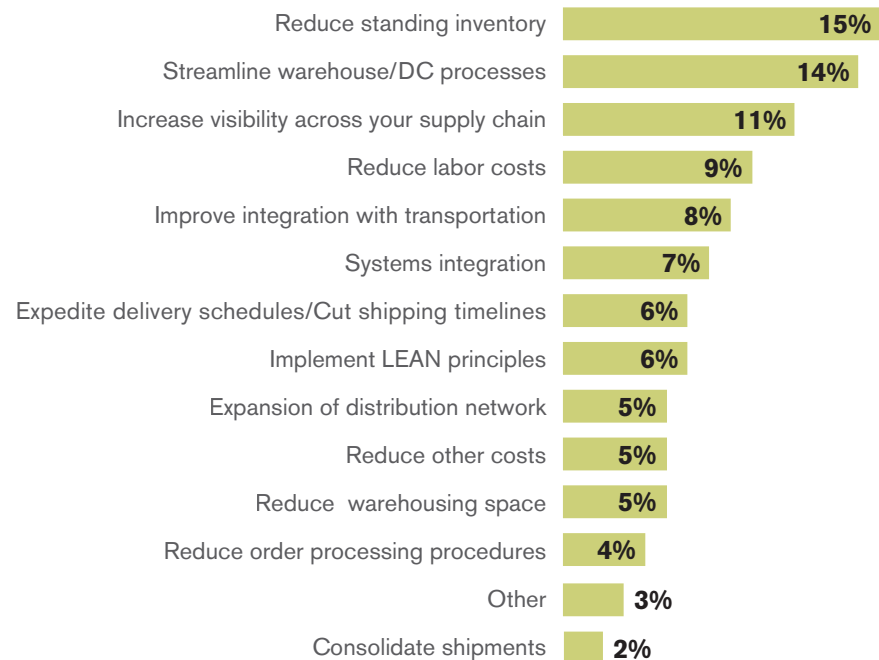
“There’s much congestion with our inbound and outbound activities. We need better tracking of perishables by date coding. We are now manually doing appointment scheduling with paper records of inventory dating.”

Senior Logistics Manager;
Distributor – Food &
Beverage; \$100M - \$500M

To better understand how companies are handling their cross-docking operations, Peerless Research Group (PRG), on behalf of Logistics Management and Ryder System, Inc., surveyed 241 U.S.-based warehouse and logistics executives. Survey results reveal that while there are aspects of their warehouse and logistics operations in need of improvement—and in particular cross-docking functions— the benefits to employing a cross-docking strategy and the advantages of employing an experienced, reputable third-party partner to support the operation can streamline processes, curb inventory liabilities, and reduce expenses.

FIGURE 1

Top warehousing operations aspects managers would like to improve



Logistics and warehouse managers need to concentrate on inventory and warehouse process management

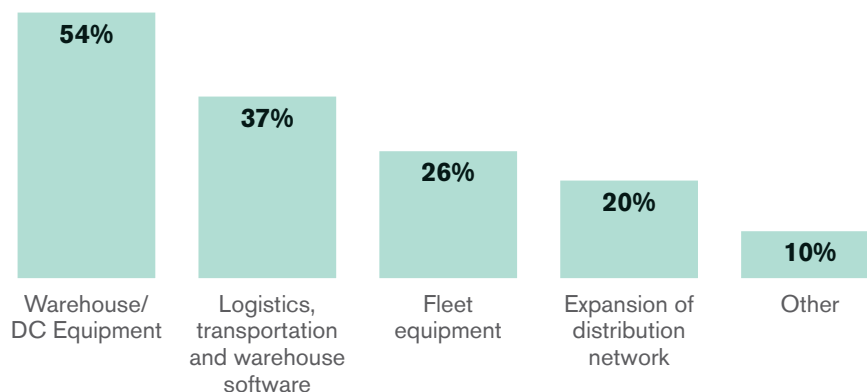
Warehouse and logistics managers have identified several aspects of their operations that need improvement. At the top of their lists: reducing on-hand inventory; streamlining processes; and gaining greater end-to-end visibility across transportation and warehousing activities (See Figure 1).

