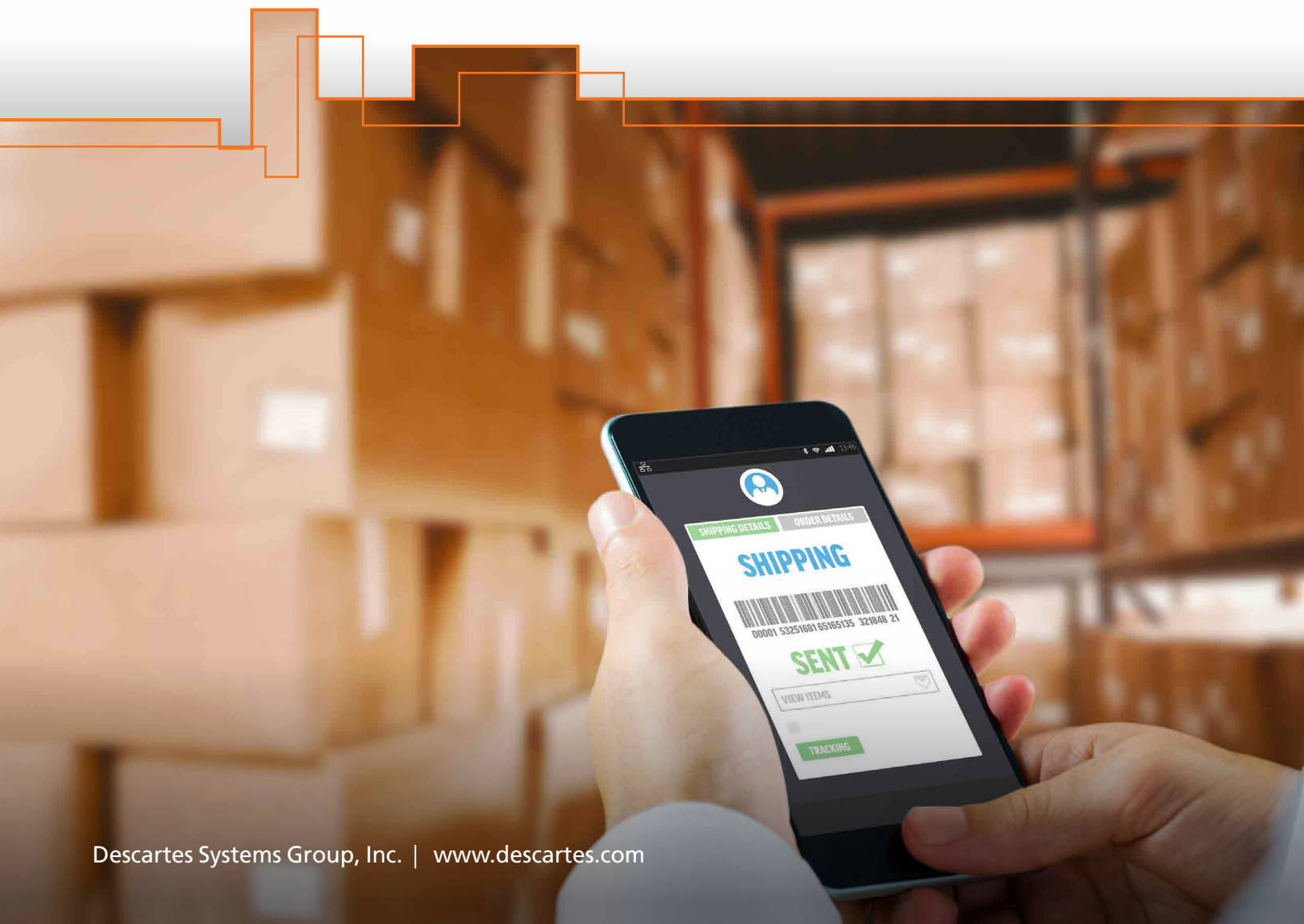


DESCARTES™

10 Ways to Pick, Pack & Ship Like A Top Player in Ecommerce

*Best-in-class Strategies for Warehouse Operators
and Online Retailers*



10 Ways to Pick, Pack & Ship Like A Top Player in Ecommerce

Today's customers have high expectations. They look for fast shipping, visibility, the best prices, easy returns, and continuous communication from order to the point-of-delivery (POD). In general:

- **75%** of U.S. consumers expect free shipping ([Source, NRF](#))
- **78%** of B2B customers want the ability to track and trace orders ([Source, Forrester](#))
- **80%** of online shoppers stop doing business due to a poor customer experience ([Source, HubSpot](#))
- **92%** of consumers say that they will buy again if the returns process was easy ([Source, Invespro](#))
- **50%** of online sales originate from marketplaces ([Source, DigitalCommerce360](#))

Warehouse operators and online retailers also know that high consumer expectations mean that they must get processes right in order to thrive. While this may sound easy, businesses not only face high customer demands, but also face industry challenges. In general:

- **65%** of warehouse costs are tied to labor ([Source, Inbound Logistics](#))
- **50%** of workers' time is spent walking and picking orders ([Source, Convey Company](#))
- **38%** of warehouses feel obligated to handle more SKUs ([Source, Waternacher](#))
- **34%** of mid-size warehouses faced rent increases during the past five years ([Source, WSJ](#))
- **39%** of the top marketplaces were launched since 2010, meaning more points of connectivity ([Source, DigitalCommerce360](#))

With labor costs on the rise and the number of products increasing, it is critical to optimize warehouse processes. While there has been much discussion on how to streamline operations, it can be challenging to choose between the right shipping and fulfillment methods to get the warehousing equation right.



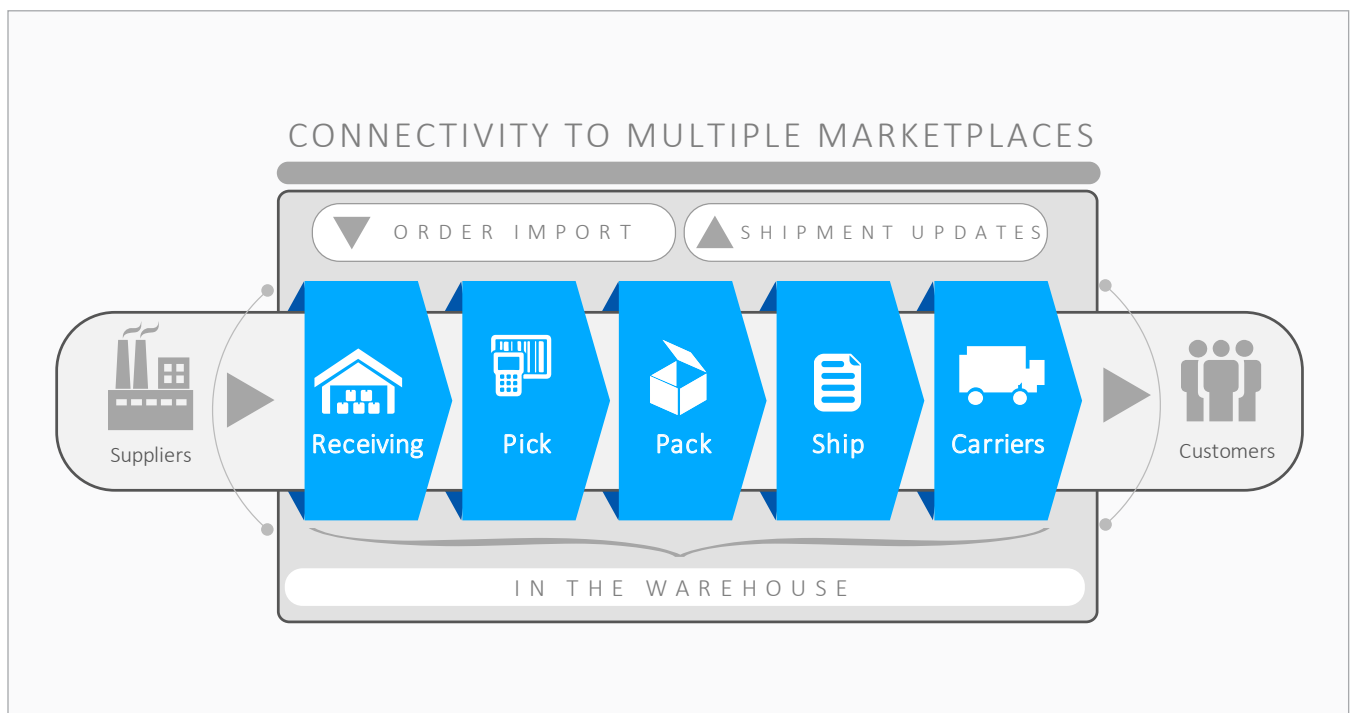
This white paper takes a close look at **10 tactics** to improve warehouse operations and to pick, pack, and ship like the top players.

