SADDLE CREEK CORPORATION

Whitepaper Series

2011 Cross-Docking Trends Report

This report explores the most common practices, biggest challenges, and emerging trends in cross-docking nationwide and examines changes in cross-docking practices within the last three years.

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Methodology and Demographics of Respondents

In 2008, Saddle Creek Corporation (www.saddlecrk.com) developed the *"Cross-Docking Trends Report,"* an award-winning industry research project which explored cross-docking and its value proposition and helped to establish an industry benchmark for cross-docking practices.

In an effort to learn how cross-docking has changed since then and gain a better understanding of the impact of recent economic conditions on the practice, Saddle Creek conducted a follow-up study in December 2010. Once again, Saddle Creek commissioned an independent party to invite industry professionals responsible for and involved in warehousing, distribution and/or transportation to participate in an online survey. A total of 219 surveys were completed in December, making this research statistically valid. Analysis was completed and results published in 2011.

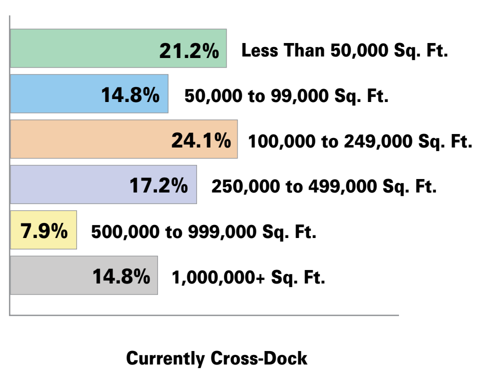
Survey respondents embody a solid cross-section of the logistics industry. They are professionals with backgrounds in logistics, distribution, and/or transportation (41.4%), warehousing management (9.9%), supply chain management (16.3%) and corporate management (22.2%).

Nearly all survey respondents (90.7%) say they are responsible for or have influence over cross-docking strategies at their company. This report focuses on feedback from these respondents.

Practitioner Profile

A wide range of experience levels are represented among respondents. An impressive 30.9% are seasoned veterans who have cross-docked for more than 10 years. On the other end of the spectrum, nearly a third of respondents (30.8%) are just getting started in the practice, having cross-docked for three years or less—perhaps reflecting the influx of new cross-dock operations.

Total Size of Warehouse/DC Operations



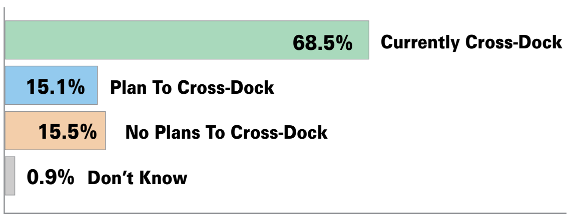
Respondents typically work in corporate headquarters (36%) or a stand-alone warehouse/DC (28.1%). The total size of respondents' warehouse operations varies widely from less than 50,000 square feet (21.2%) to more than 1 million square feet (14.8%). Similarly, there was a wide spread in the total number of SKUs handled. However, 44.3% of respondents handle more than 5,000 SKUs in their warehouse/DC operations – up from 2008, when 34% handled more than 5,000 SKUs. The increase in SKUs most likely reflects an increasing trend toward product differentiation as a way to protect market share in a turbulent economy rather than an increase in sales.

Overview

Today, more than ever, companies are scrutinizing their supply chains in search of creative ways to take costs out of the system, manage inventory levels, increase efficiencies and satisfy mercurial customer demand.

Cross-docking is one strategy drawing increasing consideration. While not a new practice, it has seen a resurgence of interest in recent years. Its ability to shorten the shipping cycle, control inventory carrying costs and deliver just-in-time service with a minimal up-front investment makes cross-docking an attractive option for many companies responding to economic pressures.

Percentage of Companies Using Cross-Docking



Based on survey results, cross-docking has increased significantly in the past three years in spite of—or perhaps because of—unpredictable economic conditions. More than two thirds of respondents currently cross dock (68.5%), compared to roughly half (52%) of respondents in the 2008 survey. Many respondents are just getting started with the practice. In fact, of respondents who have cross-docked for three years or less, 28.6% report that their company recently added a cross-dock. In addition, 15.1% of 2011 respondents say that they aren't currently cross-docking but plan to begin in the next 18 to 24 months.

