

# Chapter 5

## Purchasing Green Transport and Logistics Services: Implications from the Environmental Sustainability Attitude of 3PLs

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### ABSTRACT

*Environmental sustainability is an area of increasing importance for third party logistics (3PL) companies. As the design and implementation of services requires interaction between buyer and 3PL, the 3PLs are in a critical position to support the efforts towards greening operations of different supply chain participants. However the literature in this field reflects a gap between the perspectives of buyers and 3PLs. This chapter attempts to fill this void through an explorative case study analysis on the environmental attitude of 3PLs in order to derive implications for buyers' behavior. The results indicate that the buyer's role is critical in different ways in the development of green initiatives among 3PLs. An increased orientation towards longer-term contracts and joint development would likely enhance the level of green initiatives. Indirectly, the buyer has the opportunity to influence its 3PLs through interaction with employees on different levels in the company, including top management.*

### INTRODUCTION

For all types of businesses, locally as well as on a global level, environmental sustainability is of increasing concern. Within the area of logistics, the main negative environmental impact emanates

from transport (McKinnon, 2006). In addition, warehousing is an activity that causes both direct and indirect environmental effects, through energy consumption and increased land use in attractive areas (Marchant, 2010). Moreover, companies are continually forced, by customer demands and by legislative measures, to reduce, reuse and reapply packaging materials, by-products of production

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and obsolete items. Hence, environmental issues have an impact on several logistics decisions along the supply chain such as location, sourcing of raw material, modal selection and transportation planning (Wu and Dunn, 1995).

Efforts towards the achievement of green logistics require the extension of traditional economic supply chain objectives (such as reduced costs and improved delivery reliability) to include environmental objectives (see e.g. Aronsson and Huge Brodin, 2006; Kohn and Huge Brodin, 2008). In the specific area of transport and logistics services this means that buyers (e.g. manufacturers and retailers) have to pay more attention to environmental criteria of the transport and logistics services they purchase, alongside the more traditional trade-off between cost and customer service.

The recent evolution of logistics and supply chain management (SCM) suggest that 3PLs are playing a more critical role in the supply chain than in the past. While supply chains become longer, consisting of more tiers over longer distances, the performance of the “glue” between the different actors, i.e. the 3PLs, becomes critical for the success of the total supply chain. In turn, 3PLs are in a critical position to support efforts aimed at improving the environmental sustainability of supply chain operations. In consequence, manufacturers and retailers need to respond to this challenge in their purchasing of logistics services. Although the importance of green aspects of logistics services has increased in recent years, there is still a great deal of uncertainty among buyers regarding how to consider environmental sustainability. Existing models and standards are often considered complicated and difficult to apply, and there is still a lack of adequate and standardized tools that could support the green purchasing of logistics services (Björklund, 2010). Recent research into the green logistics market suggests that there are evident mismatches between market requirements and 3PLs’ offerings. This can in part be explained by the market being at an early stage in its development (Martinsen & Björklund, 2010).

Most previous research efforts (Srivastava, 2007) and empirical studies (Eltayeb & Zailani, 2009; Hong, et al., 2009) on green logistics and SCM have taken the perspectives of manufacturing companies. Environmental practices in 3PL services have only recently attracted the attention of researchers (Kassinis & Soteriou, 2003; Wolf & Seuring, 2010; Lieb & Lieb, 2010). As it is of crucial importance for companies purchasing logistics services to incorporate green considerations into their purchasing decisions, the purchasers’ capability regarding sustainability issues is a key to competitive advantage of the company (Foerstl et al., 2010).

The objective of this chapter is to suggest - based on an analysis of the attitude among 3PLs towards greening their services - implications for the buyer when sourcing transport and logistics services.

Following this introduction, the remainder of the chapter is organized as follows. The next section reviews the literature on environmental aspects in both buyer and 3PL providers in order to demonstrate the existing gap between the two perspectives. The third section portrays the research methodology used. The fourth section presents the main findings of a qualitative case study analysis exploring awareness, adoption as well as drivers and barriers influencing 3PLs’ green initiatives. Implications that may affect the buyer’s behavior are proposed and discussed in the fifth section. Future research directions derived from case study results are outlined in the sixth section. Concluding remarks are then drawn in the last section.

## **LITERATURE REVIEW**

In supply chain management literature, the role of environmental sustainability is gaining increasing interest among researchers and practitioners, which is sometimes referred to under the labels Green Supply Chain Management (GSCM) or

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