

Tom Meehan, CFI
CSO & CISO, CONTROLTEK

Meehan is a leading loss prevention expert in all things cybersecurity, radio frequency identification (RFID) and information technology. He is the chief strategy officer and chief information security officer at CONTROLTEK, the retail technology editor at Loss Prevention Magazine and the co-host of the Loss Prevention Research Council podcast CrimeScience. He currently serves on the ISCPO Board of Directors. Previously he was director of technology and investigations with Bloomingdale's, where he was responsible for physical security, internal investigations, asset protection systems and data analytics.

How Changing Logistics During the COVID-19 Pandemic Have Impacted Consumers

In the first part of this article series about the impact of COVID-19 on consumers and businesses, I will go over how the pandemic has affected the global supply chain and resulted in issues that will affect consumers in 2021 and beyond. While it's not a new discovery that the coronavirus pandemic has led to unprecedented changes in how we work, shop, socialize and live our everyday lives, consumers have had to bear the brunt of these changes. We can expect to see a continued shortage of consumer electronics, increased online shopping, ongoing shipment delays and new challenges as the United States distributes COVID-19 vaccines across the country.

THE STATE OF GLOBAL LOGISTICS SINCE 2020

The logistics industry serves a complex web of manufacturers, suppliers, vendors, distributors and retailers that spans the globe. For example, the iPhone uses components from over 200 suppliers in 43 countries — all to create just one single product. The global supply chain depends on an efficient and reliable flow of materials and goods between and within countries so businesses around the world can meet changes in consumer demand.

When Wuhan, the epicenter of the pandemic, was first hit with the coronavirus, global logistics felt an immediate impact. The city of Wuhan is a central location with over 200 of Fortune Global 500 Firms present in the region. With the spread of COVID-19 disrupting manufacturing in China, the logistics industry soon saw backlogged cargo at major container ports and an even more drastic shortage of truck drivers due to travel restrictions.

By the end of the first quarter in 2020, most countries had imposed strict lockdowns and border closures to slow the spread of the virus, ultimately restricting the movement of goods. When businesses added health and safety measures to protect workers, like social distancing in warehouses, we saw more bottlenecks in manufacturing, fulfillment and distribution.

CONTINUED SHORTAGE OF CONSUMER ELECTRONICS

As government mandates and social distancing forced consumers to stay at home, many people turned to at-home entertainment like streaming services and video games to keep busy. As the demand for consumer electronics increased exponentially in just a matter of weeks, electronics manufacturers bought up any remaining supply for computer chips and other necessary components.

But with government restrictions and a reduced workforce, components manufacturers found themselves unable to match their production capacity with demand. This led to popular consumer electronics like the Nintendo Switch and Sony's PlayStation 5 being sold out at official retailers and only available at huge markups on third-party seller websites like eBay. Even more necessary electronics, like smartphones and computers.

INCREASED DEMAND FOR ONLINE SHOPPING AND GROCERY DELIVERY

With stay-at-home orders directing people to do as much of their shopping as possible online, consumers relied on online retailers to get their essential items. As shipping companies implemented measures like social distancing in warehouses to protect their employees, the availability of delivery drivers and trucks fell, and we saw the logical equation of supply and demand drive up the cost of merchandise. This made it even more difficult for consumers to get access to everyday necessities like toilet paper and nonperishable foods, whether they shopped in stores or online.

Grocery retailers, whose profit margins are already slim, had to quickly offer same-day delivery and BOPIS ("buy online, pickup in-store") options to their customers to adjust to the changing retail landscape. Many grocery stores rely on cheap international trade in order to provide all types of produce year-round; in fact, the U.S. imports over 53 percent of fresh fruit and over 31 percent of fresh vegetables. With border closures and shipment delays from overseas produce suppliers, grocery stores struggled to stock popular produce that is almost exclusively imported, like mangoes, limes, avocados, asparagus, artichokes and squash.

ONGOING SHIPMENT DELAYS

The increase in online shopping also almost instantly overwhelmed the USPS and courier companies like FedEx and UPS as they were suddenly expected to deliver far more packages than usual. This increased shipping times from days to weeks or even months as distribution centers across the country struggled to locate packages.

At best this posed another inconvenience to consumers as they shifted toward online shopping for both essential and nonessential goods. But at worst, these shipping delays affected people's access to life-saving medication, as <u>many middle-aged and older adults receive medications by mail</u>. The drastic shipping delays of 2020 were especially concerning as older adults are at a higher risk for contracting more severe forms of COVID-19, particularly if they have serious health conditions that need to be managed by medication.

NATIONWIDE VACCINE ROLLOUT IN THE UNITED STATES

The United States's plan to reopen the economy is highly dependent on an efficient nationwide vaccine rollout. With a goal of 80 to 90 percent of the population being vaccinated to reach herd immunity, one of the greatest challenges the country faces is actually getting vaccines to people.

Although there are at least three different COVID-19 vaccines (the two-dose Pfizer and Moderna vaccines and the single-dose Johnson & Johnson vaccine) authorized to be used in the U.S., the logistics behind vaccine distribution is an obstacle in and of itself. Vaccines must be stored and transported at very cold temperatures, between -112°F and -76°F (-80°C and -60°C), which requires fast transportation and minimized handoffs so the vaccines don't become unusable.

Of course, the fastest way to transport vaccines is by plane, but air transportation also brings other challenges. Dry ice is the most affordable and effective way to keep things at an extremely low temperature, but you need to monitor the carbon dioxide levels in the plane if you're transporting dry ice. In December 2020, the Federal Aviation Administration announced it would allow <u>airlines to carry up to 15,000 pounds of dry ice</u> (five times the previous maximum) when transporting COVID-19 vaccines; this amount of dry ice can preserve up to 1 million doses of Pfizer vaccines per flight.

Once the vaccines are on the ground, the next hurdle is to transport them to every city in the nation. FedEx and UPS have basically split the country in two so they can prioritize vaccine distribution and ensure vaccines are delivered on time. In February 2021, both couriers were handling about 10 million doses per week, a number that has only increased since then.

COVID-19 has had unprecedented effects in almost every area of our lives, from healthcare and public policy to even how we talk to one another, but the changes in the logistics industry in the past year have had one of the greatest impacts on consumers. While businesses have adapted to new logistics challenges caused by the coronavirus, we can still expect

HOW CHANGING LOGISTICS DURING THE COVID-19 PANDEMIC HAVE IMPACTED CONSUMERS

to see other implications for consumers, even more than a year after the pandemic first set in. Although some of these changes are issues of convenience, like the shortage of consumer electronics, the continued obstacles of shipping delays can have serious consequences on people's health and the success of the United States's plan to reopen the economy in 2021.

In the next article, I will discuss how the COVID-19 pandemic has impacted businesses and how companies have adapted to changing global logistics. Although logistics was already a tricky area, 2020 highlighted just how much these obstacles can impact the supply chain, leading businesses to find innovative ways to continue operations in the face of unexpected challenges.

ABOUT CONTROLTEK

Since 1976 CONTROLTEK has been a global leader in tamper-evident security packaging, helping banks, armored couriers and retailers transport cash safely and securely. The company's expanding line of inventory protection and RFID visibility solutions also helps retailers protect their merchandise better and run their operations more efficiently. As a second-generation family-owned business, with a history of stable growth and a reputation for strong customer focus, CONTROLTEK continues to deliver on its mission every single day: to provide solutions that protect and to always deliver on their promises.