



Pandemic Continues to Reshape Strategies, Investments in Last-Mile Logistics



Perhaps, in 25 or 30 years, economists, historians and social scientists will study the lasting effects of COVID-19 on global commerce. And, as they analyze the many consumer behaviors influenced by the pandemic, they will no doubt remark on the extraordinary agility demonstrated by last-mile logistics providers.

True, Amazon, eBay and other e-commerce giants were already reshaping the B2C category. Leading consumer brands, retailers and delivery providers had designed complex distribution networks capable of handling seasonal peaks and the unrelenting shift from brick-and-mortar stores to computer screens and handheld devices.

But then came April 2020, when nearly four billion consumers worldwide retreated to their homes. Suddenly, e-commerce and last-mile logistics were transformed from modern conveniences to societal lifelines. Order volumes jumped. The types of items delivered to doorsteps proliferated. Within days, it seemed, even the most tech-wary consumers were cheering the frequent arrivals of delivery vans.

Even as the world continues to fight the pandemic, it is clear that COVID-19 has secured the dominance of digital

commerce. And in doing so, it has made the last mile the Holy Grail of the B2C value chain, according to Andrew Nowell, UK-based sales manager for [Trimble MAPS](#), which provides last-mile routing, optimization, mapping, navigation and other technology solutions for shippers and logistics providers.

“The pandemic has increased parcel volumes. This is in line with what our major customers in the UK, Europe, the US as well as Australia and New Zealand would have predicted happening in two-to-three years’ time,” Nowell said. “What’s most interesting is that these volumes appear to be holding in a lot of theaters, even as (lockdown) restrictions are being eased and people are free to go back into physical retail locations.”

So, what’s next? How will major brands, retailers and [parcel delivery operations adapt](#) to the needs of an increasingly e-commerce-centric population—one that will be far more mobile than it has been for the past 16 months?

Retail Brands Fight Back

Nowell foresees leading brands and retailers redoubling their efforts to optimize the customer’s buying journey, from click to delivery. “The customer experience can be a powerful competitive differentiator,” he said. “It’s not enough, for example, to offer two delivery windows—morning or afternoon. You need

to offer ETAs that are accurate to within 30 minutes. If you're delivering groceries, it might need to be within 10 or 15 minutes depending on what the consumer is willing to pay."

Consistent with this trend, parcel carriers are being asked to provide more value through each delivery. This might be as simple as parking the delivery truck or van in a specified location or as complex as offering eco-friendly delivery and/or providing skilled installation of items such as refrigerators, washers/dryers and televisions.

"Even for a general parcel delivery van that makes 200 stops a day, the expectation is to provide 200 positive customer experiences," Nowell explained. "There's a lot of technology needed to meet that expectation."

How shippers and parcel carriers address these and other challenges will likely vary by region, just as pre-pandemic delivery strategies were tied to local preferences and geographical realities.

In Scandinavian countries, for example, which have comparatively few urban areas, consumers generally spend more time out of their homes. As a result, many eCommerce shipments are directed to centrally located parcel lockers rather than recipients' doorsteps. Parcel lockers are also common in many European nations, but not in the UK and Ireland.

One of Sweden's leading parcel delivery providers operates a network of more than 1,600 out-of-home delivery points. The carrier uses Trimble MAPS solutions to continually flex this network up and down to ensure convenient local access for customers regardless of changes in volume. After they have received a text notification of the delivery, consumers can access a dashboard featuring detailed map visualizations and directions to the delivery location, determine other services available at the delivery point, and plan their pickup. The benefits for the carrier are simplicity, speed, accuracy, reduced cost and, above all, increased consumer satisfaction.

Also popular in Nordic countries is a "green" delivery option tied to reduced vehicle emissions. This trend, sure to spread to other regions, further complicates the design of last-mile networks. Fleets transitioning to electric vehicles might need to increase the number of network depots in a given area to address battery charging needs. Government-mandated low-emission zones, common in large European cities, add additional complexity and cost to last-mile networks.

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The Miles Ahead

For all that's not known about future changes in consumer purchasing behavior, one thing is certain, according to Nowell: the logistics community will find the necessary solutions. "These people are very savvy problem solvers," he said. "Put them in a room and they will find an answer."

Those answers are increasingly coming in the form of new technologies. Nowell says last-mile tech investments have evolved from proof-of-delivery to route planning and design to the ability to dynamically optimize routes, vehicles and loads to ensure the greatest possible productivity.

The sources of these technologies are also changing. Ten years ago, large parcel delivery providers typically developed proprietary solutions to support their unique processes, technology stacks and use cases. Today, even very large logistics operations are investing in best-of-breed solutions from outside providers.

"They're now on their second or third generation (of technology)," Nowell explained. "They've brought it in, deployed it, learned lessons and run through that investment cycle one or two more times. With the increased popularity of SaaS and distributed networks, they are now able to configure many off-the-shelf solutions to meet their specific needs."

But first, perhaps, a breather. Many last-mile logistics providers have been moving too fast in the past 18 months to focus on lessons learned and plan for the future. "Hopefully, when this all settles down, they can sit back to look at the future very strategically and solve anticipated problems technically," Nowell said. ["We would welcome the opportunity to be part of those discussions."](#) ★