

Highlights from AVR1 - Supply Chain Disruptions and Industry Challenges

April 2, 2020

AVR1 - Supply Chain Disruptions and Industry Challenges – kicked off our Asynchronous Virtual Roundtable series and addressed several topics, including: comparing COVID 19 to previous major disruptions; health and safety supply chain considerations; critical vulnerabilities in current supply chains; challenges to manage through the crisis; economic vulnerability of business; collaboration across the supply chain including competitors; the role of technology; and actions to improve supply chain resiliency.

Professor Sunil Chopra, Kellogg School of Management

Interview date: March 27, 2020

- The objective of supply chains is to effectively match supply and demand. Vulnerability arises when a supply chain is unable to match supply and demand, and this happens on a regular basis. Since demand fluctuates, firms have figured out how to deal with it.
- A challenge arises when there is a disruption to supply, and even demand, such as Covid 19. For example, Covid 19 has caused a spike in demand for [PPE] masks, while supply has been disrupted.
 - Vulnerability has occurred in places where the main supplier is [located in] China or another affected [location].
 - Amazon had to shut down a distribution center due to infections, so supply was disrupted. But it also gives an example of resilience because Amazon has over 300 supply centers allowing the supply chain to remain resilient.
- The challenge today [with ventilators] is that there was no prior plan. A better approach is to have contingent sourcing in which the government can look to see what producers will be necessary and who can quickly switch to making them, and then make a commitment with those companies to initiate production.
- There are two pre-planning strategies to deal with supply disruptions:
 - maintaining large inventories, which is not a realistic strategy, and,
 - pre-arranging of alternative sources of supply, which is like buying insurance, including not only the reserve supply capacity but also the means to rearrange supply chains and deliver the supply.
- The pre-arrangement of alternative supplies requires a payment in advance of some kind to secure the reserve capacity.
- There is big role for technology in supply chain resilience. If there were alternate supply sources available, we would need information technology to coordinate this activity.
- Very flexible [manufacturing] technology, such as 3D printing, is an effective source of alternative production. Another example is flexible warehousing – a normal warehouse is set up efficiently for the normal product, but a flexible warehouse that can come online for a product in a week makes a supply chain more resilient.
- Production should be efficient and low cost, and flexible production technology can be shifted to supply what is missing at the time of production (e.g. ventilator valves).

Highlights from AVR1 - Supply Chain Disruptions and Industry Challenges

April 2, 2020

- A well-implemented omni-channel supply chain model has strength because it is both efficient and resilient.
- The omni-channel structure allows retailers, like Amazon and Walmart, to serve customers in the way that is most appropriate [in any given time]. Alternatives are beginning to develop for smaller or midsized retailers.
- Retailers who were selling through a physical channel, such as designers and department stores, are taking a large hit. They will be pushed into omni-channel retailing at a much [faster] pace now than before Covid 19.
- These concepts are not just applicable to businesses, but also to how the government can respond. Acting now could save costs in the long term.

Gene Seroka, Executive Director, Port of Los Angeles

Interview date: March 31, 2020

- The pandemic is the second disruption to the supply chain and port. The first is the trade war with China. There was a 16.5% drop in business in the 4th quarter of 2019 due to people avoiding added taxations on American companies.
- Coast Guard regulations require ships' captains and health professionals to contact the port 96 hours before arriving in order to present the health disposition of the crew. A lack of or falsified information carries both civil and criminal penalties, as well as fines. There have been no concerns so far.
- [Regarding the challenges we are facing], #1 is the health and safety of workers, health staff, and citizens. One-ninth of jobs in Southern California are tied to the port, so keeping that workforce healthy, safe, and working is a priority. The ports must be considered essential and supply chains must keep running.
- The vulnerabilities are around information flow. Whether it is warehouses [or] understanding cargo or hospitals preparing to receive PPEs, it is essential to share information.
- Everything is operating well and we have the ability to increase capacity. Though "empties" have accumulated, these containers are not yet choke points to the system. One off [problematic] situations are being addressed as each occurs.
- We have had access to experts in the medical field for advice. We have employed these tactics on the ground as recommended by the experts in order to follow the latest guidance, from physical distancing, to equipment, to cleaning.
- The Port of LA can weather [an economic downturn] for some time, even though commercial businesses are cancelling orders. The effects will continue to last throughout the year.

