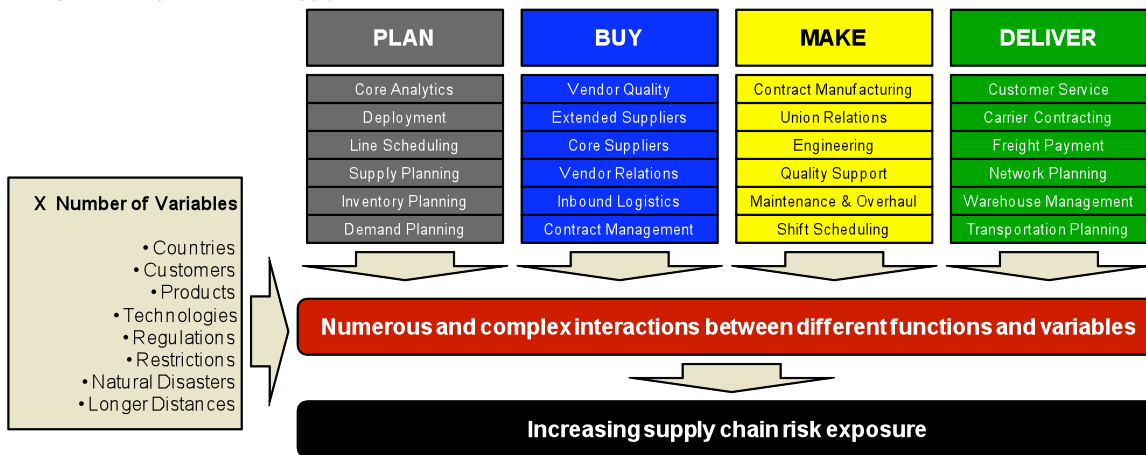


Trend #2 – SC risk management becomes even more critical

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We were at the recent COPPEAD supply chain / logistics event in Rio de Janeiro, where all the major Latin American industry players, multinationals, and local & global consulting firms participate to discuss ideas, case studies, and practical applications of knowledge. Amongst the most interesting of the themes presented was that of Supply Chain Risk Management. Prominent supply chain thought leaders such as Kevin O'Marah of AMR Research presented this topic. As globalization takes a hold on trade, and as supply chains become more far-flung physically as well as more complex, this topic is gaining more traction in the minds of senior executives. Contributing factors such as trade imbalances, governmental oversight, regulation changes, commodity price fluctuations, global disputes, and natural disasters have made this topic come to the front of the minds of senior leaders in all types businesses not just in supply chains. Aside from these factors, the general growing specialized and fragmented nature of supply chain functions, as shown in figure 1, adds a combinatorial effect which compounds the complexity factor.

Figure 1: Not your father's supply chain



The Bottom Line

As the number of nodes and dependencies grow dramatically, the supply chain is exposed to the risks at each node, which when multiplied are staggering. Delegating the management of risk at each node becomes more of a necessity for companies, and needs to be an essential part of each service level agreement (SLA) between service users and providers. Risk management becomes an essential function for supply chain leaders to be managed pro-actively, and not just something to be managed if / when it occurs. Look at recalls of Chinese products, to be traced through a myriad transportation carriers, global warehouses, global ports, global, regional, local customers. Mitigation strategies and contingency planning is part of new job descriptions within the realm of global supply chain management – actuarial sciences and mathematical modeling of risk becomes a necessity within supply chains.

Types of Supply Chain Risk

There are 5 key risks to consider: 1) Enterprise, 2) Sourcing, 3) Governmental, 4) Environmental, 5) Social. In US businesses, risk of Terrorism forms a sixth risk dimension as well. We discuss these in more depth below:

- 1) Enterprise: this risk represents the business or economic risk inherent to an enterprise. Product quality, reliable profit margin, speed to market, and returns all contribute to this risk
- 2) Sourcing: this risk refers to the manufacturing and sourcing risk in terms of capabilities and capacity, in addition to the conformance to the production plans (measure of reliability)
- 3) Governmental: this risk is a regulatory risk, enforced by global governmental bodies and industry specifications. These risks exist throughout the lifecycle of a product
- 4) Environmental: this too is a risk that exists throughout the lifecycle of a product, from cradle to grave, forcing companies to review how they innovate up to how they dispose of waste and handle reverse logistics
- 5) Social: this risk is one that has come to the forefront more recently. Companies want to be conscious about how they are impacting society in their effort to be "good corporate citizens". Companies' code of conduct, ethics, and human rights practices are in the spotlight here.