What is attracting companies to the practice? How is it being implemented? How are practitioners leveraging outsourcing? How effective are today's operations? Where are there opportunities for improvement? The following report explores cross-docking today and offers answers to these questions and more.

The Value Proposition

The influx of cross-dock operations indicates that companies are finding significant value in cross-docking. What are their key motivators? While respondents say that many factors contributed to their company's initial decision to cross-dock, the most frequent drivers were improving service levels (37.9%), reducing transportation costs (32.4%) and consolidating shipments to destination (32.4%).

Greatest Benefits Of Cross-Docking

Improved Service Level	19.4%
Reduced Transportation Costs	14.3%
Consolidated Shipments To Destination	13.1%
Get Products To Market More Quickly	10.2%
Reduced Need For Warehouse Space	8.5%
Improved Inventory Management	8%
Savings From Reduced Inventory Carrying Costs	5.7%
Increased Demand For JIT Service	4.5%
Shipments/Consignee Customization	4%
Reduced Labor Costs	4%
Other	8.3%

Currently Cross-Dock

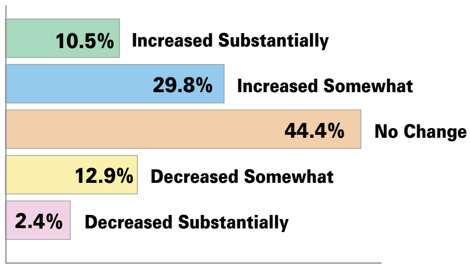
It is fortunate, then, that respondents also identified these factors as the biggest advantages of cross-docking now that they've implemented the practice. Improving service levels was at the top of the list for 19.4% of respondents, closely followed by reducing transportation costs (14.3%) and consolidating shipments to destination (13.1%). This will come as good news to those planning to begin cross-docking as they are anticipating improvements in these areas also.

This year's survey respondents clearly acknowledged that cross-docking adds value on a variety of levels, identifying a broad range of benefits to the practice. Interestingly, there seems to have been a shift in priorities since the 2008 study. While "improving service levels" was considered to be the biggest benefit in 2008 as well, "reducing the need for warehouse space" was viewed as the second highest benefit. Today, warehouse space slipped to fifth place, reflecting the ready availability of affordable space in today's economy.

Cross-docking and today's economy

What makes cross-docking an appealing practice in today's economic environment? "Cross-docking is an effective option for many companies in this economy because—while it is not necessarily easy to accomplish—it typically does not require a major monetary investment or change in infrastructure," explains Mike DelBovo, senior vice president, Saddle Creek Transportation Inc. "Instead, it involves an investment of time and energy into process improvement and process change. In place of brick and mortar, practitioners of cross-docking work on items such as improving communication flow, tightening up relationships with carriers, and improving service performance. This investment is more palatable, particularly when companies are scrutinizing every possible opportunity to control costs."

Impact Of Economic Conditions On Cross-Dock Operations



Currently Cross-Dock

Indeed, cross-docking appears to be part of the strategy for overcoming challenging economic times for many respondents. Of those who have been cross-docking for four or more years, 40.3% say that recent challenging economic conditions have prompted them to increase cross-docking somewhat or substantially.

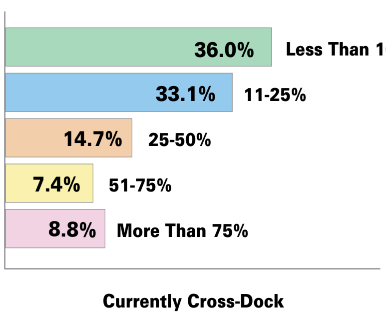
Cross-Docking in Practice

To better understand the value of cross-docking, it helps to understand who is using the practice and how.

Cross-docking continues to find appeal for companies handling a wide variety of product lines. Roughly a third of those who have incorporated cross-docking into their operations (31.1%) are using this practice to move durable goods through their supply chains. It is worth noting that companies are also finding value in the practice for high-value/high-security (19.2%), perishable (11%) and temperature-controlled (10%) items. In fact, cross-docking of perishable and temperature-controlled products increased approximately 5% since 2008.

