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Organizational networks and the process of corporate entrepreneurship: how the motivation, opportunity, and ability to act affect firm knowledge, learning, and innovation

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Abstract This paper develops a motivation, opportunity, and ability framework to examine knowledge sharing and organizational learning as a mean to drive entrepreneurship and innovation in complex organizational networks. Utilizing the theoretical linkages and antecedents suggested in established corporate entrepreneurship models that identify *what* is necessary for innovation to occur in existing organizations, we offer both a theoretical model and an additional tool of analysis looking at *how* corporate entrepreneurial activity emerges in organizational networks. Using survey data collected from 200 franchise operators of a single large hybrid organization, our results demonstrate how knowledge sharing and organizational learning are associated with the motivation, opportunity, and ability to act within the corporate entrepreneurial context. Moreover, this motivation, opportunity, and ability framework was observed to provide a complementary tool to traditional measures of CE (e.g., CEAI from Hornsby et al. in J Bus Ventur 17(3):253–273, 2002) as it provided insights into functional and process variables affecting corporate entrepreneurial activity. As such, this research introduces both practical and theoretical implications that further our understanding of how to develop, manage, and leverage corporate entrepreneurship in a complex organizational network to achieve both operational performance and entrepreneurial innovation.

Keywords Corporate entrepreneurship · Innovation · Organizational network · Motivation · Opportunity · Ability · MOA framework · Franchise

JEL Classifications M00 · M10 · M19 · L20 · L26 · L24 · L29

1 Introduction

The dynamics of today's discontinuous, complex, and global economy have challenged the tenets of traditional business operations. No longer can companies remain static—they must continually adjust, adapt, and redefine themselves (Morris et al. 2011; Schön 1973; Drazin and Schoonhoven 1996; Drucker 1988; Hamel and Prahalad 1996; Jelinek and Schoonhoven 1993; Kanter 1983; Leonard-Barton 1995). Requiring companies to abandon strict managerial practices concerned with the efficient and effective optimization of firm resources, the loss of the stable state has created a new competitive landscape which calls for

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the adoption of entrepreneurial strategy at the firm level in the quest for competitive advantage (Ireland et al. 2009; Schön 1973; Vanhaverbeke and Peeters 2005).

Known as corporate entrepreneurship (CE), this strategy refers to the pursuit of entrepreneurial actions and initiatives that transform the organization (Goodale et al. 2011). Organizational transformation in this context includes strategic renewal processes as well as the extension of the firm's scope of operations into new domains—each of which center on creating new markets, pursuing new business opportunities, or both (Guth and Ginsberg 1990). As such, CE offers a mechanism for organizations to cope with increasing complexity and high-velocity change in the external environment through continual exploration, exploitation, and internal adaption where innovation, or the development of knowledge that can be translated into new products, services, processes, administrative systems, or programs pertaining to an organization, its affiliates, and customers, lies at the heart of its practice (Morris et al. 2011; Eisenhardt and Tabrizi 1995; McGrath 2001; Schumpeter 1950; Damanpour 1991).

While the literature has developed various integrative models of CE that identify specific conditions and antecedents that allow for innovation to emerge within existing organizations (see Kuratko 2008; Morris et al. 2011; Ireland et al. 2009), the development of innovation itself does not guarantee successful and sustainable CE performance. That is, while scholars have most generally focused on the factors that are necessary to foster CE and innovation within an organization, it is important to understand not just what is necessary for innovation to occur within the organizational context, but also the mechanism through which innovation is developed, captured, and pervaded throughout an organization as it is successfully translated into CE activity.

Herein, the CE process is considered within a large firm that operates both corporately run and franchised stores. Examining CE within the confines of a franchise network not only provides a unique opportunity to better understand how CE can be fostered, captured, and leveraged to drive innovation in tightly structured corporate environments, but is also a necessary consideration in the wake of today's economic reality which has challenged the concept of the traditional organization (Falbe et al. 1998; Leblebici and Shalley 1996; Phan et al. 1996; Tracey et al. 2011). Augmented by competitive hybrid forms such as joint ventures, strategic alliances, and franchise chains, these new organizational networks provide an enhanced context for CE in the face of fierce and disruptive competition (Leblebici and Shalley 1996; Block and MacMillan 1993; Shane 1996). In this way, as the global market continues to redefine and reshape the dynamics of firm structures and organizational processes, it is necessary to understand not simply *what* is necessary to foster CE and innovation, but also the process of *how* it pervades throughout complex organizational networks to transform the organization through innovation performance (Falbe et al. 1998; Phan et al. 1996; Tracey et al. 2011).

In the current paper, we examine the mechanism through which CE exists—and innovation occurs—in organizational networks through knowledge sharing and organizational learning (Spender 1996; Kuratko 2008; Morris et al. 2011; Senge et al. 1990; March and Simon 1958; Cyert and March 1963). In doing so, we make a number of important contributions. First, we extend CE research into the domain of complex organizational networks and provide an analysis of information processing therein. Second, by extending the relationship among the antecedents to CE into functional variables affecting the process thereof, we offer an additional measure of analysis in both knowledge sharing and organizational learning and provide further levels of refinement for analyzing CE behavior through the consideration of the motivation, opportunity, and ability to act within the firm. Third, while the previous literature focuses heavily on the conditions necessary for the development of innovation, we investigate the mechanism through which innovation emerges within the CE context. That is, how innovation is both garnered and disseminated throughout an organization vis-à-vis a long-term orientation and knowledge-sharing mechanisms, and how these variables can work to promote organizational learning and, ultimately, entrepreneurial transformation. Fourth, we offer how knowledge sharing can act as a positive operational control structure as it works to capture and propagate innovation through the exchange of information throughout an organization. Finally, we take a first step in developing a novel lens to view the linkages suggested in the integrative models of CE (e.g., Ireland et al. 2009). By applying a motivation–opportunity–ability (MOA) framework to

CE, we offer a new lens through which to examine the process of CE. Consequently, this MOA framework can act as a tool providing insight into how corporate resources may best be used at targeted elements in the CE process as opposed to being completely generalized over a broad spectrum of antecedents.

