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#### Research article

# Exploring the link between institutional pressures and environmental management systems effectiveness: An empirical study



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#### ABSTRACT

Institutional theory has been widely debated by scholars. A part of literature examines how institutional pressures act on company choices regarding proactive environmental strategies. However, the institutional perspective has still not completely clarified the influence of these pressures on the effectiveness of environmental management systems (EMSs) in achieving goals in terms of eco-innovation, competitiveness and corporate reputation. This paper analyses the role played by coercive, mimetic and normative forces in stimulating innovative and competitive responses by firms with an environmental certification. Using the results of a survey on 242 European EMAS-registered organisations, the paper highlights the more positive influence of mimetic and normative pressures than coercive ones. The paper contributes to the literature debate on EMSs analysed through the lens of institutional theory.

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#### 1. Introduction

The role of institutional pressures in the adoption of proactive environmental strategies has been widely debated in the literature, particularly in terms of the external pressures that drive firms to implement voluntary environmental strategies and to go beyond the performance levels required by environmental law (Darnall et al., 2010; Delmas and Toffel, 2004; Zhu et al., 2013). Some authors have studied the regulatory framework as a driver for the adoption of environmental strategies (Aragón-Correa, 1998; Daddi et al., 2014a; Dean and Brown, 1995; Testa et al., 2014a,b), while others have focused on the competitive aims of firms (Delmas and Pekovic, 2012; Goh Eng et al., 2006; Hart, 1995; Russo and Fouts, 1997). Many factors can drive companies towards voluntary environmental strategies. The fact that the same institutional pressures can lead to different behaviours by companies in terms of environmental strategies and, especially, in the way in which they valorize these strategies to better compete, can often depend on internal features of the organisation, the organizational structure and on their "management style" (Delmas and Toffel, 2012). The

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drivers can be either strategy/competition — led or "environment-led", dealing with the "external" sphere such as the desire to gain a competitive advantage or benefit from fiscal/normative incentives (Granly and Welo, 2014).

There are essentially two main approaches to explain the drivers: internal and external motivations. Internal motivations are, for example the need to improve management in three areas: environmental compliance, environmental performance and resource efficiency, and organizational and managerial capabilities and awareness (Heras-Saizarbitoria et al., 2011; Morrow and Rondinelli, 2002; http://www.sciencedirect.com/science/article/ pii/S0263237300000396Rondinelli and Vastag, 2000). External motivations include the need to obtain a third-party certification in order to boost the reputation in the eye of external stakeholders such as clients, public institutions, local communities, trade associations and NGOs (Christmann and Taylor, 2006; Daddi et al., 2011; Gonzàlez et al., 2008 Tourais and Videira, 2016). Different companies, run by different managers, are more keen to be subject to one type of pressure, rather than the other or, from the opposite perspective, are eager to take some kinds of opportunities by developing different responses to the pressure they feel the most. Several studies have investigated the firm responses to institutional pressures and if (and in which cases) these pressures lead to homogeneity or heterogeneity (Delmas and Toffel, 2004; Jennings and Zandbergen, 1995).

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However, only a few studies have investigated the link between the source of motivations and the benefits achieved through proactive environmental strategies. Some studies have analysed this relation from a practitioner perspective (Cascio, 1996; Tibor and Feldman, 1996; Woodside et al., 2004), highlighting how more motivated organisations are able to achieve greater benefits. Other authors have underlined the results that external and internal drivers can produce in terms of effectiveness of environmental strategies (Darnall, 2006; Kitazawa and Sarkis, 2000; Merli et al., 2016). Often, quantitative studies have only analysed the pressures and effectiveness of environmental strategies separately (Poksinska et al., 2003; Yiridoe et al., 2003; Zutshi and Sohal, 2004; Zeng et al., 2005), focusing on the relation between institutional pressures and the adoption of environmental practices (Delmas and Montes-Sancho, 2011), rather than the connections between pressures and the effectiveness of these practices.

To our knowledge, the relation between how the companies perceive institutional pressures to adopt management practices and the effectiveness of proactive environmental strategies has not been considered. The aim of this paper is thus, first, to study the connection between the perception of institutional pressures by manufacturing companies and the effectiveness of the proactive environmental strategies they adopt to respond to these pressures. Our results reveal whether a specific kind of institutional pressures can lead to a better company performance.