"Cross-docking increases speed to market and reduces brick-and-mortar costs," explains Tom Patterson, senior vice president of warehouse operations at Saddle Creek. "That is understandably important for perishable and temperature-controlled items since they have limited shelf life and are usually more expensive to store, but it also holds true for high-value/high-security items. High turn rates and reduced handling minimize the risk of loss due to theft and reduce opportunities for damage. Cross-docking also helps companies avoid added carrying costs for their high-value inventory and shortens the shipping cycle—preventing products from becoming obsolete before they can be sold through."

Percentage Of Through-Put Volume Cross-Docked



Respondents report using cross-docking in varying degrees for their throughput volume (inbound and outbound), but approximately two thirds of practitioners (64%) cross-dock more than 10% of their volume. This percentage is comparable to results in 2008, indicating that the percentage of throughput volume has remained consistent in spite of fluctuating economic conditions. Interestingly, 60.3% of those who cross-dock today do say that they've considered cross-docking more of their total SKU throughput, signifying the potential for the organic growth of the practice.

Variations on cross-docking

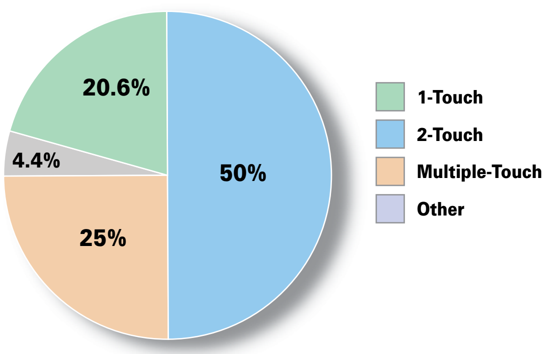
The term "cross-docking" is subject to interpretation. Traditionally in the industry, cross-docking has been defined as the process of receiving product and shipping it out the same day or overnight without putting it into storage. However, survey results point to significant variations in how that process is implemented. Responses vary considerably in regard to the facility used, when orders are placed in the distribution process, the number of times products are "touched," how long they sit at the cross-dock, and how far they travel once shipped.

Facilities. A cross-dock facility typically is one which has truck or dock doors on two or more sides with little or no storage space. These facilities are designed to accommodate factors such as product movement requirements, dock-area layout and capacity, yard management and material handling equipment.

As in 2008, roughly half of respondents who cross-dock today (53.7%) use facilities that are specifically designed or set up for cross-docking and just 27.3% of those planning to cross-dock in the near term expect to use such a facility. The lack of growth in this area over the past three years is likely to be attributable to recent economic conditions which may have precluded investments in additional cross-dock specific facilities. In order to reap the full benefits of cross-docking, companies using more traditional warehousing facilities may want to consider outsourcing their operations to a provider with facilities designed specifically for the practice.

Order placement. Respondents are fairly evenly divided on identifying the point in the distribution process at which the order is placed and product picked. For 41.9% of practitioners, product is received in bulk at the distribution center and then picked to order. But for 46.3% of respondents, orders are placed and product is picked before shipping to the distribution center. Technically, this scenario is considered to be pool distribution, says Saddle Creek's DelBovo. "With true cross-docking," he explains, "product is shipped in bulk, and picked at the cross-dock. This allows for changes to orders further down the supply chain—ensuring a more accurate process with shorter order cycles. With pool distribution, orders are placed way upstream, so there's less flexibility to meet customer demand. Even if the order changes the day before, you can get the right product exactly where it needs to go with cross-docking."

Number of Product Touches at Cross-Dock



Currently Cross-Dock

Product touches. Another discrepancy occurs with regard to the number of "touches" products receive during the cross-dock process. Just 20.6% of respondents practice "pure" cross-docking—receiving and shipping product immediately with a single touch as product is received and loaded outbound without being placed on the warehouse dock. More typical, it appears, is a "two-touch" approach. Half of respondents say that products are received and staged on the dock then loaded outbound without being put into storage. Another 25% of respondents describe their operation as "multiple-touch"—where product is received and staged on the dock then reconfigured for shipment and loaded outbound directly from the warehouse dock. Obviously, greater efficiency can be achieved the less the product is handled.