The article proceeds as follows: First, we present our theoretical framework and present our model. Next, we conceptualize the organizational network and establish franchise networks as a viable testing ground for CE. We then review the extant literature on CE to examine innovation as it relates to information processing within organizations, knowledge sharing, and organizational learning in order to establish the current view of organizational transformation. Next, we examine a MOA framework as a tool to examine CE and demonstrate how it effectively captures knowledge sharing as predicated by the developed antecedents for CE (Ireland et al. 2009; Kuratko et al. 2004; Morris et al. 2011). We then work to demonstrate how a CE strategy at the firm-level works to support CE activity. As part of this theoretical development, we establish several hypotheses as well as an empirically testable model. From there, we discuss the sample, measures, and analytical techniques in Sect. 3 and then present our findings in Sect. 4. Finally, we discuss the implications of our work with regard to the field of CE, identify the limitations of our study, and review the opportunities for future research.

2 Theoretical development and hypotheses

2.1 Overview, theoretical framework, and model development

Arguing that firms with valuable, rare, and inimitable resources have the potential of achieving superior performance, the resource-based view of the firm has dominated corporate strategy (Barney 1991, 1995). Resources, which are predicates of a firm's production process (Barney 1991; Wiklund and Shepherd 2003), can be separated into those that are intangible (knowledge-based) and those that are tangible (property-based) (Miller and Shamsie 1996). Since the origin of most tangible resources lies outside the firm, it follows that competitive advantage is more likely to arise from the intangible, firm-specific knowledge which enables it to add value to the organization in a unique manner (Spender 1996). Accordingly, scholars have begun to focus on the firm's knowledge and its ability to generate knowledge with the emergence of the knowledge-based view of the firm (e.g., Grant 1996).

In this view, knowledge-based resources are considered particularly important for providing sustainable competitive advantage (Wiklund and Shepherd 2003) as they work to facilitate competitive differentiation (McEvily and Chakravarthy 2002), improve firm performance, and play an essential role in the firm's ability to be entrepreneurial (Galunic and Eisenhardt 1994) as innovation is a product of knowledge generation (Castells 2001). However, as the knowledge-based view extends itself into such theories of innovation and organizational learning, including the strategic management of the knowledge these processes create, it must move beyond the traditional management and optimization of static resources and presume a more dynamic position. That is, in addition to the resources themselves, the organizational and strategic processes of firms are necessary to consider as they both enable the discovery and exploitation of opportunities for the organization and work to facilitate the manipulation of resources into value-creating strategies (Wiklund and Shepherd 2003). Ultimately governed by the cognitions of the organization, this view of the organization forms the critical theoretical underpinnings of the modern knowledge-based organization (Gavetti et al. 2007). Focused on the process of organizational learning, adaptation, and entrepreneurial transformation, we look to a dynamic theory of the firm (Spender and Grant 1996; Gavetti et al. 2007; Kuratko 2008; Senge et al. 1990; March and Simon 1958; Cyert and March 1963; Porter 1991) as we present our theoretical model in Fig. 1.

As we look to establish our model throughout the remainder of our essay, we will work backwards, starting first with our dependent variables as we examine the role of organizational learning within the CE process and how it is ultimately predicated upon knowledge-sharing activities. With knowledge established as the basis of innovation, and thus CE, we then turn our attention to further discuss the importance of knowledge throughout the organizational network and review how the functional variables of motivation, opportunity, and ability each affect knowledge sharing and, ultimately, CE. Finally, we examine the temporal

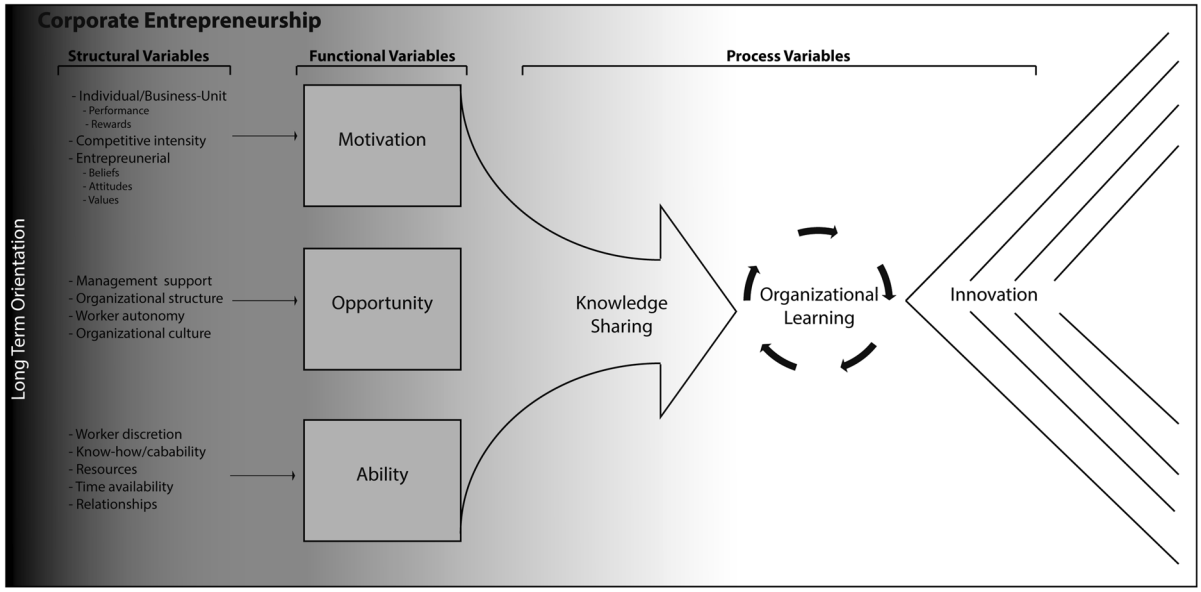

Fig. 1 Theoretical model of corporate entrepreneurship (CE)

orientation of the organizational network and how it affects this CE process.

