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Distribution Channel Considerations For Medical Products Manufacturers

A Decision-Making Framework

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Purpose Of This Resource

A medical product manufacturer's distribution channel is a critical component of its go-to-market strategy. Companies may choose to partner with commercial healthcare distributors to ensure that customers have fast, convenient access to products. Others may opt to distribute directly to their healthcare provider customers, taking on responsibility for product storage, delivery, and logistics.

This resource is designed for manufacturers who are evaluating their channel strategy. This may happen for various reasons:

- The manufacturer uses different channels for different products, and wants to consider whether to consolidate its channel strategy
- The manufacturer is evaluating its overall current go-to-market strategy
- The manufacturer is assessing its current distributor cost/benefit scenario
- The manufacturer is looking for ways to improve service levels to customers, and/or customers are demanding changes
- In light of the recent pandemic experience, the company is looking for ways to improve resilience while maintaining efficiency

What is the optimal way to get these activities done, so that the right products are in the right place, at the right time? This tool is designed to help manufacturers answer that question for their own businesses. The goal is to determine the model that provides the best service, at an appropriate cost, contributing to the company's and its customers' strategic and operational success.

An evaluation of distribution channels should include a consideration of:

- Customer preferences and required service levels
- The manufacturer's objectives and capabilities
- Specific functions required to get product to customers, and what channel can best perform each function

This tool allows manufacturers to examine those functions and compare the costs and benefits of managing them in-house to those of outsourcing them to distribution partners.

Note that *how much* these functions costs can vary depending on who performs them – for example, a healthcare provider located in an urban area will likely have much higher per-foot space costs than a distributor warehouse in a suburban business distribution. However, the functions are universal and these *categories* of costs are incurred by any party (manufacturer, distributor, or provider) that carries finished goods. Almost all of these activities must be performed **regardless of the channel selected to perform them.**

Strategic Considerations When Evaluating Channels

A manufacturer's channel strategy should be based on maximizing value rather than simply minimizing costs. This resource lays out cost factors that may play into the decision, but ultimately the strategy should be designed to help the company provide high service levels to provider customers, win and keep business, and grow the bottom line.

Manufacturers evaluating their strategy should begin with understanding their customer's needs and expectations, and by considering their own products and markets.

Customer Considerations

- *Preferred distribution model:* **Most distribution model decisions are driven by customers.** Many providers want to buy products from a preferred prime vendor in order to minimize transactions or take advantage of low-unit-of-measure programs. On the other hand, some large health systems run their own distribution centers and prefer to buy directly from manufacturers.
- *Service levels:* Manufacturers must consider what model enables them to best meet customer needs. For example, many healthcare providers lack the space or financial resources to carry a lot of inventory, so frequent deliveries in small quantities are sometimes mandatory. Customers may also expect higher fill rates than the manufacturer can consistently provide.
- *Resilience:* Shortages experienced before, during, and after the COVID-19 pandemic have impacted customer demands. Manufacturers should consider what channel strategy will best help provide resilient solutions to customers, such as inventory buffers and alternative products.

Manufacturer Considerations

- *Products:* A manufacturer's product offerings greatly impact the channel value calculation. Products that sometimes fit well into a direct model (also referred to as manufacturer self-distribution) include ones that have high dollar value and less frequent sales.
  - » As a percentage of revenue, products that are small but valuable cost considerably less to distribute than large, inexpensive ones.
  - » Products bought infrequently are sometimes not a good fit for commercial distributors, who need to continually turn inventory.
- *Target markets:* Manufacturers selling to large hospitals and other high-volume customers may find it easier to self-distribute than those targeting fragmented non-acute and post-acute customers. The sheer number of non-hospital customers tends to make self-distribution a non-starter for most manufacturers.
- *Number of transactions:* Manufacturers who use distributors deal with a smaller number of partners – from a handful of national distributors to many independents – rather than directly with tens of thousands of healthcare facilities. Fewer transactions generally equates to smaller investments in areas like warehouse management and accounts receivable management.
- *Scale:* Insourcing any function is easier to justify for larger businesses than smaller ones.
- *Focus:* Manufacturers should consider whether distribution, transportation, and logistics are core competencies they will continue to invest in to provide value beyond their products. If instead the main differentiator is product innovation and quality, the company may be better off doubling down on that focus and outsourcing other functions.