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"Capacity and productivity are our main concerns. We are addressing them by updating equipment and through slotting strategies."
Supply Chain Manager;
Retail; \$10B+

FIGURE 2

Areas in which companies will be making capital investments in the next year

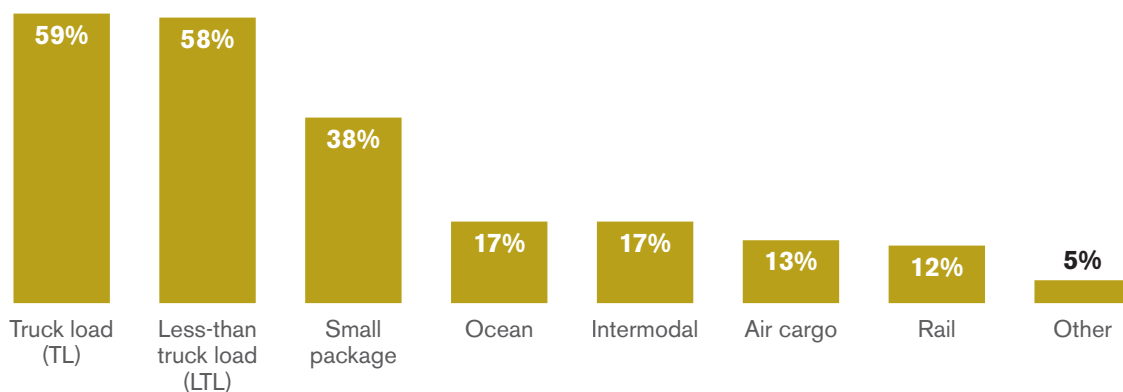


Nearly one out of five managers in the study estimates that their company will spend in excess of \$100 million on freight services in 2015. The average spend of the companies surveyed is \$48 million. Most of those expenditures will go to warehouse and DC equipment, as well as transportation and logistics software solutions (See Figure 2).

Cross-docking processes come into play for the management of outbound shipments with the majority of companies using truckload (TL) and less-than truckload (LTL) for outbound shipments. Other modes employed include small package, ocean, intermodal, and air cargo (See Figure 3).

FIGURE 3

Modes used for outbound shipments

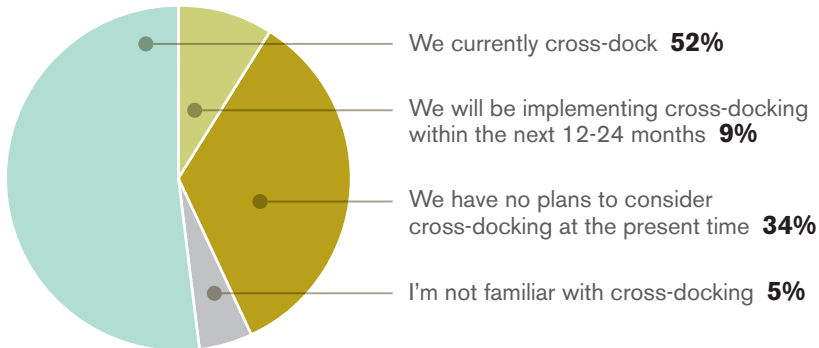


"Flow, speed and efficiency—that's our challenge. We are developing a one-stop truckload direct via cross-docking."
Logistics Manager;
Industrial Manufacturing;
\$1B - \$10B

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FIGURE 4

Use of cross-docking across organizations



Cross-docking

Central to this research, managers were asked to discuss their operations' use of cross-docking and how the process might help relieve some of the challenges they face in their warehouse operations.

For the benefit of the respondents, cross-docking was described as:

The logistics practice of unloading materials from an incoming semi-trailer truck or railroad car. Those materials are then sorted and

