Reverse logistics as an integral part of supply chain management. 18442

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Introduction

Most of us think of logistics as a one-way street. Products are manufactured, packaged, stored in a warehouse, sold, and then shipped off to the customer ... end of story. Yet for many logistics managers today, that's not the end of the story. In addition to managing outbound goods, they also are responsible for reverse logistics--the flow of returned goods and packaging, including customer service and final disposition of returned items.

The need to manage waste materials and returned goods is growing in all kinds of industries. Today, companies like Xerox, Eastman Kodak, Mobil, Home Depot, and Ethan Allen Furniture - to name just a few - have recycling

programs that meet the needs of their individual industries. There are many reasons for the explosive growth of what's come to be known as " reverse logistics" over the past five years or so. The most prominent is increasing public awareness of the social costs of excess waste. A large-scale recycling program, therefore, generates goodwill among consumers and industrial customers. As support for recycling grows, moreover, companies want to be perceived as good citizens that are committed to protecting the environment. Another important reason is the need to control costs. Frequently, manufacturers treat recovery of products and packaging as an afterthought. A well-managed reverse-logistics program, however, can bring enormous savings in inventory-carrying, transportation, and waste-disposal costs.

For these and other reasons, more and more companies are launching reverse-logistics programs today. Unfortunately, it's often assumed that reverse logistics is simply a matter of reversing the outbound distribution process. In fact, recycling and returns management have their own unique and complex issues that affect logistics operations. A brief overview of those issues highlights the five main areas you should consider before starting a reverse-logistics program.

A related issue is what kind of resources you are willing to commit to a reverse-logistics program. The obvious answer is that the level of potential benefits will influence how much a company will invest in such a program. Too often, though, companies shortchange themselves by failing to devote sufficient time, money, and personnel to the project. " A lot of times, [reverse logistics] becomes a side job for somebody. It's not their focus or a

high priority," says Cindie Vaughan, supervisor of reverse logistics for Consolidated Freightways.

If no one is proactively managing the process, it's bound to result in higher costs and missed opportunities for savings and profits. A solution for many companies that have limited resources for reverse logistics is outsourcing that function to third parties or transportation companies. It's up to the shipper, though, to examine the cost and service benefits, then decide how much of the process should be outsourced. " As with any outsourcing decision, it's a matter of being able to focus on your core competencies and freeing up your people to work on products rather than expend your assets on [reverse logistics]," suggests Brett Chyatte, senior marketing specialist for reverse logistics at Federal Express.

Components

The primary components of the reverse-logistics operation are retrieval, transportation, and disposition. The retrieval stage deals with where the waste or products should be picked up and by whom. Much depends on the nature of the item being returned; if it's clothing, for example, a carrier can handle all of the pickup and documentation tasks at the consumer's door.

If, on the other hand, the items are oversized, heavy, hazardous, or very delicate, special training may be necessary for both customers and carriers. Burnham, for example, dismantles photocopiers for several customers that sell or lease the reconditioned machines. Drivers are trained to remove internal components that could cause damage in transit, protect glass, secure all moving parts, and pack them for transportation. Hazardous

materials, meanwhile, must be flawlessly handled, but field locations and distributors may not have the necessary expertise. Michael LeMirande, business development manager for Redwood Systems, says he often tutors auto dealers in how to manage returns of such items as engines and transmissions. The battery and most fluids in automobiles are classified as hazardous, so there are specific procedures for preparing them for transportation, he says.

A company that does not control the transportation of returns is asking for trouble, says consultant Ken Miller of Gardner, Mass. Most often, the manufacturer pays the freight for returned goods. " Yet typically the customer estimates the weight, guesses at the bill-of-lading description, and routes the shipment via a carrier that has no pricing agreement in place with the manufacturer," he says. As a result, incorrect weights and product classifications can lead to "$500 bills that should have been $50." To prevent thousands of dollars in excess freight charges, Miller suggests that shippers provide the carrier routing, correct weight, description, and class to customers when they call for a return authorization. Better yet, he says, customer-service representatives could complete the bill of lading for the customer showing all three of those items.

