



Untangling the Complexities of fulfillment

AS CONSUMERS GAIN GREATER CONNECTIVITY to retailers by means of e-commerce, their already high demands become increasingly challenging for businesses to meet. Until recently, order fulfillment was a simple function for supply chains. But with the increasing expectations, the changing nature of order fulfillment presents a whole new set of complexities. As part of this evolution toward an environment based on instant gratification, companies have shifted their supply chain models to meet these expectations to drive future growth.

These growing challenges place enormous pressures on distribution operations and order fulfillment processes. Supply chain managers demand greater visibility into orders that are smaller in size, but made at more frequent intervals. Consumers need their deliveries to be on time, accurate, damage free, and easily returnable.

These expectations are driving complexity at distribution centers (DCs), including expanded item-level handling, processing of smaller orders, and support for returns and reverse logistics. More orders now require value added services such as kitting, light assembly,

or special packaging. To thrive in this supply chain arena, companies must excel with every fundamental detail, while also realizing that they need to be precise in the execution. Adding labor to get product out the door, or building up excess inventory are not cost-competitive options.

To better understand how companies are improving their distribution and order fulfillment practices to meet today's customer demands, Peerless Research Group (PRG), on behalf of *Supply Chain Management Review* and Ryder System, Inc., surveyed 148 top supply chain executives in U.S.-based manufacturing,

"There's a mix and complexity of customer orders and an increase in international sales. There's an increase in customer expectations for shipping timelines."

vice president, operations;
medical devices;
\$50M-\$100M in revenues

FIGURE 1

Top challenges facing operations

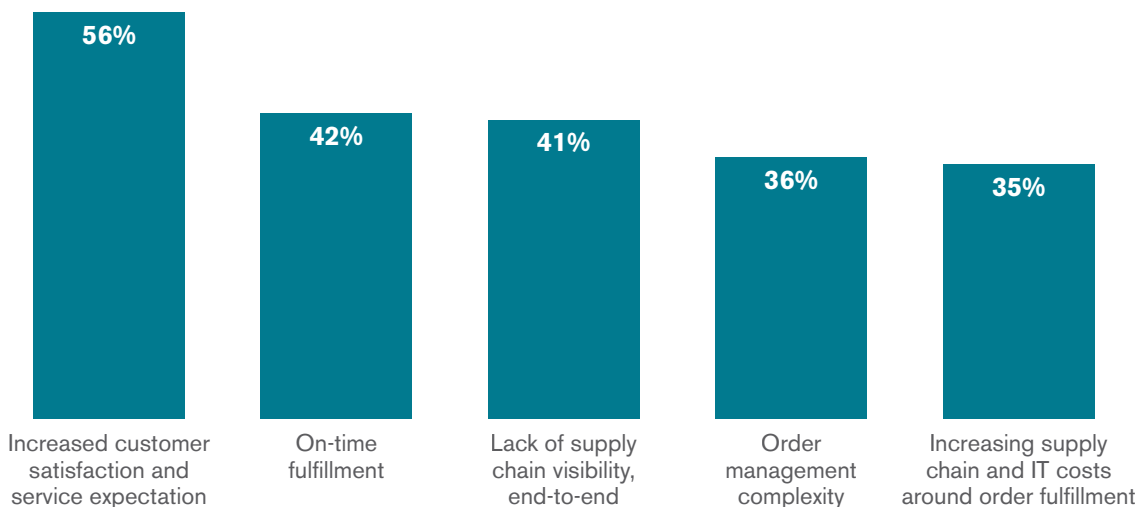
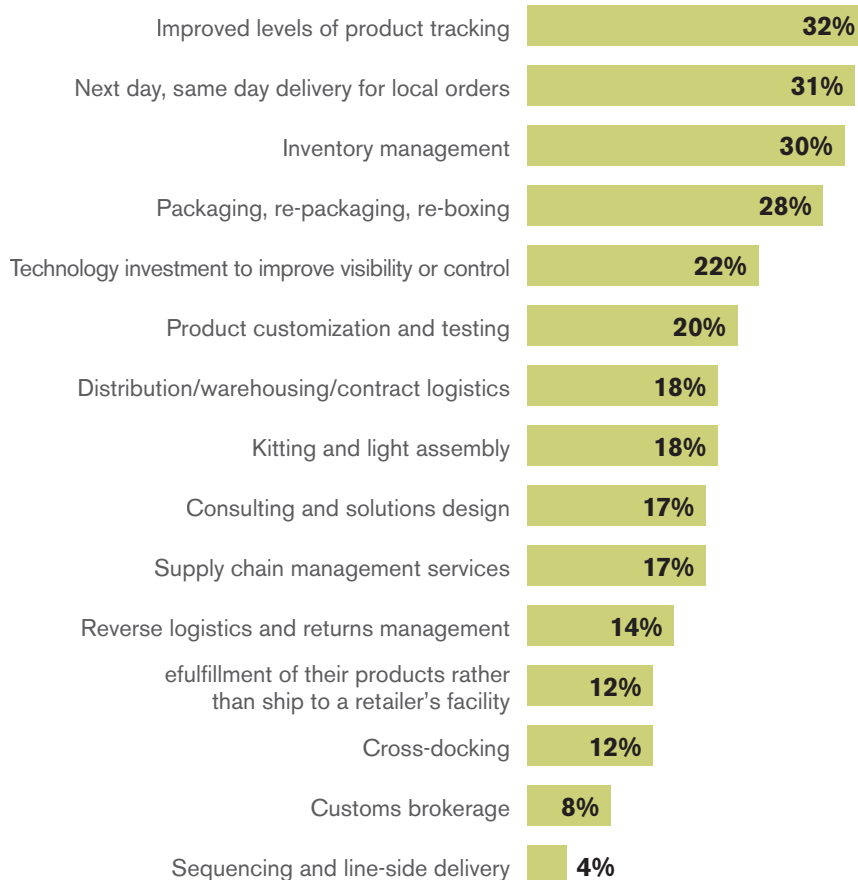


