



The New Space Race: Warehouses and Distribution Centers

How Consumer Demand Is Altering the Supply Chain and Logistics Landscape

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On August 6, 1991, the World Wide Web became publicly available. Since that day, the way that customers access and purchase consumer goods has radically changed. Thanks to the advent and availability of the internet, consumers can (from the comfort of their own home) access goods from across the globe with a few strokes on the keyboard and a couple clicks of the mouse. Long gone are the days when a new power tool meant a trip to the local hardware store and finding the perfect birthday gift required stopping to shop at multiple stores.

In addition to revolutionizing how and where consumers shop, the internet has also ushered in a new set of customer experience expectations. For instance, the majority of big-box stores (like Walmart and Target) and a vast number of larger, regional grocery chains now offer a personal shopping service for little or no charge. This service allows customers to place an online order with their local store where a “personal shopper” then picks the order in time for same- or next-day pick-up. Some stores even offer a scheduled home delivery service for a nominal fee or subscription. Just like Amazon Prime’s same- and next-day delivery promise, these types of expedited order fulfillment services are drastically reducing the total foot traffic that can be found in brick and mortar stores.

The internet’s influence can even be felt in those instances where consumers still need and want a physical interaction with a product before making a purchasing decision. In a trend that has been termed “[showrooming](#),” an increasing number of companies are opting for smaller retail spaces where customers can touch and interact with products. (Williams Sonoma®, Nordstrom and Urban Outfitters are among the retail giants currently experimenting with this trend.) However, instead of leaving with bags full of goods, in-store kiosks and/or personnel provide access to online portals that facilitate the expedited shipment of goods directly from a distribution center to the customer’s home. This approach to retail is not only reducing store overhead expenses, it is exposing consumers to a wider variety of merchandise since stores only need to maintain an inventory of sample products.

Taken altogether, these “new” approaches to consumerism are substantially influencing the way companies are structuring their go-to-market strategy. While at one time quality and price point were the primary factors in a purchase decision, the speed and ease with which the desired goods can be obtained now bears considerable weight. Now more than ever, merchants are under an increasing amount of pressure to provide the fastest delivery time. If they fail to do so, customers can and will go to a company that will meet their speed expectations.

So, how are suppliers staying ahead of the curve and meeting the customer's demand for (almost) instant gratification?

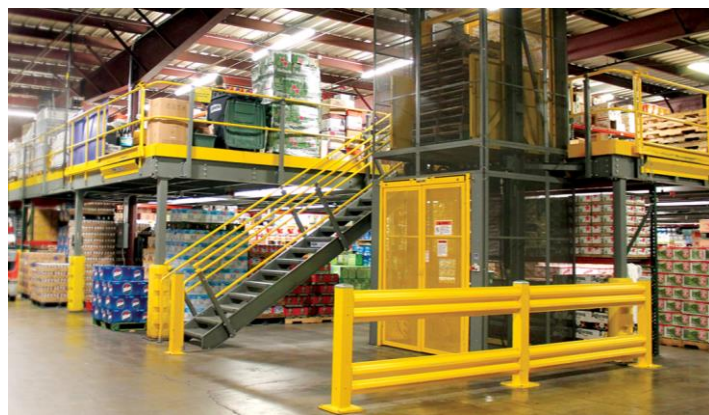
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According to [CBRE Group, Inc.](#), a full service commercial real estate firm providing solutions to property owners, investors and occupiers, "the demand for well-located, small light-industrial properties – less than 120,000 sq. ft. – continues to outpace that for larger warehouses, largely driven by local economic activity, urban population growth and same-day delivery expectations of consumers." Additionally, CBRE reports that the availability of light-industrial properties has dropped almost 4% over the past five years, from 11.3% to 7.4%. It is becoming increasingly more competitive to find and secure smaller warehouse facilities.

While at first glance these data points seem to suggest that companies are rapidly opting to downsize their operations, nothing could be further from the truth. In fact, more companies are electing to operate out of multiple, smaller facilities that are strategically located near population centers (in both urban and suburban areas), increasing the total amount of real estate a company has available. By adopting this practice, companies are able to access previously untapped markets, quickly deliver on their customer experience promises and differentiate themselves in an increasingly competitive marketplace. Consequently, the era of mega-sized warehouses and distribution centers that could service an entire geographic region or country is giving way to a model that is smaller and increasingly focused on efficiency and customer satisfaction.

As companies move their operations to multiple, smaller facilities that are strategically located, new technologies and best practices are emerging to facilitate these transitions. For instance, micro-fulfillment centers (MFC) allow companies to place small warehouse facilities near consumers. As the name suggests, micro-fulfillment centers serve the same function as traditional warehouses and distribution centers, facilitating the delivery of products to customers. However, the close proximity of micro-fulfillment centers to consumers allows for expedited product delivery. Additionally, the micro-fulfillment center's small (but mighty) size allows companies to more closely manage and analyze inventory trends and quickly pivot to meet the market's changing demands.

