

CASE 1 Supply Chain Havoc

Information systems have assisted in the creation of global supply networks that allow for the worldwide procurement of raw materials and components needed as inputs into production processes. For the purpose of achieving an optimal balance between quality and costs, manufacturers often have had to rely on a complicated and fragile supply chain. Imagine that you are the manufacturer of a trendy new gadget that is gaining popularity worldwide. Also imagine that a tsunami just rolled over the key manufacturer of a certain critical component in your device. At best, you may encounter long shipment delays and lost sales; at worst, your opportunity in the marketplace fades and you go out of business. Thus, shielding the delicate supply chain from negative impacts arising from external events is a tremendous challenge for many organizations, especially in a reality where disruptions can rarely be forecast and the results can be devastating.

One example of such external events is the serious flooding in Thailand during the 2011 monsoon season. The World Bank estimated US\$47.5 billion in economic loss and a massive disruption in production within the country. This disruption was not limited to the country itself, but sent shockwaves through global supply chains. Thailand is the second biggest producer of computer hard drives in the world, as well as a critical supplier of key components; for instance, 70 percent of all hard drive motors are produced in the Southeast Asian country. Because the floods caused tremendous damage to concerned factories, hard drive production all around the world dropped about 30 percent compared to the

previous quarter. The cost of this disruption was a surge in the price of hard drives; in some temporary yet exceptional cases, prices were up to 150 percent higher. In the quarter following the floods, hard drive prices were still about 5 to 15 percent higher than before the natural disaster. Consumers, producers, and organizations alike suffered from the natural disaster. In fact, over a year after the floods, huge shortages still lingered for some types of hard drives.

The flooding in Thailand shows a domino effect that can eventually disrupt entire global supply networks; the collapse of one piece of the network leads to the fall of another, until eventually the entire chain crumbles. The flooding started the dominoes toppling, leading to the shortage of hard drives, which triggered computer manufacturers to focus on building higher-margin, more expensive computers. Thus, manufacturers reduced production of lower-margin low-end PCs, netbooks, and the like, ultimately resulting in an increase in prices for these devices as well. Likewise, two other well-known consumer electronics companies experienced severe disruptions of their supply chains during and after the devastating floods. Nikon suffered greatly as the entire first floor of one of its primary factories assembling digital single-lens reflex (DSLR) cameras was submerged in water. The company subsequently announced that the production of 90 percent of its DSLR cameras—from low to mid-range—was affected by the flood and had reached a state of non-recovery. Similarly, Sony, 100 percent of whose DSLRs were made in a factory damaged by the flood,

found itself scrambling to resume production. Both Nikon and Sony were unable to quickly bring production back to prior levels, and were even forced to postpone the release of various newly introduced camera models, resulting in net losses for both companies.

It is not just natural disasters that can wreak havoc on global supply networks. In 2013, a large clothing factory in Bangladesh with over 3,000 workers collapsed, tragically taking over 1,129 lives and injuring thousands more. The factory serviced 29 different clothing companies around the world, and the effects of the production loss rippled throughout these companies' supply chains. Perhaps more important, the building collapse has led to widespread discussions about corporate social responsibility across global supply chains.

In their quest to achieve sustainable competitive advantage, many companies face a dilemma when trying to maximize efficiency and effectiveness of their global supply chains. Without doubt, supply chain management systems have contributed tremendously to improving interorganizational business processes, such as by allowing to build highly efficient supply chains that minimize inventory levels. However, minimum inventory levels, short product cycles, and inadequate risk management all contribute to the fragile nature of many global supply networks, and the danger of unforeseen external events disrupting these supply networks always lingers. Furthermore, the question as to who among the many companies in a supply chain should be held responsible for things like working conditions or adherence to child labor laws remains under debate.

Questions

- 8-44. What are the benefits of a global supply network?
- 8-45. What are the trade-offs when developing a supply chain strategy?
- 8-46. Who do you think should be held accountable for worker conditions in overseas factories? The local governments? The factory owners? The U.S.-based businesses that purchase from the factories? The consumers who purchase the end products?

Based on:

2013 Savar building collapse. (2014, May 5). In *Wikipedia, The Free Encyclopedia*. Retrieved 21:17, May 6, 2014, from http://en.wikipedia.org/w/index.php?title=2013_Savar_building_collapse&oldid=607211199.

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