

E-Business Supply Chain

E-Business

For more information, contact:

The Business Link

Edmonton:

10160 103 Street NW
Edmonton, Alberta T5J 0X6

Calgary:

250 – 639 5 Avenue SW
Calgary, Alberta T2P 0M9

Toll-free: 1 800 272-9675

Fax: 780 422-0055 (Edmonton)
403 221-7817 (Calgary)

Email: buslink@canadabusiness.ab.ca

Website: www.canadabusiness.ab.ca

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I. Supply Chain 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.

a) The Traditional Supply Chain

The traditional supply chain often includes more than one company in a series of supplier-customer relationships. It is often defined as the series of links and shared processes that involve all activities from the acquisition of raw materials to the delivery of finished goods to the end consumer. Raw materials enter into a manufacturing organization via a supply system and are transformed into finished goods. The finished goods are then supplied to customers through a distribution system. Generally several companies are linked together in this process, each adding value to the product as it moves through the supply chain.

Effective supply chain management is the act of optimizing all activities throughout the supply chain, and it is the key to a competitive business advantage. Consequently, an organization's ability to gain a competitive advantage is heavily dependent on coordination and collaboration with its supply chain partners. Yet, even today, a typical supply chain is too often a sequence of disconnected activities, both within and outside of the organization. To remedy this situation, it is important that an organization and its suppliers, manufacturers, customers, and other third-party providers engage in joint strategic planning and operational execution with an eye to minimizing cost and maximizing value across the entire supply chain.

b) Traditional Supply Chain "Push" Model

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.

c) 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 fewer inventories, and send products to market more quickly.

d) Impact of E-Commerce on Supply Chain Management

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

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.

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.

e) Exchanging Data is Critical

The underlying enabler of supply chain integration is the fast and timely exchange of information between supply chain partners. This information may take the form of transactional documents such as purchase orders, ship notices, and invoices, as well as planning-related documents like demand forecasts, production plans and inventory reports. It is this sharing and coordination of information and planning activities that can enable cost reduction, value enhancement, and the execution of advanced collaborative planning activities.

In the past, the cost and complexity of executing electronic data interchange (EDI) transactions made this type of information exchange suitable for only the largest corporations. The ubiquity of Internet-based communication tools now makes it possible for organizations of all sizes to exchange information. However, challenges still exist and being able to successfully deal with all the new technologies is one of these challenges. The good news is that this data exchange challenge can be overcome; and the opportunities become endless once companies are able to exchange information efficiently with their suppliers, customers, and partners. Applications like vendor-managed inventory (VMI), collaborative planning, e-procurement, shipment tracking and tracing, electronic order management, and bill presentment and payment can be built upon a core data exchange platform, enabling companies to reap true cost reduction and service improvement within their organization.

II. Supply Chain Management

Few business fads have peaked and plummeted with the rapidity of Internet technology, in general, and B2B e-commerce and e-marketplaces, more specifically. Energized by the success of consumer auction sites and by savings from early e-procurement efforts, industry exchanges took off in mid-1998. By the end of the year 2000 more than 1,500 e-marketplaces had been announced. They ranged from independent, multi-industry exchanges to vertical consortia led by industry giants, and most were aimed at direct, strategic materials. Business plans for these e-marketplaces often consisted of nothing more than a press release, but the visions were grandiose.

Then reality hit. As early as 1999, analysts began to warn that even the largest industries could support only a handful of e-marketplaces. It increasingly became clear that the path to value would be measured in years, not months. Helped along by the bursting of the Internet bubble and a suspicion of all things B2B, the creation of e-marketplaces slowed. Announcements of failures and consolidations replaced notices of new launches. However, research firms that closely watch this sector are far from writing off e-marketplaces or the B2B revolution. The [Gartner Group](#) recently revised its near-term projections downward, but still expects Internet B2B commerce to reach \$8.5 trillion worldwide by the year 2005.

