

Logistics News: Putting Some Numbers to Reverse Logistics

New Study says Retailers and Wholesalers Recovering More Value than Manufacturers; the Five Process Steps for Returns Processing

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"Reverse Logistics" continues to be an area where many experts believe that companies have an excellent opportunity to reduce costs and/or improve customer satisfaction.

Yet, most believe relatively few companies have put a lot of action or investment behind reverse logistics processes to date, with some notable exceptions, especially in the "direct to consumer/e-commerce" area, sectors which historically have had high percentages of returns versus sales. Avon, for example, has frequently been cited for the excellence of its returns handling processes.

It also appears that "Sustainability" and Green Supply Chain initiatives are also increasing the focus on reverse logistics, as companies see improving reverse logistics processes as significant opportunities to reduce waste, energy use, and CO2 emissions.

Some researchers have estimated that there is more than \$100 billion in returned merchandise in the US each year – a dollar level greater than the GDP of many countries, and certainly of a size that would seem to warrant some attention.

Lack of Empirical Data

Compared to most other areas of logistics and distribution management, there is a relative lack of empirical data on the costs and practices of companies with regard to reverse logistics operations.

That's something **James R. Stock** of the University of South Florida and **Jay P. Mulki** of Northeastern University hoped to chip away at with a recent paper on reverse logistics that summarized survey results

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from over 200 companies. The research was published in the most recent edition of CSCMP's *Journal of Business Logistics*.

Stock and Mulki first identified five steps in the reverse logistics process:

- (1) Pre-receipt: Providing authorization, labeling and other process elements to customers or consumers wanting to return product
- (2) Receiving: Unloading and distribution of product returns to processing centers
- (3) Processing: Activities such as data entry and issuing customer credits
- (4) Sortation: Inspection and routing of returns to disposition point
- (5) Disposition: Putting the product back into inventory or temporary storage, repackaging, repair, refurbishing or remanufacturing.

The first step is generally handled by the company's customer service group or through "self-service" by the customer or consumer. Some retailers simply send product back to manufacturers

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and take a credit against the manufacturer.

Of the next four steps that involve activity at the distribution center that will process the returns, the survey results found that of the total processing effort, on average survey respondents spend about 31% of their total time on the "processing" step, followed by 26% each on sortation and disposition, and about 17% on receiving.

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chart below, the vast majority of manufacturers, retailers and wholesalers managed returns processing "in-house."

Recovery Rates are High

In general, the research found that companies were generally able to recover a large percentage of the returned items' value, whether through putting an item directly back into stock, or doing so after some modest amount of processing. Retailers and wholesalers, however, were able to on average recover much more of the total value than manufacturers.

As seen in the chart below, for example, 68.7% of retailers on average are able to recover at least 76% of the

**PRODUCT HANDLING RESPONSIBILITY—IN-HOUSE VS. THIRD-PARTY
(Number of Responses)**

<i>Single Person Responsibility</i>	<i>Type of Business Organization</i>			
	Manufacturers	Retailers	Wholesalers	Total
Firm	23	11	38	72
Third-party	3	3	7	13
Combination	5	1	6	12
Total Number of Responses	31	15	51	97

**RECOVERY RATE AS A PERCENTAGE OF ORIGINAL COST
(Number of Responses)**

	<i>Type of Business Organization</i>			
	Manufacturers	Retailers	Wholesalers	Total
Quartile 1 –Small (0- 25%)	15 (20.5%)	2 (12.5%)	9 (9.4%)	26
Quartile 2 -Medium (26- 50%)	12 (16.4%)	2 (12.5%)	15 (15.7%)	29
Quartile 3 –Large (51- 75%)	18 (24.6%)	1 (.062%)	13 (13.6%)	32
Quartile 4-Very Large (76% and above)	28 (38.3%)	11 (68.7%)	58 (61%)	97
Total Number of Responses	73	16	95	184

Source: Stock and Mulki, Journal of Business

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value of the returned goods, versus 61% for wholesalers and 38.3% for manufacturers (percentage added by SCDigest and represent percentages vertically, by sector). Conversely, about 37% of manufacturers recover less than 50% of the value.

"In this study, product returns processing enabled many organizations to recover a high percent of the original cost of the products. In some instances the recovery rates exceeded 80 %," Stock and Mulki note. "Such levels of recovery have not been widely reported previously. In fact, the typical level of 60-65 % recovery rate

is higher than expected given previously published data. This validates the importance of efficient and effective product returns processing for improving profitability within organizations."

The research also showed that a fairly high percentage of respondents in retail used metrics for tracking returns management efficiency and effectiveness. The paper used the term "standards," though it appears they really mean "performance metrics" as opposed to true "engineered" standards.

Regardless, as shown in the chart below, manufacturers are not yet active adopters on average of metrics for re-

USE OF STANDARDS IN THE PRODUCT RETURN PROCESS
(% responding that they utilize standards)

<u>Activity</u>	<i>Type of Business Organization</i>		
	Manufacturing	Retailing	Wholesaler
1. Pieces/returns handled by employee per hour	10 %	52 %	23 %
2. Time from receipt to crediting of customer account	16	14	30
3. Total pieces/returns processed per day	19	48	26
4. Error rates for items scanned	1	33	11
5. Error rates for incorrect disposition	1	20	7
6. Total returns processing time	13	23	28
7. Time from receipt to initial returns processing	17	19	26
8. Number of pieces/items returned to stock per day	11	23	20

Source: Stock and Mulki, Journal of Business

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turns processing.

The researchers conclude by noting “good product returns processing can result in improvements in profitability through cost reductions and higher product recovery rates.” They add that “Organizations with excellent product returns processing capabilities (defined as those having processes that are both efficient and effective) can have a potential competitive advantage, which gets larger as the magnitude of

product returns increases.”

However, “The best way of optimizing the product returns process is to not have returns at all—referred to as returns avoidance. Return avoidance policies aimed at minimizing product returns are becoming popular. These strategies use customer education programs that focus on training the customer in the proper operation and use of the product.”