The core intent of our model is to explain how CE is dependent upon the knowledge developed within an organization and how corporate-level innovation, and ultimately transformation, emerges out of knowledge-sharing activities. We propose that the antecedents of CE (Kuratko et al. 2004; Ireland et al. 2009; Morris et al. 2011) are embedded in this process as structural variables—providing a context in which employees at every level of the organization can become independent agents, take responsibility, experiment, and learn as they strive for continuous innovation and improvement in the firm's entrepreneurial transformation (Spender and Grant 1996). Further, we look to the literature surrounding a dynamic theory of the firm to build on these well-established organizational antecedents and develop a framework that captures the process through which CE exists, and innovation emerges, within an organization. Offering a motivation, opportunity, and ability (MOA) framework to explain the information processing within the firm, the central contention in our model is that motivation, opportunity, and ability exist as functional variables to facilitate the CE process, which is characterized by knowledge sharing and organizational learning (Argyris and Schön 1978; Morris et al. 2011; Schön 1973; Senge et al. 1990; O'Reilly and Tushman 2011). Herein, motivation refers to an individual's willingness to act; opportunity represents an environmental situation that demonstrates a favorable juncture of circumstances for enabling action; and ability refers to the talent, skill, or proficiency in a particular area related to the action, where action in each case is knowledge sharing as a CE behavior (Kuratko et al. 2004; Ireland et al. 2009; Morris et al. 2011; Rothschild 1999; McMullen and Shepherd 2006; Siemsen et al. 2008). Moreover, while innovation and knowledge resources have been observed to be largely ineffective, except in the long term (Teece et al. 1997), we proposed the additional structural variable of long-term orientation. Defined as the belief that knowledge sharing with exchange partners in an organizational network is so important as to warrant maximum effort to maintain the relationship (Griffith et al. 2006), a long-term orientation is viewed to facilitate CE behavior within the firm. In order to understand the dynamics of CE, innovation, and knowledge sharing within an organizational context, however, we must first understand the organization.

2.2 Organizational networks: a new type of organization in today's economic reality

While traditional strategy views the firm as a unitary bundle of resources where managers are rule makers and employees are rule followers, the information age has introduced changes in the global economy that

treat organizations instead as enduring alliances between knowledge-creating entities (Spender and Grant 1996). Be they individuals, teams, or separate affiliates or organizations altogether, these alliances are focused primarily on enhancing the firm's knowledge, or its ability to generate knowledge, and have spawned the emergence of complex organizational forms (Leblebici and Shalley 1996; Block and MacMillan 1993; Shane 1996). Including dynamic networks (Miles and Snow 1986), strategic alliances (Harrigan 1986), strategic networks (Jarillo 1988), franchise systems (Shane 1996), and joint ventures, these hybrid forms require a new understanding of the concept of the "organization" as the sharp distinction between traditional organizations and their boundaries no longer remain (Leblebici and Shalley 1996). Instead, complex interfirm and intrafirm arrangements of transactions have redefined traditional business operations (Williamson 1985, 1991). In this way, it becomes necessary to reconceptualize the organization not as a noun denoting an entity, but instead as a verb describing a process of organizing the relationships among two or more interdependent transacting parties (Leblebici and Shalley 1996). This hybrid form of organizing, then, presents a new organization that is no longer centered on a strict vertical hierarchy but rather is composed of relational networks and is largely knowledge-based in nature (Spender 1996; Spender and Grant 1996).

Referring to these hybrid forms more generally as organizational networks in order to both illustrate and capture the dynamics within these new corporate forms in the context of today's global economy (Weick et al. 2005), we look to the franchise system as a case study to explore CE. Franchises, in particular, are representative of modern organizational networks as the parent organization (the franchisor) and the local unit (the franchisee) establish and maintain a quasi-firm arrangement to create value (Leblebici and Shalley 1996). In this way, franchises provide a useful laboratory for examining the processes and cognitions of the complex organizational networks in which they are embedded (Shane 1996). Moreover, while organizations are described to exist as a system of interrelated units, divisions, networks, or roles (Simon 1991), this conceptualization of the modern firm as an organizational network can be extended to include the traditional firm, although the former is not necessarily represented in the latter. Throughout the remainder of this essay, we will use the term *organization* to denote the idea of the corporation existing conceptually as a unitary firm while we will use *organizational networks* to denote distinctively the characteristics of the modern, hybrid firm and its complex intricacies of alliances, units, and related actors.

2.3 Organization networks and corporate entrepreneurship: the case of the franchise

Much of the early work on organizational networks was centered on resource scarcity challenges, examining how firms could use their organizational units to source both financial and human capital to grow quickly and build both scale and scope (Castrogiovanni et al. 2006; Shane 1996). Nevertheless, researchers began to find that even firms that were not constrained by resources were utilizing organizational networks to continue to grow and profit (Davies et al. 2011). Leaving resource scarcity theory to only partially explain why companies might engage in networked operations, scholars looked to agency theory, which then became a dominant theoretical lens to view organizational networks—seeking to understand how to align organizational networks so that they performed and executed in a way that maximized the return to the principal organization. This view of the organizational network relationship is akin to traditional Western management strategy, which is characterized by the optimization of the organization's business units and resources therein through strict managerial control (Morris et al. 2011). However, just as corporate strategy has evolved to incorporate an entrepreneurial orientation at the firm level, this same phenomenon has been extended to organizational networks (Falbe et al. 1998; Tracey et al. 2011; Leblebici and Shalley 1996). Explained by neither resource scarcity nor agency theories, firms are now looking to their organizational networks for their innovative potential—marking a departure from the top-down strategy traditionally associated with conventional organizational vertical hierarchies.

