



## Supply Chain Basics

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## B2B Supply Chain E-Basics

A production supply chain refers to the flow of physical goods and associated information from the source to the consumer. Key supply chain activities include production planning, purchasing, materials management, distribution, customer service, and sales forecasting. These processes are critical to the success of any operation whether they're manufacturers, wholesalers, or service providers.

Electronic commerce and the Internet are fundamentally changing the nature of supply chains, and redefining how consumers learn about, select, purchase, and use products and services. The result has been the emergence of new business-to-business supply chains that are consumer-focused rather than product-focused. They also provide customized products and services.

## Traditional Supply Chain "Push" Model

Companies have recognized that there is an ongoing shift in the balance of power in the commerce model – from suppliers to customers.

In the traditional supply chain model, the raw material suppliers are at one end of the supply chain. They are connected to manufacturers and distributors, which are in turn connected to a retailer and the end customer. Although the customer is the source of the profits, they are only part of the equation in this "push" model. The order and promotion process, which involves customers, retailers, distributors and manufacturers, occurs through time-consuming paperwork. By the time customers' needs are filtered through the agendas of all the members of the supply chain, the production cycle ends up serving suppliers every bit as much as customers.

## E-Commerce Supply Chain "Pull" Model

Driven by e-commerce's capabilities to empower clients, many companies are moving from the traditional "push" business model, where manufacturers, suppliers, distributors and marketers have most of the power, to a customer-driven "pull" model. This new business model is less product-centric and more directly focused on the individual consumer. To succeed in the business environment, companies have recognized that there is an ongoing shift in the balance of power in the commerce model, from suppliers to customers.

In the pull model, customers use electronic connections to pull whatever they need out of the system. The old "push" model involves a linear flow of commerce that keeps many members of the supply chain relatively isolated from end users. With the new customer-driven pull model, it is no longer a linear process. The new supply chain has each participant scrambling to establish direct electronic connections to the end customer. The result is that electronic supply-chain connectivity gives end customers the opportunity to become better informed through the ability to research and give direction to suppliers. Ultimately, customers have a direct voice in the functioning of the supply chain.

E-commerce creates a much more efficient supply chain that benefits both customers and manufacturers. Companies can better serve customer needs, carry less inventory, and send products to market more quickly.

## Impact of E-Commerce on Supply Chain Management

E-commerce impacts supply chain management in a variety of key ways. These include:

E-commerce makes it easier for customers to do business with companies.

**Cost efficiency:** E-commerce allows transportation companies of all sizes to exchange cargo documents electronically over the Internet. E-commerce enables shippers, freight forwarders and trucking firms to streamline document handling without the monetary and time investment required by the traditional document delivery systems. By using e-commerce, companies can reduce costs, improve data accuracy, streamline business processes, accelerate business cycles, and enhance customer service. Ocean carriers and their trading partners can exchange bill of lading instructions, freight invoices, container status messages, motor carrier shipment instructions, and other documents with increased accuracy and efficiency by eliminating the need to re-key or reformat documents. The only tools needed to take advantage of this solution are a personal computer and an Internet browser.

**Changes in the distribution system:** E-commerce will give businesses more flexibility in managing the increasingly complex movement of products and information between businesses, their suppliers and customers. E-commerce will close the link between customers and distribution centers. Customers can manage the increasingly complex movement of products and information through the supply chain.

**Customer orientation:** E-commerce is a vital link in the support of logistics and transportation services for both internal and external customers. E-commerce will help companies deliver better services to their customers, accelerate the growth of the e-commerce initiatives that are critical to their business, and lower their operating costs.

Using the Internet for e-commerce will allow customers to access rate information, place delivery orders, track shipments and pay freight bills. E-commerce makes it easier for customers to do business with companies: Anything that simplifies the process of arranging transportation services will help build companies' business and enhance shareholder value. By making more information available about the commercial side of companies, businesses will make their web site a place where customers will not only get detailed information about the services the company offers, but also where they can actually conduct business with the company.

Ultimately, web sites can provide a universal, self-service system for customers. Shippers can order any service and access the information they need to conduct business with transportation companies exclusively online. E-commerce functions are taking companies a substantial step forward by providing customers with a faster and easier way to do business with them.

**Shipment tracking:** E-commerce will allow users to establish an account and obtain real-time information about cargo shipments. They may also create and submit bills of lading, place a cargo order, analyze charges, submit a freight claim, and carry out many other functions. In addition, e-commerce allows customers to track shipments down to the individual product and perform other supply chain management and decision support functions. The application uses encryption technology to secure business transactions.

Paperwork is significantly reduced and the shipping department will therefore be more efficient.

**Shipping notice:** E-commerce can help automate the receiving process by electronically transmitting a packing list ahead of the shipment. It also allows companies to record the relevant details of each pallet, parcel, and item being shipped.

**Freight auditing:** This will ensure that each freight bill is efficiently reviewed for accuracy. The result is a greatly reduced risk of overpayment, and the elimination of countless hours of paperwork, or the need for a third-party auditing firm. By intercepting duplicate billings and incorrect charges, a significant percent of shipping costs will be recovered. In addition, carrier comparison and assignment allows for instant access to a database containing the latest rates, discounts, and allowances for most major carriers, thus eliminating the need for unwieldy charts and tables.

**Shipping Documentation and Labeling:** There will be less need for manual intervention because standard bills of lading, shipping labels, and carrier manifests will be automatically produced; this includes even the specialized export documentation required for overseas shipments. Paperwork is significantly reduced and the shipping department will therefore be more efficient.

**Online Shipping Inquiry:** This gives instant shipping information access to anyone in the company, from any location. Parcel shipments can be tracked and proof of delivery quickly confirmed. A customer's transportation costs and performance can be analyzed, thus helping the customer negotiate rates and improve service.