

RETURNS MANAGEMENT STRATEGIES MAY BE THE MOST NEGLECTED PART OF MANY SUPPLY CHAIN PRACTICES. THE PROCESS OF MOV-ING PRODUCT FROM BUYERS BACK TO SELLERS, IF DESIGNED AND MANAGED WELL, CAN REDUCE COSTS AND IMPROVE CUSTOMER SATISFACTION. FOR THIS REASON, RETURNS MANAGEMENT IS IMPORTANT BOTH FROM A COST PERSPECTIVE AND A CUSTOMER SERVICE PER-SPECTIVE. THAT'S WHY COMPANIES NEED TO LOOK AT OPPORTUNITIES TO REPLACE THEIR TRADITIONAL, MANUAL RETURNS PROCESSES WITH NEW STREAMLINED, AUTOMATED SOLUTIONS.

Christopher D. Norek

IMPROVING OUTBOUND

supply chain efficiencies has become a top priority for companies seeking to increase their bottom line. But even as supply chain management has become a higher priority, some processes within the area still have not been given the attention they deserve and require. Possibly the most neglected part of many supply chain operations is returns management, the process of moving product from buyers back to sellers.

Years ago, well-known author and consultant Peter Drucker argued that logistics—what we know today as supply chain management—was one of the last frontiers for top management's attention along the road to company efficiency.¹ If we take a slightly different look a few decades later, returns management may be seen as the last frontier of supply chain management. It is, without question, the "problem child" of logistics. Indeed, many companies treat it as such, categorizing it more as a necessary evil than as a strategic initiative. If returns management receives the appropriate level of thought and attention, however, it can play a critical role in reducing costs and improving customer service.

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Given the large volume of returns generated for many companies, it's clear that opportunities for improvement are considerable. Note the following:

Across all industries, returns range from around 3 percent to as high as 50 percent of total shipments.²

• For brick-and-mortar operations, returns are three to four times more expensive than outbound shipments.³

• An average retail store has a 6-percent return rate, and an e-tailer about 8 percent. In the apparel industry, online sales come back 35 to 40 percent of the time.⁴

In the United States, companies spend \$950 billion annually on logistics; of this amount, approximately \$43 billion are spent on returns. This means that 4.5 percent of all logistics costs are related to returns.⁵

Various industry studies put the true costs of returns at 3 to 5 percent of sales.



Across all industries, returns range from around 3 percent to as high as 50 percent of total shipments.



The average return rate is 8.5 percent for the consumer electronics industry and 19.4 percent for the apparel industry.^{6,7}

Yet, while most companies invest significantly in processes and technology that make the movement of product to their customers more efficient, they typically handle returns in a manual, cumbersome, and expensive way. Improving overall company efficiency, however, requires that companies replace these old methods with streamlined and automated processes that take an enterprisewide approach to returns. To understand how to accomplish this, it is important to know what is meant by returns management, review current practices and problems, identify new opportunities, look at leaders in returns management, and note what the future holds.

Enterprise Returns Management— A New Perspective

The returns process has been called many things, including returns processing, returns management, and reverse logistics. And any given company or individual may interpret these three terms differently. Even the various firms within the analyst community have different definitions and understandings of them. For the purposes of this discussion, *returns processing* is the physical handling and disposition of the returns. *Returns management* is broader and includes the informational support of the entire process, including arrangements for transportation and physical handling. In the supply chain discipline, *reverse logistics* is probably even broader in nature and often is meant to encompass recycling and "green" logistics.

To clarify the activities surrounding returns, a new term has emerged, enterprise returns management or ERM. While we are overloaded with acronyms, this new way of looking at old processes should shed some light on your company's returns process. ERM can be defined as the management of the return across the enterprise of a company, including return approval, transportation coordination, tracking of a return, receipt and disposition of the return, and crediting the customer account. This view includes all the information related to the return as it progresses from the customer back into the supplier's system. The word "enterprise" has been added to the term as a reminder that returns have a far-reaching impact across an organization, not just on the customer-facing areas. A true ERM solution addresses the most efficient movement of the product from an end point back to the appropriate point of disposition, as well as the communication of information about the return as far back into a company as is possible.

> Enterprise returns management enables companies to realize superior levels of profitability by controlling the processes involved in moving returned products and information backward through the entire supply chain. By implementing an order management, a service supply chain

management, and/or an asset recovery system, companies have been better able to control the reverse supply chain. However, these systems often offer only limited functionality for returns management. Therefore, there is an opportunity to use ERM as a new method to improve old processes.