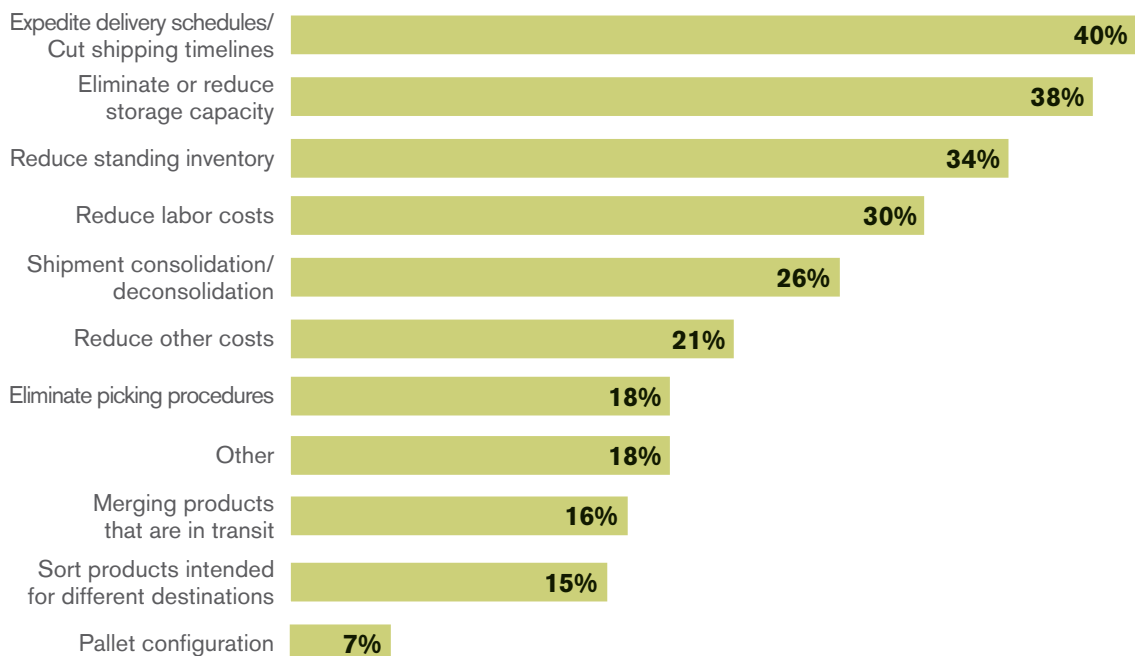
consolidated, and immediately loaded onto outbound trucks, trailers, or rail cars. Cross-docking is done instead of warehousing; the distribution center is essentially a sorting center, which allows materials to quickly pass through.

More than one-half of the companies (52 percent) surveyed currently employ a cross-docking operation while nine percent plan to implement a cross-docking program sometime during the next two years. Of the remaining 39 percent, the respondents either have no plans to cross-dock or are not familiar with cross-docking processes (See Figure 4).

Yet, through the use of cross-docking, organizations are realizing significant operational benefits that lead to improved customer service and lower supply chain costs. Shorter processing and delivery timelines, reduced standing inventory, lowered storage capacity, and more regulated labor costs are some of the top gains that companies are seeing from implementation of cross-docking (See Figure 5).

FIGURE 5

Benefits gained from cross-docking

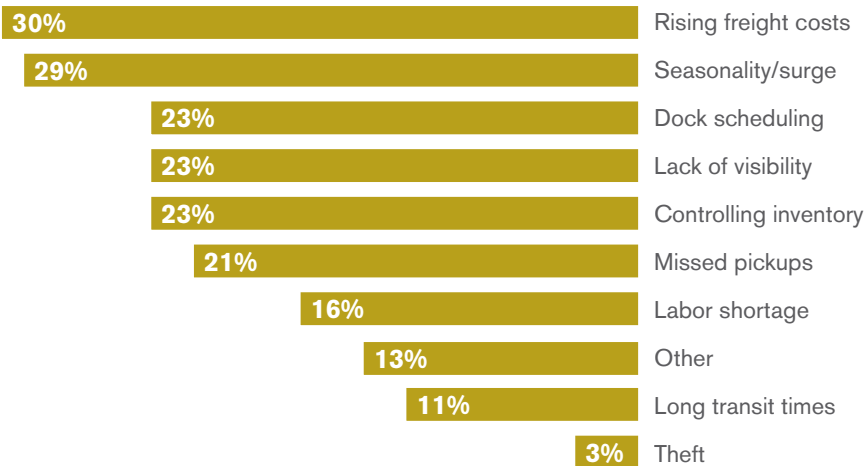


"Speed of delivery to retailers and end customers is a concern. We are utilizing several cross-docking processes to address this."

Vice President;
Manufacturing –
Consumer Packaged
Goods; \$1B - \$10B

FIGURE 6

Challenges experiencing in warehousing/distribution, cross-docking/transportation network



"We experience tonnage peaks and valleys as it relates to dock utilization. We are offering more services that better utilize the dock during non-peak hours."

Vice President;
Transportation and
Warehousing;
\$20M-\$50M

"Cross-docking is not a core competency. We will look to leverage the expertise of others and other network synergies."

