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#### Research article

# Is environmental sustainability a strategic priority for logistics service providers?



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#### ABSTRACT

Despite an increasing number of third-party logistics service providers (3PLs) regard environmental sustainability as a key area of management, there is still great uncertainty on how 3PLs implement environmental strategies and on how they translate green efforts into practice. Through a multiple case study analysis, this paper explores the environmental strategies of a sample of medium-sized 3PLs operating in Italy and the UK, in terms of environmental organizational culture, initiatives, and influencing factors. Our analysis shows that, notwithstanding environmental sustainability is generally recognised as a strategic priority, a certain degree of diversity in the deployment of environmental strategies still exists. This paper is original since the extant literature on green strategies of 3PLs provides findings predominantly from a single country perspective and mainly investigates large/multinational organizations. It also provides indications to help managers of medium-sized 3PLs in positioning their business. This is particularly meaningful in the 3PL industry, where medium-sized organizations significantly contribute to the generated turnover and market value.

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#### 1. Introduction

Due to the continuous degradation of the natural environment, climate change and global warming, environmental sustainability issues have emerged as key areas in the management of companies. Increasing customer demand for ecological products and services, tightening environmental regulations and growing demand for greater corporate social responsibility have become the main drivers for companies to undertake green strategies (Gotschol et al., 2014; Min and Kim, 2012).

The transport and logistics industry is a key component of trade and a major contributor to economic growth in many countries. However, logistics activities come along with severe negative environmental impacts, particularly caused by freight transport. In the EU, greenhouse gases (GHG) emissions of the transport sector increased at a higher rate in comparison with other industries over the last decades (European Commission, 2014). The World Economic Forum (2009) calculated that the freight transport and logistics industry is responsible for about 5.5% (2500 mega-tonnes)

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of the GHG emissions at global level and road freight is a major contributor of this footprint (WEF, 2009). This scenario should accelerate the adoption of environmental strategies by third-party logistics service providers (3PLs) (McKinsey, 2013) and environmental sustainability should be considered a priority and a source of competitive advantage (McWilliams and Siegel, 2011).

The environmental strategy of a company may be defined as the environmental organizational culture, the set of green initiatives and factors (both internal and external) influencing their implementation (Wu et al., 2014; Argon-Correa et al., 2008). Despite an increasing number of 3PLs are regarding environmental sustainability as an opportunity for improving competitiveness and obtaining economic benefits (Fürst and Oberhofer, 2012), there is still a great deal of uncertainty on how 3PLs implement environmental strategies and how they translate green efforts into practice (Lin and Ho, 2008). From the research viewpoint, this is reflected by a number of studies that have highlighted the hesitant behaviour of logistics companies in embracing environmental sustainability (Wolf and Seuring, 2010). In addition, the extant literature on green strategies of 3PLs is predominantly focused on large companies (Lieb and Lieb, 2010a) while the green attitude of medium-sized 3PLs is unclear and under-researched (Oberhofer and Dieplinger, 2014). Finally, most of the studies conducted on environmental

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sustainability in the logistics service industry provide findings from a single country perspective (see for example Maas et al. (2014) based on the German 3PL market and the study of Lun et al. (2015) presenting empirical data on the practices adopted by 3PLs operating in Hong Kong). There is a scarcity of comparative research providing evidences collected from 3PLs operating in different countries.

Given this background, the aim of this paper is to explore environmental strategies in a sample of medium-sized 3PLs operating in Italy and the UK. Following the above definition, the paper specifically analyses the environmental organizational culture, green initiatives, and influencing factors (drivers and barriers). Taking into account the role of medium-sized 3PLs in the Italian and UK logistics service markets, the paper is focused on these companies. Moreover given the importance of the Italian and UK logistics service markets in the European competitive scenario, the paper provides evidences based on a cross country analysis that could be of help in understanding differences and commonalities of green strategies adopted by 3PLs operating in varied contexts.

This paper is organised as follows. Section 2 presents a literature review providing the theoretical basis of the work and allowing for the identification of research questions. Section 3 summarises the adopted methodology. The main findings are presented in Section 4 and discussed in Section 5. Conclusions and implications for research and practice are drawn in Section 6.

#### 2. Literature review and research questions

On the basis of the definition of environmental strategy provided in the previous section, the literature review focuses on three areas: environmental organizational culture, green initiatives and influencing factors.