1 - Automated Connections

Many warehouse operators and online retailers know that they can expand their fulfillment options by connecting to a diverse range of ecommerce marketplaces. Many businesses quickly realize, however, that a multi-marketplace, multi-tactic strategy can get complex. Different marketplaces have varied criteria for order information. Multiple processes and systems may also lead to errors, differing pick, pack and ship processes, points-of-failure, and added labor.

A solution is required that can automate connectivity and take the IT and data management issues out of marketplace selling. Beyond this, technology is needed to ensure that warehouse processes (i.e. receiving, picking, packing, shipping, and carrier selection) are similar regardless of the sales channel.

Best-in-class players know that systems that can seamlessly communicate with local online selling platforms, online shops, and international selling outlets are critical to standardize processes and drive-down costs.



Solutions that can not only connect to a broad range of marketplaces but can standardize and simplify processes in the warehouse agnostic of sales channel are key to performing like a top player.

2 - A Barcode-driven Approach

Barcodes in the warehouse are an absolute “must” to be a top player. Inventory and shipping systems have used barcodes for quite some time for processes such as:

- Receipt
- Put away
- Replenishment
- Picking
- Packing
- Shipping
- Returns
- Cycle counts

Best-in-class businesses certainly use barcodes to perform the above functions, however, market leaders also use barcodes as a trigger to do more. For example, a barcode scan can activate background processes to inform a customer that an item has been picked and is on its way. The same scan can also automatically update sales channels with stock availability. This means that “availability to sell” is more accurate which can mean more sales.

With the right systems in place, market leaders know what orders have been placed as well as what’s coming into and out of their doors. As a result, they can sell more inventory through better communication. It all starts with the right technology to connect with sales channels and trading partners.



Barcodes & Accuracy: It can be challenging for workers to see the correct size and color at-a-glance. Barcode-based systems can mean added accuracy, improved productivity, and ultimately, improved customer satisfaction.

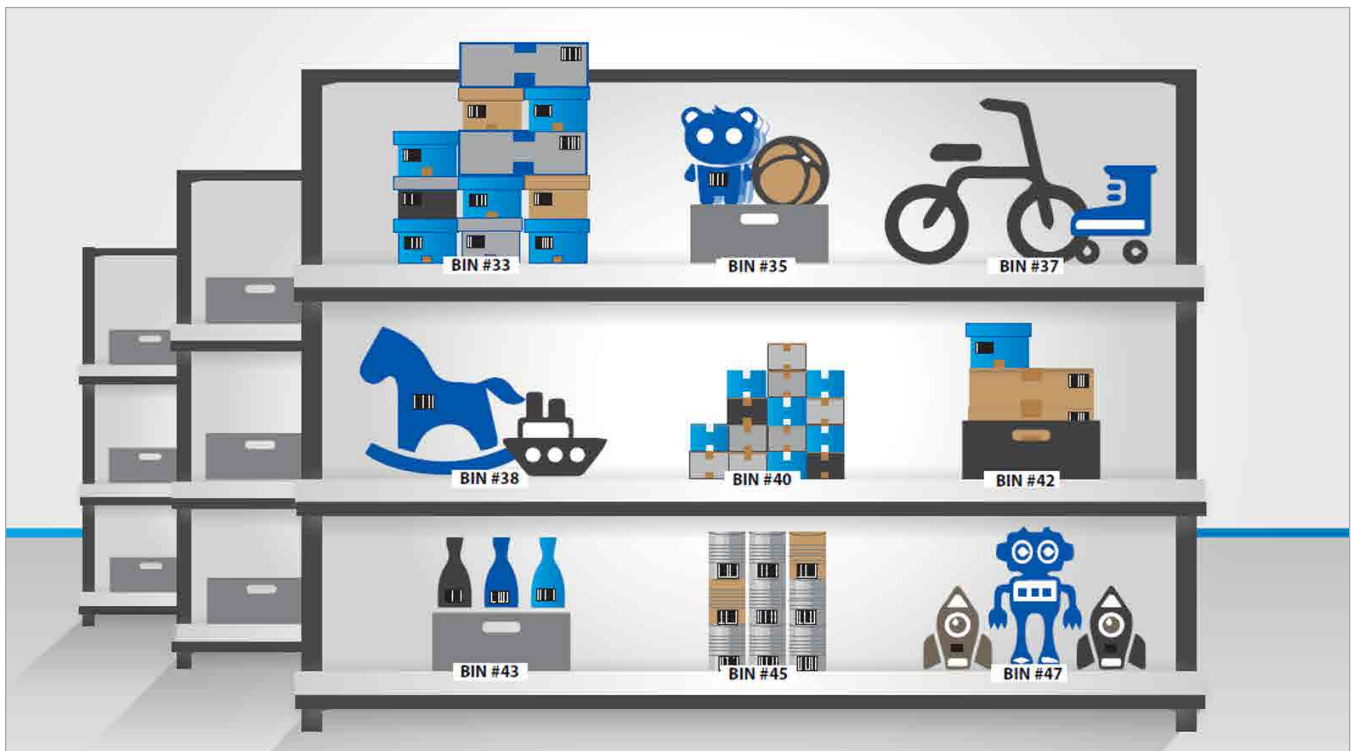
3 - "Chaotic Storage"

