

# Chapter 1.17

## Leveraging Supply Chain Management in the Digital Economy

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### INTRODUCTION

A supply chain is a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers. In other words, supply chain encompasses all of the activities associated with moving goods from raw-materials stage through to the end user.

The information systems needed to monitor all of these activities are a critical part of the mix. Successful supply chain management (SCM), then, coordinates and integrates all of these activities into a seamless process. It embraces and links all of the partners in the chain. In addition to the key functional areas within the organization, these partners include vendors, carriers, third-party logistics companies, and information systems providers.

### THE BUSINESS CASE FOR SUPPLY CHAIN MANAGEMENT

Improving supply chain management has become the major objective of the corporate world, because it represents an opportunity to resolve monumental problems that face corporations and create a mismatch between supply and demand throughout their supply chains.

For example, let us go back a few years to 1992, when a study of a major department store facing serious market-share troubles showed that 46% of the buyers who entered its stores that year did not buy anything! More than half of the empty-handed said it was not because they did not want something—they did, but the store did not have the product. The department store ended up with dissatisfied buyers and lost sales, plus a surplus of goods in stock that people did not buy, leading to mark downs. This is not a unique story. The number of markdowns among retailers have

skyrocketed in the last decade, to the point where people refuse to buy unless goods are on sale and they totally distrust words like “suggested retail price”.

This epidemic arises from a total mismatch of supply and demand. Customer and retailer and manufacturer alike are victims of “wrong product, wrong time, wrong place, and probably wrong price.” It is a staggeringly costly problem. The retailer must support unwanted goods. The manufacturer must often deal with returns and a complex system of credits.

With constant markdowns, many retailers have faltered and ultimately gone out of business. The manufacturers have not been paid and there they sit with resources allocated to the wrong arenas. The mismatch between supply and demand ultimately arises from the inability of vendors and manufacturers, as their markets change, to make the right decisions about who they want to be. For instance, do the department stores want to be discounters, competing on the basis of commodity products? That is, all department stores would carry the same basic designer/manufacturing lines in clothing. Or do they want to differentiate themselves through such means as exclusive designers, private labels, and customer service?

Let us consider another example. Hewlett-Packard was historically known for high quality, high functionality products in computing and measurement that few, if any, could deliver. As these products became commoditized, customers expected HP to lower its prices, while maintaining a high level of functionality. In HP's case the transition has been from high quality and functionality at a premium price, to differentiation through a competitive combination of price, functionality, and delivery performance. The customer today is looking for a tradeoff: “Can you customize it for my requirements and can you deliver it reliably? And, oh, by the way, keep the price down” ([http://www.internetsolutions.enterprise.hp.com/supplychain/library/articles/30000\\_feet.html](http://www.internetsolutions.enterprise.hp.com/supplychain/library/articles/30000_feet.html)).

The real challenge for companies, then, is to make the right decision about where they want to position themselves in cost, functionality, and delivery performance with respect to both their customers' requirements and their competitors' strategies and gambits (see Figure 1). Companies can achieve this with better supply chain management.

Supply chain management involves the flows of material, information, and finance in a network consisting of customers, suppliers, manufacturers, and distributors. (Figure 2 gives an overview.) Material flows include both physical product flows from suppliers to customers through the chain and reverse flows via product returns, servicing, recycling, and disposal. Information flows involve order transmission and delivery status. Financial flows include credit terms, payment schedules, and consignment and title ownership arrangements.

These flows cut across multiple functions and areas both within a company and across companies (and sometimes industries). Coordination and integration of these flows within and across companies are critical to effective supply chain management. However managing these flows effectively is a daunting task, particularly for global corporations. A global corporation's supply chain now usually consists of multiple enterprises lo-

*Figure 1. Products and services differentiate on price, functionality, and delivery performance*



(Source: [http://www.internetsolutions.enterprise.hp.com/supplychain/library/articles/30000\\_feet.html](http://www.internetsolutions.enterprise.hp.com/supplychain/library/articles/30000_feet.html). 2000)

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