

Implementing leagility in reverse logistics channels

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The importance of the topic of reverse logistics has increased gradually over the past few years. This paper primarily focuses on one facet of reverse logistics, which involves the return of damaged products to be repaired by a manufacturer. The application of the 'leagile' paradigm in the reverse logistics process and its expected outcome, in terms of costs and lead-time reduction to consumers and to the manufacturer itself, is presented.

The case study of an electrical appliance manufacturer based in Bangkok, Thailand, is used as an example to illustrate the possible impact of the 'leagile' concept on its repair and replacement services. It was discovered, with the application of the 'leagile' concept in the reverse logistics process, that lead-time for product repairs and returns, as well as costs involved with reverse logistics, have been drastically reduced while customer satisfaction has increased significantly.

Keywords: Reverse logistics; Leagile; Product return; Thailand

1. Introduction

Logistics is considered as an important contributor to Thailand's economic competitiveness. Several aspects of logistics management and facilitation, such as infrastructure, laws and regulations, information technology and database building, human resource development, as well as logistics service provider capabilities are currently taken into consideration, in order to improve cost efficiency and responsiveness of the overall national logistics system (NESDB 2005). As a key activity in logistics, reverse logistics plays an important role in collecting used or returned products, in order to add value back to them. However, reverse logistics has usually been neglected and treated as less important compared with more traditional logistics activities. Reverse logistics still lags behind in terms of published research and interests from business practitioners.

The objectives of this paper are two-fold. First, the paper is an attempt to present an application of the 'leagility' concept in the reverse logistics process. The second objective is to consider the impact of a leagile strategy in the reverse logistics process in terms of time and costs, in order to appraise the worthiness of implementing such a strategy. The paper describes a case study of an electrical appliance manufacturing firm in Thailand that has implemented a

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