Adopting a CE perspective, this strategy of organizational networks takes a more democratic notion of the firm as it values knowledge and, more importantly, its ability to generate knowledge as predicates to innovation (Spender 1996). Recognizing the value gained from customers' ideas, the insights garnered by

those that interact directly with customers, and the learning of employees who undertake different activities in the process of operating (von Hippel 1994), organizational networks are looking to capture the various insights and innovations developed both in the field and by the specialized units embedded therein (Phan et al. 1996; Love 1986; Spender 1996). For instance, franchise networks who effectively operate in this strategic manner allow, in turn, for the parent organization to extract innovation and knowledge that is uniquely developed by those franchisees serving not strictly as organizational units or employees, but rather as entrepreneurs and innovation engines for the organization (Spender 1996). That is, seeking to maximize their own unit's profitability, franchisees have been observed to both innovate and accumulate knowledge within local markets, which can then be captured, diffused, and leveraged throughout the entire organizational network by the principal in order to benefit firm performance at large (Phan et al. 1994, 1996). Consider organizational network (franchisee) innovations such as the adoption of Applebee's tablet-based ordering and Subway's five-dollar foot-long campaign, which have since been acknowledged and adopted to benefit their parent organizations as formal corporate campaigns. In this way, franchisees—and other organizational units alike—can act as corporate entrepreneurs within their larger organizational networks by developing innovative initiatives based on their specialized knowledge of markets and organizational processes (Baucus et al. 1996).

In order to facilitate the development of such corporate innovations, scholars have called for an organizational reliance on entrepreneurial principles that exist at the structural level of the firm (Brandt 1986; Pinchot 2000). Offering specific organizational antecedents such as culture, employee incentives, management support, tolerance for risk, resource allocation, and corporate structure, the literature has both examined and described a number of variables that all work to increase the levels of innovation and entrepreneurial activity within the organizational context (see Kuratko 2008; Morris et al. 2011; Ireland et al. 2009). Together, these factors work to establish an effective framework for CE that supports and drives innovation within existing organizational networks (Guth and Ginsberg 1990; Ireland et al. 2009; Kuratko et al. 2004).

Nevertheless, the mere development of innovation within an organizational network does not guarantee innovation performance at the firm level. Deliberate mechanisms must exist to consistently identify, capture, and coordinate corporate innovations (Tracey et al. 2011). That is, many corporate innovations are observed to occur at lower levels of the organization, or in isolated environments altogether—at the level of the organizational unit, for example—requiring specific intentions to propagate the knowledge generated therefrom (Getz and Tuttle 2001). Therefore, the ability of those factors that work to support CE and innovation are dependent upon a firm's ability to judiciously leverage the appropriate, corresponding mechanisms that work to select, guide, and disseminate entrepreneurial actions, initiatives, and knowledge across the organizational network to enhance the production and competitiveness of the firm at large (Goodale et al. 2011; Morris et al. 2011; Tracey et al. 2011; Shane 1996).

2.4 Knowledge sharing, organizational learning, and corporate entrepreneurship

While literature has developed various integrative models of CE (e.g., Ireland et al. 2009) that identify specific conditions and antecedents that allow for innovation to emerge within organizational networks (see Kuratko 2008; Morris et al. 2011; Ireland et al. 2009), the development of innovation itself does not guarantee successful and sustainable performance at the firm level. It must transcend the organizational barriers and gaps and be disseminated throughout the entire firm. In this way, exploration, adaptation, and innovation are dependent on the organization's ability to learn (Argyris and Schön 1978; Schön 1973; Senge et al. 1990). That is, while innovation is, by and large, a function of knowledge generation (Castells 2001: 52), firms must be adept not only at developing, but also at capturing, appropriating, and exploiting the knowledge developed throughout its organization. Thus, CE scholars have called for the development of learning organizations, which refer to institutions that are capable of bringing about their own continuing transformation—improving themselves through their capacity to leverage their own knowledge and experiences to both learn and innovate (Argyris and Schön 1978; Busenitz et al. 2003; Morris et al. 2011; Senge et al. 1990). As such, organizational innovation and

transformation, and thus CE, is largely predicated on information both generated by and shared throughout the organizational network and the job of management effectively becomes to understand, guide, and influence this transformative knowledge in order to promote organizational change (Schön 1973).

Nevertheless, because organizational networks exist as a system of interrelated units, or roles (Simon 1991), corporate entrepreneurial activities and insights (e.g., exploration and innovation) tend to occur in isolated environments—within singular departments, business units, divisions, joint ventures, strategic partners, franchises, etc. This decentralization of knowledge, then, means that a firm's most attractive entrepreneurial opportunities often lie at the individual unit, placing much of the burden of corporate entrepreneurship on the firm's ability to identify, harvest, and disseminate new knowledge throughout the organization and its network affiliates. Simon (1991) explained how each individual unit is affected by the enactment of the other units that surround it and interact with it. As such, the sharing, or transfer, of knowledge throughout an organizational network is critical for an organization's ability to adapt and thus, effectively innovate at the firm level (Kogut and Zander 1992). Therefore, organizational networks must employ formal systems to control, disseminate, propagate, and exploit firm knowledge generated through innovation and exploration (Grant 1996; Kogut and Zander 1992; Spender and Grant 1996). This argument suggests the first hypothesis we examined:

Hypothesis 1 In the context of corporate entrepreneurship, the greater the levels of knowledge sharing throughout an organizational network, the greater the levels of organizational learning.

2.5 Motivation–opportunity–ability framework and corporate entrepreneurship

Largely predicated upon knowledge sharing within the firm, CE is characterized not simply by corporate-level innovation, which is the result of the corporate entrepreneurial process, but rather by knowledge sharing and organizational learning—from which innovation emerges (Spender 1996; Argyris and Schön 1978). This process, however, is limited to several functional variables within the organizational network including the motivation, opportunity, and ability to leverage and direct such efforts (Argyris and Schön 1978; Morris et al. 2011; Schön 1973; Senge et al. 1990; O'Reilly and Tushman 2011). While motivation, opportunity, and ability have each been described to predicate entrepreneurial action in the presence of knowledge, a MOA framework effectively captures CE activity explained by the individual or unit's beliefs regarding (1) whether an environmental stimulus presents an opportunity for the knowledge within an organizational network and/or marketplace (opportunity), (2) whether this opportunity could feasibly be shared or coordinated throughout the organizational network (ability), and (3) whether successful exploitation of this opportunity would fulfill some personal or organizational desire (motivation) (McMullen and Shepherd 2006: 133).

