

EBOOK

5 drivers of distribution complexity for mid-sized companies

Why outbound logistics is becoming a top driver of distribution complexity for mid-sized companies—and how to respond.

infios

By understanding the business conditions that drive complexity, you can take a proactive—rather than reactive—approach to your distribution strategy.

Another complex distribution request lands in your inbox:

“We can win a huge contract with Big Box Retail—if we can deliver store-ready rainbow pallets with compliance labeling, ready for pickup on 4 hours’ notice. Can the distribution team support this?”

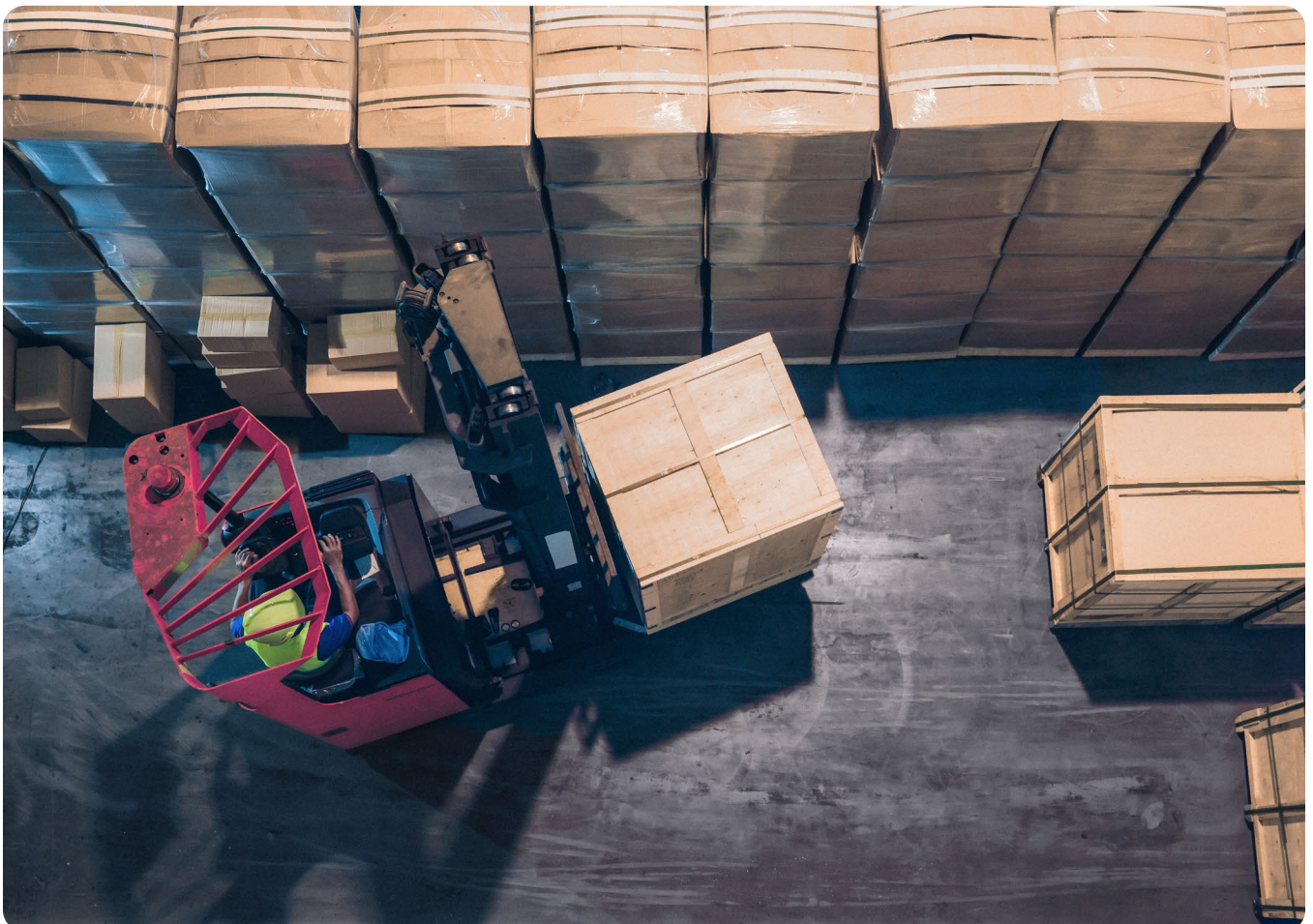
You want to support the business—but sales doesn’t always see the operational lift behind these demands. Meeting this request would require:

- Increase overall storage capacity of the warehouse to deal with the new volume.
- Modify your pick strategies to build specialized pallets.
- Enhance your wave picking process to manage the quick turn-around time this customer requires.
- Insert a new manual process for generating and applying the retailer’s specialized compliance labels.

Just this week you have received requests to support a new on-line sales channel, enable a postponement strategy by doing light assembly in the warehouse, and re-optimizing the warehouse network to reduce fuel costs.

The senior executives are great at growing your small business, but they just don’t understand the pressure this puts on the distribution operations. If this scenario sounds familiar, you should read on. If this sounds more complex than your current distribution operations, you should read-on; this may be what is coming.

This eBook will outline five drivers for distribution complexity. Each complexity driver is determined by a specific business condition. By understanding the business conditions that drive complexity you can become proactive, rather than reactive, in your distribution strategy. In addition to the complexity drivers themselves, this whitepaper will outline several best practice means for dealing with distribution complexity and allowing your operations to keep pace with your rapidly growing company.



Complexity #1: customer compliance

As a small to mid-sized business, chances are your key customers are much larger than you. Large customers have huge supply chain teams that often introduce so called “best practices” that streamline their operations but introduce significant complexity in your supply chain. Due to this large-scale discrepancy between you and your customer, your customer generally holds all the power in your supply chain relationship. In other words, their business is much more important to your company than your

company’s product is to their business. As a supply chain manager this puts you in a difficult situation.

One approach is to duck your head under the covers and hope this all goes away. Good luck with that strategy! Instead, look at potential programs that may be introduced by your customers and ensure you have the supply chain processes and technology infrastructure to support them.

Program	Details	How to prepare
Store ready pallets	Retailers ask their suppliers to prepare specialized pallets with an appropriate mix of products for a retail store or even a specific location within the retail store.	Ensure you have flexible picking methods that allow you to combine different products and different units.
Compliance labeling	Customers ask that their shipments have specific labels to identify products, orders, and assist your customer inventory sorting.	Ensure you have methods to assign custom labels to each customer or customer ship-to location. Add the custom label printing process to the outbound warehouse process.
Electronic order and Shipment notifications	Your customers expect to be able to do business with you electronically; this includes receiving orders, invoicing, and electronic shipment notifications.	Ensure you have an integrated warehouse management and EDI infrastructure. This will allow seamless and accurate flow of information through the entire order to delivery process.
Customer visibility	Customers expect to see inventory and orders in your facility to help with supply chain collaboration.	Ensure you have supply chain systems that can be extended to your trading partners through the Internet and web browser to facilitate collaboration.
Ship to your customer’s customer (drop ship)	A common tactic for removing inventory from the supply chain is to utilize drop shipping. In this paradigm your customer’s customer places an order but you (the supplier) fulfill the order. This brings challenges including the need for smaller pick sizes (eaches instead of cartons or pallets) and customized packing slips and return documentation.	Ensure you have the systems and processes in place that allow you to have different ship-to and bill-to locations. Ensure you can customize packing slips, return labels and even packaging materials based on the order profile. Ensure your order selection methods support each, case and pallet picks.

Complexity #2: new channels

Advances in internet technology and innovative marketplaces such as Amazon.com and eBay have created a multitude of channels to sell your product. While this is a great way to increase your number of consumers, additional channels can put significant strain on your distribution network.

The traditional thinking in supply chain management was to maintain separate distribution mechanisms for each sales channel. Companies have learned that this

approach will increase overall inventory holding costs, labor costs, and third party logistics costs. Savvy supply chain managers are now combining inventory in a single distribution center and managing multiple workflows within the distribution center to handle each channel. This allows them to pool inventory, improve labor utilization, and maximize storage.