The biggest questions related to product disposition are whether to handle returns in centralized or regional facilities and how incoming shipments should be processed. The answer depends on the type of product and what will happen to it after it is returned.

More and more shippers are opting for centralized returns processing because it increases their control over a product's life cycle and allows for better data collection. That is especially true for manufacturers of high-value goods with short shelf lives, such as computers and telecommunications equipment that need to be repaired and sold as quickly as possible, notes FedEx's Chyatte. It also creates opportunities for shipment consolidations, which can reduce transportation costs and ensure better utilization of reusable containers and other equipment. Centralized returns-processing also helps shippers document returned products that are exported to secondary markets overseas, supporting claims for duty refunds under U. S. Customs' duty-drawback program, adds " Buzzy" Wyland, executive vice president of GENCO Distribution System.

A successful reverse-logistics program depends heavily on gathering meaningful information that can help manage the returns process while tracking costs, says Wyland. " You want software that will facilitate the smooth, efficient backflow of product from the customer-service desk all the way to the final disposition," he says. Too often, companies add the information component at the end onto a finished program, which can create bottlenecks and inefficiencies, he notes. " What's important is not to wait until you have a pile of returned stuff. You have to plan for it upstream and build the software into the system."

The Internet is becoming an effective tool for gathering and disseminating information in a reverse-logistics environment. Federal Express, for example, has developed a returns-management system called " NetReturn" that relies on the Internet to capture customer information, schedule pick. ups, arrange

transportation, and track the status of returned goods. All the customer has to do is call the merchant and request a return authorization. Once the shipper transmits the shipment details, the information system takes over. It even prompts the merchant to follow up when items are not picked up as scheduled.

The tax, finance, and credit implications of the program is an area that may not be very visible to logistics managers, but it is one of the primary reasons upper management will support a reverse-logistics program. The act of returning goods sets off a flurry of finance-related activities, including issuing refunds and credits, accounting for inventory costs, and tracking tax liabilities.

Logistics can help make those activities easier and more accurate by collecting and providing the necessary information. For example, retailers and manufacturers traditionally have clashed over the issue of credits and refunds for returned products, says Wyland. " Retailers sent back a product and deducted for what they sent back from their payments. For manufacturers, it was an annual nightmare trying to reconcile the physical product with the paperwork," he says. Now, with the proper information gathering and dissemination, manufacturers can immediately reconcile their customers' claims. There are enormous financial benefits to managing returns this way, Wyland says. " Before, manufacturers didn't know their profitability until they reconciled at the end of the year." Now, they don't have to carry unreconciled claims and they don't have to build cash reserves to cover those claims. " The net effect is a reduction in the cost of doing business," he says.

The benefits of a reverse-logistics program are legion. To get the greatest payback possible, though, shippers must devote the necessary time and resources to the project.

Reverse logistics, in fact, should be part of the overall business strategy for any manufacturer and retailer, says LeMirande of Redwood Systems. Companies today often don't consider reverse logistics when they plan their sales and operations strategies, he says, but they should: " If you're not including reverse logistics in your supply-chain strategy, you're cutting your supply chain off short."

International Reverse Logistics

Whether goods and materials are being returned for repair, refurbishing, recycling, or resale, reverse logistics has its own unique considerations. And when companies need to manage returns across international borders, reverse logistics becomes an even more complex process.

That complexity--not to mention the cost of freight, which often outweighs the benefits of taking the item back--discourages many companies from bothering with international returns, says Kevin Sheehan, president of Dallas, Texas-based Processors Unlimited. His company, which recently was acquired by USF Logistics, manages reverse logistics at 45 processing centers nationwide.

Yet sometimes there are compelling reasons to become involved in reverse logistics internationally. In some instances, a returned product can be sold to recover some of the costs incurred, says Dale Rogers, professor of supply

chain management at the University of Nevada-Reno. " If you can recover some asset value out of the refurbished product above the cost of transportation, it may make sense to ship it outside the country," he says. And if a company imports items into the United States and they are returned by the end customer unused, he adds, it may be possible to resell them in a third country and claim a refund on the original import duties under duty-drawback regulations. There are many other factors that affect a company's decision to handle returns internationally, including customer goodwill, the desire to keep name-brand products out of secondary sales channels, and environmental concerns. Here's a look at why three shippers made that decision and how they manage international returns.

