Long Range Planning xxx (2016) 1–15

Contents lists available at ScienceDirect

Long Range Planning

journal homepage: http://www.elsevier.com/locate/lrp

Management teams' regulatory foci and organizational units' exploratory innovation: The mediating role of coordination mechanisms

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We further current understanding about the role of management teams in driving exploratory innovation by proposing that the regulatory focus of an organizational unit's management team is a key antecedent of the unit's level of exploratory innovation, and by clarifying the organizational coordination mechanisms through which this antecedent generates the unit's exploratory innovation. Our results, based on a survey of 748 managers from 69 organizational units of a large multinational semiconductor company, indicate that the promotion focus of a unit's management team relates positively to the unit's exploratory innovation. In contrast, prevention focus has a marginal negative effect. These effects are mediated by the management team's use of decentralization and connectedness. Our research advances theory development regarding the micro-foundations of organizational innovation and increases our understanding of how the views of a unit's management team are reflected in the unit's level of exploratory innovation and therefore impact the unit's chances of survival.

Introduction

Exploratory innovation builds on new organizational knowledge and requires a departure from existing skills and capabilities (Alexiev et al., 2010; Benner and Tushman, 2003; Sidhu et al., 2004). In changing environments, exploratory innovation is an essential means to increase organizations' performance and chances of survival (Govindarajan et al., 2011; Nerkar, 2003; Phelps, 2010; Smith et al., 2010). However, for a variety of reasons, management teams may be reluctant to let their organizational units engage in high levels of exploratory innovation. For instance, they may dislike the uncertainty of its returns (Zhang et al., 2011), they may be subject to short-term efficiency pressures from financial analysts (Benner and Ranganathan, 2012), or they may not be willing to face the difficulties required for developing the new knowledge and capabilities (Dougherty and Hardy, 1996). As a result, the impact of the management team on the pursuit of exploratory innovation has emerged as an important research theme (Alexiev et al., 2010; Kristinsson et al., 2016).

Current studies in the upper-echelon literature (Hambrick, 2007; Hambrick and Mason, 1984) that seek to explain the impact of senior management teams on innovation have typically focused on their demographic attributes (Daellenbach et al., 1999; Papadakis and Barwise, 2002; Talke et al., 2011). However, recently, scholars have argued that psychological attributes of managerial decision makers may have a more profound impact on firm action as they are more directly linked to human behavior and decision-making (Antonakis et al., 2012; Carpenter et al., 2004; Gamache et al., 2015). In line with this, studies have started to examine senior managements' psychological characteristics may relate to organizational outcomes. Examples include the effect of senior managers' personality traits on organizational adaptation (Arnulf, 2012), the impact of CEO narcissism on takeover processes (Aktas et al., 2016), and the influence of top management team reflexivity on new product performance (MacCurtain et al., 2010).

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http://dx.doi.org/10.1016/j.lrp.2016.11.002
0024-6301/

Yet, theory development regarding how psychological attributes of a management team can drive exploratory innovation is scarce. Research typically argues that increasing market or technological discontinuities require the management team of an organizational unit to decide to increase exploratory innovation (Dowell and Swaminathan, 2006; Govindarajan et al., 2011; Nerkar, 2003). However, some studies have indicated that some management teams fail to do so, and consequently, put their units' chances of survival at risk (Jansen et al., 2009; Kaplan et al., 2003). Therefore, a better understanding of the upper-echelon-level psychological antecedents of exploratory innovation is necessary. In this paper, we argue that regulatory focus theory (Higgins, 1997, 1998) may be a powerful theory for better explaining why a management team increases exploratory innovation. By building upon the regulatory focus theory, we contribute by advancing theory development about how the management team of an organizational unit impacts the level of exploratory innovation of the unit, and provide new insights about why some management teams may decide to increase exploratory innovation, while others may not, or even decide to decrease it, despite being a part of the same industry or firm.