To date, a MOA framework has been theoretically developed and empirically tested as a robust theoretical lens that offers insights into knowledge sharing and performance enhancements (Blumberg and Pringle 1982; Boudreau et al. 2003). Traditionally, it has been applied to a number of areas within the management arena, investigating: consumer behavior and decision-making (MacInnis et al. 1991, Pieters et al. 1998); risk analysis and information sharing at the firm level (Wu et al. 2004); opportunity recognition (Bendoly and Hur 2007); and in the study of the activation and influence of social marketing (Binney et al. 2006). More recently, however, the MOA framework has been used to investigate knowledge creation and transfer processes within and between firms (Argote et al. 2003) where the framework has proven robust in identifying the linkages necessary for managing knowledge and innovation throughout an organization in an integrated and cohesive manner. Accordingly, we introduce the MOA here as a tool to examine CE, and with the absence of any of the three, the process fails to operate effectively.

2.5.1 Motivation

Defined as an individual or unit's willingness to act (Rothschild 1999; Siemsen et al. 2008), motivation is decisive to the emergence of CE behavior, which includes both knowledge generation and knowledge sharing within an organization network (Stevenson and Jarillo 1990). The tendency to engage in

knowledge sharing and CE behavior is the result of the interplay between an individual or unit's beliefs, attitudes, and values; competitive intensity; and performance outcomes or rewards for doing so (Zahra and Covin 1995; Zahra 1993). Within an organizational network, pro-entrepreneurial organizational antecedents work to promote the motivation for knowledge sharing as the exchange of information creates value for both parties, leading to innovation performance (Morris et al. 2011; Hornsby et al. 2002; Spender 1996). Therefore, we hypothesize:

Hypothesis 2a In the context of corporate entrepreneurship, the greater the motivation to act, the greater the knowledge sharing in an organizational network.

2.5.2 *Opportunity*

Whereas motivation addresses the cognitions of the actors within an organizational network, opportunity is focused on the context through which CE behaviors play out. Researchers have long contended that opportunity is central to an organization's ability to behave in an entrepreneurial manner (Morris et al. 2011; Stevenson and Jarillo-Mossi 1986; Zahra 1993). Defined as an environmental situation that demonstrates a favorable juncture of circumstance for enabling action (Rothschild 1999; Siemsen et al. 2008), opportunity proves the context through which knowledge sharing can occur. Supported by structural factors such as management support, worker autonomy, and a pro-entrepreneurial organizational design and culture, these antecedents work to facilitate the opportunity to engage in knowledge-sharing activities (Morris et al. 2011; Hornsby et al. 2002). Thus:

Hypothesis 2b In the context of corporate entrepreneurship, the greater the opportunity for action, the greater the knowledge sharing throughout an organizational network.

2.5.3 *Ability*

Finally, ability deals with the capabilities within the organizational network. Defined as the talent, skill, or proficiency in a particular area related to the action (Rothschild 1999; Siemsen et al. 2008), ability concerns itself with whether an opportunity could feasibly be shared or coordinated throughout the organizational network (McMullen and Shepherd 2006). Constrained by organizational factors such as know-how, resources, and time capabilities, pro-entrepreneurial organizational networks provide worker discretion and network access to promote the individual or unit's ability to engage in knowledge-sharing activities (Morris et al. 2011; Hornsby et al. 2002). Accordingly, we offer:

Hypothesis 2c In the context of corporate entrepreneurship, the greater the ability to act, the greater the knowledge sharing throughout an organizational network.

2.6 Long-term orientation, organizational learning, and the MOA framework

Researchers Morris et al. (2011) have described CE as a vision-mediated process where change must be institutionalized as the organization's goal. While pursuing innovation as a mean of obtaining a sustainable competitive advantage has become the imperative of the twenty-first century (Kuratko 2009), organizations must adopt a long-term orientation (LTO) that is fueled by a persistent sense of urgency, which refers to an absorbing sense that organizational survival depends on transformation (Morris et al. 2011). Nevertheless, this urgency does not necessarily call for expediency or change for the sake of change, but rather, a LTO must be intentional and integrated as part of the corporate strategy.

Firms wishing to engage in CE activity must foster a LTO to promote knowledge sharing throughout the organization. That is, individual units of a business must be directed to interact and exchange with others to ultimately benefit both the individual units and the firm as a whole. Griffith et al. (2006) contended that when considering the interactions of multiple units, a LTO is best supported when an exchange partner believes that the on-going relationship is so important as to warrant maximum effort in maintaining the relationship. Moreover, research has shown that partners in relationships will accept short-term inequities and relational challenges when partners agree that the long-term relationship will be mutually beneficial and will operate more efficiently and more equitably than any short-term challenges that are encountered (Ganesan 1994; Morris et al. 2011).

In this way, a LTO is supported by a history of many individual transactions as well as the

expectation of many more interactions in the future. Accordingly, the overall stability of the relationship of exchange partners is enhanced via a decreased reliance on individual transactions as the basis for judging the value of the overall relationship and a shift toward future benefit (Lusch and Brown 1996). When partners in a relationship perceive it to be "long-term," studies have found that they experience decreased conflict, increased satisfaction, and a stronger reliance on relational behavior (Griffith et al. 2006). Relational behavior suggests the partners focus more on long-term rewards then on short-term inequities or conflicts (Ganesan 1994). Consequently, partners—whether they are interfirm or intrafirm—can be expected to provide a better environment for both partners to reap information and drive innovation through knowledge exchange (Lusch and Brown 1996).

While we have already worked to establish knowledge sharing as a formalized control system that works to support the CE process, a LTO is the fundamental vision that drives this behavior to occur. Likened to a clear goal, or set of goals, for an organization, a LTO works to promote structure to the chaotic process of entrepreneurship by absorbing uncertainty and creating focus toward future development and growth (McGrath 2001). The behavioral learning and strategic management literature contends that goals can be leveraged to advance organizations and the clearer vision of these goals, the more meaningful they become in terms of motivation, opportunity, and ability (Levinthal and March 1993; March and Simon 1958; McGrath 2001). Consequently, we hypothesize:

Hypothesis 3a In the context of corporate entrepreneurship, a longer-term orientation is more positively associated with the motivation for knowledge sharing than a shorter-term orientation.

Hypothesis 3b In the context of corporate entrepreneurship, a longer-term orientation is more positively associated with the opportunity for knowledge sharing than a shorter-term orientation.