There is one significant change in the new projections—today, analysts are saying that much of this business, perhaps as much as 85%, will not go through public marketplaces but instead will be conducted over private marketplaces that cross a wide range of applications. Many say that there is little difference between the basic technology employed in public and private marketplaces. The only real distinction appears to be the model of participation. That model is one reason that private marketplaces offer a faster path to value. One-to-many (1:M) networks are easier to make work than the many-to-many (M:M) model of consortia exchanges that are predicted to offer no more than auction, spot-buy, and excess inventory services for at least the next two years. The real power of the private exchanges lies in streamlining existing relationships, including those with resellers, distributors, and logistics providers.

a) Supply Chain Innovators

A recent magazine ad opened with the following headline, “Why lobster tastes better from a Web-based store.” A major maritime seafood supplier has been in the business of providing top-quality seafood to wholesalers and fine restaurants around the world for more than 25 years. The company decided it needed to expand its market base and begin offering its products to consumers to attract an untapped market via the Internet. E-commerce also allowed this supplier to automate the order taking process that was previously done manually, speeding up the process and wringing costs out of the system. Through e-mails, ordering patterns, and other on-line comments, they are now able to tailor their marketing strategy, to analyze marketing initiatives, and to react almost instantly to shifting market demands.

Several third-party, for-hire carriers have launched customizable web pages that enable customers to access real-time shipment information and customize their data output. These websites also provide information on standards and pricing data as well as the ability to inquire and track responses relating to freight bill invoicing or rating issues. Users can also obtain rate quotes, proof of delivery, and cargo claims status reports. One particular carrier set out to create personalized web pages where their customers could access all the information that they needed to effectively manage their own transportation operations. They have created over 1,000 personalized websites and receive well over 4 million hits per month.

b) The Changing Face of Business

It was Ralph Waldo Emerson, the American philosopher, poet and essayist who wrote: “If a man write a better book, preach a better sermon, or make a better mousetrap than his neighbour, though he build his house in the woods, the world will make a beaten path to his door.” Even if this were true a century and a half ago when Mr. Emerson expressed his views, a manufacturer would build an extremely large inventory waiting for today’s market to beat a path to her door, whether her facility were located in the woods or in a modern industrial park. Today, a passive approach will not get a better product to market.

Following the traditional approach, no matter how good the product, the first step is to get the supply chain in order. Next, a business must hire a seasoned purchasing manager to aggressively deal with material and service providers so that costs can be brought in line. Then the enterprise must find dynamic sales and marketing personnel to drive finished product into the hands of the consumer. Tweak the system every now and then and watch while product flows out and profits flow in. That is basically how things have worked in the past; businesses maintain heavily push-driven, sequential supply chains, based on fundamentally adversarial relationships with their suppliers. Success hinges on outmaneuvering, outperforming, and outwitting everyone perceived as competition.

Although this may be the traditional approach, it’s not the only way. A lot of forward-thinking companies are beginning to look at an approach that defies convention. The new approach involves making allies of suppliers and customers alike, embracing them in value nets instead of coercing them into precarious supply chains. Many consider this the next evolution in the supply chain. This emerging value net business model starts from the premise that a better product is no longer your ticket to success, but merely your entry fee into the game. In fact, if a business puts a better product at the centre of its efforts, this strategy demonstrates that the company has missed the point of the value net approach altogether. The idea is to put customer priorities at the centre and design the value net around them. Moreover, it is important to recognize that customer priorities stem not from some amorphous group called the customers, but from individuals that have unique needs and wants.

Where the traditional supply chain would push out a fixed line of one-size-fits-all items, hoping that customers would buy them, the value net in contrast allows unique customers to choose product or service attributes that they value the most; in effect, to design their own product. Then the value net configures itself, its suppliers, its manufacturing services, and its delivery capabilities to meet the needs of each customer or at least of each customer segment. It differentiates itself to supply one-size-fits one or customized products for each customer or customer grouping. It leverages operations and customer choice to drive strategic advantage.

c) Why the Internet?