When many envision a warehouse, they likely picture groups of similar items organized by product type or in a defined order. Such practices, however, may not make the best use of space. For example, organizing by strict product type does not necessarily mean that an item fits best in a given space. In addition, ordered space also does not mean that popular items are placed within easy reach or as part of an optimized picking path.

In a "chaotic storage" model, free space can be filled more quickly and used more effectively although the products may not appear to be neatly grouped or structured. Every incoming product that requires storage is assigned a barcode that tracks where it is to be stored.

Why Market Leaders Use a Chaotic Storage Warehousing Model

- **Flexibility:** Space is organized more efficiently, and more products can be warehoused.
- **Accuracy:** Since similar products are not necessarily placed together, pickers can better see that they are selecting the correct item. Also, since the chaotic storage model is barcode-driven, there are automated checks and balances against picking errors.
- **Cost Savings:** Workers don't need to spend time organizing locations. In addition, new and seasonal workers are made productive more rapidly since there is no need to memorize the warehouse layout.
- **Optimization:** Chaotic storage eliminates redundant movements to fulfill and order. The right solution also guides workers to the optimal picking path.



Chaotic storage is like organized confusion. It's an organic shelving system without permanently defined storage areas. Using a barcode for each product, market leaders use systems that can guide pickers to retrieve items from the correct location.

4 - Advanced Single- & Multi-order Picking Strategies

Every warehouse has a high incentive to minimize walking throughout the warehouse. As mentioned previously, 50% of workers' time is spent walking and picking orders (Source, Convey Company).

In order to optimize labor, businesses deploy a range of pick strategies that range from traditional to best-in-class including:

- **Single-Order Picking:** This is the classic scenario where an order is simply picked, packed, and shipped.
- **Multi-order Picking:** In this model, a worker is guided to collect items for multiple orders at once. Workers are steered toward orders that are clustered closely together in the warehouse. Then, toward the end of the process, orders are consolidated, packed, and shipped.
- **Multi-order Tote Picking:** In multi-order tote picking, the process of end consolidation is performed in one step. Orders of similar size and shape are placed onto a mobile cart during the picking process. Multi-order tote picking is one of the preferred methods of market leaders since orders are already separated into individual totes. From there, consolidated orders can go directly to the packing and shipping process.

With the right solutions in place, warehouses and online retailers can realize up to:



40% Improved walking time efficiency with multi-order picking



50% Improved packing and shipping time with multi-order tote picking



100% Overall pick accuracy

Source: Descartes.

5 - Service Levels & Carrier Selection

Selecting the right service level and carrier can be a complex endeavor. The size of a product, weight of an item, location of a customer, and other factors can have a substantial impact on carrier cost. While some companies may have discounted rates with one carrier, many have discovered that using multiple carriers, comparing rates, and evaluating service levels may be a best practice to minimize costs and better meet consumer needs. However, deciding the right balance of time-in-transit versus cost can be challenging, especially given the pace and volume of orders.