FIGURE 2

What customers are asking for today vs. two years ago

"Orders are smaller and customers are waiting longer to re-order, placing more pressure to have deliveries on time and at shorter notice."

president; food & beverage; <\$50M in revenues

distribution, and retail businesses. Study results show that some organizations are able to operate their distribution and fulfillment processes with high efficiency. However, there's considerable room for process improvement for the majority of supply chains and DCs.

Customer Requirements are Mounting

When it comes to managing order fulfillment and distribution operations, providing better service to meet customer demand is the primary challenge facing managers today. Survey respondents recognize that they need to do a better job meeting schedules, upgrading distribution and fulfillment processes, and enabling greater supply chain visibility to partners. Achieving these objectives will be key in elevating overall customer satisfaction levels. (See Figure 1)

Today's consumers expect more than in the past, which is prompting suppliers to respond. Suppliers are being asked to provide better order tracking, greater visibility into order processing, quicker delivery for local orders, and product customization capabilities. (See Figure 2)

Complex Distribution and Fulfillment Operations

Organizations commonly support multiple distribution and fulfillment channels. On average, companies use two channels for sales, with most relying on their sales force (65 percent) and their company's website (42 percent) for generating orders. Additionally, one-third of those surveyed take orders via electronic communication or through call centers, while one in four organizations offer catalogs or operate storefronts.

Order fulfillment, specifically for online and store order processing, is most commonly handled through a single DC (45 percent) while others operate dedicated DCs. However, in order to execute fulfillment assignments, on average the companies surveyed run six warehouses as well as six DCs for inventory management and order processing. (See Figure 3)

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"There's more demand for visibility on shipments while in transit either through notifications or live tracking capabilities."

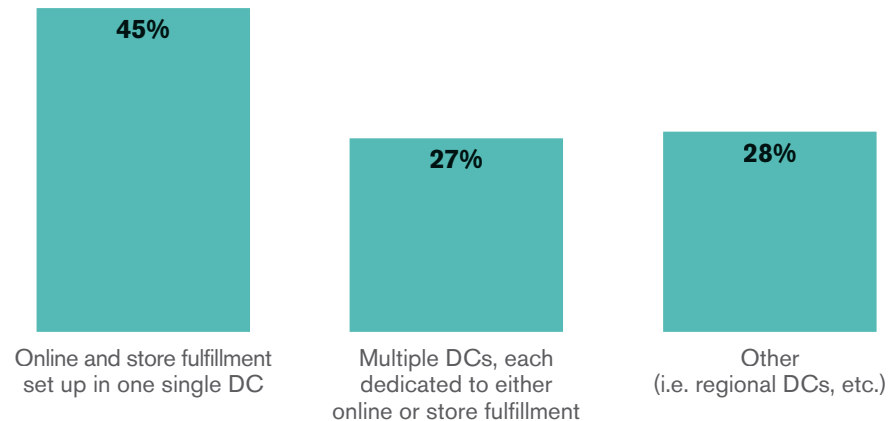
national director of operations; distribution; \$50M - \$100M in revenues