Problems With Current Return Processes

The control that ERM promises to impose on the returns process would be a welcome improvement for many companies. Many companies currently report that they are receiving returned product unannounced or even unapproved. Due to these unannounced and unapproved events, each return whether it be a box, a pallet, or a partial truckload—must be opened, diagnosed, and then processed. Unannounced and unapproved returns result in inefficient use of processing labor, refunds for product that should not have been issued, unnecessary obsolescence, and missed opportunity costs of not seeing a pattern in product defects.

The following relate some of the main problems caused by current returns processes:

High Costs: Policies and handling processes for returns vary greatly across companies. For many companies, returns require significant manual processing, which uses much more labor than if returns were managed better and automated. As a result of this manual involvement, the costs of handling returns are higher than necessary. A focus on streamlining and automating the processes within returns management will help reduce these costs and improve profitability.

Inadequate Tracking and Visibility: Many companies do not adequately track their returns, nor do they have visibility into what is being returned, when it is being returned, and where. Typically, the closest thing a company has to a tracking system is the return merchandise authorization (RMA). The RMA is an approval with an accompanying identification number that the vendor gives to a shipment or item that a customer wants to return. This RMA number is the identifier for the shipment or item as it comes back into the vendor's system. RMAs are generated when a requested return meets predetermined criteria for returns.

Even when RMAs are given to customers, however, there is typically no system to track the RMA and the accompanying returned items through the system. Instead most shipments of returns arrive unannounced, causing significant labor allocation issues at the distribution center (DC). Distribution centers find it difficult to schedule labor when they don't know the quantity and type of returns as well as their arrival times. Under this scenario, DCs usually process unannounced returns only when the labor is available, which might cause a significant delay in getting the product back to a saleable point. To process the returns in a timely manner, overtime or additional labor hours are often needed. Lack of knowledge regarding returns, therefore, can increase obsolescence due to delays in product disposition.

To be efficient in the returns area, you must know how many returns are in your system, where each one is at any given time, and all the information regarding each return. This is a particularly important concern in fields such as food and healthcare, where the products have to be tracked by lot number and location. This information is needed to handle any kind of product recall or even a normal return from a client. If the return itself cannot be tracked, obviously the perishability or sell-by date of the product is also unknown. Unfortunately, most systems lack the capability to adequately track a return through the system.

Inventory Imbalances: Not knowing what items are being returned or the disposition of each item also causes inventory imbalances. Inventory targets are often not met, because, while outbound inventory can be planned and controlled, the quantities of product being returned are unknown. As a result, inventory planners in some companies are discouraged because they miss their inventory targets due to returns that they could not control and were not expecting. Some companies can't control a significant portion of their returns process because acceptable return reasons/policies either don't exist or aren't enforced. This results in more total returns than actually should occur. Although returns policies are usually delineated in a sales agreement, they often aren't adhered to in the course of normal operations. Instead, customers often make their own determinations as to what constitutes an acceptable return and credits are often given when they aren't warranted.

Credit Processing: Another area tied closely to tracking and visibility is credit processing. Customers want two key pieces of information in relation to the credit for their return: the amount or value of the credit and the timeframe for the credit to be applied to their account. In addition, the credit

department of the supplier or seller would like to know in advance the expected dollar amounts that are to be credited to customers, so that they can plan and balance budgets in advance. Without the required information and policy enforcement, it is difficult to reconcile accounts and revenue can be lost because of possible double crediting or crediting for returns that should have been disallowed. For companies that have a manually driven returns process, the needs for both the customer and the internal financial departments are often not met. The lack of visibility mentioned earlier means that returns arrive at processing centers without any advance knowledge, causing bottlenecks. Bottlenecks, in turn, result in unhappy customers because their accounts are not credited in a timely manner. Companies also often have inadequate audit trails at return locations and lack delivery/receipt dates for returned product, which leads to unaccounted goods and excessive write-offs.

Customer Dissatisfaction: Possibly the most important issue in relation to a poor returns process is customer dissatisfaction. Customer dissatisfaction can be very damaging, although a company cannot accurately quantify the negative impact. Just like stockouts in stores, a company cannot easily identify a customer lost because of a negative return experience, nor can it easily quantify the value of this lost customer. Yet, the returns process is very important to many customers. In fact, a survey of online shoppers showed that their second biggest concern was the difficulty of the returns process.⁸

Returns Issues by Channel Member

Other problems reported are specific to the organization's position in the supply chain. These include:

Retailer Issues: Inventory cost is higher for retailers than for any other entity in the supply chain because all the product they hold is in its finished form. Therefore, keeping saleable inventory in the pipeline to minimum improves profitability. Current manual processes are slow, however. This slows the pace of getting resellable returned product back into the sales pipeline, causes total new product inventory to increase, and results in some significant issues for retailers to address.