Now that the hype is over, it is time to look at what the Internet does or makes capable from a practical point of view. In a nutshell, the Internet is a unique medium that allows fast, two-way, secure communication. What makes the Internet different from electronic data interchange (EDI), a technology that has been around for more than 20 years? Essentially, the Internet performs the same function as EDI at a fraction of the cost. Moreover, it has capabilities that EDI does not possess, namely, real-time versus batch processing, transmission of unlimited data types including graphics, forecasts and computer-aided design (CAD) drawings, and an open, non-proprietary network. If carefully exploited, these Internet characteristics can lead to significant value creation.

To identify potential sources of value from B2B e-commerce, a good starting point is to think of the number of ways in which your company interacts with both customers and suppliers. These interactions can be categorized as one of the following: executing a transaction; determining optimal prices; discovering available supply and unmet demand; and supply chain planning for new and existing products. Thus, three distinct categories emerge where B2B e-commerce can be applied to extract value:

- Reduced transaction charges
- Improved market efficiencies
- Enhanced supply chain benefits

Prior to making any investment in B2B e-commerce, a company has to identify the value created and the effort required for implementation under each of these categories. The relative position of these categories will not be the same for all firms but will vary based on the supply chain strategy and competitive environment. A company must tailor e-commerce implementation to support categories where the value created is high relative to the cost of implementation.

Transaction changes are those costs incurred during the process of completing a transaction. This includes the cost associated with handling proposals and quotations, processing orders, staffing the procurement function, operating the call centre, and so on. Traditional channels of communication such as phone and fax require high staffing levels on both the buyer's and the seller's side. They also typically have high error rates because of multiple data entries. As companies move towards electronic processes, error rates decline, fewer staff are needed to process orders, and order placement speeds up, leading to lower overall transaction costs.

Companies using EDI already have achieved many of the benefits in this category. Given the high set-up cost and proprietary nature of EDI, however, they have only established links with their largest suppliers and or customers. The Internet with its open access and lower cost of participation allows all participants the opportunity to reduce transaction charges. In addition, the Internet allows real-time processing and electronic data retrieval and storage, which are essential components to reduce order cycle time.

Market efficiencies offer two avenues for a company to extract value: (1) the price paid when soliciting bids from suppliers, and (2) the ability to match surplus capacity in its supply chain with unmet demand. The Internet offers an opportunity in both instances. The Internet facilitates the aggregation of orders across all divisions of a company and makes it easier to bring in more potential suppliers for the bidding process. This translates into a better price for the buyer because of increased volumes and greater competition. B2B e-commerce also provides a mechanism by which a company can move its demand across suppliers based on available capacity. In the past, suppliers may have had idle capacity while original equipment manufacturers (OEMs), with unfilled demand, were searching elsewhere. A better matching of available capacity and demand provides value by improving the utilization of available capacity.

Supply chain activities include the flow of information, materials and finances between different stages of a supply chain from suppliers to customers. When different stages of the supply chain plan locally without sharing information, the result is the "bullwhip effect", whereby small fluctuations in consumer demand lead to large fluctuations at the manufacturer and supplier. In some supply chains, orders to suppliers can fluctuate 10 to 20 times more than orders placed by the ultimate customer.

The increased variability leads to long supply lead times, excess capacity, high transportation and warehousing costs, large inventories and dissatisfied customers.

B2B e-commerce can create value in a supply chain at two levels. First, by increasing visibility across the supply chain, the Internet can help dampen the “bullwhip effect”. The resulting decrease in variability allows a supply chain to improve customer service while reducing costs. Second, the Internet can provide value from increased collaboration. Collaboration is the ability of different stages of the supply chain to make decisions on product design and introduction, pricing, production and distribution that will allow all partners to participate. For example, a major North American retailer and one of their key manufacturers increase visibility when the retailer shares point-of-sale data. However, the partners only realize full value when they use this information, along with capacity information at the manufacturer’s facilities to decide the best timing for promotions and resulting production plans. If decisions are made independently, the retailer may run the promotion at a time when production costs for the manufacturer are the highest. Through collaboration, constraints on both sides are considered in determining a schedule that maximizes profits.

