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# Contemporary Logistics

Twelfth Edition

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# CONTEMPORARY LOGISTICS

workers there were waiting for the trucks to arrive. While I was talking to Jason that afternoon, he indicated that he had fired Bigelow.”

Easter lit his cigar and continued, “On Wednesday, I decided to go to Providence myself, mainly to talk to Jason and to determine whether we should close down the Providence center and try to serve all our stores out of Newburgh. This would have been expensive, but Providence was becoming too unreliable. In addition, we had a big weekend coming up. When I showed up in Providence, Jason and I had breakfast together in my hotel room Thursday morning, and he told me pretty much the same thing I’ve been telling you. He said he knew Bigelow was behind all the disruption and that today, Thursday, would be crucial. I’ve never seen Jason looking so nervous. Then we drove to the distribution center. Even from a distance, I could tell things were moving slowly. The first echelon of outgoing trucks, which should have been on the road, was still there. Another 20 of our trucks were waiting to be loaded. On the other end of the building, you could see a long line of arriving trucks waiting to be unloaded; usually there was no line at all. I knew that our suppliers would start complaining because we had established scheduled unloading times. However, I decided not to ask Jason whether he had begun receiving phone calls from them.”

“Inside the center, the slowdown was in effect. Lift-truck operators who usually zipped by each other would now stop, turn off their engines, dismount, and carefully walk around each other’s trucks to ensure there was proper clearance. Satisfied of this, they would then mount, start their engines, and spend an inordinate amount of time motioning to each other to pass. This was only one example. When we got to Jason’s office, he had a message to phone Ed Meyers, our local attorney in Providence, who handles much of our labor relations work there. He called Meyers and was upset by the discussion. After he hung up, he told me that Meyers had been served papers by the union’s attorney, charging that Wednesday’s firing of Bigelow was unjustified, mainly because no provable grounds existed that Bigelow was behind the slowdown. Meyers was angry because, in firing Bigelow on Wednesday, Jason may have also blown the suspension of Bigelow on Monday. Jason and I started talking, even arguing. I talked so much that my cigar went out,” said Easter, “so I asked Jason, who was sitting behind his desk, for a match. He didn’t carry matches but looked inside his center desk drawer for one. He gasped, and I didn’t know what was the matter. He got up, looking sick, and walked away from his desk. He said that a dead rat had been left in his desk drawer, and he wanted a transfer.

He was in bad shape and the distribution center was in bad shape, so I had the opening in the Boston area and I let him have it. Actually, right now he and his family are vacationing somewhere in Eastern Canada. He needs the rest.”

Fosdick was beginning to feel sorry that he knew all the details, but he persisted. “Then what?” he asked Easter.

“Well, I took over running the distribution center. I phoned Meyers again, and he and I had lunch. He thought that Jason had blown the case against Bigelow and that we should take him back. So on Friday, Meyers, Bigelow, the union attorney, the shop steward, Bigelow’s supervisor, and I met. Jason, of course, was not there. It was a pleasant meeting. Everything got blamed on poor Jason. I did tell Bigelow that we would be documenting his performance and wanted him to know that Jason’s successor, meaning you, was under my instructions to tolerate no nonsense. Bigelow was so pleasant that day that I could not imagine him in the role of a troublemaker. The amazing thing was that, when he went out into the center to resume work, a loud cheer went up and all the drivers started blowing their lift-truck horns. For a moment, I was afraid all the batteries would run down again. But I was wrong. They were plain happy to see Bigelow back. You know, the slowdown was still in effect when Bigelow walked onto the floor. I’d say it was 10:00 A.M. and they were an hour behind. Well, let me tell you what happened. They went to work! By noon we were back on schedule, and by the end of the shift we were a half-hour ahead of schedule. In fact, the last half-hour was spent straightening up many of the bins that had been deliberately disarranged during the slowdown. I tell you, Tom Bigelow does set the work pace in that warehouse!”

“So what do you suggest I do at the center?” asked Fosdick.

“Well, the key is getting along with Bigelow. Talk to Meyers about the kind of records you should keep in case you decide to move against Bigelow. Be sure to consult with Meyers before you do anything irreversible. Frankly, I don’t know whether Bigelow will be a problem. We never had trouble with him that I knew about before Jason was there. According to Bigelow and the union attorney, Jason had it in for Bigelow. If I were you, I’d take it easy with Bigelow and other labor problems. See what you can do instead about the inventory shrinkage.”