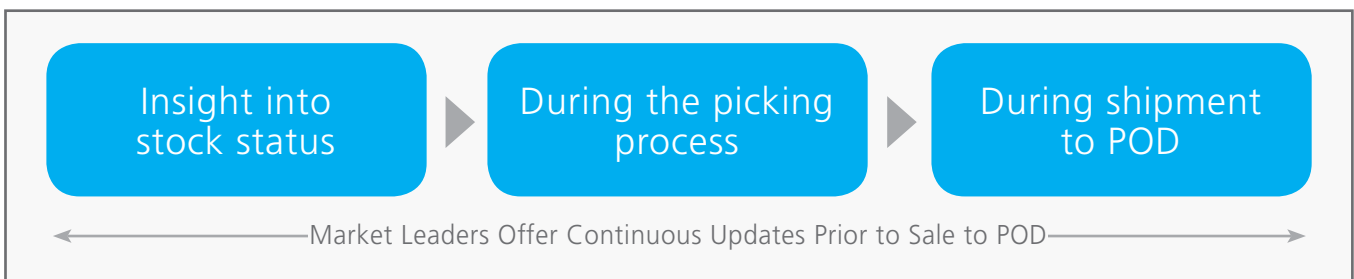
Service

Service	Transit	Rate
USPS Priority	2 days	\$9.00 ✓
FedEx Ground	5 days	\$9.84
UPS Ground	4 days	\$10.49
USPS Parcel Select	4 days	\$12.20
FedEx Express Saver	5 days	\$18.80
UPS 3 Day Select	3 days	\$22.56
FedEx 2 Day	2 days	\$27.17
FedEx 2 Day AM	2 days	\$31.25
UPS 2 Day Air	2 days	\$32.99

Market leaders are using technology that can determine the optimal transit time versus cost decision. Best-in-class solutions have options to automatically pinpoint the best rates versus delivery times. Beyond this, leading solutions can print one-off carrier labels or print in batches if required.

6 - Real-time Customer Updates on Order Status

78% of customers, including B2B customers, want the ability to track and trace orders (Source, Forrester). In today's competitive environment, it is critical to offer customers more than order status updates. As orders are picked, market leaders can provide status updates that notify customers that an item is being processed. This drives home the fact that customers know that their requirements are being addressed and adds a sense of confidence in the business.



In addition, top performers do even more than offer processing status during picking. Market leaders know that customer communication occurs even before an order is placed. Best-in-class warehouses and online retailers offer full and accurate insight into stock availability. They also provide continuous updates at the time of shipment through to the point-of-delivery.