Second, the focus is on studying specifically those firms that are adopting "proactive environmental strategies", which can include: adhering to voluntary codes of conduct, auditing systems, environmental training of employees, voluntary external environmental communication and an environmental management system compliant with, for example, ISO14001. In our work, we consider a sample of organisations registered according to the EU Regulation for the Environmental Management and Audit Scheme (EMAS). EMAS is considered one of the most important voluntary policy instrument adopted by European firms (worldwide since 2009) and includes the same Environmental Management System (EMS) requirements as the ISO14001 standard (Testa et al., 2014a,b). The source of data is the largest survey on international EMAS companies carried out so far in Europe.

#### 2. Theoretical background and hypothesis development

#### 2.1. Institutional theory and environmental practices

The institutional theory addresses the central question of why all organisations in a field tend to look and act the same (DiMaggio and Powell, 1983). Institutions have been identified as "regulative, normative and cognitive structures and activities that provide stability and meaning for social behavior" (Scott, 1995). Examples of institutions include laws, regulations, customs, social and professional norms, culture and ethics. In the area of environmental management, it has been demonstrated that institutions can exert a constraining influence over organisations, called isomorphism, which forces organisations in the same geographical area (or even in an immaterial context, e.g.: a market segment or an industrial branch) to resemble other organisations that face the same set of environmental conditions or impacts (Hawley, 1968).

According to this theory, institutions exert three types of isomorphic pressures on organisations: coercive, normative and mimetic (DiMaggio and Powell, 1983; Greenwood and Hinings, 1996). Coercive isomorphism refers to pressures from entities that have resources on which an organisation depends. Normative isomorphism refers to the professional standards and practices established by education and training methods, professional networks and the movement of employees among firms (DiMaggio,

1988; Garud et al., 2007). Mimetic isomorphism is the imitation or copying of other successful organisations when an organisation is uncertain about what it should do. All these pressures cause isomorphic behaviours in organisations since they aim to achieve legitimacy from external institutions. Although there is considerable agreement in the institutional theory literature, there are some exceptions. For example, Kraatz and Zajac (1996) found little evidence supporting the constraints exerted by institutional pressures to obtain legitimacy by the organisations. And Philips and Zuckerman (2001) argue that is the middle status players of a certain market who feel the need to act legitimately. High-status players have the reputational capital to deviate from the institutional pressure, while low-status players have to do whatever it takes to survive, whether legitimate or not.

Although several authors have studied the relation between institutional pressures and proactive environmental strategies, few have analysed the relation between pressures and the effectiveness of the environmental actions that are adopted by businesses to develop their strategies in response to the different kinds of pressures. For example, Berrone et al. (2013) investigated whether greater normative pressures make environmental innovation more attractive for companies. The hypothesis was confirmed and the positivity of this relation was even greater in the case of highpolluting industries. Delmas (2002) studied the variation in the number of ISO14001 certifications (considered as a signal of organizational innovation in the environmental management area) across countries. The author observed how a specific institutional context can impact on the cost and the perceived benefits of implementing an EMS standard at the firm level, which therefore explains the differences in adoption across countries. Phan and Baird (2015) found a positive relation between institutional pressures and comprehensiveness, highlighting how a more comprehensive EMS has a higher performance, e.g. in terms of spurring technological innovation. Finally, Marano and Kostova (2016) studied how the institutional features of countries influence the adoption of Corporate Social Responsibility (CSR) practices by multinational enterprises. They observed that institutional pressures are more influential when they originate in countries where the company is economically dependent or when they come from leading countries in the CSR area.

## 2.2. Effectiveness of proactive strategies: innovation, competitiveness, corporate reputation

The relationship between EMS and eco-innovation finds its natural bridge in one of the key aspects of EMS: the principle of continuous improvement in performance. Rennings et al. (2006) investigated the impact of EMAS on technical environmental innovations and economic performance in registered sites in Germany. Their survey involved 1277 EMAS facilities, most of which "report a positive influence of the environmental management system in general on environmental process innovations". In another German survey, Frondel et al. (2008) investigated whether innovation among German manufacturing firms was associated with the adoption of an EMS. They found that it was not associated with EMS implementation nor with any other single policy instrument, at least in the minds of the interviewees. Instead, they found a correlation between the stringency of the environmental policy and innovation. Other authors have argued that the causal relationship between EMS and technological environmental innovations is ambiguous: instead of a clear causal relation, a complex dynamic interrelationship between these measures seems more likely (Ziegler and Nogareda, 2009). They suggest that environmental product innovations are positively related to the assessment of the environmental life cycle and with waste disposal.

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