Receiving And Storage

Meeting the ups and downs of customer demand for products requires having inventory on hand in the supply chain. Inventory may be maintained at the manufacturer's facility, held by a commercial distributor, stockpiled at a customer location, or some combination of these.

Costs Of This Function

- Warehouse overhead:
  - Space: rent, mortgage, or opportunity cost (if building is owned and paid for)
  - Utilities
  - Real estate taxes and insurance
  - Depreciation on building and improvements
  - Building repairs, maintenance, security, HVAC/temperature controls
- Equipment and technology:
  - Shelving and storage infrastructure
  - Product moving equipment (forklifts, picking equipment, robotics)
  - Warehouse management system
  - Other equipment such as product scanners, labelers, etc.
- Inventory carrying costs:
  - Inventory acquisition cost
  - Taxes paid on inventory value
  - Insurance to protect against fire, flood, theft, etc.
  - Shrinkage: lost, stolen, or damaged inventory; obsolete or expired inventory
- Warehouse labor
  - Wages, including overtime
  - Benefits
  - Recruitment and training

Considerations

- *Risk:* The entity holding the inventory assumes the financial burden and risk associated with that inventory, including product shrinkage, unsold products, decline in inventory value due to decreased demand or deflation, etc.
- *Opportunity costs:* Holding inventory ties up capital that could be invested elsewhere.
- Customer service levels:
  - Delivery lead times – These are likely to be less if distribution site is closer to customer location.
  - Fill rates – This metric is closely tied to inventory levels. Distributors typically carry more days of inventory, and often receive products from manufacturers at lower fill rates (for example, 80%) but use their inventory buffer to ensure higher fill rates (often 97-98%) to customers.
  - Number of deliveries – Since healthcare providers are often short on both staff and space, receiving more products on a single delivery is generally preferred over many separate deliveries. (Because of the complexity of receiving shipments from multiple manufacturers, some providers simply require all or most vendors to work with their designated distributors.)

Commercial Medical Distribution Estimates (U.S.)

- 500 distribution centers
- 76 million square feet of warehouse space
- 5500 manufacturers served
- Average inventory levels of ~30 days (varies by product)

Order Processing And Fulfillment

Manufacturers must engage in order fulfillment activities regardless of the distribution channel they choose, but the level of effort and investment differs greatly between models.

Costs Of This Function

- Technology: ordering systems, automated handling and picking equipment, picking systems, etc.
- Equipment and supplies: packing and labeling materials, pallets, boxes, product scanners, etc.
- Warehouse and order processing staff:
  - Wages, including overtime
  - Benefits
  - Recruitment and training

Considerations

- *Customer efficiency:* As noted, healthcare providers generally prefer to receive complete orders with all items in a single shipment, and may push vendors to use their preferred distributor so that more items can be ordered and received with each delivery.
- *Small-quantity delivery programs (LUM, JIT, stockless):* Some healthcare providers want product pre-sorted by department and delivered in boxes or "eaches" vs. cases or pallets. Such customers generally want their suppliers – particularly those making consumable products – to use their preferred distributor.
- *Investment:* Selling directly to healthcare providers greatly increases the total number of transactions and therefore also increases staff and technology requirements.
- *Order minimums:* Because order minimums tend to drive away new customers and small facilities, manufacturers that want to avoid low-dollar deliveries generally opt to use commercial distributors.

Special Considerations For Products Used In Kits/Custom Packs

- Many products are sold to healthcare providers as part of kits. These kits may be customized and sterilized for specific procedures and even aligned to specific physicians' preferences.
- Some distributors run kitting operations in addition to their distribution services as a part of their customer value propositions.
- Providers value these kits because they provide internal efficiency. Facility staff need not gather items required for a scheduled procedure; instead, they can just reach for the appropriate ready-made kit.
- Kitting ensures a manufacturer's product will be used for a procedure as intended, thereby ensuring consistent business model.
- Kitting makes it less feasible for a manufacturer to sell certain products directly to customers.