Logistics Manager;
Industrial Manufacturing;
\$500M - \$1B

Operating an effective cross-docking strategy does not come without its challenges, particularly in a business climate where new transportation and related issues surface almost daily. Rising freight costs, and an inability to adjust activity levels brought on by seasonal spikes or special sales promotions top the list of challenges that can arise. Other problems include scheduling and dock availability, a lack of process visibility, and limited storage capacities (See Figure 6).

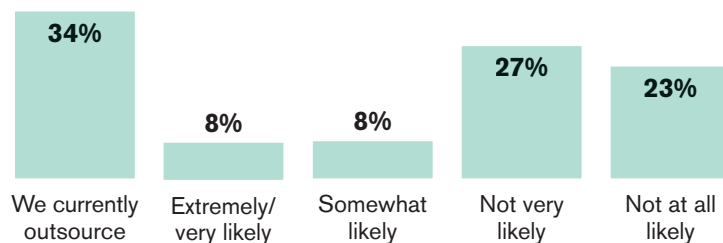
Outsourcing cross-docking operations

Of those companies that are currently cross-docking or planning to adopt it in the near future, 34 percent either currently outsource or plan to outsource their cross-docking processes. Largely driven by the need for specialists to handle logistics tasks—or a lack of warehouse space—companies are looking to experienced third party providers to manage cross-docking operations for them.

Half of the companies surveyed are either operating or planning to keep their cross-docking in-house. Managers not outsourcing these processes claim they currently have the internal staff to handle the operation, and they list loss of control and cost as their reasons for not outsourcing (See Figure 7).

FIGURE 7

How likely are you to outsource cross-docking operations?



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"Purchasing warehouse services permits us to right-size our warehouse operations, while foregoing unnecessary infrastructure and costs."

Logistics Manager;
Warehouse &
Transportation Services;
\$1B - \$10B

"There are space constraints. We utilize a third party for cross-dock outbound capacity and utilize a third party for cross-dock inbound capacity. We use storage trailers. We are working on improving inventory accuracy and timely movements between facilities."

Logistics Manager;
Manufacturing – Consumer
Packaged Goods;
\$50M - \$100M

CONCLUSION

Bridging the "Final Mile"

Cross-docking processes are not new to the supply chain landscape. However, as increasing consumer demand is putting more pressure on companies to speed products to market, there is a stronger movement to employ cross-docking to improve warehouse and DC efficiency.

Implementing cross-docking processes allows retailers to increase efficiency and speed to market. One of the main challenges facing retailers is that cross-docking is not a core competency. Cross-docking also introduces inherent issues and risks, especially for those organizations that haven't considered it in the past. Cross-docking requires personnel skilled in the coordination of inbound and outbound transportation, as well as the specialized delivery equipment, including lift gates or conveyors, needed to transfer goods.²

Operating in a climate where customers demand on-time and accurate orders every time, the use of cross-docking gives companies a distinct advantage over those that rely on traditional warehousing practices. By outsourcing this function to an experienced third-party logistics provider, retailers can reduce costs, meet customer expectations, lower inventory investments, and reduce processing and delivery times.

Methodology

This research was conducted by Peerless Research Group on behalf of Logistics Management for Ryder System, Inc. This study was executed in October 2015, and was administered over the Internet among subscribers to Logistics Management.

Respondents were prequalified for being involved in decisions related to their organization's shipping/receiving or warehousing/distribution operations.

The findings are based on information collected from 241 logistics executives employed in industrial manufacturing, retail, or work for distributors or manufacturers who supply products to retailers such as food and beverage, consumer packaged goods, building materials, automotive and parts, electronics and healthcare products. Companies of all sizes are represented in the study; slightly more than one-third (39 percent) are employed in companies reporting less than \$50 million in annual revenues, one quarter (25 percent) with companies between \$50 million and \$500 million, and 36 percent with companies having \$500 million or more in revenues in 2015.

Footnotes

1. <http://www.usanfranonline.com/resources/supply-chain-management/walmart-keys-to-successful-supply-chain-management/#>
2. Ryder blog: <http://blog.ryder.com/2015/06/5-reasons-cross-docking-changing-retail-warehousing/>

About Ryder

Ryder (NYSE: R) is a FORTUNE 500® commercial transportation, logistics, and supply chain solutions company. Ryder's transportation solutions give businesses flexibility, compliance with regulations, and a ready resource of reliable and trained drivers. Ryder's Supply Chain Solutions group provides a full suite of services, managing the movement of goods to the delivery of finished products to consumers. Ryder is focused on providing tailored solutions to keep your business performing. For more information, visit ryder.com.

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