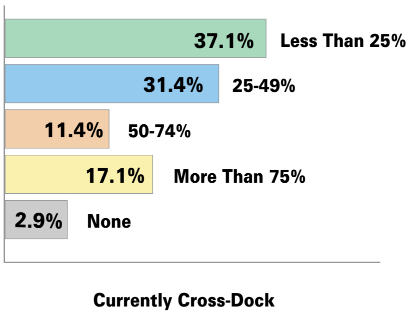
Velocity of inventory. In keeping with the high-velocity nature of cross-docking, products usually move through quickly, residing at the cross-dock facility for a day or less for 75.8% of respondents—with 36.8% moving products through in a half a day or less. There is clearly a trend toward minimizing how long products remain at the cross-dock facility and, ultimately, creating higher velocity of product flow. In 2008, 31% of respondents reported that products resided at the cross-docking facility for two days or more. Today, just 22.8% say that products sit for two days or longer.

Distance to destination. For a quarter of respondents (26.5%), a typical shipment travels less than 100 miles once it has been cross-docked. However, many other companies have cross-docks much further removed from their end-delivery point. For 47.1% of respondents, shipments travel more than 250 miles once they've been cross-docked. "Companies with cross-docks so far from the end-delivery point are overlooking the opportunity to reduce short-haul miles and save on freight costs," DelBovo explains. "Shippers must decide which variation of cross-docking works best for their particular application," DelBovo says. "Understanding the options makes that selection process easier."

Outsourcing trends

Outsourcing continues to be an effective way for many companies to reap the benefits of cross-docking. In fact, a significantly larger percentage of today's cross-dock practitioners (40.4%) use a 3PL either exclusively or in addition to in-house resources than in 2008 when just 32% of respondents who cross-docked reported tapping a third-party.

Percentage Of Cross-Dock Volume Outsourced



Most respondents who outsource say that their companies still handle some cross-dock operations internally, but 28.5% of respondents outsource more than 50% of their cross-dock volume to a 3PL—perhaps choosing to direct their focus toward core competencies.

In fact, survey results indicate that the industry can expect a shift to even more outsourced cross-docking in the near future. A sizable percentage of those who cross-dock (43.6%) plan to increase outsourced cross-docking in the next 12 to 24 months. A number of new practitioners are poised to begin outsourcing operations in the short term as well. Of those who plan to begin cross-docking in the next 18 to 24 months, 27.3% will use a 3PL exclusively or in conjunction with in-house capabilities.

What is prompting companies to outsource a portion of their cross-docking operations? Companies seek third-party providers for a variety of reasons:

Experience. Typically, those who outsource seek the expertise of a provider for whom cross-docking is a core competency instead of building that proficiency internally. The survey shows a high prevalence of outsourcing among respondents who have products with special needs. For instance, 43.6% of survey respondents who outsource use cross-docking for high-value/high-security products, compared to 19.2% of respondents overall. And 25.5% of those who outsource cross-dock temperature-controlled products, compared to 10% of respondents overall. Differences can also be seen, to a lesser degree, in the cross-docking of perishable items and non-durable goods.

Overhead investment. "Often, companies look to a third-party cross-docking provider for the flexibility to explore the potential ROI of the practice without making a long-standing financial investment," Saddle Creek's Patterson says. "While cross-docking is less costly than a traditional warehouse, it still requires a significant investment in necessary resources. Outsourcing helps companies to minimize that commitment while still realizing the value of cross-docking."

Service integration. For many, there is also value in the integrated service offering of third-party providers. Survey respondents who outsource cross-docking often outsource other services as well, including inbound logistics (16.4%), outbound logistics (19.6%), traditional distribution services (16.4%) and value added services (10.5%).

Opportunity for cost reduction. Those who outsource cross-docking are likely to have warehouse/DC operations that are larger in size. Of those who outsource, 32.7% have total square footage in excess of 1 million square feet while just 14.8% of respondents overall operate on that scale. "Larger, more diversified companies often look for new ways to save money on a particular piece of their business and identify cross-docking as an effective option," Patterson explains. "However, this also can work for smaller companies seeking to optimize segments of their operations."

Evaluating Effectiveness

As a whole, respondents gave themselves relatively good marks when asked to evaluate their cross-docks. It is encouraging to note an improvement in the area of overall cost effectiveness—up 7.8% from 2008. Clearly, the recent economic environment has challenged companies to find ways to control cross-docking costs.