Outbound Transportation and Delivery

Once product is manufactured, it must be delivered either to a distribution center or directly to a healthcare facility.

Costs Of This Function

- Shipping charges for common carriers
- Vehicle costs, including lease costs (if leased), depreciation (if owned), repairs and maintenance, operation expenses, licenses and insurance
- Driver/delivery personnel, including salaries, bonuses, benefits and payroll taxes, etc.
- Other personnel such as transportation and logistics specialists to coordinate shipping, plan routes, and optimize transportation efficiency and costs
- Supply chain logistics software and technology

Considerations

- *Manufacturer's outbound transportation costs:* These will generally be lower if products are moving to commercial distribution centers than directly to customers, because the manufacturer is making fewer, larger deliveries.
- *Truckloads vs less-than-truckload (LTL) or common carrier:* Larger shipments are generally less expensive and often timelier. (Most common carriers are known for timely service, but LTL shippers must wait to fill a truck and timeliness is a key concern.)
- *Type of customers serviced:* Distribution requirements are generally simpler when delivering to large customers with a single delivery point (for example, the hospital loading dock). Transportation activities are more costly when delivering to smaller facilities and/or provider organizations with multiple ship-to locations.
- *Enhancing efficiency of customer operations:* Healthcare providers usually prefer to receive ordered items in as few shipments as possible; multiple shipments increase receiving costs.
- *Equipment set-up and installation:* For equipment requiring installation, manufacturers must consider who will perform this function. Manufacturers that consider this a core part of their value package may choose not to outsource this function. However, some distributors have this expertise, and some specialize in it. This can be especially valuable for customers setting up a new facility, when many items must be installed concurrently and quickly, and integrated with each other.
- *Management of commercial carriers:* Some distributors will take responsibility for managing logistics through third-party carriers
- *Environmental considerations:* Using commercial distributors typically means fewer, larger shipments, which may reduce energy usage, emissions, and sometimes packaging.

Billing And Credit Management

Credit management includes assessing customer creditworthiness, invoicing customers, and importantly, assuming the risks associated with extending credit. The cost of managing and executing group purchasing organization (GPO) contracts can also be included in this function, or evaluated as a separate function.

Costs Of This Function

- *Cost of money* (to carry receivables)
- *Contract administration and chargeback management:* Most manufacturers and distributors have sizeable teams for managing the complexities of GPO contracts and pricing tiers and ensuring that customers are correctly invoiced
- *Labor:* This may include the contract/chargeback administration teams, accounts receivable staff, collections, and related functions
- *Technology:* Billing software, contract management systems, and other IT
- *Bad debt:* Write-offs due to customer failure to pay

Considerations

- *A/R days outstanding:* Healthcare providers are often slow to pay, given that their revenue comes mainly from third-party insurers which are also slow payers. Distributors tend to pay more quickly, and to take advantage of any prompt-pay discounts from manufacturers. Many manufacturers report much lower DSO for their distributed sales compared to direct sales to customers.
- *Risk:* Extending credit involves risk. Using a distributor allows a manufacturer to offload a large portion of that risk, along with significant credit management responsibility
- *Cash flow:* Many group purchasing contracts allow providers to buy products for less than the wholesale price. When distributors sell product at these low negotiated prices, they apply for a chargeback from the manufacturer to cover the difference between the price paid by the distributor to the manufacturer and the lower contract price paid by the provider to the distributor. Any time lag in this process benefits the manufacturer's cash flow.
- *Pricing accuracy:* Quality in the billing function means timely, accurate invoices that satisfy the information needs of the customer. There is a significant cost and responsibility to performing this function, especially given the complexity of healthcare contracting. Many providers belong to multiple GPOs and expect vendors to bill them based on the correct contracts and pricing tiers.
  - » Using distribution partners can add a layer of pricing complexity, but also another level of pricing management expertise.
- *Efficiency of customer operations:* Customers generally prefer to reduce their total number of invoices, reducing the staff time necessary to manage payables.