On the next Monday morning, Fosdick showed up at the Providence distribution center. After gingerly looking in all his desk drawers, he had a brief meeting with his supervisors and then walked out to meet the entire workforce on a one-to-one basis. Many remembered Fosdick from his earlier visits to the facility. Because it was a Monday morning,

*(continued)*

he had not expected to encounter Bigelow, who was present, clear-eyed, alert, and enthusiastic. Bigelow was happy to see Fosdick and shook his hand warmly. Bigelow then excused himself, saying he had to return to work. The truck dispatcher said that the workforce was ahead of schedule again: It was 11:00 A.M., and they were about 15 minutes ahead. Fosdick returned to his office, and there was a phone message from Ed Meyers. Meyers asked to postpone their luncheon for that day until Tuesday noon. Then Robert Easter called to ask how things were going on Fosdick's first day. Easter was pleased that things were going smoothly.

It was lunchtime. Fosdick decided to walk to a small café where he had eaten at other times. It was two blocks from the distribution center and on the side away from the office. So he walked through the center, which was quiet since it was closed down for lunch. He walked by the employees' lunchroom and heard the normal sounds of 50 people eating and talking. Just outside the lunchroom was one lift truck with an empty wooden pallet on it. As Fosdick watched, one of the stock clerks came out of the lunchroom with an opened case of sweet pickles from which three jars had been taken. Next came another stock clerk with an opened carton of mustard from which two bottles had been removed. One of the clerks suddenly saw Fosdick and said weakly, "We take these opened cases to the damaged merchandise room." Fosdick went into the lunchroom. There, on the center table were cases of cold meat, cheese, soft drinks, mayonnaise, and bread. All had been opened and partially emptied to provide the workers' lunches.

Bigelow was making himself a large sandwich when he saw Fosdick approach. "Don't get uptight," he said to Fosdick. "You've just come across one of the noncontract fringe benefits of working at the Red Spot Providence distribution center. May I make you a sandwich?"

## QUESTIONS

1. How should Fosdick respond to the immediate situation?
2. What controls, of the types discussed in this chapter, might have been used by Red Spot Markets to reduce or eliminate the problems discussed in the case?
3. What longer-range steps should Fosdick take to control the operations of the Providence distribution center?
4. What longer-range steps should Fosdick take to improve the Providence distribution center's productivity?
5. What longer-range steps can Fosdick take to reduce the distribution center's high rate of shrinkage?
6. Assume that Fosdick decides that the practice of free lunches from the opened cases of goods must be stopped. Develop and present the arguments he should give in a meeting with the union shop steward.
7. (This is a continuation of Question 6.) Assume, instead, that you are the union shop steward. Develop and present your argument that the free lunches represent a long-standing employee benefit enjoyed by the distribution center's employees and that management's attempt to stop them is a breach of an unwritten contract and will be resisted.
8. Much of the situation described in the case seems to evolve around the personality of T. D. Bigelow. How should he be treated? Why?

## PART II

# SUPPLY CHAIN MANAGEMENT

**B**ecause supply chain management and procurement are inextricably linked with logistics management, Part II of *Contemporary Logistics* takes a closer look at these two topics. Chapter 5 examines supply chain management, which is a distinct concept from logistics management. Supply chain management focuses on business process integration that requires contributions from logistics as well as the other functional areas. In addition, supply chain management provides the structure for the network of interorganizational relationships that form one's supply chain. Also covered are enablers and barriers that affect one's ability to integrate their network of relationships.

Chapter 6 examines procurement, a business function responsible for ensuring an efficient and effective supply of materials in support of manufacturing and marketing strategies. It will examine key aspects of this essential linkage between suppliers and buyers and the mechanism that initiates the movement of materials into one's logistics system. In addition, logistics considerations that can potentially affect procurement decisions are detailed.

# 5

## THE SUPPLY CHAIN MANAGEMENT CONCEPT

### Learning Objectives

- 5.1 To explain the concept of supply chains and how the network of interorganizational relationships is managed
- 5.2 To summarize supply chain process frameworks
- 5.3 To illustrate potential enablers of supply chain management implementation
- 5.4 To illustrate potential barriers to supply chain management implementation
- 5.5 To compare optional approaches for supply chain integration