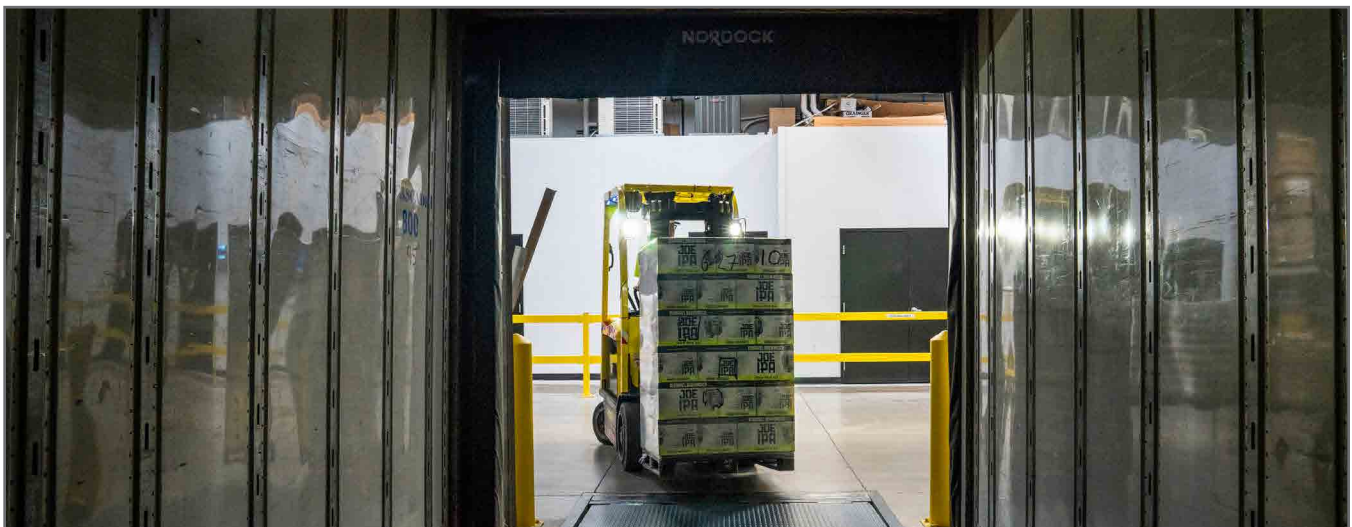
7 - Cross-Docking to Increase Cash Flow

In cross-docking, products and materials are unloaded then immediately moved to the outbound transportation process with as little storage time as possible. In a sense, product simply crosses the dock and is shipped out. In general, cross-docking is a best practice since the longer products sit in a warehouse or another storage location, the less overall value they provide over time, and the more cost that is incurred.

Market leaders use technology that can maximize cross-docking in order to:

- Reduce material handling costs
- Minimize the need to store products in the warehouse
- Decrease labor costs since less packaging and storage is required
- Speed product more quickly through the warehouse
- Maximize the ability to screen for product quality
- Increase the number of products that can be processed

Cross-docking solutions allow companies to expedite shipments to customers, which means that customers get what they want sooner. In addition, it is important to note that cross-docking is not carried out the same way for all products. There are products that are never cross-docked since they may require special handling or packaging. Best-in-class solutions must not only flexibly handle cross-docking, but also match the business rules for a given location or product.



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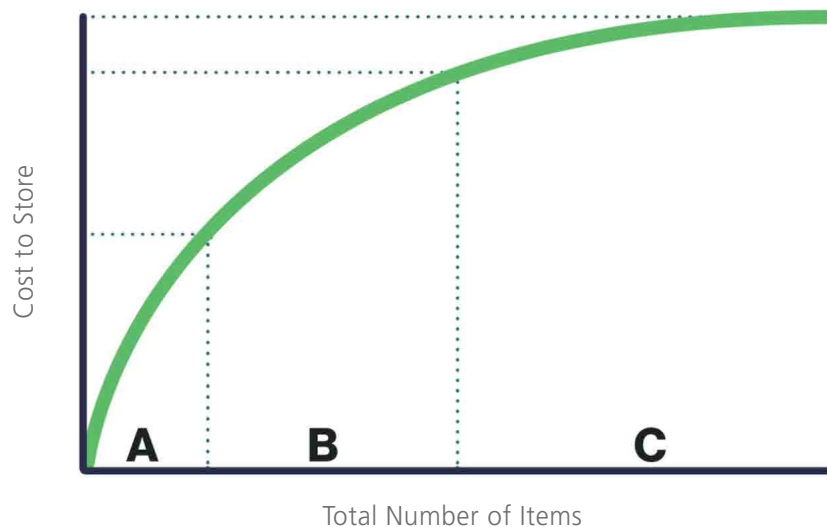
8 - ABC Analysis

ABC Analysis is based, in part, on the “80-20” rule. Building upon the Pareto principle, the 80-20 rule essentially states that 80 percent of the overall benefit or profit originates from 20 percent of the total items. To put it another way, not all inventory has the same value, moves as quickly (has the same velocity), or has the same impact on the bottom line.

ABC Analysis allows warehouses to segregate and manage inventory into three major groups. It is a simple way to classify items to better optimize layout or stock flow. The system also allows companies to organize products and reduce the time that the workers require to store, pick, locate, or move items in the warehouse.

In general:

- “A” Category items represent approximately 15%-20% of inventory, but represent 80% of its value. In general, what is deemed as most important (most used, best sellers, etc.) is contained in this category.
- “B” Category items represent 30%-35% of inventory, but about 15% of its value. In general, these items are often less used, or have been assigned a secondary importance.
- “C” Category items represent 50% of inventory, but only 5% of its value. In some cases, these items have been determined to cost more to store than they are worth.



Best-in-class players are using solutions that can help them classify and organize stock according to the rules of ABC Analysis. They have optimized picking and walk time according to the importance of their items and the particular rules of their business niche. Technology that can not only identify which items belong in which category but subsequently optimize warehouse performance is critical in order to compete like a top player.

