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SUPPLY CHAINS IN CRISIS MODE

Today's supply chains are in crisis mode, still recovering from an ongoing pandemic and compounded by supply chain disruptions. Here's what this means for the state of the supply chain.



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INTRODUCTION

Empty shelves. Unfulfilled orders. Delayed shipments. Help Wanted signs. These terms all help tell the story of the current state of the supply chain industry. It's a time when the demand is high, and the supply is low. It's a time when stockouts are prevalent, consumers panic purchase and companies re-evaluate how and from where they source product.

Today's supply chains are in crisis mode, and have been for some time. When 2021 hit, the world was ready for the New Year. Even if it brought with it a New Normal — new way of doing business, a new way to shop and more — the turning of the calendar meant putting a year of supply chain disruptions, restaurant closures and constant pivoting behind us.

But, then, on March 23, [a stranded Evergreen container ship](#) blocked navigation in Egypt's Suez Canal, setting the stage for what would be a slew of supply chain disruptions after supply chain disruptions.

Suddenly, 2021 was quickly becoming a mirrored reflection of the year prior.

Then came the ransomware attacks, internet outages, container ships stuck at bay, bridge closures, driver shortages, ingredient shortages, natural disasters and more.

The hits just kept on hitting.

And, industry experts are already showing signs of struggle for 2022 into 2023, as routes to import/export remain clogged, ports continue to be backed up, cost of doing business increases and the labor shortage exists.

"Supply chain challenges will continue to be an issue throughout 2022, as the pipeline of imports received via ships and railways remains clogged, truck drivers are in short supply, home-bound consumers purchased more items for at-home use and production facilities remain labor challenged," adds Brian Numainville, principal, The Feedback Group. "And, we are again seeing limits placed

on products in retail stores as rolling shortages are expected to continue. It's definitely going to continue to be bad before it gets better."

That's because [supply chains are messy](#). And, they're only going to get worse before they get better.

McKinsey & Company's [recent research](#) found that over a 10-year period, firms may lose 42% of their annual profits due to disruptions.

More than 20 months after COVID-19 first struck, [73% of small businesses have yet to recover fully, according to Alignable, representing an all-time high this year](#). In fact, that figure represents an 8% spike since July and a 3% increase since October.

What's more is, the broken supply chain has led to a scarcity of goods, delays in getting supplies to sell and skyrocketing inflation, which is now the [No. 1 concern among small businesses for the second month in a row](#), the Alignable survey reveals.

In fact, nearly 53% of small business owners surveyed anticipate inventory shortages through the rest of 2021, while 48% of retailers say their stock will be anywhere from 20-50% lower than usual, according to a Digital.com survey.

"The supply chain situation can change rapidly, so businesses should set up accounts with alternative suppliers and take the opportunity to find complementary products," says Huy Nguyen, Digital.com expert and digital marketing executive. "Communicate with your suppliers now and see if they expect supply chain or operational challenges and how they plan to address them. If possible, order more inventory in advance, or ask suppliers to pre-order so you have priority when new products are available."

The World Trade Organization (WTO) [says volume of world merchandise trade](#) is expected to increase by 8% in 2021 after falling 5.3% in 2020. However, trade growth is then projected to slow to 4% in 2022, as detailed in *Food Logistics*'s [May 2021 issue](#).



INTRODUCTION

Rising import prices and the need to nearshore continue to compound an already complex shipping supply chain. As of October, some 77 cargo ships were at a standstill outside of California ports, forcing the Port of Los Angeles and Port of Long Beach to [move to 24 hours/7 days a week operations](#).

Supply chain industry experts predict such shipping problems to linger into 2022; in fact, shipping a container through major U.S. ports now takes triple the time it did pre-pandemic, and has created a domino effect of late arrivals with some wait times averaging 2 weeks to dock at a port, according to the National Retail Federation (NRF).

"Dockworkers are unloading ships as fast as they can, but the challenge is to move the containers out of the ports to make room for the next ship," says Jonathan Gold, NRF VP for supply chain and customs policy. "We need better empty return procedures and more chassis, truck drivers, rail capacity and warehouse workers to keep the system moving. Retailers have enough inventory on hand to make sure shoppers won't go home empty-handed this holiday season. But, there are still items sitting on the docks or waiting on ships that need to make it to store shelves and online sellers' warehouses. Retailers want to make sure customers have product choices."

In response, companies are rushing to implement cloud-based solutions, [supply chain visibility](#), digitalized planning and more. They're relying on real-time data, emerging technologies and hyperconnected supply chains to keep disruptions

at bay. They're implementing programs that [upskill and reskill employees](#), and preparing for what could become a very interesting peak season.

