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The dark side of ISO 14001: The symbolic environmental behavior

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ABSTRACT

Some of the academic research on ISO 14001 has focused on analyzing the benefits of its adoption. However, this international standard has also received some criticism, particularly in respect of the adoption of ISO 14001 when not accompanied by significant improvements in environmental performance. This study analyzes the relationship between the symbolic environmental behavior and the adoption of ISO 14001. In so doing, it uses binary logistic regression to analyze an international sample of 1961 manufacturing facilities that each employs more than 50 people. The results indicate that the higher the symbolic environmental performance of the firm, the greater the probability of adopting ISO 14001.

1. Introduction

Since the official launch of ISO 14001 in 1996, more than 320,000 organizations worldwide have certified their environmental management systems (EMSs)[1] through this standard (ISO, 2014). Numerous studies have shown the benefits that businesses can achieve by adopting ISO 14001: organizational (e.g., Delmas, 2001), commercial (e.g., Iatridis & Kesidou, 2016), those related to improving corporate reputation (e.g., Jiang & Bansal, 2003), and those related to stakeholders' management (e.g., Castka & Prajogo, 2013; Heras-Saizarbitoria & Boiral, 2013). However, several critics have questioned the symbolic manner in which some firms adopt this standard (Aravind & Christmann, 2011; Boiral, 2007; Yin & Schmeidler, 2009). Such symbolic adoption refers to the firm's use of ISO 14001 as a way to legitimize their environmental performance, seeking the support of the institutions but without necessarily implying a substantive environmental commitment (Aravind & Christmann, 2011; Delmas & Montes-Sancho, 2010; Iatridis & Kesidou, 2016). Initially, the primary motivation of the first firms that adopted ISO 14001 appeared to be to improve production efficiency (Russo, 2009) or to comply with legal requirements on environmental matters (Jiang & Bansal, 2003). However, nowadays, firms that choose to adopt ISO 14001 may be motivated to a greater extent by the increasing institutional legitimacy that it provides (Aravind & Christmann, 2011; Boiral, 2007; Castka & Prajogo, 2013; King, Lenox, & Terlaak, 2005; Yin & Schmeidler, 2009). For example, King et al. (2005) indicate that the adoption of ISO 14001 can reduce and even avoid the problems of asymmetric information in certain transactions (i.e., one of the agents does not have sufficient credible information about the environmental performance of the other agent involved). Thus, when firms prefer to give priority to external legitimacy rather than internalizing a substantive environmental performance (Delmas & Montes-Sancho, 2010), variations may occur in terms of environmental performance when they adopt particular environmental practices (Boiral, 2007), as in the case of ISO 14001. Aravind and Christmann (2011) have shown that the results of the environmental performance of firms that adopted ISO 14001 with a low level of implementation (i.e., firms that had not invested a great deal of time or resources in maintaining and updating their EMSs) were not significantly different from the results of firms that did not adopt ISO 14001.

The aim of this paper is to analyze whether a symbolic environmental behavior is related to the adoption of ISO 14001. This is based on the premise that managers do not choose to uniformly adopt ISO 14001 (i.e., adopting yes or no), but the result of their decision may also include the option of adopting the standard in a symbolic manner. To analyze this relationship this

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[1] An EMS is "*a formal system for articulating goals, making choices, gathering information, measuring progress, an improving performance*" (Florida & Davison, 2001: 64).

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study draws on data from a survey conducted by the Environmental Directorate of the Organisation for Economic Co-operation and Development (OECD) and uses binary logistic regression to analyze an international sample comprised of 1961 facilities in different manufacturing sectors. The results suggest a positive relationship between symbolic environmental behavior and the adoption of ISO 14001.

2. Benefits and criticism of the adoption of ISO 14001

The adoption of ISO 14001 can generate competitive advantage for firms (e.g., Darnall, 2006; Delmas, 2001; Russo, 2009) through the promotion and development of distinctive skills in organizational, commercial, and related stakeholder management. With regard to organizational skills, the adoption of ISO 14001 may represent a valuable and intangible resource because it provides an ideal frame for the effective development of an EMS (Delmas, 2001). Improvements in operational efficiency can emerge because ISO 14001 is based on the principle of continuous improvement (Bansal & Hunter, 2003). ISO 14001 promotes internal assessments in the consumption of energy and resources, the implementation of cost analysis in the life cycle, and other similarly advanced practices of environmental management that are directly related to the reduction in environmental impacts (Potoski & Prakash, 2005; Ferrón Vílchez & Darnall, 2016). In addition, the adoption of ISO 14001 is positively associated with the development of complementary resources and skills related to obtaining competitive advantage, such as the adoption of quality management systems or the investment in new technologies and innovation (Darnall, 2006; Darnall & Edwards, 2006).

