



Research article

The impact of regulatory complexity upon self-regulation: Evidence from the adoption and certification of environmental management systems



Pelin Demirel ^a, Konstantinos Iatridis ^b, Effie Kesidou ^{c,*}

^a University of Southampton, Southampton, United Kingdom

^b University of Bath, Bath, United Kingdom

^c University of Leeds, Leeds, United Kingdom

ARTICLE INFO

Article history:

Received 10 May 2017

Received in revised form

30 October 2017

Accepted 7 November 2017

Keywords:

Environmental regulation

Self-regulation

Environmental management systems (EMS)

Corporate environmental responsibility

ABSTRACT

This article focuses on environmental management systems (EMS) and aims to enhance our understanding of the relationship between environmental state regulation and self-regulation. Unlike previous studies that treat state regulation as uni-dimensional and focus on externally certified forms of environmental self-regulation, this article takes a more nuanced approach. It looks at how direct and indirect state regulation and its stringency influence both non-certified in-house and externally certified adoption of EMS. Methodologically, the study differentiates from previous research by acknowledging the interconnected nature of in-house and external certification decisions, viewing these decisions as sequential. Based on a survey of 2076 UK firms, findings show that effective environmental protection entails collaboration between environmental state regulation and in-house adoption of EMS. Results also reveal that externally certified EMS substitute for state environmental regulation, filling the void that results from weakening state regulation in the context of neoliberalism.

Crown Copyright © 2017 Published by Elsevier Ltd. All rights reserved.

1. Introduction

This article aims to unveil the relationship between environmental state regulation and self-regulation (both in-house and externally certified forms of self-regulation). This relationship is increasingly important for policymakers who are looking to improve environmental performance with limited public resources. Yet, the way state regulation interacts with self-regulation is not clear, impeding policymakers' ability to enhance corporate environmental performance through self-regulatory tools. On one hand, studies in line with Porter hypothesis (Porter and van der Linde, 1995), indicate that strict state regulation complements self-regulation by triggering the adoption of voluntary self-regulatory tools for environmental protection (Berrone et al., 2013; Börzel, 2009; Short and Toffel, 2010; Testa et al., 2011). On the other hand, scholars view the rise in the adoption of environmental self-regulatory tools as a shift from *government* to

governance where non-state actors, such as corporations, increase their participation in regulatory actions (Albareda, 2008; Balleisen and Eisner, 2009; Hysing, 2009). In this context, state environmental regulation and voluntary self-regulation are conceptualized as adversaries or substitutes (Berliner and Prakash, 2013; De La Cuesta Gonzalez and Martinez, 2004; Gupta and Innes, 2014; Potoski and Prakash, 2013).

Despite the significance of this debate, theoretical and empirical insights on *whether*, and *how*, state regulation affects firms' decisions to adopt self-regulatory environmental tools (e.g. in-house Environmental Management Systems (EMS), ISO14001, Eco-Management Audit Scheme (EMAS)) remain non-coherent. Two particular shortcomings in the literature lead to this confusion.

First, with few exceptions (Potoski and Prakash, 2005; Prakash and Potoski, 2012), prior literature treats state environmental regulation as a key, yet one-dimensional, determinant of voluntary self-regulation. Hence, little attention is given to understanding which types of environmental regulation can stimulate voluntary environmental self-regulatory approaches. Nevertheless, in a globalized business environment, characterized by neoliberal deregulation attempts (Arsel and Büscher, 2012; Merino et al., 2010; Vogel, 2009), clarifying this relationship is crucial to ensure

* Corresponding author. University of Leeds, Leeds University Business School, Economics Division, Maurice Keyworth Building, Leeds, LS2 9JT, United Kingdom.
E-mail address: E.Kesidou@leeds.ac.uk (E. Kesidou).

effective corporate environmental performance.

Second, previous research examining the relationship between state environmental regulation and voluntary self-regulation (e.g. González-Benito and González-Benito, 2008; Russo, 2009) rarely differentiates between in-house and externally certified forms of self-regulation. Although the former is not new (Bansal and Bogner, 2002; Jiang and Bansal, 2003), and features in previous studies (Aravind and Christmann, 2011; Boiral, 2011; Demirel and Kesidou, 2011; Wiengarten et al., 2013), with evidence suggesting that significant proportions of firms might opt for in-house self-regulation (Lannelongue and González-Benito, 2012; Johnstone and Labonne, 2009), most research focuses solely on externally certified forms of environmental self-regulation.

Both the in-house and externally certified environmental self-regulation entail the development of an EMS consisting of management procedures that aim to improve the environmental performance of an organization by changing the organizational structure, procedures, and routines (Netherwood, 1998). The difference between in-house and externally certified forms of self-regulation is that in the former, organizations develop their own EMS and do not seek external certification. In turn, externally certified forms of self-regulation entail audits from accredited third party auditors to ensure that their EMS is aligned with the requirements of the standard (usually ISO 14001 or EMAS).