"A lack of warehousing management systems is creating inefficiencies and adding to our labor costs."

director of supply chain operations; retail; \$1B-\$10B in revenues

FIGURE 3

How distribution centers are set up

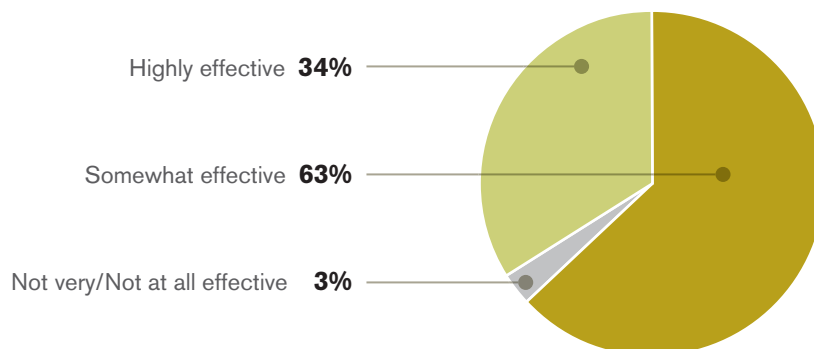


Generally, whenever companies run multiple DCs, there is difficulty in tracking and optimizing the inventory levels across DCs, as well as knowing the current, actual inventory position within each DC. Visibility is needed for goods in transit, as well as knowledge of which zones, aisles, dock doors, or trailers are located within sites and yards. The rise of e-commerce has driven the need for visibility to a more granular level, right down to each carton, item, or stock keeping unit (SKU) being picked and processed, as well as visibility into replenishment levels for forward pick areas.

When companies have multi-channel facilities to hold goods and fulfill orders, it can be complex to set up receiving, bulk storage, picking procedures, and forward pick areas—as well as packing and shipping. While multi-channel DCs can set up completely separate zones and processes by channel, more operators are looking to establish integrated fulfillment centers in which at least some common zones and processes are used for multiple channels, even if the final pick, pack, and ship processes differ. This integrated approach adds complexity in terms of rules and accurate procedures for inventory receiving and allocation, wave management, and order picking, as well as outbound packing and shipping processes.

FIGURE 4

Effectiveness of current distribution process

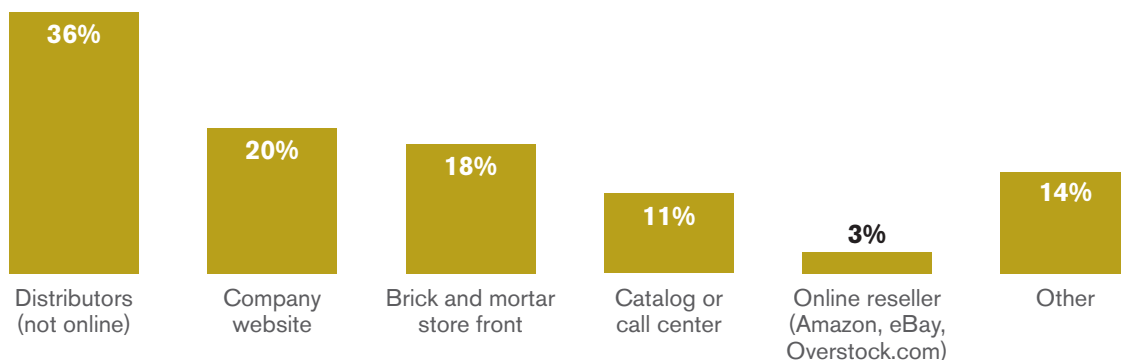


The majority of those surveyed think there is room for improvement in their current approach to handling their distribution processes. Just one in three respondents claim that their distribution operations are highly effective. (See Figure 4)

