



**E-COMMERCE
DC SITE
SELECTION**

CONNECTING THE DOTS

Online and omni-channel retailers set their sites on distribution network optimization, picking fulfillment locations that suit shifting consumer demand.

E-commerce retailers are grappling with a massive paradigm shift driven by the demands of consumers empowered by robust new digital tools. As technology fundamentally changes how people shop, e-tailers must transform once-separate sales channels into a unified whole. At the same time, the “Amazon effect” has consumers expecting to receive almost any order within two days of purchase—particularly from pure-play e-tailers.

Property investors, state governments, and business development groups are noticing these changes and are ready to react. They are eager to better understand the need for e-commerce distribution, and to court retailers preparing for growth.



For example, Oak Brook, Ill.-based CenterPoint Properties, an industrial property and transportation infrastructure developer and manager, seeks to offer e-commerce companies the same logistics-oriented approach it uses to support retail store fulfillment DC tenants. “Some of our properties can take advantage of existing supply chain fundamentals, and leverage them for e-commerce retailers,” says Brian McKiernan, senior vice president, development, for CenterPoint.

For both pure-play e-tailers and those operating across retail channels, deciding how and where to position inventory to support e-commerce growth is complex. Before they can even think about site selection, they face critical decisions about what defines their brand in this new customer-centric world, and how their operations and supply chains can best support e-commerce initiatives.

It’s not about keeping up with a trend or following a formula—every retailer’s solution will be unique. The goal is to leverage existing assets and savvy site selection to deliver the brand experience as efficiently as possible.

STEPS TO SITE SELECTION

Site selection for e-commerce fulfillment locations begins with defining the brand value proposition and determining how it translates into shipping times. Retailers must consider their customer base, competitors, and the nature of their goods. The same shopper may expect office supplies tomorrow, but be perfectly content to wait five days for throw pillows.

“Retailers have to consider the fulfillment promise they are making,” says Steve Schellenberg, vice president, business development at IMS Worldwide, a Webster, Texas-based supply chain consultancy. “If they keep their promise, they lower the order abandonment ratio and return rate.”

To support their fulfillment promise, companies must have the technology and infrastructure in place to ensure sufficient response time between when the customer places an order and when the fulfillment center dispatches it.

Defining the brand experience can be complicated. Miami-based apparel company Perry Ellis International sells about 30 different clothing brands, with varied go-to-market strategies and value propositions. The company distributes apparel through department, chain, and specialty stores; mass merchants; and company-owned retail stores and websites. Perry Ellis also performs e-commerce fulfillment for some retail customers.

“Our sales organization wants us to ship fast to customers, so ideally we would locate a DC in the middle of the country,” says Joseph Roisman, executive vice president at Perry Ellis. “But that is farther from the origin point. We wage a constant battle to fulfill and ship orders faster. But our higher priority is to receive product faster, so we can distribute it through our various channels.”

Perry Ellis currently maintains each brand’s omni-channel distribution operations in dedicated facilities. That could change if e-commerce volumes increase, says Roisman. The company is currently setting up a centralized returns facility in Miami.

For some brands, Perry Ellis relies on Port Logistics Group, a

Houston-based third-party logistics (3PL) provider specializing in gateway logistics services near major North American ports. Unlike pure-play e-tailers, many omni-channel companies such as Perry Ellis find it most cost-effective to minimize transit time and cost by storing and distributing from the point of entry to multiple channels.

Fast-Moving Fashion

Gwynnie Bee serves as its customers’ personal closets. Its monthly subscription service offers ready-to-wear, high-fashion apparel in women’s sizes 10 to 32. Members select items online, keep them as long as they want, then send them back to be inspected, cleaned, and sent to the next subscriber.

The model works so well that the company is rapidly outgrowing its distribution center in upstate New York. Robert Escobar, vice president of operations, led the search for a new fulfillment center.

Escobar started with a network optimization analysis. “We looked at our shipping and receiving processes, all shipping points and zones, and average costs,” he says. The team also considered the subscriber base.

Escobar expected indicators to point to three areas: Ohio, northern Kentucky, or Indiana. The company engaged a site selection firm to tout its anticipated volume, workforce needs, and capital investment to those states so they could formulate bids.

At the same time, Escobar and his team nailed down building criteria: size, number of doors, height, proximity to main highways, and build-out capabilities, including potential office space and vertical mezzanines. One important difference from most e-commerce DCs is that Gwynnie Bee’s inbound parcel volume would be just as heavy as its outbound. The team identified two buildings in each selected area.

It soon eliminated Kentucky, and engaged an accounting firm to assess tax risk, incentives, and liabilities for the two remaining areas. Meanwhile, the team took a closer look at labor. “Amazon has a huge presence in Kentucky and Indiana,” says Escobar. “It tends to absorb much of the area’s labor pool.

“After a management tour, we concluded that Columbus, Ohio, was the best bet,” he says. “Our business relies on our ability to deliver and process back in record time. Gwynnie Bee currently receives items, processes them within 48 hours, and ships them out with an average one- to three-day delivery time.