As pointed out in Chapter 1, the contemporary view is that logistics is a key part of **supply chain management (SCM)**, and there are many examples of the importance of the logistics function to SCM. Research on underperforming supply chains, defined as those exhibiting poor service, unproductive assets, or high variable operating costs, suggests that logistical considerations can be crucial to achieving desired levels of supply chain performance. For example, damaged goods resulting from shoddy materials handling practices might result in poor service. Poor inventory turnover, an indicator of unproductive asset utilization that can negatively affect firm performance, can be addressed by consolidating stocking points and eliminating slow-moving items. Finally, high transportation costs, one example of margin-reducing operating costs, call for an examination of modal or carrier selection policies as well as of transportation routing decisions.<sup>1</sup>

This chapter provides an overview of the SCM concept, begins with a description of its evolution, and establishes its definition. Next, descriptions of two prominent SCM process frameworks are provided. An examination of key enablers that can influence a firm's ability to implement SCM, such as the leveraging of technology for enhanced visibility and communication, will follow this. Next comes an overview of select barriers to SCM implementation, and the chapter concludes with a look at supply chain integration approaches.

### Learning Objective 5.1

### EVOLUTION OF SUPPLY CHAIN MANAGEMENT

SCM is a relatively young concept in the sense that it was rarely mentioned in either the academic or practitioner communities prior to 1990. According to Professor Mentzer and colleagues, "the supply chain concept originated in the logistics literature, and logistics has continued to have a significant impact on the SCM concept."<sup>2</sup> More specifically, a dominant logistical philosophy throughout the 1980s and into the early 1990s involved the integration of logistics with other functional areas of an organization in an effort to achieve the enterprise's overall success.<sup>3</sup> The early to mid-1990s witnessed

<sup>1</sup>Foster Pinley and Chap Kistler, "Fixing an Underperforming Supply Chain," *Supply Chain Management Review* 9, no. 8 (2005): 46–52.

<sup>2</sup>John T. Mentzer, William DeWitt, James S. Keebler, Soonhong Min, Nancy W. Nix, Carlo D. Smith, and Zach G. Zacharia, "Defining Supply Chain Management," *Journal of Business Logistics*, 22, no. 2 (2001): 1–25.

<sup>3</sup>Richard F. Poist, "Evolution of Conceptual Approaches to Designing Business Logistics Systems," *Transportation Journal* 25, no. 1 (1986): 55–64.

a growing recognition that there could be value in coordinating the various business functions not only within organizations but *across* organizations as well—in what can be referred to as an SCM philosophy.

Since the early to mid-1990s academics, practitioners, and industry associations have suggested a number of definitions for both a supply chain and SCM. As was the case when defining logistics, it is important to have a common understanding of what is meant by *supply chain* and *SCM* in order to support management efforts in this area.

A **supply chain** can be liberally viewed as a combination of processes, functions, activities, relationships, and pathways along which products, services, information, and financial transactions move in and between enterprises from original producer to ultimate end-user or consumer.<sup>4</sup> Figure 5.1 presents illustrations of several generic types of supply chains, and it is important to note several key points. First, supply chains are not a new concept in that most organizations traditionally have been dependent on suppliers, and organizations traditionally have served customers. For example, Procter & Gamble (P&G), a prominent multinational company that produces consumer packaged goods, needed raw materials to make soap, as well as customers for the soap, when it was founded in 1837; today, P&G still needs raw materials to make soap—as well as customers for the soap.

Figure 5.1 also points out that some supply chains can be much more complex (in terms of the number of participating parties) than others, and coordinating complex supply chains is likely to be more difficult than doing so for less-complex supply chains. Moreover, complex supply chains may include “specialist” companies, such as third-party logistics (3PL) providers, to facilitate coordination among various supply chain parties. Note also that customers are an integral component in supply chains, regardless of their complexity. Contemporary thought has also extended the role of consumers in SCM. Consumers have gone from being viewed as merely recipients of supply chain activities to a potential value co-creator. Pfizer, a global pharmaceutical company, employs consumers to report on product merchandising and availability during their shopping trips. Hoover, a manufacturer of vacuum cleaners, has allowed consumers to 3D print accessories for their vacuums.<sup>5</sup>



Figure 5.1a Direct Supply Chain



Figure 5.1b Extended Supply Chain

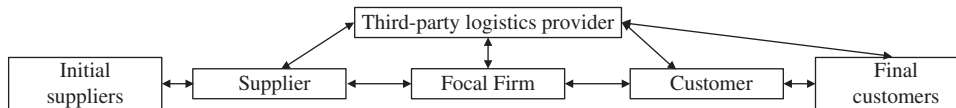


Figure 5.1c Ultimate Supply Chain

Figure 5.1 Different Supply Chain Configurations

<sup>4</sup>John Gattorna, “Supply Chains Are the Business,” *Supply Chain Management Review* 10, no. 6 (2006): 42–49.