The Internet also facilitates collaborative product design. This is a key capability planned for the automotive industry exchange operated by major carmakers. Currently, CAD drawings of product components are designed by engineers in one country, distributed by courier to engineers in another country, and then finalized at a joint meeting in a country somewhere in between! B2B e-commerce promises a “virtual product workplace” where engineers can collaborate with suppliers and customers in real-time from their desks, saving cost while speeding up product development cycles and time to market.

d) Growth of E-Marketplaces

Several financial institutions and telecommunication companies recently joined forces to create one of Canada’s largest B2B electronic marketplaces. The proposed company will offer business products, equipment and furniture, computer hardware and accessories. They will also offer business services such as travel, personnel, promotional items, and courier services in a quick and efficient manner at a reduced cost. The newly formed company will produce value by combining procurement expertise and significant purchasing volume with the advantages of the e-marketplace. This will allow participants to save time and money and stay focused on their strategic priorities and core competencies. The exchange will also create opportunities for suppliers to increase sales by enabling new relationships between buyer and sellers.

Another Canadian example is a specialized e-commerce hub for the North American agricultural community, bringing together grain producers and traders, processors, input sellers, and brokers to transact day-to-day buying and selling online. Farmers enjoy faster, easier price discovery, lower transaction costs and greater market reach, while sellers, brokers, and retailers can use the power of the Internet to save time and money as they reach new customers and markets through the rapidly growing world of B2B e-commerce. This particular industry hub plans to expand in the near future to add both cattle and hogs to their site.

There are specialty e-commerce hubs for almost all major industries throughout Canada and North America including one that provides information and the ability to buy and sell online for participants within the oil and gas sector. Another e-commerce hub offers Internet-based crude oil trading using state-of-the-art technology to provide a secure platform for transacting business anonymously in real-time with the assurance of guaranteed commodity delivery and payment. These services are augmented by the benefits of timely access to current and historical market indicators. This hub

fosters a liquid, efficient marketplace for buying and selling crude oil through instant access to a wide market audience, price transparency, and lower processing and administration costs.

e) E-Marketplaces' Business Model Needs Change

Many industry experts predict that the majority of these B2B e-marketplaces will not survive the “dot-com shakeout.” A major stumbling block stems from manufacturers that were connected with suppliers through systems that created duplicate, rather than complementary, distribution channels. Whether for coalitions of brick-and-mortar companies or independent Net markets, this method fostered a lack of collaboration among customers and channel partners. This lack of collaboration resulted in companies having to manually input transactional data. The benefits of participating in public e-marketplaces require precise systems integration.

Buyers, meanwhile, grappled with the lack of connectivity to their back-end systems. Sure it was great to be able to search multiple suppliers for the lowest prices on goods and services, but when it came time to close the deal, buyers, more frequently than not, used the phone and/or fax to avoid paying e-market transaction fees. This points to the flaw in the public e-marketplaces' business model...most public marketplaces were not able to move beyond the transaction simply because transaction fees formed the core of their revenue streams.

f) The Rise of the Private E-Marketplace

Businesses are beginning to move to a more commonsense approach to using online marketplaces. Suppliers are beginning to ask several questions that read like a checklist for manufacturers:

- How can I make it easier for my customers to do business with me?
- How can I take care of my existing channel partners?
- How do I ensure my return on investment (ROI) for my technology investment?
- How do I increase my market capitalization over the long term?

The answers to these questions lead to one logical outcome; the rise and eventual domination of private e-marketplaces. Private e-marketplaces (whether consortium-based or centered around a single, large supplier) will dominate in the future because they have the capacity to co-op existing channel partners (distributors, retailers, service centres, sales representatives) rather than exclude them. Buyers will benefit from this because they will receive greatly improved service before and after the sale, while realizing the kinds of transactional efficiencies the public marketplace promised.

