Strategic flexibility, green management, and firm competitiveness in an emerging economy

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**A B S T R A C T**

Combining the dynamic capability perspective and institutional theory, this study examines how firms in emerging economies respond to green management pressures and measures what they gain by adopting green management practices. Drawing on data from 272 Chinese firms based on responses from two key informants in each firm, this study finds that strategic flexibility has a positive effect on the adoption of green management practices, and institutional support moderates this relationship by strengthening the positive effect. The study also advances a richer explanation of the link between adoption of green management practices and competitiveness by revealing the mediating role of organizational legitimacy in this link. These findings provide important implications for explaining how firms in emerging economies combine internal strategic flexibility and external institutional support to implement green management strategies, which in turn improves their legitimacy and competitiveness.

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1. Introduction

**Green management (GM)**, popularly known as “going green”, is often viewed as a proactive environmental strategy (Molina-Azorin et al., 2009). Nowadays, firms endeavor to conduct GM activities as required by both business ethics (Luchs et al., 2010) and corporate social responsibility (CSR) (Cruz and Pedrozo, 2009). From a business ethics perspective, GM can improve organizational performance while helping firms preserve or protect the natural environment (Aguilera-Caracuel et al., 2012). The CSR perspective, from another view, suggests that GM helps firms improve their environmental performance to meet the relevant expectations of stakeholders such as governments, stockholders, employees, customers, and community members (Bengtsson, 2008; Jackson and Apostolakou, 2010). Both perspectives require firms to adopt green practices actively (e.g., green design, green manufacturing, and green marketing), not only for their self-interests but also for social interests.

Because ethical business behaviors are often culturally and institutionally determined (Matten and Moon, 2008; Tan and Wang, 2011), green issues may be interpreted differentially in dissimilar cultures or institutions. However, most studies on the antecedents and outcomes of GM are conducted in developed economies, and consequently questions concerning the factors that facilitate or hinder the adoption of green management practices (GMPs) and the outcomes of these practices in firms operating in emerging economies have been under-explored.

Such research is important for two reasons. First, unlike developed economies, underdeveloped markets and institutional systems in emerging economies often engender environmental turbulences and a range of challenges for firms in such economies (Peng and Heath, 1996; Peng and Luo, 2000). These turbulences and challenges may cause ambiguity of GM-related outcomes and discourage firms from adopting GMPs (Rojšek, 2001; Branzei et al., 2004). Second, although China is “a global manufacturing base and a huge consumer market, it suffers from various serious environmental problems” (Lin and Ho, 2011: 67). Various pressures for GM have been imposed on firms operating in this context. Considering these conditions and constraints in emerging economy, it is necessary to ask: (a) What factors influence emerging economy firms to adopt GMPs? (b) How might they benefit from GMPs?

Recently, the body of research on GM is growing (Ambec and Lanoie, 2008). For example, Judge and Elenkov (2005) adopt the resource-based view (RBV) to examine how organizational capacity influences environmental performance. Delmas and Toffel (2004) base upon institutional theory to explain how institutional pressures affect firm green behaviors. These studies, however, generally adopt either an internal perspective (e.g., RBV) or an external perspective (e.g., institutional theory) as their theoretical basis. Few studies have combined these two perspectives to investigate both antecedents and outcomes of GMPs. We answer the aforementioned questions by employing two firm-level theories, the dynamic capability perspective and institutional theory, to explain the factors that contribute to variations in the GMP adoption and their effects on firm competitiveness.

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Firm-level resource investments in GM must be flexible to respond to the reversibility of these resource commitments (Rugman and Verbeke, 1998) due to substantial costs of compliance (Bansal et al., 2014), especially in emerging economies where firms typically face resource or capability deficits (Peng and Luo, 2000). Such strategic flexibility, defined as one dynamic capability that enables firms to rapidly and effectively reconfigure and reallocate resources and capabilities to respond to environmental changes (Sanchez, 1995, 1997), is a critical internal perspective for emerging economy firms to implement strategic practices such as GMPs. Take BYD Company Ltd., a fast-growing large manufacturer of automobiles in China, for example, these years they have accumulated various kinds of resources and capabilities, such as solar farm, battery energy storage station, and LED, which offer great flexibility to develop green products (i.e., electric vehicles). Therefore, this study posits from the dynamic capability perspective (Eisenhardt and Martin, 2000; Teece, 2007) that firms with strategic flexibility can employ, coordinate, and redeploy their firm-specific resources flexibly to effectively implement GMPs. Institutional theory provides an external perspective from which to explain green issues (Babiak and Trendafilova, 2011; Campbell, 2007; Herremans et al., 2009). Since firm-level activities are embedded in the specific institutional context (DiMaggio and Powell, 1991; Li and Atuahene-Gima, 2001) and are therefore influenced by institutional forces (Campbell, 2007; Jamal and Neville, 2011), institutional theory has been increasingly deployed in explaining green issues. Prior studies find that several relevant institutional forces (e.g., policies, regulations, norms) may play important roles in determining the degree to which firms may adopt GMPs (Menguc et al., 2010). Especially, governments in economic transition typically play a critical role in encouraging firm-level green behaviors in markets in which such concepts are unfamiliar (Özen and Kiskö, 2009; Rojek, 2001). For example, these governments interested in promoting GMPs can design supportive policies (e.g., financial support, technical assistance, and green-related manpower training) that offer economic incentives, reduce long-term uncertainties, and provide resources needed for adopting GMPs (Lin and Ho, 2011). In this study we use the term institutional support to represent such governmental institutions and policies.