Returns and Customer Service

Support before and after the sale is critical for healthcare customers. Products need to be exchanged or returned, product recalls are sometimes required, and questions have to be answered promptly and correctly.

Costs Of This Function

- Customer service staff
- Technology and software
- Return shipping (since supply chains are generally designed to move forward rather than in reverse, returns are much more costly than deliveries)

Considerations

- *Staffing levels:* Manufacturers selling direct will need more staff in order to manage more transactions and deal with smaller customers and low-dollar issues.
- *Sales force effectiveness:* In the absence of a strong customer service team, the manufacturer's sales professionals can get mired in issues like returns and price disputes. One manufacturer that shifted from selling directly to using distributors found that the strategy change had a large impact on sales effectiveness. Distributors managed day-to-day service issues like inquiries about deliveries, product availability, and pricing, freeing up the manufacturer's sales team to focus on growing sales.
- *Training:* Great customer service depends on knowledgeable staff. Manufacturers must invest in training their own team, and if they use distributors, will want to also invest in training for distributor sales and customer service personnel.

Information And Data Services

Providers look to their vendors not just for products but for data – about things like their overall spend, product utilization, purchases on contract, and much more.

Costs Of This Function

- IT infrastructure: computers and related equipment, enterprise software, and specialized software for specific functions
- IT/data science staff
- External consulting and support

Considerations

- *Data aggregation and insights for the manufacturer:* Manufacturers that work through distribution may be able to access data and insights aggregated across hundreds of thousands of customers. On the other hand, some manufacturers prefer to sell direct in order to have a direct view of its customer's purchase data.
- *Data aggregation and insights for customers:* Customers may prefer to buy through a distributor in order to gain access to aggregated information. Rather than having to examine reports from each manufacturer, the customer can see information about purchases from hundreds or thousands of different suppliers, and identify opportunities to improve utilization, increase contract compliance, and enhance outcomes.

Sales And Marketing Support

A manufacturer's channel strategy and its sales and marketing strategy should be complementary. Manufacturers who self-distribute are more often those with high-dollar physician preference devices who want maximum customer control. Manufacturers that use distributors benefit from making their products more widely accessible to customers, and may receive some level of sales and marketing support as well, in terms of lead identification, demand generation, or both.

Costs Of This Function

- Sales staff
- Marketing staff
- Advertising and marketing
- Website development and maintenance
- Technology

Considerations

- *Customer control:* Some manufacturers maintain a direct-sales model to maximize their connection with customers and their influence over providers' buying decisions.
- *Customer intelligence:* Similarly, the direct model gives the manufacturer direct access to customer data and market intelligence. On the other hand, distributors typically have more frequent contact with a customer's supply-chain staff, and work with a broader array of decision-makers and influencers within each account. As a result, a manufacturer that uses distribution may be able to gain more insight into buying patterns, competitive trends, and sales opportunities.
- *Access to customer base:* Distributors carry a variety of product lines. For the manufacturer using distribution, this can mean more competition, but it can also mean additional access and exposure to a broad range of customers.
- *Lead and/or demand generation:* The distributor's sales force can complement the sales and marketing activity of manufacturers' representatives and provide more frequent customer contact. Well-trained manufacturer sales representatives can sometimes achieve a "multiplier effect" by developing strong relationships with distributor sales reps, who can then help to generate sales leads for the manufacturer. The level of distributor sales support provided to a manufacturer is usually spelled out in the distribution agreement and may involve additional fees or incentives to the distributor.
- *Sales force productivity:* Sales reps for a direct-selling manufacturer often spend a significant portion of their time dealing with issues like pricing, delivery dates, product availability, and so on. In an indirect model, these activities are more often managed by the distributor, allowing the manufacturer's salespeople to spend more time on demand creation.
- *Target markets:* The value of distributor sales support is often strongest for manufacturers serving non-hospital providers, because the markets are so fragmented.
- *Number of points of contact:* Some providers prefer to deal with as few vendors as possible, and may prefer to buy through a distributor for this reason.
- *Types of relationships:* Manufacturer salespeople typically have clinical expertise and strong relationships with clinical decision-makers within healthcare facilities. Distributor salespeople often have stronger relationships with supply chain leadership.