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FIGURE 5

Channel expected to be the single greatest revenue stream in the next 24 month

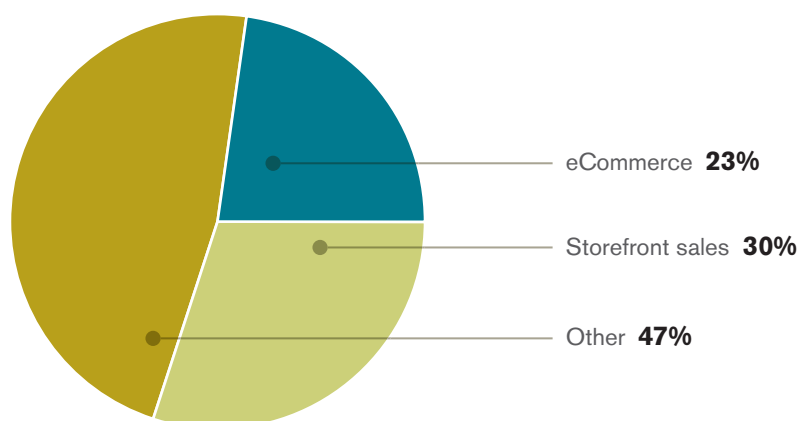


Looking to the future, managers believe that distributors (36 percent) will be their most prolific channel, although websites (20 percent) and storefronts (18 percent) are also forecast to be productive revenue streams. (See Figure 5)

Over the next two years, companies expect nearly 25 percent of their revenue to come from e-commerce sales, with 30 percent generated from brick and mortar activity. Respondents believe about 50 percent of sales will come from other sources. (See Figure 6)

FIGURE 6

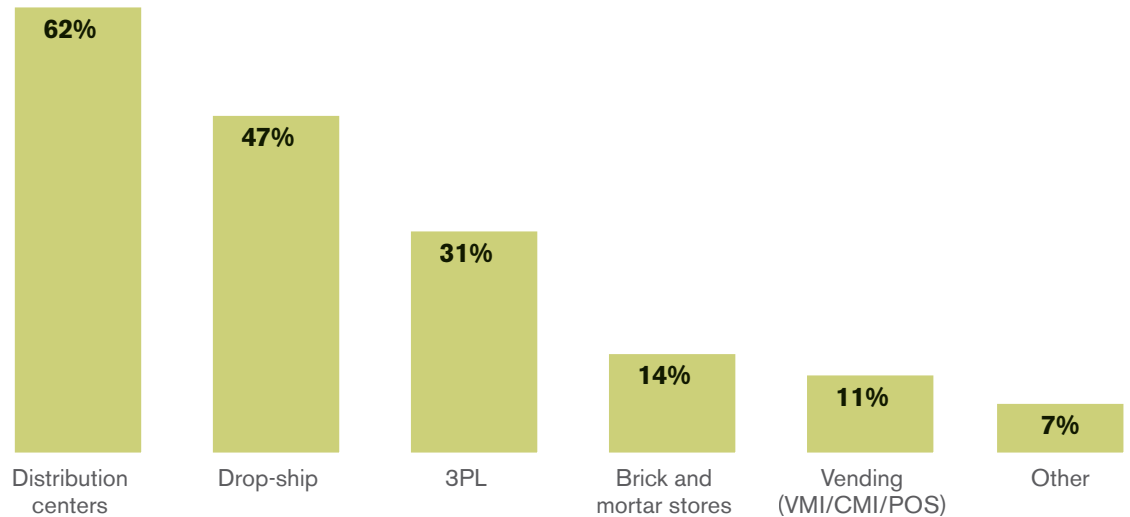
Percent of revenue to come from these channels in the next 24 months



