Supply Chain Industry White Paper

The New Global Trade Environment

A Roadmap for Sourcing Across Borders in Uncertain Times

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Introduction

Companies and individuals alike have enjoyed the prosperity and freedom derived from technologies and policies that have facilitated greater levels of global trade. However, the past few years have been tumultuous from both a globalization and technology perspective. Considering phenomena like Brexit and the United States/ China trade dispute, there is an underlying tension surrounding the global trade environment. Indeed, the foreseeable future is shaping up to be defined by higher levels of global supply chain uncertainty.

This new global trade landscape marked by international and technological conflict represents a new normal for global trade. To this end, companies are continuing to leverage their resilient supply chain strategies to weather the current storm, and prepare themselves for the turbulent future. Companies without built-in levels of resilience and agility are looking to benchmark their peers, and most companies, regardless of how well they are positioned, are turning to outside service providers to keep themselves ahead of their competition.

Current world events suggest that firms should reconsider their resilience and risk management strategies. What strategies will help you come out on top in these foreseeably tumultuous times? This whitepaper seeks to answer this question. First, we discuss a brief history of how we've arrived at the current state of affairs pertaining to global trade. Second, we will introduce a new model that can help managers identify and categorize sources of supply chain disruptions. Finally, we will discuss some current best practice mitigation techniques that you can use to help reduce uncertainty and make your supply chain more robust to the new global trade environment.

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How Did We Get Here?

The end of World War II ushered in a period of unmatched reconstruction and global economic growth, both in the developed world and beyond. Since that time, countries like Japan and Germany went from being torn apart by war to being the third and fourth largest economies, respectively, in the world today[1]. Currently, the world's largest economies are highly interdependent, and countries compete by importing and exporting their ideal mix of goods with not just neighboring countries, but countries across the world.

The current war for intellectual property is now manifest in tariffs and technological entanglement, as global trade regulation continues to fall further behind emerging technological advancements and trade issues derived therefrom. Countries are fighting over who dominates the global information technology market, and lines are blurred between corporate and government espionage.[2] Not only are businesses becoming warier of the incredible power closely held by global tech companies, but governments are taking a stand to protect themselves and their citizens from risks derived from foreign technology firms and investments.

In summary, world events and technological advancements achieved over the past several decades have culminated to create a tumultuous global trade environment. Relationship and subsequent trade volatility are on the rise, and will not be resolved by a US-China deal, clean Brexit, or lifted Iran sanctions. Although global trade has always been a risky proposition and subjected to the whims of leaders of nations and large corporations, the new normal is going to be marked by uncertainties created by rapid technological advancement, new models of international conflict, and a dearth of timely, relevant regulation.

The good news is that we are all in this together, as businesses across the globe are seeking to navigate these unsteady waters. As such, these new norms will also provide new means upon which to compete and potentially collaborate with national and international business rivals. However, before we can find new ways to compete, we have to take stock of our current supply chain and the ways that it might be disrupted.

What Might Disrupt Your Supply Chain?

Uncertainty breeds risk of supply chain disruption. Supply chain risk denotes the probability and anticipated severity of effects of a supply and demand mismatch. Disruptions, then, are the manifestation of risk. Today's companies are working hard to identify relevant risks to the normal flow of products across their supply chains, and then find ways to reduce or completely negate their associated disruptions.

One risk management approach entails dissecting these worst-case scenarios (disruptions) in order to find ways to reduce the probability of an actual disruption from happening and/or reduce the severity of an inevitable or ongoing disruption. In doing so, we are able to think more appropriately about not just a hypothetical occurrence (a proposed risk), but instead about the actual disruption. Most global supply chains are experiencing disruption right now, and will continue to do so in the "new normal" global trade environment. As such, this seemingly subtle distinction between analyzing risk versus analyzing disruption can lead to more robust disruption-mitigation strategies. Not to say that companies should discontinue analyzing risk; that is ill-advised. However, taking a deeper look into the actual disruptions can lead to new ways of thinking about problems and solutions.

When considering the cause and effect of disruptions, many managers consider the origin of the potential disruption. This is a necessary, but arguably insufficient approach. To this end, recent research categorizes supply chain disruptions along two dimensions.[3] Of course, the first dimension is "Disruption Origination," and considers whether or not the disruption originates from within a supply chain or outside of it. For instance, disruptions caused by natural disasters and regular competitive forces originate from outside of the supply chain. Conversely, supplier quality problems and supplier bankruptcy concerns originate from inside the supply chain.

