Chapter 15
The Positive Effect of Social Responsibility Practices in the Transition Toward Eco-Logistics:
Evidence From the Italian Ceramic Supply Chain

Andrea Girardi
https://orcid.org/0000-0002-1589-7565
University of Modena and Reggio Emilia, Italy

Ulpiana Kocollari
University of Modena and Reggio Emilia, Italy

ABSTRACT

The logistics sector is an industry that significantly impacts the environment and society. Studies have investigated potential strategies to move toward eco-logistics by reducing companies' ecological and societal consequences. The environmental effects of logistics can be diminished by implementing resource and energy efficiency, while social responsibility policies improve the well-being of workers. This chapter analyses the environmental and social data of companies involved in the logistics sector of the Italian ceramic industry. The linear regression statistical model shows that, for logistics companies, increasing social responsibility practices significantly reduces emissions. The chapter highlights the relevance of investing in social responsibility practices as this contributes to emission reduction and, consequently,

DOI: 10.4018/979-8-3693-6175-7.ch015

the transition toward eco-logistics. This investment has an impact on reducing emissions and improving the environmental performance of logistics companies.

INTRODUCTION

The logistics sector has a relevant environmental and social footprint (Dzomira & Ndlovu, 2021). Logistics involves physically transferring goods from one point to another, including storage and handling hubs. Logistics is represented by activities aimed at ensuring the physical usability of a tangible product at a given point on the planet at a given time. At the same time, the environmental and social impacts of the logistics sector are highly relevant to the sustainability of the planet's ecosystems and populations (Smokers et al., 2014).

Environmentally, logistics has a very significant impact (Lambrechts et al., 2019; McKinnon, 2012; Ozmutlu & Arun, 2023). Transferring goods from production points to consumption points via storage hubs requires much energy and space (Piecyk & McKinnon, 2010). Consequently, the logistics sector heavily impacts the environment, especially the emission of pollutants into the atmosphere (Pan et al., 2013; Zhang et al., 2021). It has been studied that 14% of all greenhouse gas emissions are related to the logistics and freight transport sector. This percentage is even higher when only developed countries are considered (Stern, 2022).

From the point of view of social responsibility, the logistics sector has been indicated as potentially at risk for human rights compliance and workers' working conditions. Several recent scandals have highlighted that logistics companies have progressively implemented socially unsustainable practices over workers (Haron & Mahzan, 2019; Koenig & Poncet, 2019; Liu, 2022; Miao et al., 2012; Zieger, 2015).

For these reasons, research has explored possible strategies to reduce the environmental and social impacts of companies operating in logistics.

Some scholars have shown how emissions related to logistics activities can be reduced through the implementation of strategies that increase environmental efficiency while maintaining economic sustainability (Cholette & Venkat, 2009; Heikkinen, 2024; Nikolaou et al., 2013; Pan et al., 2013; Piecyk & McKinnon, 2010). These strategies include the introduction of shared emissions measures (Heikkinen, 2024), the saving of energy (Piecyk & McKinnon, 2010) through distance reduction (Cholette & Venkat, 2009; Pan et al., 2013) and reverse logistics (Nikolaou et al., 2013).

Other scholars have studied how social responsibility practices can improve the level of social responsibility of companies operating in logistics (Haron & Mahzan, 2019; Koenig & Poncet, 2019; Liu, 2022; Miao et al., 2012; Zieger, 2015). Given that logistics is sometimes associated with “modern neoliberal slavery” (Liu, 2022; p. 125), some research shows that social responsibility practices implemented by