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FIGURE 7

Sources used for fulfillment

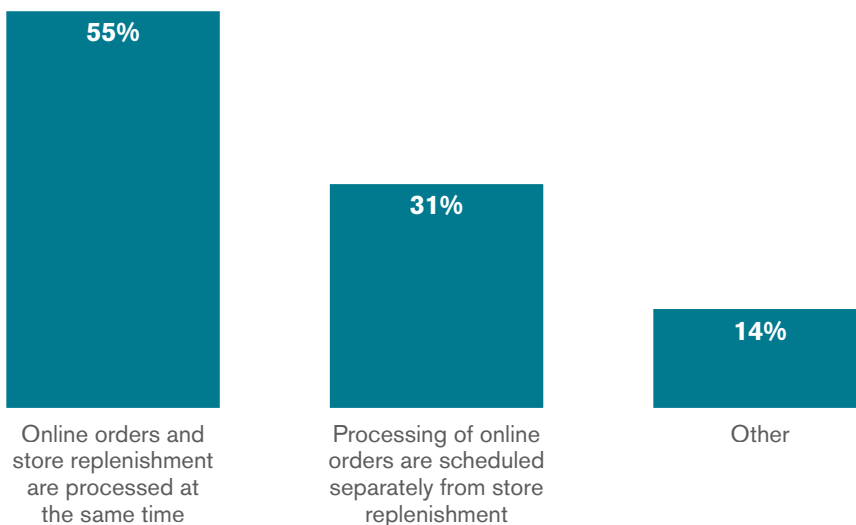


Organizations rely on a few methods for order fulfillment, and most commonly use DCs (62 percent) or arrange to drop ship parcels (47 percent). At 31 percent, 3PLs are also a widely used means for handling fulfillment tasks. (See Figure 7)

More than one-half (55 percent) of the companies surveyed process online and store orders concurrently at their DCs. One in three schedule fulfillment for online and store replenishment separately. (See Figure 8)

FIGURE 8

How is order fulfillment scheduled?



When DCs attempt to process orders for e-commerce and store channels concurrently, they typically have common areas for receiving and bulk storage, but use different picking methods, picking zones, and replenishment strategies for forward pick areas. Coordinating concurrent processes for multiple channels can be done, but requires complex data collection, a warehouse management system or investment in other supply chain software, and support for wave and/or zone picking methods.

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"We are moving to a flow-through model versus warehousing for future demand."

director of supply chain systems; retail; \$500M - \$1B in revenues

FIGURE 9

Initiatives to address distribution/order fulfillment challenges

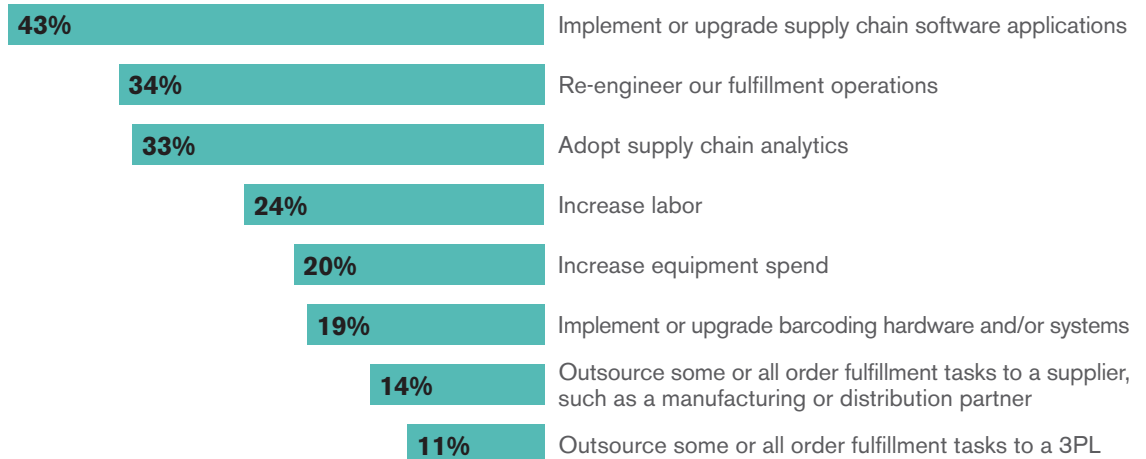
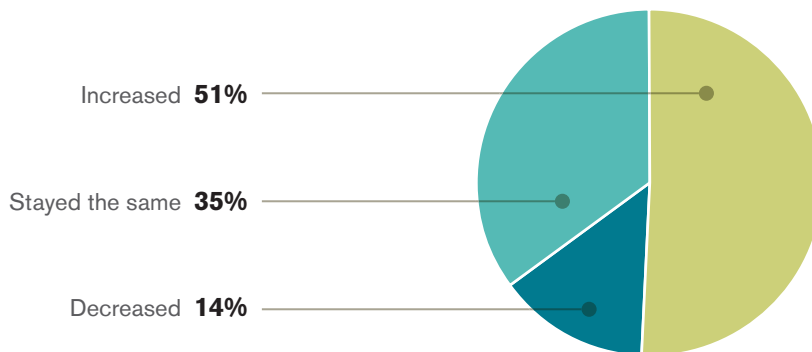


