Supply Chain Disruption and Building Resiliency

JANUARY 25, 2022 | ARTICLES

Before the pandemic disrupted business and economies worldwide, most company supply chains were optimized for cost and speed – deliver the goods at the lowest cost in the shortest amount of time. Agility and the ability to pivot quickly in the face of changing conditions on the ground were prioritized only by the most forward-thinking leaders who recognized the need for a new supply chain model. When COVID hit, their supply chains were resilient. But most were unprepared.

Manufacturing Capacity, Outsourcing, Mega Factories

In the decades preceding COVID, global manufacturing capacity has been outsourced to access less expensive labor and lower energy costs. Companies have relied solely on mega factories, rather than distributing production across smaller regional facilities. With production now located far away from some customers, companies have depended primarily on large volume container sea freight to move goods around the world, from source to wholesalers and end users in more lucrative markets.

COVID was the great disruptor, wreaking havoc on the global system. Manufacturing came to a screeching halt. Mega factories were shut down. Trans-oceanic shipping was suspended; empty containers were stuck. Illness, fear, and caution led to workforce shortages in ports and trucking. Costs throughout the system skyrocketed. For example, pre-COVID fees per ocean cargo container ran about $400-500; now that cost could be as high as $10K.

Flexibility in Location and Sourcing Provides Resiliency

Rising vaccination rates and declining COVID cases suggested production and shipping interruptions would abate and business return to normal. Instead, Omicron and other variants continued factory closures and additional labor and shipping shortages. Pandemic uncertainty has forced companies to create new, more flexible supply chains. Stef de Haas, Managing Partner of IMSA Search Global Partners Netherlands explains, "We see an increasing number of companies reversing the decades-long model of single location outsourcing, bringing manufacturing closer to the customer with smaller facilities in multiple locations on each continent."

Broadening vetted supplier lists, especially providers of key components, to support local manufacturing is critical to resiliency. De Haas recounts, "One of our clients had to shut down an entire production line because of a lack of two or three components, sourced from only one mega factory half way around the world."

The Lessons of Brexit

Brexit has triggered logistical and bureaucratic issues when moving goods between continental Europe and the United Kingdom. Prior to Brexit, goods moved freely between EU countries and the UK with no tariffs, international forms, or customs restrictions. Post-Brexit, this flow of goods is now subject to all of this international trade "red tape." In response, many UK companies are reconfiguring their supply chains, establishing manufacturing and distribution centers in multiple European locations.

Elements of Resiliency – Technology is Key

Evolving customer requirements and supplier delivery issues demand rapid response. The following elements are critical to building a resilient supply chain:

- Visibility and transparency across the entire supply chain
- Flow of real-time data and analytics for credible risk assessment
- Agile processes for rapid decision-making and response
- Ongoing collaboration with suppliers and customers throughout the chain

Technology plays a key role. High quality data and analytics provide the information necessary for effective problem solving, particularly in crises. Digital supply chains should connect to other parts of a business, including finance, sales, marketing, production; data integration technologies are critical for uninterrupted data sharing. Real-time analysis provides accurate findings for scenario planning, daily forecasts, operational dashboards, and ongoing decision-making:

- Internet of Things – devices embedded with sensors and other software that connect and exchange data, allowing for up-to-the-moment tracking, authentication, storage information, and identifying interruptions in the chain
- Digital Twins – computer programs that use real-time data to create a "twin" for predictive modeling and contingency planning; integrates AI, machine learning, and the internet of Things
- Control Towers – dashboards of key business metrics and events across the supply chain based on real-time data, enabling better understanding, prioritizing, and resolving of critical issues

Supply Chain Has Reached the CEO's Desk

According to McKinsey.com (12/2021), supply chain has risen from a support function to a major priority. COVID disruptions have put "how we get stuff to our customers" on the CEO agenda, with success in this area now seen as a competitive differentiator. With shipping interruptions and product shortages across sectors and around the world, business goes to companies that can deliver product to their customers.

Leaders are rebalancing supply chain for productivity not growth. Instead of pushing for reduced cost and faster movement of goods, companies are investing in advanced technologies and scenario planning. They also understand the value of investing in top talent. According to de Haas, "Demand for digital supply chain talent is high. Companies are looking for senior talent with engineering and management expertise, who understand local market culture, and who can create agile collaborative processes to meet future vulnerabilities."

Now that's resilience.