Witco Corp., a global manufacturer of specialty chemicals based in Greenwich, Conn., for example, faces several challenges when managing returns of reusable stainless-steel totes from customers in Canada. The company must keep track of the individual containers, which are shipped with chemicals inside, emptied by the customer, and then returned for cleaning and reuse. It also must ensure compliance with both U. S. and Canadian transportation law because the totes often contain hazardous chemicals and residues. Finally, Witco must prepare proper documentation to allow the totes to clear customs on both legs of the round-trip journey. With a large number of containers moving back and forth between the two countries, the potential for confusion and error would appear to be great. But the $1. 9 billion company maintains tight control over its equipment with the help of its third-party service provider, CF Reverse Logistics, a division of Consolidated Freightways. About three years ago, Witco hired CF to track,

monitor, and arrange the return of the reusable equipment, reports Sheldon Ellis, Witco's international logistics manager. Customers call a toll-free number to notify the company when the empty totes will be ready for pickup. " All they need to do is tell [CF] the tote number," Ellis says. Because CF tracks the totes by identification number from the time they leave the manufacturing plant, the carrier knows where " home base" is for each container, he explains. CF picks up the empty tote, then follows Witco's routing guidelines to ship it back to its point of origin. Rather than ask customers to create export documentation for the containers they use, Ellis has CF prepare most of the necessary paperwork. A customs broker selected by Witco clears the totes at the U. S. border. No duty applies, because the containers themselves are not being bought or sold.

Outsourcing helps Service Merchandise manage returns

For retailers, managing returned goods can be a costly headache. That's because consumers are a fickle lot, returning items because the color didn't match their bathroom towels or the clock they bought ticked too loudly. In addition, retailers also frequently must return out-of-season or obsolete stock, goods damaged in transit, and items that have not been sold within a certain timeframe.

Many retailers opt to keep the entire process in house. Others, though, find that outsourcing is an efficient, cost-effective means of keeping the returned-goods monster under control. One such company is Service Merchandise, based in Brentwood, Tenn. Service Merchandise sells a wide variety of consumer goods, including jewelry, furniture, kitchen items, and

home electronics from 385 stores in 35 states. The company also has a mail-order business.

All product returns are handled at a returns-processing center operated by Service Merchandise in Bowling Green, Ky., reports Paul Minor, director of transportation. Volume at the returns center averages between 30 and 40 million pounds annually, which represents a lot of inventory costs and lost revenues.

About two years ago, company managers recognized that a more organized approach to managing returns offered the potential for significant cost savings. The logistics department, though, was unable to dedicate full-time resources to the project. The solution? Service Merchandise turned to a third-party logistics service provider to manage this aspect of its business. The third party operates a customer-service center for Service Merchandise with a toll-free number. When a store needs to return something, an employee calls to get authorization. Redwood also provides the stores with specific instructions for packaging, shipping, and documentation.

Based on cost and volume guidelines established by Service Merchandise, the third party arranges transportation to the Bowling Green facility using pre-approved carriers. " Our volume guidelines are based on the number of skids and on the storage space available in the stores," Minor explains. " We want the largest shipments possible so we can reach better weight breaks" Redwood analyzes individual store and regional demand, costs, and routing efficiencies to determine the best way to bring the merchandise to the returns center.

Conclusion

Technologies available today can be incorporated into re-engineered business processes. Time-consuming manual processes can be reduced or even eliminated, driving out even more costs. Technologies currently under development will integrate item-level tracking with wireless communication to update business systems in real time. Organizations will be able to stay in touch with their customers' products in the supply chain, regardless of time or geography.

Improved item-level information will enhance the business process to keep customers better informed and minimize product returns. Properly approached, reverse logistics can take the " problem" aspect out of your process and convert these " costs" into investments for profitable, long-term customer relationships.

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