Ultimately, private e-marketplaces will dominate because they provide greater control over branding, marketing, and transaction data that ensures long-term customer satisfaction. This is not to say that public marketplaces will disappear. The public e-marketplaces will become merely another sales channel for the suppliers, instead of the one and only distribution channel.

III. Distribution and Fulfillment Strategies

a) Determining Your Distribution Model by Volume

Before launching your e-commerce site, you should plan out how you'll ship your products to customers and fulfill the sale. There are a variety of factors to consider when selecting the right shipping system, so that your customer orders arrive on time and in one piece. The first step in this process is to consider the anticipated volume of orders. Volume, to a great extent, will determine the best way to process your customer's orders.

Low Volume Distribution

If you anticipate a low volume of sales initially (1 to 3 orders a day), your distribution process should be fairly easy:

- Hand-address labels
- Make a daily post office run to mail each purchase*
(*Note: International shipments require more due diligence)

Medium Volume Distribution

If you think you'll be shipping more than 5 orders a day, you should seriously consider:

- Purchasing a label printer.
- Purchasing a postage meter to automatically weigh and generate postage stamps
- Starting an account with a shipping company to pick up your orders daily
- Consider a customs broker

High Volume Distribution

If you will be handling more than 25 orders a day, it's a good idea to look at more advanced shipping options. You may wish to integrate a high-volume model like drop shipping, or you may wish to outsource your shipping to a third party altogether. If your volume is especially high (hundreds of orders a day), you may need to have warehouse space from which to stock and ship.

Choosing a Carrier

There are a variety of carriers that can provide ground or air delivery services for your products. Shop around to see which carrier offers dependable services at a competitive price. Regardless of your carrier of choice, be sure to offer your customers a variety of shipping options, including ground (less expensive) or faster delivery (3-day or overnight delivery).

b) Choosing the Best Shipping Model

The next critical decision you have to make for your e-commerce site is which shipping model will work best for your small business. There are three widely used e-commerce shipping models – the drop shipping, inventory, and fulfillment house models. Each has its advantages and disadvantages, and you may find that one model may be more appropriate than the others based on your marketing strategy and product offering.

Drop Shipping Model

With drop shipping, all product handling and shipping is done by the manufacturer. Orders made by customers are relayed to the manufacturer, thereby relieving the e-commerce operator from the hassle of processing and shipping orders. The drop shipping model, while very popular, does have key advantages and disadvantages:

- Low or non-existent inventory costs
- Extremely fast and efficient
- Manufacturer coordinates fairly complicated international documentation and exporting requirements
- Lower profit margins (usually in the single digits)
- Delayed customer purchases if the manufacturer has low stock

Inventory Model

With the inventory model, you store your inventory in your own warehouse and ship goods as your receive orders. An EDI (electronic data interchange) system may help streamline your logistics. Advantages and disadvantages of this model include:

- Fast turnaround for each order
- Improved customer service if something goes wrong during shipping
- Better profit margins for each good sold
- Higher capital risks for goods that don't sell and sit on the shelves

Fulfillment House

The fulfillment house model involves outsourcing virtually all of the work to a third-party fulfillment house that will not only oversee shipping and handling, but will also take customer orders, provide customer support, and in some instances, oversee your e-commerce site.

Advantages and disadvantages of this model include:

- Very efficient for products with high margins
- Very inefficient and high risk for low-margin products
- Success of site will depend on success and quality of the fulfillment house

c) Inventory Control Management Systems

If you're running a high-volume e-commerce site, you may want to invest in an inventory control management system (ICS). There is a large selection of software-based systems in the market to help you process your orders and monitor product inventory levels efficiently. More advanced systems will provide inventory data analysis, flagging increasing inventory demand, trends, and lagging inventory.