Regulatory focus is a motivational theory of goal pursuit, rapidly becoming prominent in the management and organization literatures (e.g., Das and Kumar, 2010; Kark and van Dijk, 2007; McMullen et al., 2009; Spanjol et al., 2011; Weber et al., 2011). Regulatory focus shapes people's decision making and how they then act; it is, for instance, a powerful antecedent of strategic inclinations (Crowe and Higgins, 1997), preferences (Wang and Lee, 2006), and behavioral change (i.e. Zhao and Pechmann, 2007). Prior research suggests that engagement in exploratory behaviors is determined by the forces of attraction to novelty and fear of threat (Bergman and Kitchen, 2009; Berlyne, 1966; Brown and Nemes, 2008). According to regulatory focus theory, receptiveness to novelty, risk-taking and change are regulated by the promotion focus, the mechanism for maximizing gains and seeking pleasure (Crowe and Higgins, 1997; Herzenstein et al., 2007; Liberman et al., 1999; McMullen et al., 2009). In contrast, prevention focus, the mechanism for minimizing losses and avoiding pain, emphasizes risk-avoidance and stability and favors what has been previously tried over novelty (ibid.).

To date, research on regulatory focus concentrates on individual-level outcomes. Hence, an understanding of the mechanisms by which managers' regulatory foci may affect higher-level outcomes, such as a unit's exploratory innovation, is limited (Gamache et al., 2015; Kark and van Dijk, 2007). We contribute to enriching such understanding by investigating the mediating role of coordination mechanisms. Studies on innovation argue that an important way by which senior managers may exert influence on organizational innovation is by putting in place coordination mechanisms (Cardinal, 2001). Traditionally, this literature highlights the importance of formal structural mechanisms (Damanpour, 1991), most notably centralization (Boumgarden et al., 2012; Miller and Dröge, 1986; Tsai, 2002; Zmud, 1982), by which a management team can coordinate the development of different levels and types of innovation. More recently, others have pointed to the value of more informal and voluntary modes of coordination, such as personal relationships between people, which cut through hierarchical levels and functions (Jansen et al., 2006; Tsai, 2002). However, whether and how a management team can exert influence on such informal and voluntary personal connections remains unclear (Adler et al., 2008; Mom, van den Bosch and Volberda, 2009). Moreover, empirically validated insights into how the different types of coordination mechanisms, i.e., formal and informal, foster exploratory innovation are scarce (Lawson et al., 2009; Jansen et al., 2006). Hence, to advance current insights into why and how a management team affects exploratory innovation, we contribute not only by introducing the regulatory focus of the unit's management team as a new antecedent of the unit's exploratory innovation but also by investigating the mediating roles of two different types of coordination mechanisms, namely through formal coordination mechanisms, such as centralization, and through connectedness, such as the informal lateral relationships among the members of the unit.

Finally, in the regulatory focus literature, there have been numerous studies showing the effect of organizational context on the individual or group (i.e. Brockner and Higgins, 2001; Rietzschel, 2011). In contrast, we extend the recent dialogue by suggesting that, when the group possesses sufficient power or authority, such as the power and authority a management team has in its organizational unit, it can shape the organizational context, and in particular, the coordination mechanisms of the unit in line with its regulatory foci. This finding is particularly useful for the emerging stream of literature aiming to better understand the diffusion of a particular regulatory focus throughout the organization (e.g. McMullen et al., 2009).

The remainder of this paper is structured as follows. First, we introduce the regulatory focus theory and develop the hypotheses. After that, we outline data collection and scales, following which we present the results from a survey of 748 managers from 69 organizational units of a large multinational semiconductor company. Finally, we discuss the implications of our study, and point towards areas of future research.

Theoretical framework

Regulatory focus theory and exploratory innovation

In the psychology literature, there are two kinds of ends an individual may struggle to attain; avoiding pain and seeking pleasure, and “this principle underlies motivational models across all levels of analysis in psychology, from the biological to the social” (Higgins, 1998: 1). On the other hand, the regulatory focus theory differs from its predecessors as it posits that avoiding pain and seeking pleasure are not the two extremes of a continuum, but are two separate mechanisms (i.e. orthogonal). According to this theory, all individuals try to both avoid pain and seek pleasure, although to differing extents (Tuncdogan et al., 2015). When individuals are focused more on prevention, they try to minimize