

The e-Supply Chain Is Coming...and Fast

by R. Michael Donovan

Never a dull moment in the world of manufacturing. Consider that e-commerce is digitally connecting the entire world into one big (very big) network of supply chains. Nothing in my business career has hit so hard and so fast as e-commerce. Pick up any prestigious business publication—The Wall Street Journal, Business Week, Fortune, Industry Week, Forbes, Midrange ERP and a whole host of others—and you will see article after article discussing the business virtues (read profit) of e-commerce. So far, the big profits have been elusive, but that will change.

If you don't think e-commerce is that big of a deal, think again. Already over \$100 billion a year of business-to-business commerce is conducted on the Internet, and that is at least five times the amount for business-to-consumer (Amazon, E-Bay, etc.) transactions. What's so astounding is that growth estimates for business-to-business e-commerce range from 1000 to 2000 percent or more over the next five years. Record amounts (twice last year's rate) of venture capital is pouring into Internet-based business.

Where's the payoff?

For users, rather than investors, where does the Internet hold value? Is it just a vehicle of convenience to shop, check stock prices, send email and rummage through various Web sites? Web-based marketing and catalog sites have become very familiar communication mechanisms between prospects, customers and suppliers. The self-service Web sites that provide for unassisted sales are significant in sales volume, but the fastest-growing and highest-volume sector by far is business-to-business transactions in supply chains. E-commerce already has, and will continue, to fundamentally change business-to-business supply chain models.

Be assured that e-commerce is mak-

ing, and will go on making, inroads into midrange manufacturing, like no technology ever seen before in terms of the number of users who will voluntarily and involuntarily adopt e-commerce technology. The fact is, you will have to rapidly evolve to the e-chain in the near future or be left behind because the old ways of transmitting information are plainly no longer fast enough as Web-enabled applications become the new standard. You will not be able to avoid e-commerce no matter how hard you try.

The e-chain

The importance of e-commerce to manufacturing and distribution is undoubtedly in supply chain management. If high-speed, low-cost communication and collaboration with your customers and suppliers are critical success factors for effective supply chain management, then the e-chain is in your future. The very essence of supply chain management is effective collaboration throughout a network of customers and suppliers. The potentials for improved productivity, cost reduction and customer service are enormous. Of course, the benefits are based on effectively employing e-commerce, which makes information quality an even higher priority than before. Providing the right amount of relevant information to those who need to know it, when they need to know it, is in fact effective supply chain management from an information point of view.

Good supply chain practitioners know that information should be passed on only to those who need to know it, in the form they need to have it. Demand information, inventory positions, order fulfillment, supply management and a whole host of other information exchange activities will change how we sell products, supply products and make and receive payments for goods and services. The e-

supply chain will have customers and suppliers seamlessly linked together, throughout the world, exchanging information almost instantly. The velocity of relevant information flow will be so fast that responding to the inevitable changes in expected vs. actual customer demand will allow for faster changes in the actual material flow.

Fast access to relevant supply chain information can pay off handsomely in lower costs, less inventory, higher-quality decision making, shorter cycle times and better customer service. One of the biggest cost savings is in the overhead activity associated with lots of paperwork, and its inherent redundancies. The non-value-added time of manual transaction processing can instead be focused on higher revenue creation without proportional increases in expense. The result in cycle time compression, lower inventories, decision-making quality and reduced overhead costs, among other benefits, makes e-chain processing a highly desirable Web application. Supply chain processes can be more streamlined and efficient than could have been imagined just a few years ago. For many companies, more effective supply chain management is where the profit and competitive advantages will emerge.

Big-company influence

Some of the most influential business leaders have made some very bold statements about the Internet and e-commerce. For example, General Electric has launched very aggressive e-commerce initiatives—so aggressive, in fact, that Jack Welch, well-known CEO of GE, was quoted in Fortune Magazine as saying, "within 18 months, all of our suppliers will supply us on the Internet or they won't do business with us." Now that is a statement that will give many a GE supplier heartburn, and many will be

hoping that Jack Welch's successor is a little more flexible on the timetable.