#### 2.1. Environmental organizational culture

The literature on green logistics and supply chain management (SCM) highlighted that organizational structures, climates, and cultures have an impact on the adoption of environmental sustainability practices (Zhu et al., 2008). In fact, organizations need to develop an organizational culture that fosters collaboration and proactive attitude among staff members at all levels to be able to turn sustainable strategies into practice (Wan Ahmad et al., 2016). Nevertheless, the literature on 3PLs has seldom focused on these aspects and the number of contributions in this area is relatively small. Rossi et al. (2013) proposed a framework to explore the environmental sustainability culture in the 3PL industry in terms of importance attributed to environmental sustainability, presence of an explicit environmental strategy, incorporation of it into the corporate strategy and primary and secondary responsibility for environmental issues within the companies. According to the authors, the primary responsibility includes the ownership of the process and the liability for setting policies and objectives, while the secondary responsibility involves the execution and reporting on environmental initiatives. Lin and Ho (2008) argued that embracing environmental sustainability by 3PLs requires a fundamental shift in the firms' culture. The survey they conducted found that the intention to adopt green innovations is positively associated to organizational capabilities and encouragement, the quality of human resources and the accumulation of green-related knowledge. Lieb and Lieb (2010b) surveyed a sample of 20 CEOs of large 3PLs operating in North America to understand the reasons for 3PLs being involved in environmental sustainability practices. Many of the surveyed 3PLs established formal programs in the area, but they also developed formal green/environmental sustainability statements, and appointed key individuals to lead related initiatives. These companies have collectively taken numerous steps to pursue green/environmental sustainability goals and "green" is a part of their corporate culture. This had raised environmental awareness within their organizations. Lin and Ho (2011) analysed the environmental practices in a sample of Chinese 3PLs and they found that organizational support, especially from top management, is essential in advancing green practice adoption as it gives employees motivation and resources to successfully implement environmental actions. Lammgard (2012) found that organizations' employees need a sufficient level of knowledge on environmental issues to meet requirements from external partners, e.g. customers. She concluded that embracing environmental sustainability from a strategic perspective requires structural changes and time. The work presented by Colicchia et al. (2013) also focused on the management of human resources within the organisation. They found that environmental training programmes at all levels are implemented and this has a critical importance in the achievement of companies' sustainability targets. Isaksson and Huge-Brodin (2013) also considered aspects such as organizational, personal, and cultural issues. They argued that employees' involvement when companies adopt green initiatives seems to be a significant factor. In relation to this, they found two different drivers to develop green initiatives in 3PLs: employees' initiatives (bottom-up approach) or management and board involvement (top-down approach). According to their study, the implementation of environmental actions follows two main trajectories: the first entails a broad approach to create a common awareness within the company (broad penetration): the second implies the allocation of different roles to different departments (functional specialisation). Finally the link between environmental issues and 3PLs' operations has been investigated by Palsson and Kovács (2014). Their findings indicate that environmental sustainability culture should be spread in the entire organisation and it should be reflected in the overall corporate strategy. A number of interesting issues may be derived from the analysis of the above papers. Firstly, there are no specific papers investigating environmental culture and organizational issues in the 3PL literature. All the studies considered devote little attention to organizational aspects. Secondly, most of these studies focus on the improvement of the quality of human resources involved in environmental actions, mainly through training initiatives and programmes. Thirdly, very few works analysed the link between the environmental strategy in the context of the overall corporate strategy and how the responsibilities for environmental management are organised and distributed among companies' functions and departments. Finally, most of the reviewed works focused on large logistics service providers. The combination of these arguments leads to inform the development of the first research question:

**RQ1**. How do 3PLs embed environmental sustainability in their culture and organisation?

### 2.2. Initiatives to reduce the environmental impact of transport and logistics services

Green initiatives may be defined as the set of actions and decisions necessary to mitigate the negative impact on the environment deriving from the activities carried out by a company (Klassen and McLaughlin, 1996). According to Zhu et al. (2007), the magnitude of green initiatives depends on the type and scope of the actions adopted by the companies participating in the supply chain processes. In the field of 3PL research several studies deal with the initiatives undertaken by logistics companies to minimise the environmental impact of their operations. Rondinelli and Berry (2000) emphasize the role of multimodal transport and provide a

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