Retailers typically experience long return cycle times on high-ticket items that have relatively low margins, such as 2 to 5 percent. Related to the low margins is a high risk of obsolescence in the returns process. Because the returns process can be as long as two to three weeks, retailers often lose a significant amount of sellable time during a product's life cycle and possibly sacrifice the profit margin. In the case of high-tech goods, like computers and consumer electronics, product life cycles are very short, and as much as 20 percent of a good's value can be lost because of obsolescence in a single return cycle.

Tied to this issue of obsolescence is the opportunity cost of having capital tied up in the reverse pipeline inventory. The more capital tied up in system inventory, the lower the return on assets within the company. Finally, but importantly, a haphazard returns process can result in returns' not receiving a correct disposition. For example, there is a chance that an item that could be sold as new will be sent to a salvage or discount company for disposal, resulting in lost revenue.

Customer Issues: From the point of view of an end customer, whether they be the final consumer or a business, there is a strong relationship between a smooth and easy-to-use returns process and the level of loyalty to a supplier or retailer. If the returns process is not intimidating or frustrating, customers will be more likely to purchase from that vendor. Studies show that they might even have a higher likelihood of purchasing additional items knowing that returns are not a hassle.⁹

Yet the returns process often is a hassle for the customer. The first point of contact for a return is either a customer service number or a store clerk. With a customer service number, consumers often have to deal with long wait times or multiple phone calls to try to get a product returned. A call is often required because the published returns policy is not easily understood. Furthermore, until recently, almost the entire return process was the responsibility of the purchaser, even if the reason for the return could be traced to the supplier or vendor. Often the customer had to fill out a returnshipping label by hand and then take the item to a shipper for return delivery.

For the returns process to satisfy customers, not only must it be hassle-free but customers must also quickly receive credit for a return. Also, the return must be visible as it passes through the system because a customer might want to view the progress of the return.

Other Channel Member Issues: Manufacturers and distributors experience similar issues including long return cycle times for inventory, risk of obsolescence in transit, little or no audit trail on returns, opportunity cost of capital tied up with inventory in the "pipeline," and asset recovery made more difficult by poor returns processes.

Key Areas of Cost in Returns Processing

All of these issues and challenges make returns very expensive to process. The first step in determining ways to reduce the costs of returns is to identify all applicable costs. The difficulty in calculating the cost of a return is that several systems have to be accessed. Warehouse labor, transportation, and inventory costs have to be identified to calculate the total cost of a return. Some of the cost areas that must be taken into account include:

Total Number of Returns: The easiest way to reduce costs in the returns process is to reduce the total number of returns. By uniformly enforcing return policies, a company can cut down on the total number of returns it must handle. Many times, suppliers or vendors don't enforce their returns rules and allow customers to return items that should not be accepted. In addition, there are situations wherein a customer, who did not receive a return merchandise authorization because of an unacceptable return reason, returns the product anyway and still receives credit. These problems are caused by the supplier's not knowing what returns should be denied before the product leaves the distribution center.

Disposition: The process of opening a box and inspecting a

38 SUPPLY CHAIN MANAGEMENT REVIEW · MAY/JUNE 2002

return to determine whether the item can be resold, repaired, or discarded is referred to as disposition. Options for the disposition of a product include:¹⁰

- Return to supplier.
- Resell.
- Sell via outlet.
- Salvage.
- Recondition.
- Refurbish.
- Remanufacture.
- Reclaim materials.
- Recycle.
- Send to landfill.

Disposition is a time-consuming and costly process and typically occurs at a distribution center. Often, returns arrive in bunches at the distribution center without any advance warning. This lack of advance+ notice causes frequent delays in the disposition of returns, which increases the obsolescence of the product in the process.

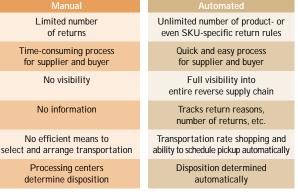
Call Center: Most companies generate RMAs for their customer returns over the telephone. Obviously, this requires the selling company to have trained customer service people to handle these calls. The customer must share all the information regarding the return with the customer service representative. For some returns, multiple calls to the customer service department are needed. All of this increases costs.