General Motors is putting more emphasis on e-commerce with the creation of e-GM, a group that will have oversight responsibilities for all of GM's Internet-based activities. Initially, the group will have a staff of 200 with the objective of making GM a major force in e-commerce. The scope of their activities will include everything from product development, supply chain management, car sales, marketing and even the on-board communication and information system in automobiles. GM suppliers, regardless of tier, should have received the signal loud and clear: the e-supply chain is coming, and fast.

Even more intriguing is the rapid evolution of the digital marketplace. Recently, i2 Technologies announced TradeMatrix.com, which will eventually allow buyers and sellers to transact in a single intelligent, multidimensional marketplace that connects multiple trading exchanges. This will let buyers consolidate orders from multiple vendors and subsequently provide for the effective integration of the final logistical activities. The key is putting intelligence into the super portal so customers can get their information their way. How fast this vision will become reality I don't know, but the potential is exciting.

These are companies that certainly would not be considered midrange, but as you can see, the larger company adopters will force huge ripple effects into their smaller company supply bases. Your best choice: be prepared.

Developing an e-chain strategy

The excitement over the possibilities that e-commerce may bring has significantly, and forever, changed the way management must view and serve its markets. Every executive team I work with is at some stage of developing an approach to e-commerce. It has become an area of fascination, although a bit surrounded in mystique, that compels management to take action in search of a big win, as well as not to risk being left behind. Motivated by the concerns raised by the many pundits saying things such as, "Without e-commerce you are dead," management becomes

enthralled with the risk and potential of e-commerce.

And, as a result, management gets eager to become an early adopter to establish its claim, stature and market presence using Web-based business and operating strategies.

Supply chain management systems will be substantially altered in terms of strategy, process, and system. Mistakes here could prove very costly in the near and longer terms. e-commerce has redefined and will continue to redefine how companies will compete for customers. While e-commerce offers some exciting opportunities to improve supply chain management effectiveness by lowering costs and increasing the speed of order-to-delivery, it is by no means the first stop on the path to having highly competitive e-supply chain capabilities.

Just throwing more software at the problem is not the answer to the core issues of supply chain management. Although software is needed, it is very necessary to define the process of information flow that will activate material flow at the right time. Lessons learned by early adopters of new technologies is that overzealous adoption of those technologies without a carefully planned strategy can prove very costly, especially when the target is missed, or worse, not defined in the first place.

Why take the leap?

Certainly, before taking a big leap into the e-supply chain, companies need to know why they are taking the leap. By no means should any company make the all-to-common mistake of applying the latest technology without getting thorough and appropriate answers to questions such as:

- What business opportunities are available for us to improve market presence, sales, cost of operation, service, communication, cycle time, supply-base management, etc.?
- Do we know and understand our supply chain priorities?
- How should we structure Web-enabled linkages with our customers and suppliers for preeminent supply chain performance?
- What e-supply chain approaches can we appropriately invest in for near- and longer-term business perfor-

mance gains?

- Do we have an executive-level champion providing the necessary linkage to top management for effective implementation of e-supply chain management?

- Have we carefully defined an action plan for pre-implementation preparation activities?

- What are the missing technical links in our current system or our software of choice?

- What planning and implementation tasks will be accomplished and when?

- Do we understand the real benefits of an e-supply chain versus the cost to develop?

- What e-supply chain strategy will give us the leverage to transform ourselves into marketplace leaders?

Spend time up-front

Spending time on up-front strategy development for improving the order-to-delivery cycle and supply chain management will pay big dividends. The hard part is discovering and thinking through supply chain opportunities and then developing a strategy and plan for an e-supply chain that will improve your performance more than that of your competitors. But without an e-supply chain roadmap, the direction you take may not get you to the desired destination. The biggest loss from missing the target can never be regained—time. It is essential to do it right the first time.

For all the promise of the e-supply chain, there will be many problems to solve. Remember, however, that the business use of the Internet is still in its infancy, and that means many opportunities will be coming in the years ahead. Your supply chain strategy will need to evolve and improve constantly to take advantage of these opportunities. The big risk is in standing still. ♦



R. Michael Donovan is a management consultant based in Framingham, Mass. He can be reached at (508) 788-1100. Readers may obtain other educational material through www.rmdonovan.com