Third-party logistics (3PL) providers [are adapting](#) to the influx of automation by embracing online tools for communication, education and streamlining workflow. They've had to re-think old processes, more specifically with regards to pricing, forecasting, route planning and more. And, to overcome supply chain disruptions, data, flexibility and visibility will be key in navigating the business landscape.

Here's what the supply chain crisis means for the future of supply chains.



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E-COMMERCE VS. BRICK-AND-MORTAR

While the COVID-19 pandemic forced many consumers to shop online, it also forced grocery stores and other retailers to incorporate delivery,

curbside pickup, buy-online-pickup-in-store (BOPIS) and buy-online-return-in-store (BORIS). The e-commerce boom transformed the entire supply chain, bringing forth the importance of localization, nearshoring, last-mile delivery, 3PLs and sustainable packaging.

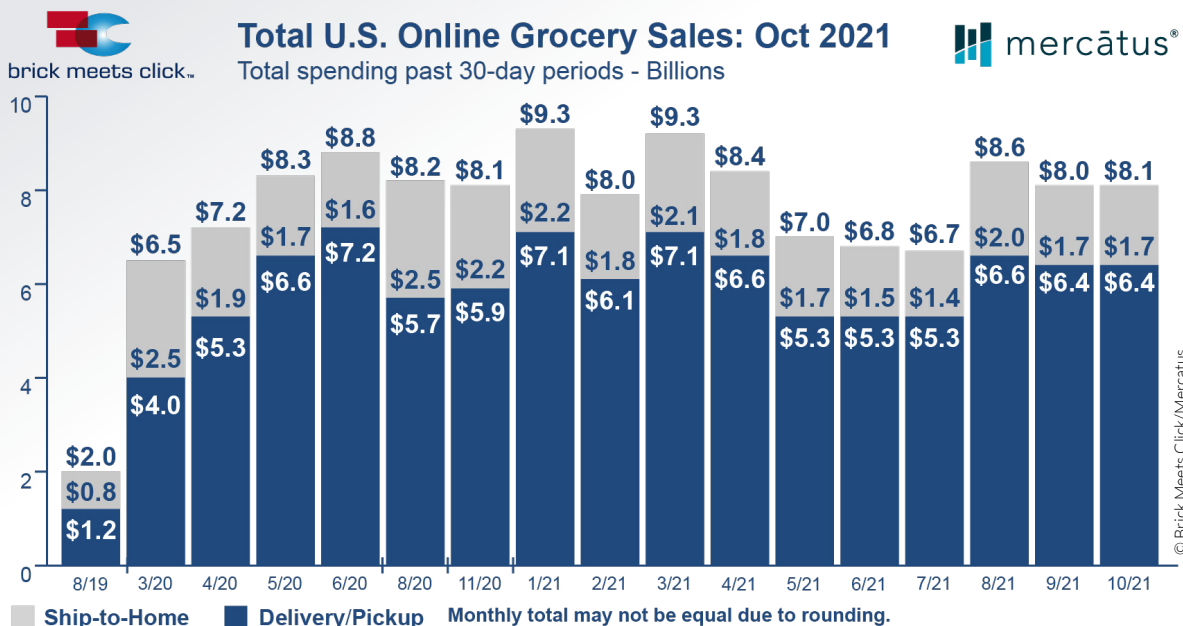
In 2020, over 2 billion people purchased goods or services online, and during the same year, e-retail sales surpassed 4.2 trillion U.S. dollars worldwide, according to Statista.

The U.S. online grocery market, for instance, generated \$8.1 billion in sales during October, driven by \$6.4 billion from the pickup/delivery segment and \$1.7 billion from ship-to-home, according to a Brick Meets Click/Mercatus survey.

However, it's this e-commerce boom that turned supply chains upside down. Case in point: Consumers spent \$861.12 billion online with U.S. retailers in 2020, up 44% from \$598.02 billion in 2019, according to Digital Commerce 360 analysis.

The Reverse Logistics Association (RLA) says returns are costing supply chains \$50 billion each year, and that number is only expected to increase as e-commerce continues to grow. More than \$550 billion worth of returns are made each year. And, according to survey respondents, increases in rising transportation and warehousing costs and capacity limits within supply chains are contributing to the higher costs in returns management.

"The number of returns and costs associated with them continues to climb adding to an already tough environment of rising freight costs, capacity constraints and delays," says Tony Sciarrotta, executive director of RLA.