Mailing Label Generation: For each return from a customer, a mailing label must be created for the return. Companies often generate these labels themselves and then physically send them to the customer who has the return. These labels are frequently sent via express courier, resulting in costs as high as \$8 just to send a label. If the label is sent via regular mail, the cost is lower but several days are lost in getting the product back into the system.

Transportation: In some instances, the selling company pays for the return's shipping. Typically, this occurs if the selling company is responsible for the customer's dissatisfaction with the product. Often, customers choose their desired mode of transportation. Allowing customers to have this choice can

EXHIBIT 1

Differences Between Manual and Automated Returns Processes Manual Automated



increase costs unnecessarily because they might select a faster transportation option than necessary or they might choose a carrier that the company does not have negotiated or favorable rates with. In addition, if a return is sent back to the wrong location, the company incurs additional shipping costs to reship it to the appropriate disposition point.

Improving the Returns Process: Two Stories

Companies could reduce many of these problems and costs if they automated, streamlined, and standardized their current, manual returns processes. Exhibit 1 highlights some of the key differences between manual and automated returns processes. This comparison shows that by automating the returns process, ERM solutions can significantly improve the efficiency and effectiveness of a company's supply chain.

The technology solutions market is relatively new in its evolution of returns management. There are, however, several good examples where a company has improved its return process by leveraging technology and implementing process improvements.

Ashford.com

Ashford.com has implemented FedEx's NetReturn application to improve its returns management. Ashford.com is an e-commerce company specializing in corporate and personal gifts and rewards. The company's two e-commerce sites offer 12,000 different types of gifts and rewards, including watches, jewelry, leather accessories, sunglasses, and writing instruments from 300 leading brands. Dedicated to creating an exceptional luxury shopping experience, Ashford.com provides overnight shipping on nearly all items, gift packaging, and a 30-day money-back guarantee on all merchandise.

FedEx Corporation is a global provider of transportation, ecommerce, and supply chain solutions. This powerful family of companies operates independently yet competes collectively. The FedEx NetReturn process is part of the corporation's returns product portfolio and has been around since 1997. Essentially, NetReturn is an information management system that allows companies to gain control of their returns process. NetReturn is an Internet-based returns management system designed to streamline the return segment of an organization's supply chain. Ashford.com's partnership with FedEx has greatly improved efficiency for Ashford and reduced costs in their processes. The following is a description of Ashford's old process and the new process using NetReturn. It is important to understand this new process because many of the steps can be implemented in any company.

Ashford.com's Old Process

1. The customer would ask the customer service representative (CSR) for an RMA number. If the return reason qualified under Ashford rules (such as, wrong item, defective item, or incorrect item description), Ashford would take responsibility for the return. The customer would be told that Ashford would make arrangements to have the item picked up. Based on experience, the CSR would give the customer a rough idea of when the item would be picked up. 2. The Ashford CSR would call the shipping department and ask it to make arrangements for the pickup. The customer information would be communicated to the shipping supervisor.

3. The shipping supervisor would place a call to FedEx to request a pickup and to make arrangements for the appropriate level of insurance. FedEx would provide a control number for the transaction and an estimated pickup time. The following day, FedEx would call the shipping supervisor with the tracking number. The supervisor would then update the notes regarding the return transaction.

4. The shipping supervisor would update the customer record and, if necessary, the CSR would contact the customer with the pickup time provided by FedEx.

5. The item would be delivered to Ashford.com.

There were many opportunities within this process between the customer, FedEx, and Ashford for confusion and errors to arise. This was not the fault of any of the companies, but the coordination between the three entities was not as tight as it could have been.

Ashford.com's New Process:

1. The customer asks the CSR for an RMA number, and, if the return qualifies (same set of criteria), the CSR tells the customer when FedEx will pick up the package. This pickup timing is based on a service level agreement between Ashford and FedEx.

2. The CSR logs onto FedEx's NetReturn site and makes arrangements for the pickup including insurance. This is done via the Internet using information from the customer's original order, so there is a much lower chance of introducing errors. The customer record is updated with the tracking number that is assigned at that time.