Most inventory control management systems will allow you to:

- Display an up-to-the-second count of all inventory
- Create work orders
- Create packing lists
- Review daily, weekly, or monthly transactions
- Automatically flag lagging inventory or goods that are low in stock
- Use eFax.com, a service that allows you to receive and send faxes via e-mail

Inventory control management systems can also generate inventory reports that:

- List sales and profit margins of individual products
- Create pie or bar charts to display sales and profit margins

Client vs. Network-Based Inventory Control Systems (ICS)

Network-based inventory control systems are far more powerful than a client-based ICS. While a client-based system can only be accessed by one user at a time, a networked-based ICS can be accessed by many people at the same time. A network-based ICS enables you to integrate controls between your head office and your inventory warehouse. For example, some inventory management systems can enter or scan stock barcodes, a very handy feature that would be used extensively in warehouses. Network-based inventory systems can also allow you to better streamline your business by delegating inventory monitoring responsibilities to other individuals in your business. Again, much like the shipping model you select, your choice of an inventory control management system will be influenced by the kind of e-business you have, the kinds of goods you ship, and the volume of sales you either have or anticipate having.

d) Packing and Getting Your Product out the Door

There are some important things you'll need to consider when shipping your product. It is important to have a good understanding of appropriate packaging, labeling, and documentation.

Proper Packaging

Given that your product order could travel hundreds or even thousands of kilometres, there are some important packaging rules to follow to ensure your shipment arrives in one piece:

- The shipment should be in a very strong or reinforced container
- Avoid unnecessarily large containers – they increase shipping expenses
- Place heavy objects on the bottom, light objects on top
- Product should be braced and weight evenly distributed
- Include moisture-resistant fillers like Styrofoam pellets
- Properly label which end is up
- Palletize for efficiency and use straps or shrink wrap for extra protection

- Security is an issue, so you shouldn't mark the outside of the container with info that would make the package attractive to thieves
- Ensure proper labeling and placards for regulated goods

Securing your shipping package is of little use if you don't properly label what you're shipping. Following these points will ensure that your shipment isn't misdirected:

- If possible, use a printer to generate your labels
- If handwritten, write with large letters, preferably with moisture-proof ink
- Place and heavily secure the label where the package is opened (usually on top)

Documentation

A commonly used shipping strategy is to apply the label to the front of the envelope containing the product invoices and receipts, instead of sticking the documents inside the container. You may wish to include additional promotional material or a personalized thank-you letter to the customer.

e) Shipping to International Destinations

Shipping to international destinations can be a complex process with many rules and regulations. International shipping often requires special documentation, and consular, port, and handling fees. If you do choose to export products by yourself, there are packaging and documentation procedures that need to be followed.

Labeling

If you do not label your products appropriately, there is a very high chance that your shipment will be delayed or worse, confiscated. Using waterproof ink, remember to label your container with:

- A shipper's mark
 - Declarations, including country of origin, port of entry, and container weight and size
 - Clearly displayed caution messages (fragile, this side up, etc.)
 - Clear indication of whether the shipment contains hazardous materials
 - "Made in Canada" must also be permanently marked on all US-bound goods and packaging*
- *Keep in mind as well that each country has its own unique labeling requirements.

Documentation

Improper documentation may result in your shipment being seized by Customs and monetary penalties. Depending on where you're shipping, there are many documents that may need to be prepared, including:

- A Consular Invoice, which is a document that describes the good as well as its value
- A Certificate of Origin, which indicates the product's origin
- An Export License, or General Export Permit, which authorizes the export of goods, and special "controlled" goods, to certain countries
- An Export Packing List (some countries require a detailed description of shipments)
- An Insurance Certificate, which protects the purchaser if the shipment is lost or damaged
- An Export Declaration (B13A)
- Additional requirements may be required by the country to which you are exporting

Freight Forwarders

You may consider using a freight forwarder, a company that is very familiar with shipping costs, rules, and regulations and help get your products to their destination. Using the services of a freight forwarder can come at a steep price, so it's a good idea to research freight forwarding costs before accepting international orders. You may ultimately find that the costs associated with long distance shipping prevent you from selling your products internationally, especially if your margins for each sale are thin.