<sup>5</sup>Ha Ta, Terry Esper, and Adriana Rossiter Hofer, “Business-to-Consumer (B2C) Collaboration: Rethinking the Role of Consumers in Supply Chain Management,” *Journal of Business Logistics* 36, no. 1 (2015): 133–134.

With respect to the relationship between logistics and supply chain management, the Council of Supply Chain Management Professionals (CSCMP) views logistics activities as being part of managing one's supply chain. In addition, activities involved in sourcing, procuring, and manufacturing are also involved. Consistent with Figure 5.1, CSCMP also asserts the need to work with multiple parties, including suppliers, third-party service providers, and end customers as an organization integrates supply and demand management internally and with other companies in the supply chain.

The CSCMP view goes on to establish that SCM has a leading role for connecting business functions and business processes internally and across companies so as to ensure coordination and high performance across the supply chain.<sup>6</sup> As such, SCM is inclusive of logistics management activities, and logistics managers can contribute to the success and benefit from involvement in SCM.<sup>7</sup> Moreover, although nearly any organization can be part of a supply chain, SCM must be specifically managed by the organizations operating within the supply chain.<sup>8</sup>

Successful SCM requires companies to adopt an enterprise-to-enterprise point of view, which can cause organizations to accept practices and adopt behaviors that haven't traditionally been associated with buyer-seller interactions (as will be seen later in this chapter). Moreover, successful SCM requires companies to apply the systems approach (previously mentioned in Chapter 1) across all organizations in the supply chain. When applied to supply chains, the systems approach suggests that companies must recognize the interdependencies of the decisions made in major functional areas and business processes within, across, and between firms. In turn, the goals and objectives of individual supply chain participants should be compatible with the goals and objectives of other participants in the supply chain. For example, a company that is committed to providing a high level of customer service might be out of place in a supply chain comprising companies whose primary goal is cost containment.

## Learning Objective 5.2

### SUPPLY CHAIN MANAGEMENT PROCESS FRAMEWORKS

The APICS Supply Chain Council (Supply Chain Operations Reference [SCOR] Model—[www.apics.org](http://www.apics.org)) and the Supply Chain Management Institute (Global Supply Chain Forum [GSCF] Model—[www.scm-institute.org](http://www.scm-institute.org)) have established the two prominent SCM process frameworks. The prominence of these models is attributable to the fact that they identify business processes in such a way that the processes can actually be implemented, and thus evaluated, by organizations; each of the models is also supported by major corporations.<sup>9</sup> A primary distinction between the models is the degree of cross-functional involvement prescribed by each, with the GSCF model involving all business functions. In contrast, the SCOR model is focused on the logistics, operations, and procurement functions. The proposed models are briefly described next.

The **SCOR model** identifies six processes—*Plan, Source, Make, Deliver, Return, and Enable*—associated with SCM (see Table 5.1). Moreover, closer analysis of the six processes, and their definitions, indicates the important role of logistics in SCM. It can be argued that logistics has some involvement in both sourcing and making; for example, with respect to making, recall the narrative in Chapter 1 about the concept of postponement resulting in value-added activities being performed in warehousing facilities. Alternatively, logistics can be involved in delivering and returning; the definition of the deliver process specifically mentions the logistics components of order management, transportation management, and distribution management. Logistics is also a key area of consideration within SCOR's planning and enabling processes. In terms of planning, logistics is a

<sup>6</sup>Ibid.

<sup>7</sup>Douglas M. Lambert, Sebastian J. Garcia-Dastugue, and Keely L. Croxton, "The Role of Logistics Managers in the Cross-Functional Implementation of Supply Chain Management," *Journal of Business Logistics* 29, no. 1 (2008): 113–132.

<sup>8</sup>Mentzer et al., "Defining Supply Chain Management."

<sup>9</sup>Douglas M. Lambert, Sebastian J. Garcia-Dastugue, and Keely L. Croxton, "An Evaluation of Process-Oriented Supply Chain Management Frameworks," *Journal of Business Logistics* 26, no. 1 (2005): 25–51 and Christopher R. Moberg, Kate Vitasek, Theodore P. Stank, and Abre Pienaar, "Time to Remodel," *Supply Chain Quarterly* 2, no. 3 (2008): 32–44.