“By siting a new fulfillment center in Columbus, we’ll be able to cut delivery time,” Escobar says. “In this competitive marketplace, we have to deliver faster.”

"At the gateway, retailers have the flexibility to ship anywhere products are selling, while minimizing redundant inventory," says Jeff Wolpov, chief commercial officer for Port Logistics.

MAKING THE NETWORK WORK

A clearly defined value proposition kickstarts the next step in site selection: network optimization. This process includes mapping from the current distribution network to one that will support growth. Key considerations include the points of origin and entry, customer segmentation, current and future customer locations, margins, and asset availability.

The solutions vary as e-commerce and omni-channel retailing continue to evolve. Omni-channel retailers can tap store fulfillment DCs—and stores themselves—as options for e-commerce fulfillment, while for pure-play e-tailers, it's all about strategic distribution site selection. Options also include managing all e-commerce fulfillment in-house, asking vendors to drop ship, outsourcing all or part of fulfillment to a 3PL, and partnering with a distribution provider such as Amazon or Google.

"If retailers operating both brick-and-mortar stores and e-commerce websites don't evaluate their full supply chain to determine how to use every part of it as a fulfillment point, they could end up building a new distribution center every 18 months to two years," warns Piyush Sampat, principal and retail supply chain practice

lead for management consulting firm Deloitte Consulting.

In 2015, Seattle-based fashion retailer Nordstrom will open its third facility devoted exclusively to its e-commerce, mobile app, and catalog operations. The DC's Elizabethtown, Pa., location offers close proximity to a Nordstrom store fulfillment facility, easing inbound costs, and allowing the retailer to fulfill e-commerce orders from stores.

"Customers expect more from traditional e-commerce retailers than brick-and-mortar stores with an online presence," says Sampat. "Pure-play e-commerce retailers are pressured in terms of points of demand, urban hubs, and proximity to parcel carriers."

PARTNER PLAYS

Analytics can help drive network optimization decisions. After rapid growth began to overwhelm in-house analytics capabilities, Atlanta-based energy drink maker Kill Cliff began outsourcing analytics to Impulse Global Services, a software and technology services company based in India. Tapping order data, as well as raw data from its parcel carrier, helps Kill Cliff determine where to locate 3PL fulfillment facilities, and how to balance inventory. The company's operations manager, James Shirah, keeps daily tabs on order patterns to keep the fast-growing business on track.

Transportation costs are a key variable in any network decision. "Site selection isn't just about shipping to customers," notes Tom

Disasters Happen! How you handle them is what matters.

On May 22nd, an EF-5 tornado devastated nearly 1/3 of Joplin, Missouri
7,000 homes were destroyed

More than 500 businesses were leveled and 5,000 jobs were lost

107 miles of city streets were filled with 3 million cubic yards of debris

(That's enough debris to fill a football field end zone to end zone nearly as high as the Empire State Building)

Eleven public school facilities, including the high school, and one private school were lost

Before dawn on May 23rd, all streets were opened one lane for emergency services

Before midnight on May 24th all lanes were cleared

On May 26th the Business Recovery Center opened to help impacted businesses

More than 400 businesses have reopened their doors with more reopening every day

3,500 of the employees who "lost" their job remain on the payroll

All 3 million cubic yards of debris was removed by August 7th as scheduled

Schools started on time in temporary facilities that are the model for schools of tomorrow



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This recovery would not have been possible without our Regional Partners
and help from all across the United States and the world.

Thanks to this CAN DO attitude, the Joplin region is still open for business and stronger than ever.

Your business can benefit from this CAN DO spirit.

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The Joplin Region: Central. Connected. More Than Capable!



E-commerce distribution centers often require different automation and more shelving than store fulfillment operations.

Nightingale, president, transportation logistics, for GENCO, a Pittsburgh-based 3PL. “It’s also about managing inbound goods and transfers among distribution sites.”

Many e-commerce retailers rely on 3PLs to support fulfillment operations, manage entire distribution location networks, or facilitate steps in the process. For one retailer customer, Port Logistics breaks down pre-packs of goods into ship-ready eaches, then sends the repackaged merchandise to the retailer’s e-commerce DC for fulfillment.

3PLs are also a way for startups to ramp up quickly. For these companies, site location becomes about selecting a 3PL partner with the right locations and capabilities. For example, Kill Cliff’s small staff quickly realized it could not internally support the company’s 300-percent annual growth. Kill Cliff outsources its e-commerce business to Las Vegas-based fulfillment services firm Webgistix, and is looking to expand its footprint into the Dallas area.

“The quicker we get product to customers, the quicker they consume and reorder it,” says Shirah. “Fast shipping also reduces customer service issues. If we deliver in two to three days, customers don’t call wondering where their order is.”

Webgistix uses technologies such as heat mapping and a proprietary optimization software to help customers determine the ideal network, and make decisions such as routing orders to the correct location based on buyer proximity.