Moreover, because some scholars have found that institutional support in emerging economies often complements dynamic capabilities (e.g., strategic flexibility) (Malik and Kotabe, 2009), the interactive effects of institutional forces and internal firm-level capabilities on GMP adoption should be tested. For example, Marcus and Geffen (1998) find that institutional (e.g., government and market) forces interacted with firm capabilities (e.g., learning capabilities) to influence pollution prevention competencies. Menguc et al. (2010) find that governmental regulation moderated the effects of entrepreneurial orientation on the adoption of proactive environmental strategy. We therefore investigate whether institutional support will moderate the role of strategic flexibility in GMP adoption.

As such, the relationship between going green and being economically successful is growing (e.g., Babiak and Trendafilova, 2011; Siegel, 2009). Bilgin (2009), for example, has developed a model showing how a firm might go green while achieving competitive advantage. Ambec and Lanoie’s (2008) comprehensive review regarding green benefits concludes that firms can indeed do well by going green. However, there are also opposite results. For example, some scholars claim that conducting GM would destroy firm competitiveness as it may deplete the use of firms’ strategic resources in profitable businesses (e.g., Saha and Darnton, 2005). These divergent empirical results suggest that prior studies focus mainly on explaining whether and why GM activities influence firm-specific performance and competitiveness. Less attention has been paid to the question of how firms benefit from conducting GMPs. Given these theoretical and empirical inconsistencies, we argue that the relationship between GMP adoption and firm competitiveness is more complex than a direct effect (Molina-Azorín et al., 2009), and some factors such as organizational legitimacy may play an intermediate role in this relationship.

Institutional theory helps to explain organizational legitimacy in GM research (Babiak and Trendafilova, 2011), because perceptions of a firm’s acceptability and legitimacy are affected by cognitive, normative, and regulative institutions (Scott, 1995). Such institutions offer social values, norms, and belief systems by which to judge firm-level commitment to green-related activities (Bansal and Roth, 2000; Berrone et al., 2013). Menguc et al. (2010) indicate that studying the role of legitimacy might help to understand how proactive environmental strategies generate competitive advantage. Therefore, we develop a hypothesis for testing the reinforcing role of organizational legitimacy in the relationship between GMP adoption and firm competitiveness.

Overall, this study has three objectives. First, using the dynamic capability perspective, we explore how strategic flexibility influences firm-level GMP adoption, extending work in the prior literature on GM determinants. Second, we identify and examine the specific conditions (e.g., institutional support) under which the effect of strategic flexibility on GMP adoption may vary. Finally, we investigate whether adopting GMPs enhances firm competitiveness in part through the reinforcing role of legitimacy, explaining how and in what way GM impacts firm competitiveness.

2. Theoretical background and hypotheses

Based on prior GM literature (Lee, 2009; Peng and Lin, 2008), GM is defined as a set of strategic behaviors designed to viably and economically design, commercialize, and use products and processes while achieving environmental responsibility in firms, communities, and the natural environment (Dwyer, 2009; Peng and Lin, 2008). This definition implies that specific GMPs may include protecting the environment, using resources wisely and responsibly, minimizing the consumption of natural resources (e.g., air, water, energy, minerals) in final goods, recycling and reusing goods to the extent possible, eliminating toxins that harm people in the workplace and communities, and so on (Marcus and Fremeth, 2009).

GM is fundamentally different from traditional management, which consists of socially complicated processes with outcome uncertainty and long-term investment features (Etzioni, 2007; Yu et al., 2009). For example, Marcus and Fremeth (2009) wonder whether consumers are willing to buy a wide range of green products. Thus GM outcomes cannot be easily measured by performance over any specific period, as it takes time for GMPs to generate enhanced competitiveness or profitability. For instance, GM is usually required to conform to government-imposed environmental standards. As Aguilera-Cacaceul et al. (2012) argued, however, implementing environmental standards initially requires a considerable investment in environmental technologies and processes. Moreover, because firms cannot fully appropriate the value of GM, Marcus and Fremeth (2009) regard GM as a type of public good.

In attempting to understand the motivation to go green, some scholars emphasize the ethical and social reasons for pursuing green CSR irrespective of financial implications, while others focus on profitability (Siegel, 2009). This research generally follows two streams. The first stream concentrates on the antecedents of adopting GMPs such as firm characteristics (e.g., corporate transparency, reputation, resources and capabilities, and managerial characteristics) and social factors (e.g., responsiveness to public pressure) (see Etzioni, 2007; Cuerva et al., 2014; Lee, 2009; Peng and Lin, 2008). The second stream emphasizes the outcomes of adopting GMPs, including green brand equity, green image, green competence, government and public endorsements, and performance improvement (Chen, 2008; Florida and Davison, 2001; Lee, 2008). In this paper, we consider both antecedents and outcomes of GMP adoption.
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