

## Chapter 6.5

# Business Continuity Challenges in Global Supply Chains

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### **ABSTRACT**

This chapter examines the relevance of business continuity to supply chain management. Business continuity has focused on the business processes of individual organizations. A business process in a supply chain can involve multiple discrete organizations. This chapter draws on the approaches used by individual organizations to implement continuity and apply them to a supply chain. Typically, supply chains are dependent on IT and workplace for staff. Both can be impacted in a disaster. If one member of a supply chain is affected, this will affect other organizations in the supply chain, magnifying the impact of the initial disaster. The chapter also examines the issues of service supply chains as well as physical goods. A practical outline plan for the development, auditing, and testing of a continuity plan for a supply chain and its management within an overall supply chain governance is proposed as a starting point for supply chain managers.

### **INTRODUCTION**

Business continuity is a crucial ingredient of supply chain management. This chapter discusses this significance and the impact of business continuity on supply chain systems. The discussion is based on the author's experience of working in an environment that is dependent on supply chains, as well as helping many of his clients in achieving uninterrupted business continuity.

### **BUSINESS CONTINUITY TODAY: A BACKGROUND**

Business continuity is essentially a simple concept. Strategically, it should be simple for an organization to implement and manage business continuity. This is not to argue that the detail of a successful business continuity plan is straightforward. In fact, the detailed planning and execution of a business continuity initiative is not always simple, as there is a staggering amount of details resulting from bringing numerous business processes together

with many knowledgeable people to develop a successful outcome for an organization. However, at the strategic level, it can be made simple. In fact, at the strategic level, business continuity is the process of ensuring that all critical business processes are available to meet the business needs under all agreed scenarios in case of an emergency or a disaster.

There are three key points in this definition.

1. An organization must be able to identify and to agree on what its critical business processes are. The best approach to understand this is determined through business impact analysis. A business impact analysis is a process to identify the impact on an organization of a significant incident, such as a fire that will affect the running of the business. The outcomes of a business impact analysis are the identification of critical business processes on which the organization depends, their interrelationships, the components that the process requires, the cost of down time, and the maximum time that the organization can operate without the process. The key point is that the definition of critical business processes will differ from one organization to another, and it is reached through consensus of senior management.
2. Critical business processes do not have to be available all the time. Therefore, senior management needs to agree on how long the organization can cope without them (this is called the maximum tolerable outage) and the hourly cost of down time. Typically, the hourly cost of down time will increase exponentially (i.e., the cost of down time for the first hour will be much lower than that of the 10<sup>th</sup> hour). Eventually, the cost of down time will exceed the revenue from continuing business, so the private sector organization will fail. In the public sector, there will be major political intervention and significant reorganization.

3. The scenarios that an organization needs to safeguard against need to be agreed on. This can be simplified by considering a denial of access strategy, regardless of the various causes of a disaster. Therefore, senior management should think about its various locations in order to consider denial of access to a floor of a building, the whole building, the city block, a half of a kilometer radius from the building, the whole metropolitan area, and beyond, as a denial zone. The likelihood of each scenario needs to be considered separately. To add to the reality, possible causes also ought to be considered. For instance, loss of power supply is one that senior managers can readily understand. What would be the impact if the organization lost power to its building due to a malfunction in its power distribution boards? What if there were a regional power failure that affected a significant portion of a central business district or a total blackout?

This leads to risk analysis and mitigation.

For example, if we consider the power outage, an organization may protect certain parts of its premises (e.g., call center and computer room) with a UPS (uninterruptible power supply) and generator. But how often are the UPS and generator tested? Is the switch across and switch back seamless? Is the fuel for the generator checked for quality regularly, and is fuel supply service in place that can be relied on during a major prolonged power outage?

We have been considering the approach a discrete organization needs to take. A supply chain could be considered to be a super-organization; therefore, the same basic issues will apply.

A simple seven-step model to develop and maintain a plan at the strategic level is shown in Figure 1.

- **Current Situation:** Most organizations have some level of business continuity capability.

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