“We show retailers the inventory carrying costs for five locations versus two, and the tradeoffs in carrying costs versus delivery times,” says Webgistix CEO Joe DiSorbo.

CENTRAL VS. CLOSE TO CUSTOMERS

Because their strategies differ, some e-commerce sellers centralize fulfillment operations to one or a handful of distribution centers, while others, such as Amazon, seek to locate multiple

facilities close to population centers. New York City-based flash sales e-tailer Gilt Groupe takes a mostly centralized stance, locating its main distribution center just outside Louisville, Ky., with smaller operations in Brooklyn, N.Y., and Las Vegas. Although Gilt emphasizes flash sales, its logistics value proposition is based more on shipping a perfect order than on lightning-fast delivery.

“We do direct ship from Louisville to Los Angeles and New York,” says Chris Halkyard, chief supply chain officer and general manager, distribution services for Gilt. “We can zone skip and feed directly into the main areas where our customers are located, leveraging our volume and, ultimately, improving customer deliveries.”

The challenge of operating multiple DCs is the added cost and complexity. For

apparel e-tailer Gwynnie Bee, a much larger, centrally located new DC in Columbus, Ohio, will help maintain high service levels (*see sidebar, page 108*). But the company will retain a smaller facility in upstate New York.

“The trick is balancing inventory,” says Robert Escobar, Gwynnie Bee’s vice president of operations. “Transferring a lot of inventory between facilities becomes costly.”

SITES THAT STAND OUT

Once strategic decisions are settled, site selection can begin. Proximity to interstate highways and parcel shipment hubs is a necessity for any e-commerce site. The later the parcel carrier cut-off time, the more hours the company has to sell and ship out on the same day.


Another priority is a plentiful, qualified, year-round and seasonal workforce. “Labor is a huge component of e-commerce fulfillment, and each retailer has its own ratio,” says CenterPoint Properties’ McKiernan. “Some companies want 10, 20, or 30 applicants for every job.”

When Nordstrom chose a building site in Elizabethtown, Pa., the company prioritized workforce availability, flexible space, proximity to shipping hubs, and a similar facility for store fulfillment.

Gilt’s steady growth means it needs locations that can support constant hiring. “Some areas are becoming saturated with distribution operations,” says Halkyard. “And they’re all looking for the same employees.” For that reason, Gilt focuses on making its DCs great places to work.

Workforce quality extends to management talent. “I try to balance the time spent finding a general manager with the time spent finding a building,” says Escobar. “The GM will drive the facility, culture, costs, and performance expectations.”

To attract e-commerce DC operations, Joplin, Mo., touts ACT’s National Career Readiness Certificate earned by many of the



area's 175,000 workers. Current distributors give the workforce high marks.

E-commerce fulfillment operations in and near Joplin can draw from a large area because the region has low traffic congestion, says Rob O'Brian, president of the Joplin Chamber of Commerce. Joplin offers a centralized location, proximity to parcel carrier networks, and the Crossroads business park adjacent to Interstates 49 and 45, which will have an interchange into the park in 2015.

"Joplin is an ideal location for inbound and outbound shipments," says O'Brian. "The overall cost of land is reasonable, taxation is not particularly high, and utility rates are modest."

States are also courting e-commerce distribution through incentives such as Missouri Works, a Missouri Department of Education initiative. "The program withholds state payroll taxes, and, depending on the number of jobs and capital investment, offers additional tax credits," says O'Brian. "And in Missouri, unused tax credits are refundable at the end of each year."

The state also offers locally designated enterprise zones, and the capability for foreign trade zone designation.

Although e-commerce distribution centers may not look dramatically different than store fulfillment DCs, they do sometimes require different physical elements and equipment, such as dock configurations or higher ceilings to accommodate mezzanines and

automation. For example, 60 percent of Gilt's main DC houses a goods-to-person mobile robotic picking solution.

"Traditional DCs have 32- to 36-foot ceilings, but many e-commerce companies want 36 to 40 feet," says McKiernan. "They may also require more loading docks to accommodate high-velocity turns." Additional car and trailer parking can also be important for surge periods.

ADAPT TO SUIT

Port Logistics Group has reconfigured existing facilities to meet e-commerce demands by using flow racks and takeaway sorters, and by turning pallet racking into shelving.

"E-commerce companies must manage many different stock-keeping units (SKUs) and products with an unlimited shelf life," says Port Logistics Group's Wolpov. "We need to minimize touches and shorten pick paths to deliver those products within tight time windows."

Lower volume operations, and those with a wide variety of SKU shapes and sizes, find a more manual approach works best, and rely heavily on labor, says DiSorbo.

With retail operations evolving so rapidly, the only certain best practice in designing e-commerce fulfillment networks is to build flexibility into current choices. ■

INVESTMENT | DEVELOPMENT | MANAGEMENT



CenterPoint Properties is focused on the investment, development and management of industrial property and transportation infrastructure that enhances business and government supply chain efficiency.



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