FIGURE 10

Order fulfillment costs over the last 12 months



"We have to meet order commitment dates and customer service and satisfaction levels while dealing with the increased complexity of innovative sales packages or bundles. Also, we have added voice technology in several areas of fulfillment operations."

production systems manager; automotives; \$1B - \$10B in revenues

Scheduling and processing fulfillment for multiple channels in a more separate manner also calls for data collection and warehouse management capabilities. It may also involve the need to maintain distinct receiving, bulk storage, and picking or material handling systems. Today, relatively few DCs are untouched by the need to fulfill orders for multiple channels. Any processing/scheduling strategy chosen (integrated or separate) requires strong systems support to avoid errors, excessive labor costs, and other potential problems.

Some organizations are proactively taking steps to address their distribution and fulfillment challenges. Critical initiatives include upgrading software applications, re-engineering their distribution and fulfillment processes, and employing supply chain metrics. (See Figure 9)

The survey results reveal that expenses associated with fulfillment and distribution operations are on the rise. The majority of organizations are experiencing costs at or above last year's numbers, while just 14 percent have seen costs drop. This is mostly attributed to rising transportation and labor expenses. (See Figures 10 & 11)

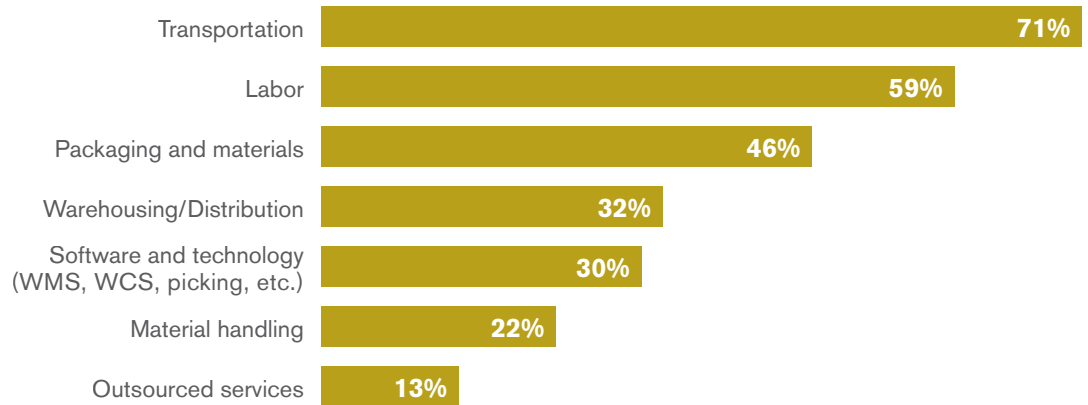
“Freight and labor are becoming increasingly more costly.”