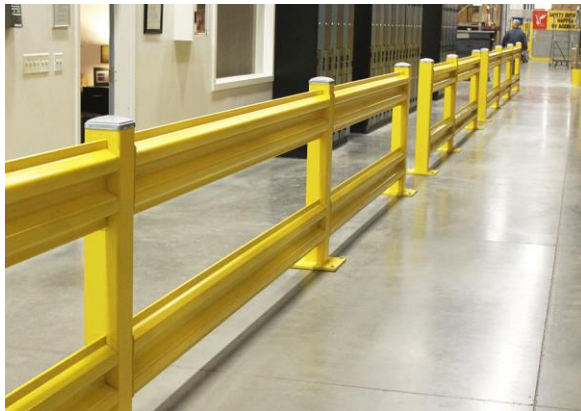
While some micro-fulfillment centers operate out of their own standalone facilities, others are located in the stockrooms, basements and garages of existing buildings. This is especially beneficial in heavily populated urban areas where new real estate is scarce and/or expensive or in suburban areas where regulation can make new



development difficult. Powered by automated material handling solutions and AI technology, micro-fulfillment centers provide a way to fulfill orders quickly while utilizing a minimal amount of square footage, achieving the optimal balance of form and function. The initial adoption of this new supply chain trend has been largely relegated to grocery stores and wholesale suppliers. However, as the tools and equipment that power micro-fulfillment centers continue to evolve, there are monumental implications on the horizon for other consumer goods verticals (i.e. apparel, auto parts, consumer electronics, etc.).

Even though new supply chain trends (like micro-fulfillment centers) are dependent upon the emergence and adoption of new technologies, there is still a need for “traditional” material handling solutions in the distribution of consumer goods. For instance, [industrial mezzanines](#) provide an ideal way for micro-fulfillment centers to capitalize upon the unused space above a facility’s ground floor, increasing the total square footage the smaller space has to offer.

Installed between the floor and the ceiling in a micro-fulfillment center, industrial mezzanines are typically constructed with heavy-duty steel and are capable of safely supporting the tremendous loads associated with automation and storage equipment. With the automation and/or storage processes safely situated on top of a mezzanine, a micro-fulfillment center’s precious ground level space is left available for more time sensitive and operationally critical functions (i.e. receiving and dispatching products). Additionally, micro-fulfillment centers that choose to install a mezzanine will also need to invest in products like [guard rail](#) and [safety gates](#) (two traditional material handling staples) to ensure that the platform’s elevated ledge is protected.



Depending upon a micro-fulfillment center’s ceiling height, an industrial mezzanine can be single or multi-tiered, effectively adding additional stories inside the facility. With the additional square footage that these work platforms afford, a micro-fulfillment center’s automation operations and storage capacity can be effectively scaled-up to accommodate higher product volumes. All these factors combined allow companies to make the most efficient use of their micro-fulfillment center’s limited space without sacrificing accurate and timely order fulfillment goals.

As micro-fulfillment centers invest in solutions that allow them to maximize the potential of the building’s unused vertical space, lifting solutions that can safely and efficiently transport products between various levels will also be needed. [Vertical reciprocating conveyors](#) (VRCs) and [rideable material lifts](#) (RMLs) are two types of traditional lifting devices that can be used in micro-fulfillment centers to facilitate the movement of



products between a mezzanine's levels and the ground floor. While VRCs provide a cost-effective and reliable way to move loads of products and materials only, RMLs are a solution for those instances where both personnel and products must be simultaneously transported together.

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VRCs and RMLs can be designed to accommodate a company's exact specifications. For example, lifting speeds, carriage sizes and safety features are three VRC and RML features that can be adjusted (to varying degrees) to achieve the most efficient product movement. And while VRCs and RMLs will remain the most efficient means of moving bulky, elevated materials, these lifting devices will never be able to entirely replace the need for [rolling ladders](#) and [work stands](#) that can provide safe and quick access to a micro-fulfillment center's lower levels.

The supply chain and logistics industry will continue to embrace and adopt trends that are customer centric and supportive of faster to market times. And while these new trends will be aided by the emergence of new technologies and best practices, there will still be a need for traditional material handling solutions (like mezzanines, VRCs and RMLs). In an era where there is an increasing emphasis on doing more with less, an experienced material handling solutions provider (like Wildeck, Inc.) can help companies find the balance between the "new" with the "tried and true." Let Wildeck be your partner in meeting the opportunities of tomorrow.