The distinction between in-house adoption and certification of environmental self-regulation is vital because those firms that choose in-house adoption are primarily seeking to reduce their production costs and to improve efficiency (Darnall et al., 2008; King and Lenox, 2001), whilst firms that opt for certification are oftentimes strategically aiming to enhance their legitimacy by signaling improved environmental performance to stakeholders (Castka and Prajogo, 2013). Certification is not simply a marketing device, but it has become a prominent mode of social and environmental self-regulation (Schneiberg and Bartley, 2008). It is used by various stakeholders to tackle information asymmetries and collective action problems (Potoski and Prakash, 2009), regulate global supply chains and correct market failures (Guthman, 2007). Given the different positioning and objectives of in-house and certified environmental self-regulation, the literature needs to tackle these separately (Bartley, 2011).

This article makes a theoretical contribution to the corporate environmental responsibility literature by examining the role of different state environmental regulations in determining firms' choice of voluntary environmental self-regulatory tools. In doing so, the paper teases out how the diverse dimensions of the regulatory regime, consisting of multiple regulatory tools, can generate diverse environmental self-regulation responses among corporations. We focus on the three most important dimensions of an environmental regulatory regime according to literature (Fronzel et al., 2007; Jiménez, 2005; OECD, 2010; Johnstone, 2007; Khanna et al., 2009) namely, (a) *direct instruments* (i.e. environmental regulations), (b) *indirect instruments* (i.e. environmental taxes), and (c) the *stringency of environmental policies*, and on *EMS* (both in-house and certified EMS), i.e. the most widely used self-regulatory tool for environmental protection (Fig. 1).

Drawing on the theoretical lenses of institutional economics (Bartley, 2011; Potoski and Prakash, 2009) and political theory (Abbott and Snidal, 2009; Eberlein et al., 2014), the article develops a conceptual framework where corporate voluntarily adoption and certification of environmental self-regulatory tools are influenced by public regulation in different ways. First, we argue that state regulation complements some forms of self-regulation, such as in-house EMS. Whilst state environmental regulation corrects failures in markets of responsible products and services (Akerlof, 1970), it

might not be able to address market failures fully, as no single governance actor, either public or private, has all the competencies required to enact effective common-interest regulation (Eberlein et al., 2014). The results of this study show that effective environmental protection entails collaboration between state regulation and voluntary self-regulatory tools (i.e. the in-house EMS). Second, we posit that other forms of environmental self-regulation, such as certified EMS, substitute for state regulation. This might be due to the diminishing role of the state resulting from the prevalence of neoliberal policies (Bartley, 2011). As a consequence, the resulting regulatory void is often filled by some form of self-regulation (Potoski and Prakash, 2009).

Methodologically, the article applies a novel technique in the environmental self-regulation literature by employing a two-stage nested econometric model, namely a bivariate probit with sample selection model, to estimate the determinants of firms' EMS in-house adoption and EMS certification. We follow innovation literature (Piga and Vivarelli, 2004) and model EMS in-house adoption and certification decisions in sequential order, using simultaneous econometric estimation methods (Berinsky, 2004). Consequently, determinants of these two interlinked decisions can be estimated more accurately compared to earlier literature that treats these decisions as exogenous in distinct probit models.¹ Our modeling strategy acknowledges the interconnected nature of the two decisions and views them as sequential; minimizing the risks of sample selection bias. Detailed econometric methodology is discussed in Section 3.

Empirically, we contribute to the literature by introducing new firm-level data from the UK. We utilize a dataset based on the UK's official Environmental Protection Expenditure survey. In doing so, this study becomes the first large-scale investigation of the in-house adoption and certification of self-regulatory tools for environmental responsibility in the UK and one of the few large-scale empirical studies related to EMS.

2. Theoretical framework and literature review

2.1. Understanding the relationship between state environmental regulation and environmental self-regulation

The literature highlights that globalization, the demise of the state, and societal demands for environmentally friendly practices are key socio-political developments in promoting voluntary environmental self-regulation (Vogel, 2005). These trends have created a complex regulatory environment in which the relationship between state environmental regulation and self-regulation is opaque. Previous studies have documented the political shift towards economic liberalism and the relevant support for the autonomy of the market in solving environmental problems. Main theoretical perspectives in this literature include the conceptualization of environmental self-regulation as decentralized institutions strategically used by firms for own benefit (King et al., 2005); institutional and resource-based views to analyze firms' motives for adopting self-regulation (Darnall et al., 2008; Heras-Saizarbitoria et al., 2011); institutional perspectives discussing firms' commitment (Boiral, 2007; Daddi et al., 2016; Delmas and Montes-Sancho, 2011; Phan and Baird, 2015); and insights from club theory to discuss how governments can promote adoption of environmental self-regulation (Kolln and Prakash, 2002; Prakash and Potoski, 2007). Additionally, various studies have looked into the corporate and environmental benefits of environmental self-

¹ The assumption of these models is that adopting an EMS and certifying it are two independent decisions with no synergies.

Download English Version:

<https://daneshyari.com/en/article/7478393>

Download Persian Version:

<https://daneshyari.com/article/7478393>

[Daneshyari.com](https://daneshyari.com)