What Channel Support Do You Need?

As noted earlier, a manufacturer's channel strategy should be based on *maximizing value* rather than simply minimizing costs. The analysis of how to maximize value **starts and ends with the customer's needs**, while also taking into account the nature of the manufacturer's products and markets.

Does Your Product Belong *In A Distributor Warehouse*?

	High Frequency	Low Frequency	Notes
Consumable Products (low clinical preference, less expensive, more commoditized products)	Yes	Maybe	• Most customers prefer to buy high-turnover items through distribution. • Full-line distributors may not be able to justify the cost of carrying products sold very infrequently. • Some distributors specialize in certain product categories or hard-to-find items; these distributors may be a better fit for lower-frequency products.
Complex Or High-Dollar Devices (physician preference items, expensive equipment, new technologies, etc.)	Yes	No	• The decision on whether to use distributors for logistics is impacted by the product's size and weight, value, and sales frequency, as well as the role of the manufacturer at the customer location. • Some providers prefer to buy high-frequency items from a distributor, including PPI, surgical devices, etc.

Will Your Product Benefit From Distributors' *Sales And Marketing Support*?

	Fragmented Target Market (many potential customers and call points, such as non-acute markets)	Consolidated Target Market (narrow range/ small number of potential customers)	Notes
Consumable Products	Yes	Maybe	• Distributors offer a variety of programs to help manufacturers with demand creation. The level of support must be negotiated in the distribution agreement. • Distributors often have large sales teams with high call frequency, allowing manufacturers to reach a larger number of customers. • Distributors are less likely to focus significant sales time to low-dollar commodity items.
Complex Or High-Dollar Devices	Probably	Maybe	• Distributors sometimes help manufacturers find prospects from among the many thousands of potential customers in a fragmented market. • The manufacturer's sales force (or specialty distributors) may be most appropriate for customer contact and demand creation. • Capital products with high-dollar values, financing options, and installation may be challenging to sell through distribution.

Distribution Channel Analysis Guide

The chart below summarizes some of the factors manufacturers should consider when evaluating their channel strategy. Because customer expectations and needs are paramount, those are listed first. The chart also outlines the costs that the manufacturer (and/or the provider) would have to take on if it moved from a distributed to a direct model. Those costs should be compared to the costs of using distributors, including distributor margins, channel fees, investments in preferred vendor programs and other sales and marketing support, early payment incentives, and other channel costs.

The "costs" column breaks out cost categories for particular functions, regardless of which trading partner performs them. For manufacturers that want to compare total costs of each channel option, bear in mind:

- Labor costs are a large portion of every function. Calculations for allocating staff time and overhead must take into account how much of an employee's time is devoted to each function, any overtime, benefits, temporary labor, etc.
- Many costs are hidden and hard to quantify, and they may not be included in the chart below. Be sure to think about things like the cost of lost business in the event of a back order or shortage, or to the cost of switching from one channel to another.

Don't overlook opportunity costs. For instance, if a manufacturer owns a warehouse and the space is completely paid for, the value of that space should still be factored into the calculation since the building could be sold or otherwise deployed.

Function	Customer Considerations	Costs	Direct Channel Advantages	Distribution Channel Advantages
Receiving And Storage	• Customers want short lead times and high fill rates • Back orders or shortages can directly impact patient care		• Direct control over inventory levels and allocations	• Product stored in closer proximity to customer location
Warehouse	• While some large hospitals and health systems maintain their own distribution centers, most have limited storage space	• Space: rent, mortgage, or opportunity cost (if building is owned and paid for) • Utilities • Real estate taxes and insurance • Depreciation on building and improvements • Building repairs, maintenance, security	• Full control of how product is stored and handled	• Significant decrease in storage investment for manufacturer
Technology		• Equipment: Shelving, forklifts, etc. • IT: warehouse management system, picking systems, etc.		
Inventory Carrying Costs	• Many providers are facing significant financial challenges and may be reluctant to tie up cash in inventory	• Inventory acquisition cost • Taxes paid on inventory value • Insurance • Shrinkage: lost, stolen, or damaged inventory; obsolete or expired inventory • Cost of capital		• Distributor assumes inventory-related risks: unsold or expired products, decline in product value, shrinkage, etc.