9 - Automated Cycle Counts

When it comes to inventory accuracy, the perception that the warehouse or operations must shut down is not only expensive, but is ultimately not efficient. As a result, best-in-class businesses use periodic, partial, cyclical counts in order to maintain accuracy.

Top players select items or groups of items to be counted at certain times. They maintain cycle counts for each group to ensure that all inventory is eventually processed. In addition, top performers use technology to automate their counts so that best sellers or products that move more quickly, for example, are reviewed with added frequency. They also use the information obtained from cycle counts in order to get a better pulse on consumer behavior and predict replenishment.

Some leading innovators are going one step further by automating parts of the cycle count process with virtually hands-free solutions. For example, technology that can help workers more quickly locate bins through the assistance of Augmented Reality (AR) would help minimize time spent searching for the right bin location. The visual guidance can not only reduce search times during cycle counts but could also improve the accuracy of the process.

10 - Streamlined Returns Handling

Returns are a fact of life in ecommerce and a streamlined return is often top-of-mind for consumers. Market leaders know that in order to deliver a “perfect” return, the warehouse, accounting, carrier systems, and ecommerce platforms must work in lock-step. Platform agnostic solutions that can better consolidate returns under a single system, regardless of the underlying ecommerce channel, are critical to getting returns right. This means that returns management for a given marketplace, for example, should be the same at the operational and systems level.

Also top of mind is the understanding that only articles available in inventory can generate revenue. Best-in-class businesses are using solutions that can quickly receive inventory not just back into stock, but communicate availability to online shops and sales channels. Because of the volume of returns, synchronizing carrier platforms with powerful ERPs is critical for many businesses. Solutions such as QuickBooks or NetSuite, for example, may require a connector to effectively communicate with carrier systems. With the right extension in place, businesses can minimize the cost of returns by leveraging negotiated rates, automating business processes and improving customer choice.



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Conclusion

Ecommerce warehouses are complex operations with many moving parts and functions happening simultaneously. In this environment, it can be challenging to know where to focus productivity improvements and determine where optimization efforts will pay off. It makes sense then that any competitive advantage is best derived from focusing on the elements of the fulfillment process that affect the customer directly, i.e. pick, pack, and ship processes.

While perhaps no ecommerce retailer or warehouse operator has realized the perfect operation, best-in-class businesses look for solutions that ultimately benefit the end customer by optimizing processes. Solutions with intelligent pick, pack, and ship capabilities specifically designed for ecommerce and built upon proven, metrics-driven results are critical to realizing a competitive advantage.

Top performers are looking for solutions that can connect to internal systems, shopping carts, marketplaces; offer continuous customer communication; reduce labor in the warehouse; and provide a long-term path for growth as your ecommerce business thrives.

About Descartes Ecommerce Solution

Today's ecommerce supply chains can be challenging to manage. As businesses grow, multiple points of connectivity, internal procedures, diverse sales channels and more can lead to disorganization and lost revenue.

Descartes centralized, holistic ecommerce solutions go beyond the online transaction to provide end-to-end-channel connectivity, seamless communication with trading partners, and practical operational processes all the way up to the point of delivery to drive excellence and exceed customer expectations.

From home delivery, to warehouse management, shipping, channel connectivity and more, Descartes Ecommerce solutions help businesses succeed in today's evolving ecommerce landscape and enable businesses to compete at a higher level.

Learn more at www.descartes.com/ecommerce

About Descartes Systems Group

Descartes (Nasdaq:DSGX) (TSX:DSG) is the global leader in providing on-demand, software-as-a-service solutions focused on improving the productivity, performance and security of logistics-intensive businesses. Customers use our modular, software-as-a-service solutions to route, schedule, track and measure delivery resources; plan, allocate and execute shipments; rate, audit and pay transportation invoices; access global trade data; file customs and security documents for imports and exports; and complete numerous other logistics processes by participating in the world's largest, collaborative multimodal logistics community. Our headquarters are in Waterloo, Ontario, Canada and we have offices and partners around the world.

Learn more at www.descartes.com and connect with us on [LinkedIn](#) and [Twitter](#).



Contact us to learn how to thrive in today's evolving logistics ecommerce landscape and compete at a higher level.

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Uniting the People & Technology
That Move the World.