3. The FedEx driver arrives for the pickup, prints and applies the label, and returns the product to Ashford.

As a result of the new process and system, Ashford.com believes it has reduced the time (man-hours) required to process a returns pickup by about 70 percent. These efficiencies have allowed Ashford.com to handle more orders per man-hour and therefore reduce its total costs. In addition, Ashford.com believes that by simplifying the process, it has reduced the number of errors. It also can plan its return department staffing more efficiently because it has a better idea of what is coming back to it and when the return will arrive. In general, the new process has created a much simpler and more reliable system for Ashford with an improved experience for the customer.

PeoplePC

PeoplePC has entered into an agreement with a returns software solution provider whereby PeoplePC uses the provider's technology to streamline PeoplePC's reverse logistics process and further expand the company's customer support program. PeoplePC provides hassle-free bundled computer solutions to consumers and enterprises interested in wiring their employees and customers. The PeoplePC consumer bundle includes a new, name-brand PC (including warranty), Internet service, two e-mail accounts, superior customer support, and unique membership benefits. PeoplePC's enterprise customers include Ford Motor Company, Delta Air Lines, Vivendi Universal, The New York Times Company, and, most recently, Bertelsmann AG.

The enterprise returns management solutions that PeoplePC implemented optimize the entire reverse supply chain, ensuring end-to-end visibility and enabling collaboration with all business partners. By collecting and analyzing real-time returns data, the solutions provide business intelligence that can help companies make smarter, more informed decisions to increase profitability.

PeoplePC's goal was to reduce call center activity, increase CSR productivity, and validate customer credit on returns and credit from distributors to PeoplePC. It also wanted to improve the visibility of returns for PeoplePC and its clients alike, improve customer satisfaction, and decrease costs.

PeoplePC's Old Process

1. Customer would call CSR to initiate return.

2. CSR would manually request RMA from distributor.

3. CSR would call customer back with RMA number.

4. If the return was caused by a faulty product or incorrect fulfillment, CSR would call the carrier to issue a call tag, and product would be picked up at the customer's address. If the product was not faulty, the customer took the product to a drop-off location.

5. Customer would create his or her own shipping label and document the RMA number on the label.

Customer would select a carrier and arrange shipping.

7. Credits would be issued based on a manual reconciliation process of return reports provided by the distributors.

PeoplePC's New Process

1. Customer calls CSR to initiate return.

2. CSR logs customer information into returns management system and selects the item(s) to be returned.

3. The system prompts the CSR via scripting to ask the

customer product-specific return questions and then to enter



Reorder,

Receipt

Verification

\$4.56

(80%)

Scannable

Bar-Code

Label/

RMA

\$9.70

(83%)

Total

\$32.40

Total

\$8.69

\$23.74

(73%)

Resend.

Pick.

Pack,

Ship

\$0.45

(15%)

EXHIBIT 2

the responses into the system.

4. RMA number is automatically generated.

5. CSR arranges shipping for customer online through the system. Shipping and restocking charges are applied, if applicable.

6. Label with RMA number and correct shipping address and bar code is automatically generated and either e-mailed or mailed to customer

7. Shipment is either picked up at customer's location or taken by the customer to a drop-off location.

8. The returns system tracks returns received vs. credits issued and generates a report of outstanding items only.

Since PeoplePC has implemented the returns solution, the partnership has allowed PeoplePC to enhance its reverse logistics system quickly, without draining internal resources. Staff members can now easily add and manipulate business rules relating to a return based on the condition and situation of the return or order cancellation. And PeoplePC can offer its customers an easier and more straightforward returns process, while keeping internal processes consistent and manageable. The system gives PeoplePC great insight into its returns process, producing information that can be fed back into the organization so that improvements can be made where necessary. From a cost standpoint, the returns solution has reduced the cost of handling a return for PeoplePC by an estimated 75 percent. In addition, PeoplePC has been able to upgrade the accuracy of its financial reporting because of the improved tracking of its returns and the data collected.

Existing Solutions Can Streamline Returns Process

As these examples show, software solutions have developed some capabilities that help automate the return process and thus reduce the expense and the potential errors caused by human intervention. The developments include online return templates, return label printout capability, scannable bar codes, end-to-end electronic returns processing, and inventory visibility. Online return templates allow customers to enter their returns information directly into the system, which eliminates duplicate data entry and speeds up the process. Because these templates simplify the process, less training is required for the customer service representatives who handle the calls. In addition to the templates, the new solutions allow the return label to be printed at the customer location. This saves on the cost of preparing and shipping the label itself.

The solutions further reduce handling costs by identifying the problem with the product before it arrives at the distribution center, thus reducing the number of "touchpoints" for a return. These new, streamlined processes can eliminate unnecessary intermediate handling points in a return cycle.

