ERM PROFESSIONAL INSIGHTS

CAPTURING SUPPLY CHAIN RISK MANAGEMENT LESSONS REVEALED BY COVID-19

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COVID-19 is full of lessons to be learned for executives and boards of directors on how to manage the complex portfolio of risks potentially threatening an organization's core business. It is vitally important for leaders to capture insights as they occur so that their organizations can continually improve processes used to manage the always-unfolding risk landscape. Leveraging these lessons should help organizations be better prepared to navigate the complex risk environments they will face once we get past this unprecedented crisis.

Risks of Single-Sourcing

One of the lessons highlighted by the ongoing pandemic is the need to reevaluate risks related to how organizations source their supply chain for core products and services important to their business operations. For example, the limited supply of face masks, gloves, and other personal protective equipment (PPE) is partially traced to the limited (and sometimes single-sourcing) of those supplies from suppliers outside the United States of America (U.S.). As organizations try to address shortages in their supply chain, there is discussion of the need to bring substantial amounts of production back to the U.S. (or to the organization's home country).

While bringing some production back "on shore" makes good sense, especially for critical items such as pharmaceuticals, making that the sole supply chain risk management strategy may be misplaced. A more strategic risk management strategy should focus on diversification and redundancy of the supply chain, including international diversification.

Emphasis on Multi-Faceted Diversification

Simply bringing production back to the U.S. likely will have minimal benefits of risk reduction. Consider that the Spanish influenza of 1918 was first detected inside the U.S at Ft. Russell, Kansas. If U.S. production of all N95 masks were located in the New York Metro area today, those plants would likely be shut down in the current crisis, and the U.S. would be in a similar position as we are now scrambling to find new suppliers, most likely focusing on overseas suppliers.

We already have a situation in which human movement from state to state has been restricted, and we need to anticipate situations in which production and the movement of goods and services out of one region in the U.S. to the rest of the country may be limited or impossible. Consider the possibility of regional infrastructure destruction from an earthquake, fire storm, or nuclear contamination from a reactor meltdown. And now, we know to add disease to the list of physical risks. If production of a product or service occurs primarily in a single location or region (whether inside or outside the U.S.), there will always be the risk that substantially all production is disrupted.

Lowest Cost Options Not Always Best Risk Management Response

Economic priorities leading up to the pandemic crisis tend to lean towards seeking cost efficiencies as the most important objective of the production function. This has led to concentration of production in specific regions that produce the lowest cost output. Typically, industrial production is concentrated in the location where key factor inputs are the least costly whether that is labor, raw materials, manufacturing sophistication, transportation/supply chain organization, etc. Large scale facilities that minimize fixed costs are also typical. Consider the concentration of U.S. meat processing in a relatively small number of enormous plants (e.g., a single turkey plant in North Carolina produces 10% of all commercial turkey in the U.S.). Even geographic diversification of a small number of large production plants in the US may not protect our meat supplies from the disruption caused by Covid-19. With 3000+ employees in many of these plants, we are seeing that it is very difficult to protect them from viral contamination.

Diversifying the sources of production to involve different geographies both within and outside the U.S. decreases the odds that supply chains will be halted to the extent we have observed recently related to PPE. Off-shore production may still be an optimal choice for vital supplies as long as there is diversification of suppliers from more than a single region of the world.

Higher Cost Options May Lead to Long-Term Benefits

The lack of ventilators and protective clothing available at the beginning of COVID-19 may be partially attributed to an over-emphasis on cost reduction. In light of huge pressures to address sky-rocketing healthcare costs that have been part of the national debate, many in the healthcare industry may have focused heavily on cost reduction with less attention paid to the benefits that diversification of the supply chain would yield in a crisis.

The challenge for risk managers is to convince management that higher cost, less efficient production may actually be necessary to better manage the risk of supply chain disruptions. In the end, that may be the optimal risk management strategy. One of the challenges to convincing executives of the higher costs of diversification is the reluctance of many to recognize that low-probability, but catastrophic risk events do sometimes really occur. Hopefully COVID-19 has helped executives better appreciate that reality making them more receptive to considering the benefits of planning for those highly improbable, but massively significant risk events. In certain cases, it may be necessary to have governmental regulation force this to assure a level playing field among competing firms (similar to requiring foreign producers to follow U.S. labor standards in order to export into the U.S.). Yes, consumers will pay more for essential goods, but in the long-run we can avoid many crisis situations.

Don’t Miss the Lesson Being Taught

Living through this pandemic crisis experience is providing numerous lessons for all of us to learn. It is important that we not miss learning opportunities to re-think our risk management approaches so that we are better prepared for the next crisis that emerges. Addressing supply chain risks may be timely to consider.

Resources Available at the Poole College of Management at NC State

ERM Initiative: The ERM Initiative, hosted by the Poole College of Management at NC State, provides thought leadership to help executives and boards strengthen their enterprise-wide management of risks to strengthen the strategic success of their organization and to improve overall corporate governance. Be sure to check out the Initiative’s online ERM library of over 600 articles, thought papers, research reports, and case studies that contain rich insights to help advance an organization’s enterprise-wide risk management. Visit **erm.ncsu.edu**.

Supply Chain Resource Cooperative: The Poole College of Management is also home to the Supply Chain Resource Cooperative, which is a unique, industry-university partnership dedicated to advancing the supply chain industry and the professionalism of its practitioners. The SCRC taps into the value and resources of NC State and its corporate partners from diverse backgrounds and industries to create impact, innovation, and real-world supply chain solutions. Visit **scm.ncsu.edu**.

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