What if Something Goes Wrong?

Shipping an order does carry certain obligations and protections for consumers. It is important that you become familiar with the basic buyer and seller rights in the event that a shipped good is damaged or lost. You should also consult with your freight forwarder.

Your Shipping Rights

When you send your product out the door, you'll be depending on a third-party carrier to get your package to the customer. It is imperative that you research major carriers' policies (i.e., the "fine print" that outlines the terms and conditions on the Bill of Lading) to see what they offer for compensation in the event that a package is damaged or misplaced. Most reputable carriers offer the following to its customers:

- 100% refund of credit to the shipper if the package is not delivered
- Partial or full refund if the package is not delivered on time

Your Customer's Rights

While it is frustrating when a package gets lost during shipment, it is generally a good business policy to either replace the damaged good or refund the customer's money. You may, however, place the onus of responsibility on the carrier by including a "Damage" or "Lost Goods" clause in your company's Terms of Sale. Under such a clause, the onus will be placed on the customer to recoup their money from the carrier. Such a policy, however, tends to be business unfriendly. Consider lost or damaged goods during shipping an unfortunate cost of doing business.

Returns and Warranties

You should offer your customers substantive return and warranty protection to cover lost or damaged goods. Ensure that you provide your customers with a detailed outline of your policies, usually contained in a "shipping policy" or "return policy" document. It is also a good idea to have these policies in separate, easy-to-find pages on your website. Standard return policies include:

- For damaged shipments, offer customers at least 14 days after delivery to return goods
- For "dead on arrival" goods that don't work after being opened, offer at least 14 days
- Products produced by another manufacturer should be covered by warranty

f) Quality Assurance and Consumer Protections

Without question, your site will succeed (or fail) based on how well you serve your customers. Here are some quality assurance strategies to consider when you launch your e-commerce site.

Order Modification

In some instances, your customers may wish to change their order before shipping. Ensure that each customer order has a unique identifier like an order number that the customer can use later through your website to change their order (such as product, delivery date, etc.).

Backorders

There may be instances where some of your products may not be in stock. It is important that you offer your customers the opportunity to place an order in anticipation of the product being available for shipment in the future. It is generally good practice to only charge the customer when the product becomes available for shipping.

Order Status

There are a variety of ways to offer your customers a way of tracking their order shipment. You may want to integrate some simple options in order to improve your customer service:

- Automatically email the customer a shipping tracking number after the purchase is made
- Give links to shipping carrier pages where the tracking number can be entered
- Offer the customer email support to help them track their order
- Offer the customer a toll-free number where they can call to find out the status of their order

Shipping Insurance

To offer yourself (and your customers) protection, you may want to take out shipping insurance. Such insurance usually covers loss, damage, or delay of cargo. There are different types of insurance; however, so make sure you know what your insurance policy covers. Depending on what type of transport you use, the risks and costs will vary. International shipping, as you might expect, is more expensive than domestic insurance. Usually you purchase shipping insurance through the carrier, and it covers 110% of the stated value of the good, as well as the shipping costs.

Other Useful Resources

There is a great deal of information available to anyone who wants to find out more about strategic channel intermediaries, duties, international warehousing, and other tips at the export resources below:

- Information on Exporting for Small and Medium Sized Enterprises
<http://www.cbsa-asfc.gc.ca/sme-pme/export-sme-pme-eng.html>
- World Customs Organization
www.wcoomd.org
- Canadian Trade Commissioner Service
<http://www.tradecommissioner.gc.ca/>
- Canadian Society of Customs Brokers
www.cscb.ca
- Canadian International Freight Forwarders Association
<http://www.ciffa.com/>