As Exhibit 2 shows, the cost implications of automating the returns process can be significant. Both the exhibit and the two case studies show that almost 75 percent of the cost

Source: Gartner Inc

Manual

Process

Costs

Electronic

Process

Costs

Savings

Online

Order

Template

\$9.00

(75%)

of a return could potentially be eliminated by automating the returns process. To put this number in a more aggregate perspective, if a company processes 100,000 returns a year, it can save \$2.4 million dollars by automating the returns process. Obviously, this is the kind of number that gets the attention of the "C-level" executives.

Opportunity to Leverage Returns Information

Cost reduction from accelerated returns is not the only benefit. Companies can also leverage the information that results from a well-managed returns process to plan operations better. A few of the solutions on the market not only are streamlining the

returns process but also are beginning to allow companies to use the data collected in the processes. In a planning context, several areas of the company benefit from the use of accumulated transactional returns information.

Product Design: As the reasons for returns are collected, information on

product defects that are caused by poor design can be communicated to the design department quickly. Product revisions then can be undertaken, the design changes can be incorporated into the manufacturing plan, and new products can be produced free of the defect. Even if the problem is not a design defect, returns reasons can allow a company to improve the products quickly. The company can incorporate customer suggestions into the product, which will increase customer satisfaction and decrease returns.

Manufacturing Operations: Again, if returns information is collected and relayed upstream, any errors in the manufacturing process can be addressed immediately—assuming that the product is still being run on a production line. If the run for the item in question has been completed, the information can be used to correct the defect the next time the product is manufactured. This information reduces costs by reducing the amount of defective product manufactured.

Inventory Management and Product Allocation: As real-time information regarding returns is collected, those planning inventory allocations can use it to balance their stock. This is especially important for those returns that are capable of being resold as new. If the right information about the returns is known, inventory positions can be updated to reflect the additional units available for customer sale or allocation.

Knowledge for Customer Negotiations: If returns are tracked and documented, companies can show customers how their use of a company's returns policies affects both parties. If the information is collected on returns by individual customer, it can be analyzed to determine how both parties can reduce cost and make returns dealings easier. Better understanding of the returns process communicated between supplier and buyer can increase the level of trust between the two entities.

Future of Returns Management

Although these case studies are more consumer-oriented, the solutions that currently exist also are applicable to larger business-to-business returns shipments. In fact, the opportunity for cost reduction is much larger in the B2B environment because of the sheer volume involved.

As more companies streamline their enterprise returns processes, there is the opportunity to begin linking the returns processes of supply chain partners. Supply chain returns management (SCRM) may be the next step in optimizing returns. This would entail linking the returns processes across channel partners. Particularly, the infor-



Software solutions have developed some capabilities that have helped to automate the return process and thus reduce the expense and potential errors caused by human intervention.



mation systems and the transactional returns data can be shared across channel members. For instance, if transportation companies had advance knowledge of the number and size of returns, they could plan their vehicle utilization and routing to reduce their costs and pass these savings on to their customers.

Although supply chain processes will still focus mainly on the outbound link to the customer, those companies that focus on returns can potentially give themselves an advantage in the marketplace. Improved returns management can significantly reduce costs and provide valuable information to a company's planning cycles. More importantly, improved and easy-to-use returns management processes can increase customer loyalty and customer satisfaction, resulting in higher sales.

Footnotes

¹Drucker, Peter F. "The Economy's Dark Continent," *Fortune*, April 1962, pp. 103, 265-270; and John J. Coyle, Edward J.Bardi, and C. John Langley. *The Management of Business Logistics*, St. Paul, Minn.: West Publishing Company, 1988, p. 10.

²Rogers, Dale S., and Ronald S. Tibben-Lembke. *Going Backwards: Reverse Logistics Trends and Practices*, Reverse Logistics Executive Council, University of Nevada-Reno, 1998, p. 10.

³AMR Research.

⁴AMR Research.

⁵AMR Research.

⁶Reverse Logistics Executive Council. *Consumer Electronics Industry Survey* (www.rlec.org/elecsurvey.pdf), 1999, 1,4.

⁷Reverse Logistics Executive Council. *Consumer Apparel Survey* (www.rlec.org/appsurvey.pdf), 1999, 2-3.

⁸Jupiter Media Metrix/NPD Individual User Survey (5/01), n=3, 150 (US only).

⁹"Reverse Supply Chain Automation," IDC, 2001, p. 5. ¹⁰Rogers, p. 10.