Impact of Supply Chain Risk

Deloitte Consulting, in their risk management study, *Disarming the Value Killers*, finds that "many of the greatest market capitalization losses in the world were attributable to events that were considered extremely unlikely – and for which those companies seemingly failed to plan. Many of the companies cited in the study lost more than 20 percent of their market value in the month after the negative event, and it often took more than a year before their shares regained their original levels." In a recent paper, Ruud Bosman, Executive Vice President of FM Global, an insurance provider, discusses the fact that "significant supply chain disruptions can reduce your company's revenue, cut into your market share, inflate your costs, send you over budget, and threaten production and distribution. You can't sell goods, you can't manufacture or deliver. Such disruptions also can damage your credibility with investors and other stakeholders, thereby driving up your cost of capital."

We see this in practice at a supplier of Dell Computers, where due to their profile of supply unreliability, Dell required them to stock 30 days of supply in inventory, vs. having them as a Just In Time (JIT) partner, like a majority of their vendors. The risk of potential undersupply forced this type of working capital outlay by the supplier, eroding margins, and driving funds away from much-needed innovation.

Mr. Bosman refers to Nike in his paper, "we now live in a world where the largest shoemaker doesn't actually make shoes, but only designs and sells them." The same is true about companies like Dell, who focus on assembly rather than manufacturing. The paper also mentions that "in a study of more than 800 companies that announced a supply chain disruption between 1989 and 2000, Singhal and Hendricks found that during a three-year span, regardless of industry, disruption cause or time period affected companies experienced 33% to 40% lower stock returns relative to their industry peers. Likewise, share price volatility in the year after the disruption was 13.5% higher when compared with the volatility in the year before the disruption.

Ignorance is No Defense

A recent presentation by Bureau Veritas in Brussels mentioned that "identifying the Law applying to a product and the standards that can be used to justify compliance with that law should largely ensure the avoidance of failure." All companies need to be mindful of the risks at hand and the grave impact of these risks on their businesses, their consumers, the environment, and society. McKinsey & Company have done a comprehensive survey of executives on understanding supply

chain risk. The study highlights many of the commonly known risks, and attempts to quantify their importance in terms of a survey to understand what is at top-of-mind in the minds of executives. Common risks include regulatory concerns, supplier reliability, and commodity shortages or price fluctuations. Other lesser risks also include intellectual property theft, product obsolescence, war, terrorism and other geopolitical concerns, and supply chain infrastructure. It is important to identify risks in terms of 'Internal' to a company and 'External' to the company. There may be things relatively easier to do to handle an Internal risk as opposed to an External one. Internal risks include things such as supplier reliability. Whereas companies may think that suppliers are an external party, but choosing them and having backups or business continuity plans is most certainly an internal exercise. On the other hand, commodity price fluctuations are mostly external, and little can be done to control these through any internal mechanism to any great degree.

Addressing Supply Chain Risk

In order to effectively address supply chain risk in a holistic manner, companies must address all 5 types of risks highlighted in the previous section. Through specific items such as meeting quality standards, product line reviews, and factory audits, to social responsibility audits, compliance testing, and consumer returns evaluations, all form a part of the whole risk management profile of a business. Addressing these in a silo-type fashion is not effective.

Another perspective to be kept in mind is separating your strategy into a) Risk minimization and b) Risk avoidance. These may sound similar but are very different. Risk minimization strategies address risks which cannot be avoided, but when they do arise, their effects can be minimized. Insurance is a great risk minimization strategy. Meanwhile, risk avoidance strategies look to avoid the occurrence of risky situations. Supplier reliability and alternate supplier selections are a good example of this. This risk of supply unreliability can be avoided completely avoided by having backup suppliers and service level agreements with service flagging mechanisms to help companies recognize the occurrence or impending nature of the risk.

What is required is a holistic program around supply chain risk assessment.

The Emerging Field of Supply Chain Risk Management (SCRM)

According to Deloitte Consulting, Supply Chain Risk Management (SCRM) should be a "structured and synergetic process throughout the supply chain, which seeks to optimize the totality of strategy, processes, human resources, technology, and knowledge. The aim is to control, monitor, and evaluate supply chain risk, which will serve to safeguard continuity and maximize profitability." It is a relatively new field gaining more popularity in the industry, with more knowledge collateral available from different sources.

In a day and age, when supply chains, not product innovation, are gaining the center stage, enterprises need to realize that they are more dependent than ever, on their supply chain and their supply chain partners. Like in the erstwhile talk-show "The Weakest Link", an organization is only as strong as its weakest link, whether that be a logistics service provider, a contract manufacturer, the freight payment system, or the outsourced vendor evaluation partner.

The author wishes to acknowledge the contribution of Jeferson Fernandes, Consulting Manager at Equus Group, LLC, for his research support and his perspectives on risk management within the supply chain.

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