general manager;
distribution; <\$50M in
revenues

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FIGURE 11

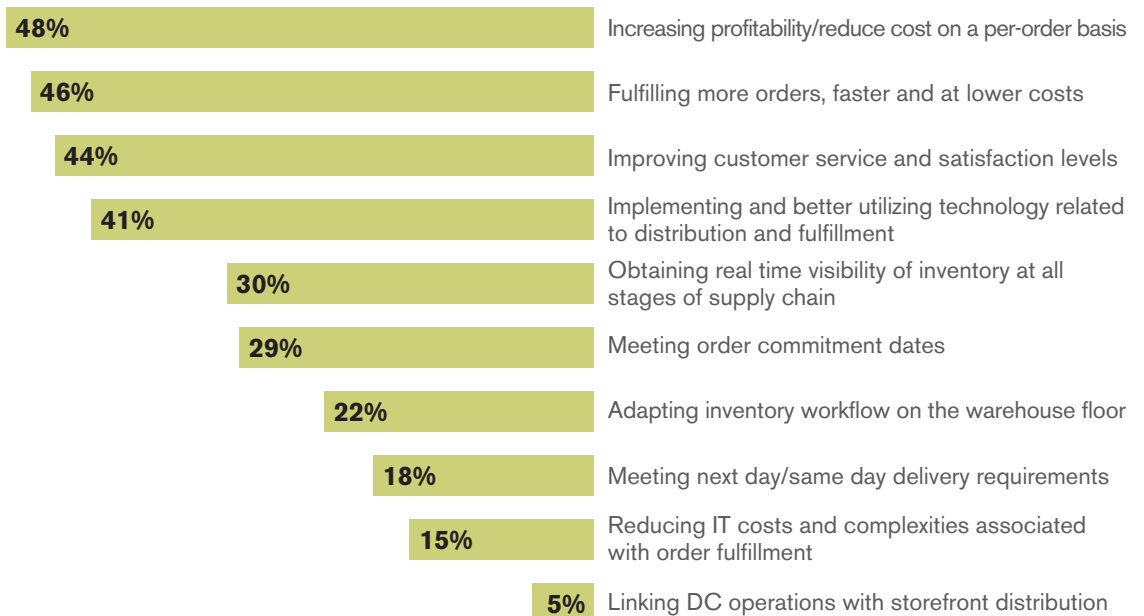
Areas where costs have increased



As a result, organizations are targeting specific areas for greater cost control. Costs for processing on a per order basis, and the ways in which technology for fulfillment and distribution operations are being optimized are all being scrutinized by operations managers. With closer order tracking, improved technology, greater visibility, and quicker delivery cycles, organizations look to improve customer satisfaction levels. (See Figure 12)

FIGURE 12

Priorities for the next 12 months



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“Logistics is not considered a core competency within our company. Outsourcing to a 3PL is considered more cost effective.”

manager, www global logistics operations; hi-tech; \$10B+ in revenues

“Outsourcing the DC operation and last-mile delivery will bring agility in service.”

head of operations; building materials; \$1B-\$10B in revenue

“There’s been a steady decrease of physical fulfillment for items shipped, and a steady increase of fulfillment items delivered electronically or digitally.”

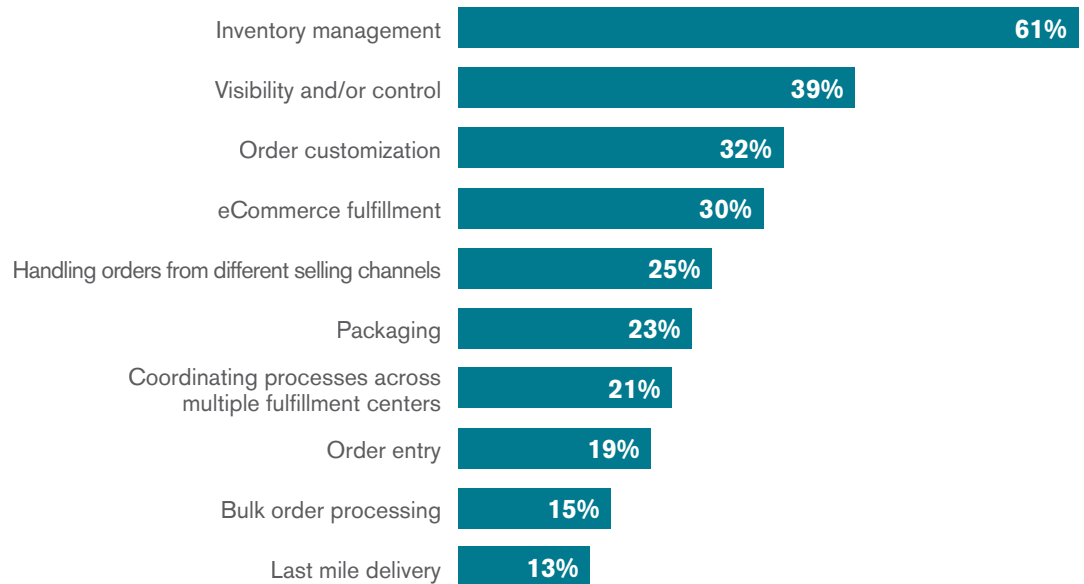
operations manager; hi-tech; \$100M - \$500M in revenues

“Outsourcing gives us the ability to expand and reduce warehousing space, and allows us to better manage our distribution costs.”

director; retail; \$1B - \$10B in revenues

FIGURE 13

What aspects of fulfillment and distribution will operations look to improve in the next 2 years?