Delivery includes first- and third-party providers (e.g. Amazon Fresh, Albertsons, FreshDirect, Instacart, Shipt)
Pickup includes in-store, curbside, lockers, and drive up
Ship-to-Home includes common (e.g. FedEx, UPS, USPS) and other parcel couriers

Sources: Brick Meets Click/Mercatus Grocery Shopping Survey, Oct 2021; Brick Meets Click Grocery Survey Sep, Aug, Jul, Jun, May, Apr, Mar, Feb, Jan 2021; Nov, Aug, Jun, May, Apr, Mar 2020; and Aug 2019



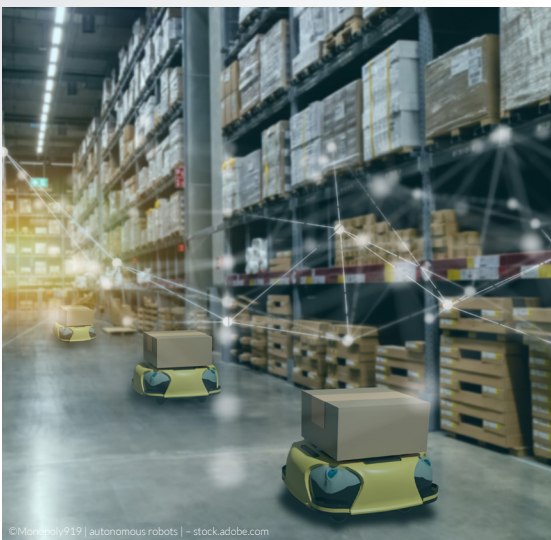
EMERGING TECHNOLOGIES HELP SUPPLY CHAINS SEE AHEAD

Industry experts say that those companies that have turned to emerging technologies at the beginning of the pandemic have fared better than those companies still operating manually.

These emerging technologies range from artificial intelligence (AI), machine learning (ML) and Internet of Things (IoT), to track and trace, automation, robotics and yes, supply chain visibility.

In fact, robotics alone accounted for 32% of warehouse automation new product launches from integrators in 2021, according to Interact Analysis, while software solutions accounted for 19%. Piece picking robot revenues, for example, are forecast to hit \$1.3 billion in 2025. And, mobile robots used within warehouses are expected to account for more than 30% of overall warehouse automation equipment sales by 2030.

Companies should also focus on utilizing real-time visibility solutions to create visuals, track shipments, test different scenarios and more.



"All the information from real-time visibility solutions needs to be integrated into specific business activities, such as labor planning and customer service. This information needs to be automatically shared with the appropriate parties and combined with other data, so operators and planners can make informed decisions. For example, production planners should automatically have information about the arrival time of key raw material deliveries as they set production schedules for the following week,"

says Dustin Burke, managing director and partner, global co-leader of manufacturing and supply chain, Boston Consulting Group.

"It's important to note that the supply chain is about more than just logistics. The supply chain starts with the availability of raw materials and ends with the availability of workers to stock store shelves, consisting of everything else in between. The greatest challenges in the food supply chain result from food being disproportionately dependent on transportation and labor."

But, companies should still prepare for sustained periods of supply chain disruption, says Elizaveta Krieg, head of CUO property, Allianz Global Corporate & Specialty.

"The range and diversity of risks to supply chain is constantly growing and recent experience shows how far-reaching events like a pandemic, climate change, financial crises, trade tensions and political instability could be," Krieg says. "[The 2020 McKinsey analysis](#) shows that averaging across industries, every company could expect a disruption lasting 1 month and longer, every 3.7 years, and this is the new reality for which insureds and carriers need to prepare for."



OVERCOMING LABOR SHORTAGE

Anyone and everyone in the supply chain industry is hiring. And, while automation and robotics are key to filling some of these gaps, the supply chain still needs human beings to move product through the cold food chain.

"Recruiting and retaining talent in warehouses and transportation companies is one of the biggest challenges the industry is facing. One way that companies are adapting to the future is looking to automation, but they are also looking to being creative when it comes to finding and keeping talent. The increased recognition of the importance of the food supply chain will hopefully attract new talent, especially since these are essential businesses that are critical and will continue operation no matter the circumstance," says Matthew Ott, president and CEO of the Global Cold Chain Association (GCCA).

Aside from flexible hours, improved work/home balance, sign-on bonuses and more, companies are also implementing technologies to help employees do their job in a safer, more efficient manner.

"The pandemic has had a clear and unmistakable impact on the labor force, with many opting to change careers or retire if they are able," says Numainville. "Workplace safety, increased wages and flexibility are now table stakes for workers as they look at their options. There are several things companies should be doing in the hiring process – online interviewing and recruiting is a must, for example, with quick turnaround from interview to hire. There are so many companies looking for workers that if you aren't easy to navigate in the hiring process, the candidate will go elsewhere quickly. Same applies for the onboarding process – it needs to be efficient, easy to navigate and integrate.

As far as retention, flexibility and clear communication of what you are doing to ensure safety are key. Overall, companies need to tell a clear and compelling story about why they are the place to work."

Companies are also encouraged to re-create the role and think more outside of the box when looking for new talent.