Function	Customer Considerations	Costs	Direct Channel Advantages	Distribution Channel Advantages
Warehouse labor		• Wages, including overtime • Benefits • Recruitment and training		
Order Processing And Fulfillment	• Providers generally prefer to receive fewer, larger shipments • Customers with LUM/JIT models may want product pre-sorted by department and delivered in boxes or eaches vs. cases or pallets • Many providers want products delivered as part of kits		• Closer contact with customer	• Fewer transactions • Ability to set order minimums with less risk of losing business
Technology		• Ordering systems • Automated handling and picking equipment, picking systems, etc.		
Equipment and supplies		• Packing and labeling materials, pallets, boxes, product scanners, etc.		
Warehouse and order processing staff		• Wages, including overtime • Benefits • Recruitment and training		
Outbound Transportation And Delivery	• Healthcare providers usually prefer to receive ordered items in as few shipments as possible to reduce receiving labor/ costs • Some facilities (especially in urban areas) are space-constrained and can't accommodate tractor-trailer deliveries	• Shipping charges for common carriers, and/or • Vehicle costs, including lease costs (if leased), depreciation (if owned), repairs and maintenance, operation expenses, licenses and insurance • Driver/delivery personnel, including salaries, bonuses, benefits and payroll taxes, etc. • Other personnel such as transportation and logistics specialists to coordinate shipping, plan routes, and optimize transportation • Supply chain logistics software and technology	• Full control over delivery and installation	• Fewer, larger deliveries results in lower transportation costs • Greater ability to ship in full truckloads • Environmental advantages from consolidation of shipments

Function	Customer Considerations	Costs	Direct Channel Advantages	Distribution Channel Advantages
Billing And Credit Management	• Customers generally prefer to reduce their total number of invoices, reducing the staff time necessary to manage payables.	• Cost of money (to carry receivables) • Pricing and chargeback management: Most manufacturers and distributors have a sizeable teams for managing the complexities of GPO contracts and pricing tiers and ensure that customers are correctly invoiced. • Labor: This may include the contract/chargeback administration teams, accounts receivable staff, collections, and related functions. • Technology: Billing software, contract management systems, and other IT • Bad debt	• Ability to quote and control total delivered price to customer (no distribution margin)	• Faster payment, reduced DSO • Reduced credit risk and bad debt • Distributor support in managing pricing • Fewer transactions: manufacturer doesn't have to invoice a large number of small customers
Returns And Customer Service	• Customers expect prompt service and ability to efficiently return products	• Customer service staff • Technology and software • Return shipping (since supply chains are generally designed to move forward rather than in reverse, returns are much more costly than deliveries)	• Direct control over service levels and returns policies • Fewer steps in the return shipping process	• Less manufacturer staff required if distributors are dealing with smaller customers and low-dollar issues • Improved sales force effectiveness (manufacturer reps focus on growth while distributor manages service issues)
Information And Data Services	• Providers look to their vendors for data about overall spend, product utilization, purchases on contract, etc. • Customers may prefer to buy through a distributor in order to gain access to aggregated information	• IT infrastructure: computers and related equipment, enterprise software, and specialized software for specific functions • IT/data science staff • External consulting and support	• Direct view of customer purchase data	• Ability to access data and insights aggregated across thousands of customers
Sales and Marketing Support	• Some providers prefer to deal with as few vendors as possible, and may prefer to buy through a distributor for this reason • Providers may view distributor as a more neutral (and therefore more trusted) source on product choice	• Sales staff • Marketing staff • Advertising and marketing • Website development and maintenance • Technology	• Maximum customer control and influence over providers' buying decisions • Direct access to customer data	• Opportunity to gain more insight into customer buying patterns, competitive trends, and sales opportunities, because distributors have more frequent customer contact • Access and exposure to distributor's full customer base • Lead and/or demand generation by distributor sales force (if distribution agreements provide for this)

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