

**From the Health Sector Supply Chain Research Consortium (Eugene Schneller, Director), CAPS Research & Arizona State University, W. P. Carey School of Business**

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## Framing

### **What is the message?**

- Supply chain disruptions are especially threatening in the health sector, where the delayed deliveries and lack of substitute products may mean postponing patient care. The most critical factor in managing supply chain disruptions is discovery speed. In turn, buyers are most likely to maintain relationships with suppliers that actively involve themselves in identifying problems and managing recovery from disruptions, using strategies that focus on maintaining a buyer's trust in the supplier's ability.

### **What is the evidence?**

- Scrutinizing how firms outside the health sector manage disruptions offers important lessons for health sector leaders. Two studies of supply chain disruptions examine the costs of the problems and the effectiveness of different approaches to recovering from the disruptions.

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Submitted: August 20, 2016; Accepted after review: October 30, 2016

Cite as: Eugene Schneller. 2017. Strategies for Dealing with Supply Chain Disruptions. Health Management Policy and Innovation, Volume 2, Issue 1. xxHMPI-URL.

## Introduction

Supply chain disruptions in healthcare such as recalls and shortages of pharmaceutical and medical/surgical products commonly harm clinical quality, regulatory compliance, and patient safety ([see Figure 1](#)). Even with sound risk management practices, severe disruptions can arise unexpectedly. Healthcare professionals need to establish flexible processes to identify and manage supply chain disruptions once they occur. This article summarizes recent research on managing supply chain disruptions.

Supply chain disruptions move through four phases: (1) the disruption *event*, (2) *discovery* of the event, (3) *recovery* from the disruption, and (4) *redesign* of the supply system. Although each phase requires thoughtful attention, the most critical factor in managing disruptions is often *discovery speed*. Following supplier-induced disruptions, suppliers benefit from using *procedural justice* strategies that restore buyers' trust in their abilities.

## Why Study Supply Chain Disruptions?

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- Kinds of disruptions must be understood and managed including delays in delivery, insufficient product deliveries, and quality defects.
- The health sector is threatened by risks associated with supply chain disruptions with consequences such as:
  - Postponement of clinical care
  - Lack of appropriate substitute products
- Well-managed disruptions mitigate trust damage & enhance relationships.
- Health sector management education should give increased attention to the management of supply chain risk.
- Providers, distributors and group purchasing executives must learn from risk mitigation strategies in other industries and recast their role to emphasize solving critical business problems in collaboration with suppliers.

For additional information contact [gene.Schneller@asu.edu](mailto:gene.Schneller@asu.edu). Sources - See Macdonald and Corsi, Supply Chain Disruption Management, Journal of Business Logistics Vol 34 and Wang et. Al., Justice Served :Mitigating Damaged Trust Stemming from Supply Chain Disruptions, Journal of Operations Management, Vol. 32.

## Studies

### Study 1: Managing supply chain disruptions

**Study context:** This study examined 34 supply chain disruptions from 17 firms, each of which experienced a well-managed supply chain disruption and a disruption that could have been managed better (MacDonald & Corsi, 2013).

**Findings:** Supply chain disruptions such as product recalls and quality failures are particularly challenging to address. Such internal disruptions commonly take substantial time to discover, face slow recovery times after discovery, and require large buyer-supplier recovery teams that are difficult to manage. Disruptions that are slow to discover incur particularly large financial costs. Firms that actively monitor supply chain activities are best able to discover problems early and then determine the disruption's root causes. Early identification and diagnosis then facilitate smooth recovery.

## Study 2: Mitigating damaged trust resulting from disruptions

**Study context:** This study examined 604 supplier-induced disruption incidents from Chinese manufacturers, including delivery delays, delivery shortages, and major quality defects. The researchers used organizational justice theory to examine how approaches suppliers used to resolve the disruptions affected buyers' trust in the buyer-supplier relationships and, in turn, whether the relationships continued (Wang, Craighead, and Li, 2014).

**Findings:** Buyers were most likely to maintain relationships with suppliers that actively involved themselves in managing recovery from the disruption. Supplier strategies that focused on maintaining a buyer's trust in the supplier's ability (*procedural justice*) were most successful in limiting damage to trust. By contrast, simply encouraging buyers to support the suppliers (*conserve supplier benevolence*) did not help maintain a relationship.

## Summary

Supply chain disruptions can spill down the value chain far beyond the initial problems. Both parties in a buyer-supplier relationship need active processes for identifying problems quickly, diagnosing the causes of the disruptions, and addressing the root causes. In doing so, suppliers need to focus on maintaining buyers' confidence in their capabilities and their ability to avoid future problems.

## REFERENCES

Macdonald, J. R., & Corsi, T. M. 2013. Supply Chain Disruption Management: Severe Events, Recovery, and Performance. *Journal of Business Logistics*, 34(4), pages 270-288.

Wang, Q., Craighead, C. W., & Li, J. J. 2014. Justice served: Mitigating damaged trust stemming from supply chain disruptions. *Journal of Operations Management*, 32(6), pages 374-386.

## **The Health Sector Supply Chain Research Consortium**

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