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Evaluation of the Reverse Logistics Performance in Civil Construction

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Abstract

Reverse Logistics is an activity that excels adding value to customers upon returning the consumer product to its origin. This return, when applied to products at the end of its useful life, makes this practice a "green" dimension because it provides an environmentally correct disposal of waste and assists the reuse of material, recycling and remanufacturing. Therefore, the operations performance evaluation arouses interest and acquires relevance. However, this activity is still little practiced in developing countries, such as Brazil and Colombia. It is the purpose of this article, to present a model for the Reverse Logistics performance evaluation in the construction industry - one of the sectors that most generates waste and which has a tremendous economic impact on the nations. The research began with a search in databases for publications concerning the performance evaluation of this practice with the aim to serve the model construction. The search resulted in only one article in the civil construction sector. Thus, it was researched in an exploratory way for studies that would enable the mapping of reverse flows of civil construction in developing countries. From this mapping a model was elaborated with indicators that address the logistics of supplies, internal and reverse, in order to evaluate the companies performance of this sector. A test was performed in a Brazilian construction company and in another Colombian one with the aim to demonstrate its applicability, where it was possible to highlight improvement points for each company and for the model that can be reapplied in other organizations of the sector. Despite the excellent performance presented by companies, it was noticed the lack of attention with this logistics area.

Keywords: Reverse logistics. Civil construction. Performance evaluation.