Program	Details	How to prepare
Wholesalers/distributors	Wholesalers are historically the easiest channel to deal with if you are a manufacturer. Wholesale distributors often accept full pallets in truckload.	Wholesale shipments can be easily integrated into a distribution operation as full pallets or full cases can be pulled from bulk storage locations and prepared for shipment. Pallets are typically sequenced by route and stop for optimized truck loading.
Retail replenishment	Shipping to your customer's retail stores can be complex. Often customers want specific pallet configurations and labeling to help them rapidly get products to the shelf.	Ensure you have picking strategies that support the creation of store-ready pallets. Many organizations will group retail replenishment orders into specific waves to improve the consistency of how the orders are picked, staged, and loaded.
Direct to consumer	Direct to consumer orders are often small quantities of product with less than two line items per order. These orders typically require packing into a parcel shipping carton and manifesting the shipment with a parcel carrier.	Ensure that your picking methods support "each picking". Guarantee the process is optimized for picking orders with few order lines. To reduce travel time and maximize efficiency, you want to concentrate your staff in small pick areas for these orders. Confirm that you have a packing process that supports insertion of additional promotional materials (coupons, catalogs, etc.) into the package. Ensure these orders are cubed and weighed during the process and automatically manifested including the printing of a compliant parcel carrier label. Advanced distribution centers will even do a "real time rate shopping" which allows them to choose the best parcel carrier and service level for the least cost during the processing of each package.

Program	Details	How to prepare
Spare parts	Spare parts, sometimes called replacement parts or service parts, can be challenging to manage in the distribution center. In many ways, processing orders for spare parts is similar to processing direct to consumer orders. However, spare parts often have unstable demand patterns and you are required to hold a significant SKU count for spare parts.	Ensure that you have sufficient warehouse space to hold spare parts. Realize that spare parts have different demand patterns and often should not be lotted near other products with higher velocities. Try to group products that are commonly ordered together near each other. Provide customers visibility to your on-hand spare parts inventory so they know they can rely on you for availability and quick fulfillment.
Consignment	In a consignment model, you might not take ownership of the inventory until it is actually old to your customer. While this improves working capital for your company, it creates some complexity at distribution.	Ensure your supply chain systems have the ability to manage inventory that is not “on your books” and still owned by the supplier. Trigger ownership transfers based on outbound sales orders.
Ship to your customer’s customer (drop ship)	A common tactic for removing inventory from the supply chain is to utilize drop shipping. In this paradigm your customer’s customer places an order but you (the supplier) fulfill the order. This brings challenges including the need for smaller pick sizes (eaches instead of cartons or pallets) and customized packing slips and return documentation.	Ensure you have the systems and processes in place that allow you to have different ship-to and bill-to locations. Ensure you can customize packing slips, return labels and even packaging materials based on the order profile. Ensure your order selection methods support each, case and pallet picks.

Complexity #3: new product introduction

Your marketing team is full of ideas for new products. New product introduction is a key growth driver for your mid-sized business. Unfortunately, the success rate is not 100%. This creates a distribution challenge with new product introduction; how do you ensure you will be able to satisfy the demand for the successful new products and ensure that you will not waste warehouse space on the new products that don’t sell?

Here are a few leading practices for dealing with new products in the distribution center.

Collaborate with the marketing team on expected inventory: The operations team is not typically responsible for establishing the inventory levels for new product introductions, but it is critical that you understand what these inventory levels will be. By understanding what new products are coming, you can plan space and labor in the warehouse.

Obtain weight and dimensional information on new products: Although it seems obvious, weight and dimensional information is often not available for new products. This can result in orders for new products that cannot be cartonized successfully, poor use of space in the warehouse, and potential errors in shipping. Ensure you understand the physical characteristics of new products for each unit of measure.

Don’t let the dogs overrun your warehouse: When a new product is not selling it is typically referred to as a “dog”. Most organizations remain hopeful that today’s dogs will become tomorrow’s hits. This usually results in holding excess inventory of slow moving product in the warehouse. Try to remove products that will not sell to improve space utilization and overall effectiveness of your distribution staff.