"The industry has traditionally hired from very specific segments of the population, but those segments are no longer sufficient in filling the need for new entrants. The industry as a whole needs to embrace diversity and inclusivity efforts in order to start attracting greater numbers of workers from non-traditional sources," says Mark Murrell, president and co-founder of CarriersEdge in *Food Logistics'* [September 2021 issue](#).





SOLVING SUPPLY CHAIN CHALLENGES

Despite the disruptions, attacks and other challenges plaguing the supply chain industry, the future remains bright for companies invested in deploying the right technologies, taking care of their people, instilling risk mitigation measures and enforcing food safety.

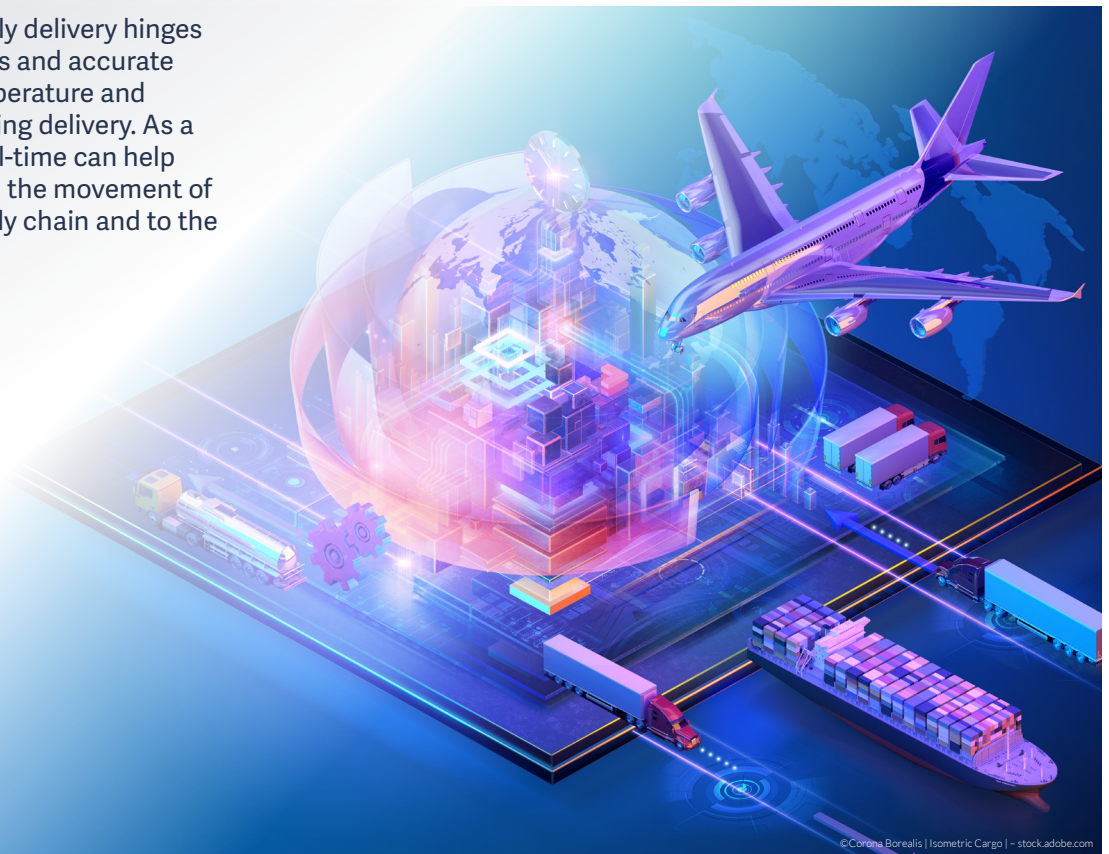
Other conversations revolve around how to better promote the supply chain industry to those entering the field.

For transportation specifically, the dramatic rise in e-commerce, as well as click-and-collect services, continues to push last-mile delivery to the front, says Patty McDonald, head of solution marketing, Symphony RetailAI.

"The ability to manage timely delivery hinges on highly optimized logistics and accurate data. With fresh items, temperature and timing are critical surrounding delivery. As a result, access to data in real-time can help retailers effectively manage the movement of inventory through the supply chain and to the consumer," says McDonald.

It's hard to say what this upcoming New Year will bring in terms of challenges and opportunities. Reverting back to how things were pre-pandemic would do a disservice to the technologies and innovations deployed and implemented to make the supply chain a safer, more efficient environment to move product.

However, supply chain disruptions will continue to plague the industry, ransomware attacks and internet outages will continue to occur, container ships will still be stuck at bay, natural disasters will still strike and the driver shortage will still loom. But, the technology, visibility and drive to overturn the labor shortage will help improve the current state of the supply chain and present a brighter future.



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