Hypothesis 3c In the context of corporate entrepreneurship, a longer-term orientation is more positively associated with the ability for knowledge sharing than a shorter-term orientation.

For this analysis, we plan to examine the direct and indirect effects of LTO, but now turn to our methods to review the study design.

3 Methodology

3.1 Sample

A firm's corporate entrepreneurial activity is typically operationalized from the perspective of its employees (e.g., Hornsby et al. 2002). While most corporate entrepreneurship studies have looked to traditional unitary forms of organizations, the complex, global economy has introduced new, hybrid organizational forms that have caused theorists to call for a reconceptualization of the organization (Shane 1996). Extending the corporate entrepreneurship literature into this domain, the current study uses survey data collected from 200 franchisees of one large organization ($5,000,000,000 +in annual revenue) that attempts to use its franchise network (300+ stores) to develop corporate-level innovation and entrepreneurship for the balance of its company-operated stores (500+ stores). This organization wanted to empirically assess its current CE efforts as it looked to capture innovation form its franchise operators. Consequently, the corporation provided us the names and contact information for each of its 294 franchise operators.

The surveys were administered via an online survey website tool, and using the email addresses provided by the corporation for the franchisees, individualized links were emailed to each potential respondent. During pre-survey conferences with the vice president overseeing franchising, all parties were assured of the confidentiality of the responses although the researchers maintained visibility of responses by individual operator via the individualized survey links. Response rates were very high: 288 franchisees were sent emails with invitations to take the survey and we received 200 responses (68.0 % response rate). All data were collected within a 14-day window, beginning on August 23, 2013. In order to increase our response rate, after 1 week a reminder email was sent to all respondents who had not submitted a survey, followed by a second reminder after 10 days for those respondents who still had not submitted a survey.

After the data collection, we assessed non-response bias by comparing early responders (those who responded in the first week) with those who responded late (those who responded after the second reminder email) (Byrne 2006). We found no significant difference between the early responders and the late responders. The result of this test, coupled with our

high response rates, suggests that non-response bias may not be a primary concern in our data.

3.2 Variables and measures

Table 1 displays the constructs used in this study, the formal definition of each construct, the measurement items used for each construct, and the foundational papers from which the measures were taken. While our measures used in this study were adapted from prior studies (see Table 1), we established their face validity through our field studies, interviews, and pilot tests with senior management who were not part of our sample frame. All scale items were assessed on a seven-point Likert-type scale ranging from "strongly agree" to "strongly disagree," where 1 and 7 represent the anchoring ends of the spectrum (strongly agree and strongly disagree, respectively). Our reliance on self-report data from single informants introduces the potential of common method variance. Therefore, we applied Harmon's one-factor test to address this concern (Podsakoff and Organ 1986). Therein, exploratory factor analysis with principal components extraction and no rotation for all measurement items used in our study found 6 factors that demonstrated eigenvalues in excess of 1.0, suggesting that CMV is unlikely to be problematic in our study (Podsakoff et al. 2003; Byrne 2006).

3.2.1 Dependent variable

We ascribe to the view that innovation is a product of knowledge sharing and organizational learning (Spender 1996) and that these processes compose effective

Table 1 Constructs and measures

Constructs and measures	*N*	Mean	SD
Motivation: an individual's willingness to act (Rothschild 1999; Siemsen et al. 2008)			
I would like more opportunities to exchange information	198	1.965	1.2879
I am motivated to share best practice knowledge	198	1.798	1.1036
Exchanging information would be helpful	198	1.712	1.0866
Opportunity: an environmental situation that demonstrates a favorable juncture of circumstances for enabling action (Rothschild 1999; Siemsen et al. 2008)			
I have the opportunity to share information	195	3.041	1.8745
There is a time and place when we exchange best practices	193	2.964	1.8995
Sharing information is a priority in our relationship	195	2.518	1.8593
Ability: the talent, skill, or proficiency in a particular area related to the action (Rothschild 1999; Siemsen et al. 2008)			
I have a lot of good ideas worth sharing	197	2.239	1.1061
I am capable of sharing important information	197	2.071	0.975
I have the ability to communicate good ideas about my business	195	2.026	1.0022
Long-term orientation: when an exchange partner believes that the on-going relationship with another is so important as to warrant maximum effort in maintaining the relationship (Griffith et al. 2006)			
Renewal of this relationship is virtually automatic	198	1.899	1.4876
This partnership is a long-term alliance	198	2.242	2.5713
Want to develop the relationship further	198	2.091	1.5386
Organizational learning: acquiring new, or modifying and reinforcing, existing knowledge, behaviors, skills, values, or preferences and may involve synthesizing different types of information to transform the firm (Turner 2011)			
Independent operators successfully learn how to better satisfy customers	198	1.773	1.0393
Independent operators successfully learn how to be more competitive	198	1.869	1.1676
Independent operators discover new ways to be a better firm	198	1.914	1.2331
Knowledge sharing: partners simultaneously and equally exchange relevant knowledge and information through dynamic processes, including both explicit information and tacit technology know-how			
Shares knowledge about the market	197	2.868	1.8770
Shares information about keys to success	198	3.152	1.9968
Shares knowledge about competition and threats	196	3.194	1.9620

CE (Argyris and Schön 1978; Morris et al. 2011; Schön 1973; Senge et al. 1990; O'Reilly and Tushman 2011). Therefore, respondents were asked to reflect upon the knowledge sharing ($\alpha = 0.95$) and organizational learning ($\alpha = 0.95$) exchanges and activities that existed within their organizational network.

3.2.2 Independent variables

In partnership with the executive leadership of the firm, we mutually agreed upon a motivation ($\alpha = 0.92$), opportunity ($\alpha = 0.92$), and ability ($\alpha = 0.93$) framework, that offered both theoretically robust and empirically validated measures for analyzing knowledge sharing, innovation, and thus CE (Argote et al. 2003). Moreover, it was important that our measures were constructed so that they were readily explanatory to operating personnel of varying education and training levels.