The second dimension is "Behavioral Intent," and considers whether or not the disruption is intentionally caused by another actor, or if it is simply inadvertent. For example, the financial crisis led by the United States in 2008 can be seen as inadvertent in that no actor caused the crises for the purpose of disrupting the flow of materials and goods, yet the crisis indeed disrupted global supply chains. On the other hand, the trade war between the United States and China can be seen as an intentional disruption in that the two nations are actively trying to disrupt one another's flow of materials and goods. Although at face value many of the effects of the disruptions appear the same (supplier-related uncertainties, etc.), the causes of

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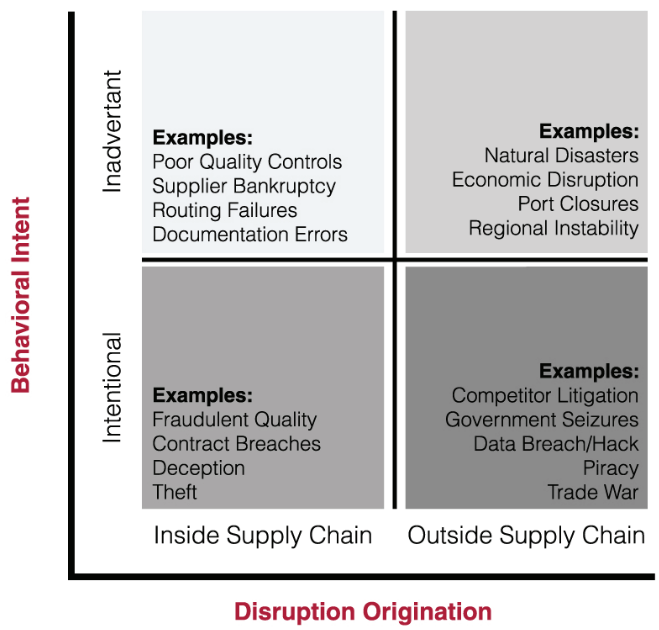
the disruption differ. This means that different mitigation and recovery strategies need to be considered. For instance, many companies are stockpiling supplies in response to the trade war, whereas many companies were doing the opposite in response to the 2008 financial crisis.

Supply Chain Disruption Analysis Model



Different companies face the threat of different kinds of disruptions. The first step is to identify the types of disruptions to which your company is most vulnerable. The Supply Chain Disruption Analysis Model can be useful to help brainstorm various disruptions that threaten a given company. Managers can think through disruptions from four unique perspectives (disruptions originating inside the supply chain and outside the supply chain; and disruptions that are intentional and inadvertent). Again, by considering Behavioral Intent, many managers are able to think of additional disruptions that might not seem as obvious, but are more prevalent today. These might include sabotage from foreign nation-states, counterfeit materials and products, IP theft, ransomware and others.

Most importantly, by correctly categorizing disruptions in consideration of the Supply Chain Disruption Analysis Model, managers are then set on the right path to consider appropriate mitigation strategies. Some of the most prevalent strategies are discussed next.

How Might We Mitigate Disruption Threats?

Mitigation strategies will be determined by the specific disruptions to which your company is most vulnerable. That said, there are some strategies that companies are turning to that help them to allay some of the most pressing threats in today's global trade environment. The new environment directly challenges existing business models and will require firms to find new ways to remain competitive. All businesses are seeking agility to help position themselves, yet agility can be difficult to achieve when lead times can range from six months to two years. So how can companies take control in this uncertain environment and build the kind of agility and resilience needed to countermand the most daunting supply chain disruptions?

Some companies are taking some pretty drastic steps to weather the current storms. Some are stockpiling supplies. Others are passing increased costs to customers. Others are considering closing down their operations in certain regions either temporarily or permanently in hopes of waiting for a more predictable landscape. Although effective for some companies in certain situations, these are all undesirable options. Further, these options assume that things will get better with time. However, time might not be on our side right now. Even if it is, **reversing best practices for the sake of waiting for the old normal to return is never an advisable strategy**. Instead, companies need to prepare for the new normal. Even if there is a return to the good old days, there are certain strategies that can help companies in the long run regardless.

Seek Alternative Sources of Supply

Supplier management strategies have changed over the years, as firms have moved from having multiple suppliers for similar items to downsizing the supply base. Today, right-sizing is the dominant strategy. Right-sizing entails having a number of suppliers that isn't so large as to not command the best terms, but not so small that disruption risks are too grave in terms of probability or severity. Given the uncertain future global trade landscape, companies are advised to error on the side of too many versus too few suppliers. Further, secondary sources of supply should be assessed more on diversity of location and robustness to current and future threats than on more traditional supplier selection criteria. This includes considering risks to brand reputation from questionable social and environmental sustainability practices.