Effectiveness of Cross-Docking Process

	Timing of Transportation	Supply vs. Demand Balancing	IT Capabilities	Overall Cost
(NET) Top 2 Box	76.5%	62.5%	43.4%	69.8%
Completely Effective - 5	36.8%	25.0%	19.1%	30.1%
4	39.7%	37.5%	24.3%	39.7%
3	19.1%	30.1%	30.1%	25.0%
2	3.7%	6.6%	16.2%	2.9%
Not At All Effective - 1	0.7%	0.7%	10.3%	2.2%

Currently Cross-Dock

There was little change in effectiveness of the other categories in the past three years, however. Timing of transportation continues to be particularly effective for most, with 76.5% rating their operations with a 4 or 5 (on a scale of 1 to 5) in this area, while IT capabilities remain the real trouble spot with just 43.4% rating their operations at that level. This leveling-off represents an opportunity for companies to challenge themselves and their providers to improve on their capabilities from year to year.

"The effectiveness of cross-docking can be measured in a variety of ways—freight turn time, cube or weight efficiency, order date to delivery date, etc.," says Saddle Creek's Patterson. "In identifying possible metrics, however, you first must have a solid understanding of why your company is cross-docking. Is it speed to market? Transportation savings? Customer service? Once you've determined your objectives, it's easier to find meaningful forms of measurement.

Barriers to success

The potential for improvement may be hindered by a handful of challenges. Respondents cited unpredictable customer demand (25.7%) and IT system support (20.6%) as key barriers to effective cross-docking. Not surprisingly, ever-changing business dynamics are a growing concern as well for 18.4% of respondents—up from 11% in 2008 when economic conditions were less volatile.

Single Greatest Cross-Docking Challenge

Unpredictable Customer Demand	35%
IT System Support	28%
Business Dynamics Always Changing	25%
Reliability Of Suppliers	14%
Reliability Of Carriers	13%
Facility Design	6%
Achieving ROI	5%
Management Support	3%
Lack Of Resources	3%
Other	2%
Don't Know	2%

Currently Cross-Dock

To address these challenges, it can be helpful to take a close look at the variations in cross-docking options described earlier. For example, if balancing supply and demand is difficult, it might be beneficial to begin placing orders further downstream and picking product at the cross-dock. For those challenged by transportation issues, reducing the distance that product travels after it has been cross-docked can reduce short-haul delivery miles and freight costs. Reviewing business processes to ensure that they are optimized for cross-docking can make it easier to achieve effective systems support.

"Cross-docking is not a one-size-fits-all solution," says Saddle Creek's Patterson. "You need to customize the solution to meet the needs of your business—and your customer's business."

Outsourcing cross-dock operations to a third-party provider can also be an effective solution. An experienced, asset-based provider can offer the flexibility to right-size operations to meet market demand and provide the necessary systems support as well.

Cross-Docking Outlook

Cleary, research shows that cross-docking continues to be a viable strategy for companies interested in controlling costs, increasing operational efficiencies and improving service levels. In fact, use of the practice is expanding—up more than 16% from Saddle Creek's benchmark study three years ago. More and more companies are adopting the practice for a wide range of product lines, expanding beyond traditional durable goods products. Many are exploring a myriad of variations in the practice to best suit their business objectives.

Increasingly, companies are recognizing third-party providers as valuable partners in the process—leveraging their expertise and best practices, integrated service offering, ability to assume the overhead investment, and flexibility to right size operations. Cross-dock outsourcing has grown by more than 8% since 2008, in spite of—or perhaps because of—an uncertain economy. This trend is likely to continue, as companies realize that third-party providers are well-equipped to handle common cross-docking challenges and increase operational effectiveness.

Going forward, those considering the addition or expansion of a cross-dock should proceed strategically. Cross-docks are most successful when they are aligned with business objectives and measured accordingly, instead of forced into a cookie-cutter solution. Typically, they are used selectively, for segments of business best served by the high-velocity, low-touch cross-docking environment. An experienced provider can help to identify areas likely to deliver the most significant ROI.

As companies scrutinize their operations in light of today's uncertain economic conditions, cross-docking definitely merits a closer look.

About Saddle Creek Corporation

This research was sponsored by Saddle Creek Corp. As a nationwide third-party logistics company, Saddle Creek integrates its warehousing, transportation, contract packaging and fulfillment services to provide comprehensive supply chain solutions.

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