3.2.3 Additional analysis

We also conducted several tests to assess the measurement validity of the constructs. First, we confirmed that the interitem consistency was validated by high Cronbach α's (see Table 2; all $\alpha > .903$). We then used confirmatory factor analysis (CFA) using EQS 6.1 structural equation modeling (SEM) software on the combined data set that included responses from both corporate employees and franchise operators. The fit indices for this measurement model demonstrated very good fit ($\chi^2 = 229.375$, $df = 120$, $p = 0.000$; RMSEA = 0.070; CFI = 0.965; IFI = 0.965; see additional fit indices in Table 3) (Hu and Bentler 1998, 1999). Next, we checked the convergent validity of the scales by confirming that the factor loadings of all our measurement items were greater than 0.7 and also concluded that the average variance extracted for each construct scale is >50 %. As suggested by Fornell and Larcker (1981), we also tested the discriminant validity among constructs determining that the average variance extracted of each construct exceeds the squared correlation between construct pairs demonstrating discriminant validity between the latent variables.

Table 2 Cronbach's α's

Construct	Cronbach α's
Motivation	.917
Opportunity	.920
Ability	.925
LTO	.903
Organizational learning	.945
Knowledge sharing	.946

Table 3 Model fit indices

Goodness of fit	CFA	Structural model
Chi-square	229.375	343.171
Degrees of freedom	120	153
Bentler–Bonett normed fit index (NFI)	0.929	0.894
Bentler–Bonett non-normed fit index (NNFI)	0.955	0.917
Comparative fit index (CFI)	0.965	0.930
Bollen's fit index (IFI)	0.965	0.931
RMSEA	0.07	0.095
90 % CI RMSEA	(0.056, 0.083)	(0.083, 0.107)

4 Results

For our data analysis, we used SEM in EQS 6.1 with maximum likelihood estimation to test our proposed structural model and hypotheses (Fig. 2). Our initial model suggested good fit and generally satisfied the guidelines for fit established in the structural modeling literature (Hu and Bentler 1998, 1999) ($\chi^2 = 343.171$, $df = 153$, $p = 0.000$; RMSEA = 0.095; CFI = 0.930; IFI = 0.93; see additional fit indices in Table 3). Moreover, we found support ($p > .05$) for hypotheses 1 (knowledge sharing positively associated with organizational learning), 2a (motivation positively associated with knowledge sharing), 2b (opportunity positively associated with knowledge sharing), 3a (LTO positively associated with motivation), 3b (LTO positively associated with opportunity), and 3c (LTO positively associated with ability). Interestingly, 2c was not supported: we identified a small, significant negative (−0.06) association between ability and knowledge sharing. The implications of this finding are considered in Sect. 5 of this paper.

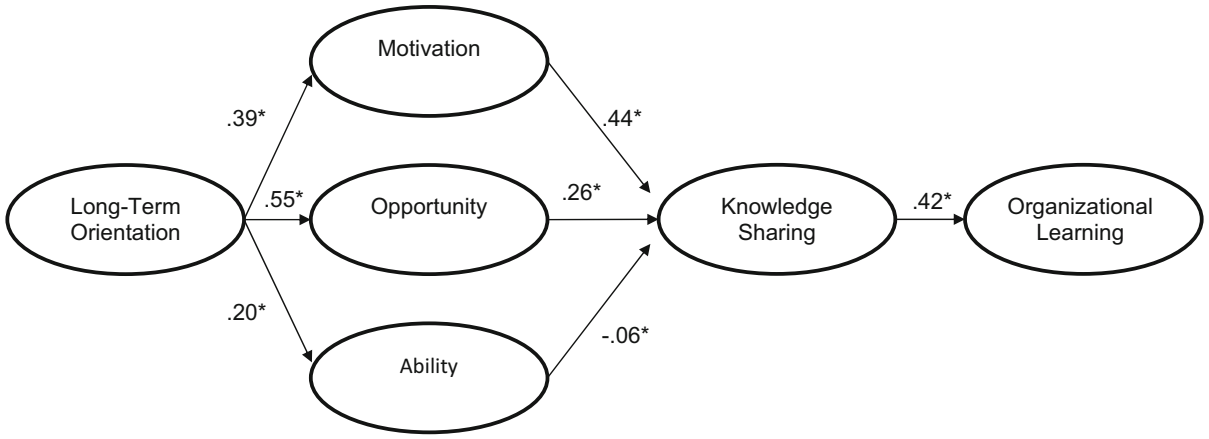

Fig. 2 Parameter estimates of the structural model

5 Discussion and implications

In this paper, we sought to gain insight into how the CE process unfolds through knowledge sharing and organizational learning processes within organizational networks. While prior studies have focused largely on the development of conditions that are conducive to innovation and CE behavior in existing organizations (e.g., Ireland et al. 2009; Morris et al. 2011; Goodale et al. 2011), the current study looked to expand on the literature and explain not just what factors are necessary for innovation to occur, but how innovations emerge within, and pervade throughout, complex organizational networks. Our results capture knowledge sharing and organizational learning as necessary means for driving innovation at the firm level and offer an additional lens to view corporate entrepreneurial behavior.

An important insight emerging from our work here involves the importance of capturing the process by which organizations can integrate and disseminate knowledge developed throughout the organization in order to translate it into corporate innovation. By focusing not only on what is necessary for innovation to emerge, but also on how it is directed and leveraged, the CE process can be made both more efficient and effective. This process provides further insight into the paradoxical relationship between operational control structures and CE performance (Morris et al. 2011). That is, while previous research has called for the removal of many control systems prescribed by traditional management practices (Goodale et al. 2011), it is important for organizations to be mindful of the vision, intentionality, and process that drive innovation at the firm level. Moreover, as well-established CE models allow for the development of innovation within organizations at the level of the individual or unit (e.g., Ireland et al. 2009), if not properly monitored and directed, this behavior might not pose benefit to the organization at large. Thus, the development of formalized knowledge-sharing structures and the orientation for organizational transformation and its associated learning can be viewed to benefit and support CE behavior, which was notably observed to be enhanced by the adoption of a LTO throughout the organizational network.