Complexity #4: value added warehousing

Value added warehousing is the process of adding value to the product as it is handled in the distribution center. This can come in many forms but often involves a small kitting or manufacturing step in the warehousing process before an order is shipped to the customer.

If executed correctly, value added services can provide your company substantial differentiation from the competition and increase the stickiness of your customer relationships.

Value added services:

- Light Manufacturing/Kitting
- Repackaging for customer specific requirements

- Monogramming or other product personalization
- Quality Inspection/Testing
- Preparing store ready product (putting on hangers, applying security devices, price ticketing)

Although the specific implementation of a value added service can vary, they follow the same general principles. You want to associate customer orders to the value added services required and provide an operation workflow to track the execution of that service. To support value added services, ensure you have Order Management and Warehouse Management Systems capable of handling those services.

Complexity #5: fuel-optimized supply chain

Fuel prices remain volatile and continue to increase. The price of fuel has a direct impact on transportation costs. Some experts have calculated that each \$10 increase in the cost of barrel of oil results in a 4-cent per mile increase in transportation rates. That adds up!

Increased transportation costs can affect the optimal design of a supply chain. With low transportation costs, it often makes sense to pool inventory in fewer locations so you can optimize space, labor and inventory pooling.

However, as transportation costs increase it is more optimal to place inventory closer to customer locations, reducing overall transportation miles.

As a distribution professional, it can be significantly more complex to manage multiple smaller warehouses rather than a single large facility. It can be challenging to oversee multiple teams and support different processes by facility. Additionally, smaller facilities are typically less efficient on a per-order basis.

One key to managing a set of warehouses rather than a single warehouse is the use of a warehouse management system. Warehouse Management Systems (WMS) can provide common processes across warehouses. They also provide management visibility in real-time so you can track the performance of facilities while off-site.

Another key to managing the fuel-optimized supply chain is transportation optimization. Many organizations use manual processes to plan their transportation routes. They have people manually reviewing orders, combining orders into loads, and determining the best service levels and carriers to ship those loads.

Technology exists that can review groups of orders and select the least cost route and rate to ship those orders by combining them into optimized loads. Small and mid-sized businesses may perceive that this technology is out of reach for them. However, recent advances have made this technology easy to use and made it available at affordable prices. Optimizing your transportation planning can yield significant savings which help offset ever-increasing transportation costs.

Technologies discussed

EDI

Electronic data interchange (EDI) is a set of technologies and standards that allow companies to exchange supply chain information, including orders and inventory, across trading partners. EDI can eliminate manual order processing for both buyer and supplier and increase the overall velocity of B2B commerce. Label Printing is often contained within a Warehouse Management System or Bar Code Data Collection System.

Label printing technology

Label printing technology allows you to modify labels for customer specific requirements and control when these labels will be printed within the warehouse process.

Multi-carrier parcel shipping systems

Multi-carrier parcel shipping systems help select the optimal carrier and service level for a shipment, produce carrier compliant shipment labels, and submit an electronic manifest to the carrier for all packages shipped.

Supply chain collaboration portal

A supply chain collaboration portal is used to provide information about the supply chain to your trading partners. Typically, inventory and order information is shared with customers and suppliers.

These portals use web based technologies and make information available using a secure connection over the Internet. Collaboration portals can be part of a warehouse management system or a stand-alone application.

Transportation optimization technology

Transportation optimization technology creates optimized plans for your inbound and outbound transportation. This technology uses order consolidation logic to plan transportation loads utilizing the best route and rate for the shipment.

Warehouse Management Systems (WMS)

WMS control and optimize all activities in the warehouse. Distinctive functions in a WMS include receiving, inventory control, labor management, picking, loading, and shipping. Benefits of a WMS include improved inventory accuracy, better space utilization and improved labor efficiency.



Conclusion

It's not easy managing distribution operations at a small or mid-sized business. Your business is dynamic, poised for growth and you typically don't hold much "supply chain power" with your customers. That said, there are some initiatives that you can plan for to ensure your distribution operations are proactive rather than reactive. Predicting these complexities and establishing tools and processes to deal with them can help your company achieve rapid growth without distribution disruption.

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