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Reverse logistics: superior performance through focused resource commitments to information technology

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Abstract

A survey of businesses in the automobile aftermarket industry provided insights into how reverse logistics performance can be influenced by a few key strategic decisions. Resource commitment is critical to program performance. However, it is important that the resources be focused on developing information technology capabilities. This, no doubt, is reflective of the nature of reverse logistics. Information support—for authorizing, tracking, and handling returns—can positively impact both economic and service quality-related performance.

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1. Introduction

Because of the assets/value involved and the potential impact on customer relations, reverse logistics and developing reverse logistics-related information capabilities should be considered a managerial priority. It is important that companies be able to physically handle returns—including activities such as stock selection, transportation, centralized collection, data collection,

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sortation, refurbishing or remanufacturing, and disposition. However, they must also develop data management capabilities, i.e., be able to integrate manufacturer and retailer data, create invoices, generate store credits, detail accounts receivable, and issue management reports. Finally, companies must be able to strategically apply the information gathered to streamline internal processes and support supply chain-level planning (WERC Sheet, 2003). Even though reverse logistics is a critical component for success at a wide range of businesses, it is often overlooked or inadequately supported. In fact, at many firms reverse logistics is “analogous to that of inbound logistics 10 to 20 years ago. Where firms once only concentrated on physical distribution and gave little attention to inbound material management, so, too, do many organizations give little attention to RL (reverse logistics)” (Stock, 2001, p. 6).

Such a lack of attention is hard to understand. A more strategic approach to reverse logistics management is definitely warranted. Stock et al. (2002) summarize the potential for gain: reverse logistics should not be viewed as “a costly side-show to normal operations . . . (it) should be seen as an opportunity to build competitive advantage” (p. 16). Statements such as this prompted the authors to undertake research looking at how companies can develop and exploit reverse logistics for positive advantage. Because reverse logistics is so information intensive, the current research examines how resource commitment and information technology capabilities impact performance. The following sections provide a brief overview of relevant literature followed by hypothesis development, methodology, and results/conclusions.

2. Literature review

Reverse logistics is defined as

... the process of planning, implementing and controlling the efficient, cost-effective flow of raw materials, in process inventory, finished goods and related information from the point of consumption to the point of origin for the purpose of recapturing or creating value or for proper disposal. (Rogers and Tibben-Lembke, 1999, p. 2.)

Practically all businesses must deal with returns of some nature because of issues such as marketing returns (i.e., customers change their minds or find the product unacceptable), damage or quality problems, overstocks, or merchandise that is brought back for repairs, refurbishing, or remanufacturing. Norek (2002) provides an indication of the sheer volume of returns generated in many companies. He notes that returns range from 3% to as high as 50% of total shipments across all industries; various industry studies put the true costs of returns at 3–5% of sales; and, for traditional brick-and-mortar retail operations, returns are three to four times more expensive than outbound shipments. Rogers and Tibben-Lembke (1999) provide greater insight into the variations by industry type. For example, the magazine publishing industry is subject to the highest reported returns (50%). Magazines have a short shelf life; if they do not sell close to the publication/cover date, they are returned or dumped. Other industries with high average returns include book publishers (20–30%), catalog retailers (18–35%), and greeting cards companies (20–30%). At the other end of the spectrum are companies such as mail order computer manufacturers (2–5%), consumer electronics (4–5%), and household chemical manufacturers (2–3%).

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