Highlights from AVR1 - Supply Chain Disruptions and Industry Challenges

April 2, 2020

- When health experts believe the economy can move forward, there will need to be a recovery with expedited services from the Port of LA but there is no timeline [when this will begin].
- [Our digitalization program] has put the Port of LA in a position to succeed in the areas of highlighting, locating and expediting critical goods to move to consumers and healthcare professionals. Without this program in place, it would have been difficult to locate cargo.

Doug Waggoner, CEO, Echo Global Logistics

Interview date: March 30, 2020

- This is the first time 100% of Echo Global employees have had to work from home, but we are fortunate that we have the technology that allows everyone to do so. Echo has not missed a beat with our customers or carriers.
- There has been a lot of volume for truckloads of essential commodities. It is not clear if it is a bubble, because there seems to be a lot resupply going on.
- LTL is down a little bit, which is consistent with other carriers.
- Consumables are moving more, but manufactured products, such as electronics, are down.
- This is disruptive because the normal freight flows of commerce are not all there and the balance of the national network is changing.
- The market is a little tight right now. Some truck drivers do not want to go far from home.
- The delay time for truckers to make their deliveries of warehouses has going up exponentially, particularly at grocery warehouses.
- From these times of crisis comes great loyalty. Echo will bail a customer out of a tough situation.
- As much as we try to automate things or use algorithms to run our business, the human element and relationships [remains] important.
- As long we can participate in the flow of those goods, [freight brokerage] is a viable business and is adding a lot of value to shippers and receivers. Brokers are a piece of the equation.
- Demand and pricing has ticked up for truckload capacity and rates are a little elevated.
- I am concerned about the lasting impact on the economy. The CARES ACT was an aggressive step that will infuse liquidity into our economy, and it was the right action.
- It's a tough time, but there is no place I'd rather be. We have a resilient economy.
- Now is the time that everyone needs to chip in and do their part.

Highlights from AVR1 - Supply Chain Disruptions and Industry Challenges April 2, 2020

Online Discussion Session Summary

Sunil Chopra and Doug Waggoner joined our live Q&A session on April 2, 2020. Key points:

- In response to a question about looking into new solutions for supply chain visibility, Waggoner indicated that Echo is focused on putting out fires and addressing its customers' immediate needs. Echo is not currently initiating any new technology initiatives, but when the crisis subsides many of these new technologies that help improve the supply chain apparatus, including visibility, will be considered.
- In response to a question on planning for major disruptions to the supply chain, Chopra noted "there are two different ways of dealing with a disruption - one is to carry tons of inventory and the other is to pre-arrange for alternative sources of supply. In fact, shippers should consider paying a premium in advance, "buying insurance," to access these supplies or manufacture of these supplies when needed. The problem is after not seeing disruptions for a year or two, most companies would stop paying for this "insurance."
- On dealing with the unknown, Waggoner agreed that there is so much uncertainty – for companies, for individuals – that Echo is hoping for the best, but planning for the worst scenario.
- Per Waggoner, "everybody has to chip in and do their part, and we'll get this economy in this country back on its feet again."
- Chopra agreed and surmised that April will be more difficult than March for everyone.

Summary

Several key points were evident: investments in digitization efforts are helping to manage through the crisis and future investments in new technology are necessary; retailers and governments to invest in omni-channel supply chain operations or principles; shippers (and governments) need to plan ahead well in advance for potential major disruptions and make down payments to provide future resiliency; and the human element of managing supply chain and transportation operations is essential.