Ship Evergiven stuck in Suez Canal

## What are Supply Chain Disruptions?

Are you getting tired of seeing all those notices on websites apologizing in advance for delays caused by “supply chain disruptions due to COVID-19”? Or maybe you received a package that took over a month getting to you, as I just did, and the vendor apologized and said it was due to COVID-19 supply chain disruptions.

Ever wonder what exactly is a “supply chain disruption due to COVID-19”? After reading this article, you’ll not only know what they are but you’ll also be equipped with solutions for dealing with disruptions in your own business, resulting in happier customers and higher profits.

The latest disruptions – plastics. That’s right – the stuff you find in everything from cars, medical equipment, phones and even in your kid’s Big Wheels is growing scarce.

Dwindling supplies of some raw materials needed to manufacture plastic, namely: polyethylene, polypropylene and monoethylene, have been caused by a number of events including lowered

inventories in 2020 due to COVID-19 lockdowns, followed by Hurricane Laura closing petrochemical factories in Louisiana and Texas, COVID-19 safety precautions causing labor and trucking shortages at ports, the winter storm in Texas and finally, the grounding of the massive container ship In the Suez Canal.

In addition, increasing consumer demand for goods as states opened up coupled with supply shortages led to higher prices, late shipments and longer lead times for orders all along the supply chain.

Virtually the same thing is happening in the automotive industry where shortages of microcontroller units (MCUs) that are used throughout all modern cars are causing global automotive factory shutdowns.

These semiconductors are also used in cellphones, so the auto manufacturers and the cellphone companies have to compete for these electronic devices.

Both the raw materials in plastics and the MCUs in cars are made by what's known as Tier 3 companies. Tier 3 companies produce materials needed by all the tiers in the supply chain. Tier 2 companies specialize in products needed by the Tier 1 companies and Tier 1 companies products are used by the OEM (original equipment manufacturers).

A bottleneck at the Tier 3 level is most severe since it affects all the manufacturing levels used in the product.

How can companies deal with these manufacturing disruptions? The best way is to plan ahead, way ahead. Product volume projections are more important than ever to deliver products on time. Padded inventories become the norm, especially if your company uses shorter lead times. You'll have to consider every part you'll need in your projections no matter how small its value. Perhaps your company can make some parts or source them from several vendors.

In addition, if your company deals with China, you need to consider how to make or source those products in the U.S. China is no longer giving American orders priority, instead concentrating on countries with which it has a good relationship.

So far we've discussed disruptions in product manufacturing supply chains, but what about disruptions in logistics? For instance, my recent experience with a delivery that should have taken just a few days taking over a month to reach me? And another delivery around Christmas that took over two months?

Both instances were a result of the U.S. Post Office being overloaded with packages to the tune of 28,000,000 packages a day. Why so many? Both UPS and FedEx had imposed quotas on the number of packages they would deliver each day. The Post Office, not having the luxury of establishing quotas, had to pick up the slack.

With its staff reduced by COVID-19 outbreaks, making all these deliveries was a real challenge. It's estimated that over 1 million holiday gifts did not reach their destinations by Christmas.

Here again, planning ahead is key. With USPS deliveries taking over a month, you need to allow for that delay when placing your orders. Alternatively you can use UPS, FedEx or another private delivery service for a better on-time experience.

An additional problem relates to international shipping via cargo ships. Port closures and COVID-19 regulations around the world resulted in major disruptions in shipping products.

To resolve this problem, think of what shipping alternatives are available. Can you use air freight for instance? The more flexible you can be with freight operation, the fewer disruptions your company will experience. Also negotiate freight contracts so your company is price protected at all times and has access to multiple ports.

The third and final supply chain disruption concerns staffing. Restaurants in particular are hard hit by this problem for two reasons.

First, COVID-19 outbreaks meant that any staff member who was sick would need to quarantine for at least 14 days before returning to work.

Second, many service workers discovered they could earn more from unemployment plus the federal COVID-19 bonus than they normally earned on the job, so they decided not to come to work.

A different kind of staffing disruption concerns school bus drivers. My friend, who drives a bus for the local school system, told me she didn't want the schools to open because there weren't enough drivers for all the routes. In this case, the shortage was mainly due to drivers getting COVID-19 and having to quarantine.

But the drivers who were working had to drive three routes on average to make up the difference. According to my friend, poor planning was the cause of this situation.

Are you seeing a trend for solving the supply chain disruptions yet? Planning is the key here. You can't take anything for granted: manufacturing, shipping or staffing. You need to think of all possible contingencies and plan accordingly. COVID-19 has permanently changed supply chain conditions. Your company must adapt or face the possibility of no longer being in business.

For further info:

https://hbr.org/2021/03/the-latest-supply-chain-disruption-plastics

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https://www.industryweek.com/supply-chain/supply-chain-initiative/article/21161289/with-china-policy-in-tatters-oems-best-expect-more-shortages

https://about.usps.com/newsroom/national-releases/2019/1107-20-million-packages-to-be-delivered-daily-this-holiday-season.htm