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Enable Visibility

You can't manage what you can't see. Fortunately, supply chain digitalization technologies are available that can help companies gain better visibility of most aspects of their supply chain. From a disruption mitigation standpoint, gaining better visibility will provide the necessary data to inform decisions pertaining to how to prevent some disruptions and more quickly recover from others. Indeed, visibility is directly related to agility, in that the faster a company can detect an abnormality, the faster it can make necessary changes to confront the new situation.

Gaining visibility starts with digitalization. This entails buyers and suppliers digitizing analog data, leveraging sensors and Internet of Things (IoT) devices, and implementing software that allows managers to see the right things at the right times. The resulting control tower capabilities are indeed useful for detecting and responding to potential and active disruptions in real-time. Moreover, capturing this data enables a clearer sight picture of a company's operations and can feed into predictive analytics tools and processes that can help to identify and reduce the impacts of future disruptions.

The Value of Sherpas

At certain points, some things become too complex to manage on your own. For instance, veteran mountaineers can climb to staggering heights based on their own training and experience. Some have trained so well for so long that they can even climb Mt. Everest without assistance. However, this is not the norm (and likely less-than-optimal) and at some point, everyone can benefit from the help of a Sherpa to help ensure success.

For supply chain managers concerned with reducing the probability and impact of disruptions, Sherpas typically include industry thought leaders, consultants, and third-party providers. Industry thought leaders can take the form of those in organizations that are "doing it right," professional organizations, consultancies, and academics. Consuming materials provided by these entities can help to form managerial best practices. Next, sometimes consultants are needed to provide more contextual advice on best practices or to help determine if and where to outsource certain functions. Finally, third-party providers can be leveraged to outsource many or all aspects of global trade. This option has become more appealing over the past few years due to the increased complexity surrounding global trade.

Well qualified supply chain management providers have a better handle on traded and logistics-specific issues than most companies because they are in the trenches every day. They have to know-how to leverage best practices and emerging technologies while keeping abreast of regulatory changes across the global trade landscape. Companies now compete on their supply chains, requiring them to either build adequate internal expertise or outsource. Regardless of the source, companies that want to remain competitive in this new environment should be able to:

- Stay in front of emerging issues by gathering and analyzing industry intelligence
- Maintain access to knowledge of all pertinent global trade considerations (i.e., tariff and sanction terms, foreign monetary exchange data, etc.) and how those considerations affect existing or future operations
- Reduce complexity and uncertainty in every area
- Link visibility requirements with agility goals
- Maintain strong, often interpersonal partnerships
- Sustain visibility of social, economic, and political situations across the globe that might affect specific trade relationships

Contracts Are King

Companies are re-evaluating the fine print in their standard contracts. In the current trade environment, commodity price risk is being revisited and recent research highlights ways to reduce disruptions caused by large price fluctuations caused by, for instance, tariffs and other trade barriers.[4] Some of these strategies include:

- **Revisiting escalator clauses:** This is where both parties agree to a process where the contract can be renegotiated, or other clauses come into effect, when the total landed cost changes rise over an agreed-upon threshold
- **Staggering contracts:** Buyers can contract for different quantities over different time periods, essentially creating a smoothing effect
- **Piggy-back contracting:** This is where a buying firm can extend the pricing and terms of a contract to suppliers of the same purchased commodity

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Location, Location, Location

Stability is a valuable asset in the new global trade environment, and simply put some countries are and will remain more stable than others. Many companies are thinking about moving operations and sourcing suppliers from different countries. When making this decision, companies must consider what disruptions are they most vulnerable and what countries will provide the right kind of stability to help mitigate future disruptions?

This is not a simple analysis as there are many variables to consider and some forward-looking forecasting that must be accomplished to predict future operating environments in different locations. In addition, many companies are seeing that switching costs are simply too large to be practical. For instance, many companies are considering leaving China, yet these companies might have a lot vested in their relationships. It's not easy to pick up and move, as one must consider access to raw materials, second and third tier suppliers, regulations and trade compliance implications, workforce availability, and a host of other considerations. In short, moving out of a certain country might take as little as six months or up to 15 years in some cases. As such, companies really need to consider the evolving international landscape to determine where the right locations of the future will be. Regardless of where a company's current or future operations might be located, every company should maintain an up-to-date exit strategy for every country where it is located or purchases supplies.

Concluding Remarks

Companies in all industries are rethinking their risk detection, mitigation, and recovery strategies. The Supply Chain Disruption Analysis Model can assist supply chain managers in correctly identifying and categorizing disruptions to which their company is most vulnerable. By having a clear picture of the cause of these disruptions, managers can then brainstorm appropriate mitigation techniques. This white paper provides some ideas to help allay current and future supply chain disruptions. However, the possibilities are limited only by the imagination of savvy supply chain managers.

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