With respect to business skills, the overall trend of the adoption of ISO 14001 facilitates international trade through the harmonization of environmental management standards (Christmann & Taylor, 2001, 2006). In the literature, the adoption of ISO 14001 has been considered as a possible solution for solving the problems of asymmetric information[2] between international trading partners (Christmann & Taylor, 2006; Heras-Saizarbitoria & Boiral, 2013; King et al., 2005; Montiel, Husted, & Christmann, 2012) due to the signaling[3] conferred by the adoption of ISO 14001. This signaling reduces the costs associated with the transactions that occur in the value chain (Christmann & Taylor, 2006; Delmas, 2002; Heras-Saizarbitoria & Boiral, 2013) as the adoption of ISO 14001 demonstrates that the firm meets certain requirements that are otherwise difficult for external agents (who are not involved in the internal processes of the firm) to observe (Montiel et al., 2012). Moreover, the adoption of ISO 14001 can award preferential access to foreign markets (Iatridis & Kesidou, 2016) that rely on ISO 14001 being widely recognized internationally (Delmas, 2002). In fact, even if the costs of adopting ISO 14001 can be high (Darnall, 2006), the pressure exerted by the markets and the customers is one of the main reasons why firms (especially those that implement advanced environmental management practices or are required to provide information about their environmental impacts) consider the investment in ISO 14001 to be worthwhile (Darnall, 2006; Delmas & Montiel, 2009; Jiang & Bansal, 2003). By adopting ISO 14001, firms can reap the benefits of credible signaling (King et al., 2005) and can thus legitimize their environmental performance (Aravind & Christmann, 2011).

In terms of skills related to managing stakeholders (e.g., customers, suppliers, labor unions, communities, environmental groups, regulators, etc.), the adoption of ISO 14001 is often motivated by *normative*[4] pressures. This is because the adoption of ISO 14001, being voluntary, facilitates and legitimates firm's environmental practices to meet the demands of stakeholders (Heras-Saizarbitoria & Boiral, 2013). For example, Castka and Prajogo (2013) found that secondary stakeholders (e.g., local communities, social groups, NGOs, etc.) might be influential when adopting ISO 14001 in firms interested in obtaining the benefits associated with the improved reputation that the standard can generate. In addition, those firms that continually seek innovative environmental solutions to address the pressures of external stakeholders (Henriques & Sadorsky, 1999) tend to adopt ISO 14001 in order to facilitate the integration of the demands of the stakeholders in the decision-making process (Castka & Prajogo, 2013; Delmas, 2001). Including the objectives of the stakeholders in the design of an EMS, and the subsequent adoption of ISO 14001, may involve the development of a valuable skill that is difficult to imitate by competitors because of the complexity and the inherent causal ambiguity of this process (Delmas, 2001).

However, despite these benefits, in recent years some of the literature on ISO 14001 has focused on highlighting the drawbacks associated with its adoption (Boiral, 2011; Boiral & Gendron, 2011; Heras-Saizarbitoria, Dogui, & Boiral, 2013). For example, from interviews with 189 employees (management and non-management), Boiral (2011) provided an overview of the main criticisms that arise in practice when adopting ISO 9001 and ISO 14001, such as the excessive bureaucratization required by the system, the limited character of continuity to assess the improvements obtained, or even the lack of rigor, focus, and confidence of audits carried out by third parties (Heras-Saizarbitoria et al., 2013). The current study aims to examine some of these criticisms, specifically those related to the symbolic adoption of ISO 14001. In this regard, several studies have argued that the adoption of ISO 14001 is not always accompanied by significant improvements in the firm's environmental performance (Yin & Schmeidler, 2009). One criticism is that the adoption of ISO 14001 is not necessarily associated with the development of organizational capabilities that enable the firm to achieve significant reductions in their negative environmental impacts. This is because ISO 14001 is focused on the process and not on the results to be obtained (Bansal & Hunter, 2003; Delmas, 2001). Significant differences in environmental performance may even appear among firms with ISO 14001, despite having similar characteristics such as operating in the same sector or having a similar size (Yin & Schmeidler, 2009). In fact, previous studies have found inconclusive, and even negative results on the relationship between the adoption of ISO 14001 and the firm's environmental performance (e.g., Jiang & Bansal, 2003; King et al., 2005; Lannelongue, González-Benito, González-Benito, & González-Zapatero, 2015; Yin & Schmeidler, 2009). Indeed, several studies have shown that there may be significant variations between firms in the development and implementation of ISO 14001 and that these variations can significantly affect the achievement of improvements in environmental performance (King et al., 2005; Yin & Schmeidler, 2009). For example, a study by Yin and Schmeidler (2009) found that a group of firms had adopted ISO 14001 and had "done only the minimum", thus transforming this adoption in a simple bureaucracy process. Thus, the adoption of ISO 14001 does not guarantee either a similar level of environmental performance nor consistency in the implementation of advanced environmental practices between undertakings (Boiral, 2011).

[2] Asymmetric information problems occur when information about a transaction between a supplier and a buyer is not available equally to both (King et al., 2005).

[3] The signaling is understood as activities that firms adopt in order to try to demonstrate that they have certain characteristics that, in other circumstances, would be hidden from third parties (Montiel et al., 2012).

[4] DiMaggio and Powell (1983) argued that organizations operating in similar institutional contexts tend to exhibit isomorphism, i.e., a consistent behavior pattern among them. Specifically normative isomorphism refers to the professionalization of certain management practices in the industrial sector.

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