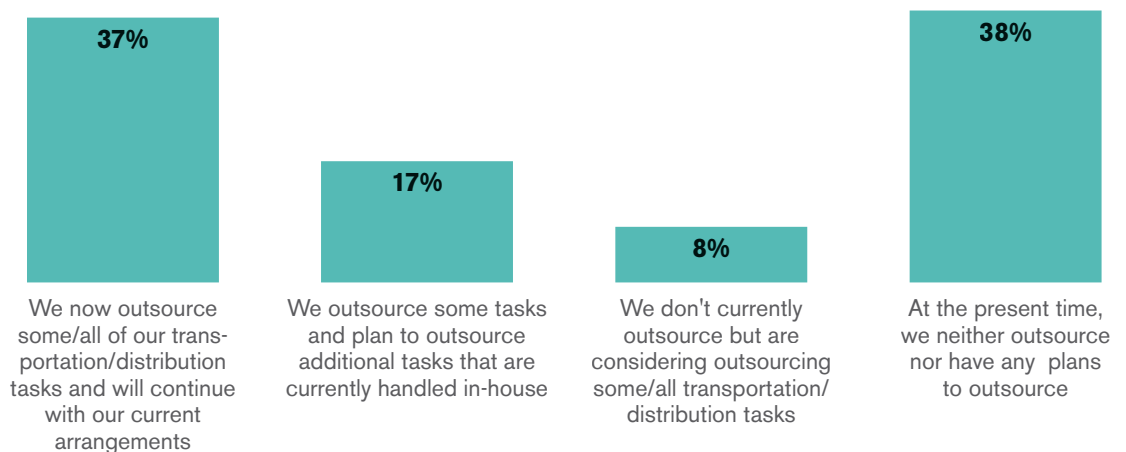
Specific functions that managers plan to improve in their fulfillment and distribution operations during the next 24 months will likely center on inventory management, greater visibility into the fulfillment and distribution process, order customization functions, and process improvements for online order execution. (See Figure 13)

Outsourcing Can Help Suppliers Meet the Growing Demands of Customers

While slightly more than one out of three businesses surveyed currently outsource some or all of their transportation and distribution, others plan to either subcontract jobs now handled in-house or consider outsourcing in the near future. Several of those surveyed who currently outsource, agree it has led to lower costs and a more efficient operation. (See Figure 14)

FIGURE 14

Plans for outsourcing transportation or distribution tasks





“There’s more JIT processing and shorter lead times required by customers including customization requirements.”

purchasing manager;
healthcare; \$100M-\$500M
in revenues

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Summary

The survey responses indicate there is no single strategy for optimizing order fulfillment in today’s multi-channel environment, but there is widespread agreement on what needs to be improved regardless of strategy. The supply chain executives surveyed said that their companies are in some cases trying to use separate DCs for different channels, and in other cases they are pursuing more of an integrated fulfillment center concept. Many outsource some or all of their transportation and distribution operations, while others continue to handle fulfillment operations in house.

To address challenges such as fulfilling more orders faster, and at lower cost, companies clearly indicate they need more precision in terms of inventory management and visibility over orders, as well as greater capability to handle orders for multiple channels. They are willing to invest in technology such as supply chain software, and many are considering outsourcing some logistics processes. Their efforts are not just about cost control or internally focused processes. Today’s supply chain professionals also realize that the steps they take to improve fulfillment execution are closely intertwined with customer service and the success of their business.

Methodology

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

Respondents were pre-qualified for being involved in decisions as they relate to order fulfillment and order management for their organization.

The findings are based on information collected from 148 supply chain executives employed in retail; wholesale; or work for distributors or manufacturers who supply products to retailers such as food and beverage, consumer electronics, automotive and parts, and healthcare and pharmaceuticals. About one out of six companies said that their clients are predominantly business-to-consumer, while one-half sell mostly to business-to-business customers, and one-third supply to both B2C and B2B. While companies of all sizes are represented in the study, average revenues for responding businesses are forecast to be roughly \$1.05 billion for 2015.

About Ryder

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