The importance of such knowledge-sharing mechanisms is highlighted in complex organizational networks with highly decentralized business units like franchise networks (Shane 1996). In organizational networks, exploration and innovation tend to occur in isolated environments—at the level of the franchisee, for instance—with the knowledge generated from these activities never reaching the level of the organization or contributing to the competitiveness of the firm at large (Shane 1996; Phan et al. 1996). While the lower levels of organizational networks are perhaps most aptly suited for the development of new knowledge that can be translated into innovation performance, firms can leverage their entrepreneurial potential by instituting an organizational context where the motivation, opportunity, and ability to engage in knowledge-sharing activities are present (Argyris and Schön 1978; Morris et al. 2011; Schön 1973; Senge et al. 1990; O'Reilly and Tushman 2011; Spender 1996). In this way, the model developed and

empirically tested in this paper establishes a MOA framework as a suitable framework for firms to use in the development, implementation, and evaluation of corporate entrepreneurial processes. Effectively encompassing the established antecedents of CE (Ireland et al. 2009; Kuratko et al. 2004), a MOA framework also works to provide an additional measure of CE analysis by examining knowledge sharing and organizational learning.

Furthermore, and as previously discussed, the current study worked to extend the current CE literature into the realm of complex organizational networks, which have increasingly emerged in today's economic reality (Shane 1996; Leblebici and Shalley 1996; Falbe et al. 1998). Including dynamic networks (Miles and Snow 1986), strategic alliances (Harrigan 1986), strategic networks (Jarillo 1988), franchise systems (Shane 1996), and joint ventures, these modern arrangements are composed principally of decentralized specialists, units, or networks who direct and discipline their own performance through organized feedback and information exchanges garnered from colleagues, customers, alliances, and headquarters (Drucker 1988). Existing as an entrepreneurial response to increased market pressures, these organizational networks have been observed to exist largely to provide value through innovation potential and present a need for scholars to reconceptualize the concept of the organization (Leblebici and Shalley 1996). Accordingly, examining corporate entrepreneurship within these complex organizational networks is critical for our understanding of the field and its associated processes.

A surprising finding of this study was that a small, significant negative (−0.06) association existed between ability and knowledge sharing (Hypothesis 2c), which warrants our consideration. It is suspected that net suppression may be the reason for these unexpected results (Kenny 2008). Investigating this contention, we first confirmed that all the interfactor correlations (see Table 4) are positive—in net suppression, the construct that demonstrates higher correlation with the dependent construct (knowledge sharing) will exhibit a small and negative path loading with the dependent variable. Thus, the factor with the smaller regression coefficient would exhibit a sign that is opposite of what is expected—here, observed as the coefficient between ability and knowledge sharing (−0.06), which is smaller than the regression coefficient between opportunity and knowledge sharing (+0.26). As such, our contradictory finding appears to be a case of net suppression and is supported by Kenny (2008) who suggests that in net suppression, the mediator construct acts as a suppressor variable. Our results, then, demonstrate that ability functions in the multiple regression equation primarily as a suppressor of variance for opportunity that is irrelevant to knowledge sharing—e.g., removing the irrelevant variance between ability and opportunity capital consequently increases the loading between opportunity and knowledge sharing (Kline 2005). Interestingly our finding supports earlier research on a MOA framework as Siemsen et al. (2008: 440) found what they termed "extreme complementarity" between opportunity and ability, suggesting that increasing one dimension of the MOA framework without developing the other dimensions may have less than optimal outcomes.

Table 4 Positive covariations among all constructs

	LTO	MOT	OPP	ABI	KS	OL
LTO	1.00	–	–	–	–	–
MOT	0.36	1.00	–	–	–	–
OPP	0.53	0.28	1.00	–	–	–
ABI	0.17	0.44	0.18	1.00	–	–
KS	0.39	0.48	0.36	0.17	1.00	–
OL	0.62	0.26	0.59	0.06	0.41	1.00

LTO long-term orientation, *ABI* ability, *MOT* motivation, *KS* knowledge sharing, *OPP* opportunity, *OL* organizational learning

In this manner, a MOA analysis can act as a prescriptive tool for the evaluation of CE where firms and researches alike can utilize a MOA analysis to evaluate corporate entrepreneurship efforts within an organization. Following an understanding of what discrepancies exist between the functional variables of motivation, opportunity, and ability, a MOA framework adequately supplements traditional CE measures such as the Corporate Entrepreneurship Assessment Index (Kuratko et al. 1990; Hornsby et al. 2002) which examines the structural variables of the firm. We believe that there are benefits to viewing the corporate entrepreneurship process more dynamically and that the two measures, together, will help further our understanding of CE.

There are several noticeable limitations to this study. First, our data set is cross-sectional in nature. Because a MOA framework supports a dynamic view to the development of motivation, opportunity, and ability, longitudinal studies could provide much-needed insight into how these antecedents to CE are developed over time. Secondly, because our study is limited to one single organization in the retailing environment, there may be some limitations on the generalizability of our findings. While we believe the richness of our data set offsets some concerns with the generalizability of our findings, there will be a need to test a MOA framework in a broader set of industries and settings. Additionally, no control variables were used in the study, and, despite the homogeneity inherent to a franchise networks, the role of such control factors would further benefit our understanding of the data. Nevertheless, our strong fitting model representation yields a robust set of overall model fit statistics (Byrne 2006). A final limitation of the study is that we did not explicitly utilize other established measurements of CE but rather theorized as to their embeddedness in the presented CE process model (Kuratko et al. 1990; Hornsby et al. 2002; Ireland et al. 2009; Kuratko et al. 2004). Future research should capture such measures in parallel to that of a MOA analysis to further understand how this framework relates to tools developed in the previous CE literature.

Following this study, our partner firm decided to be more intentional about establishing formal forums and opportunities for its "corporate entrepreneurs" running franchised locations to engage and interact with corporate managers from the parent organization. Our partner organization, upon reflection of the findings presented in this paper, determined that existing financial incentives afforded its corporate entrepreneurs the motivation to innovate and succeed while formal training programs supported the notion that the firm's corporate entrepreneurs have extensive knowledge and ability in their area of expertise. Moreover, our partner organization agreed that a MOA framework was effective at examining their organizational behavior and felt that the identification of opportunity as a limited factor served as a useful diagnostic for firm performance. As a result, they worked to create more sufficient "opportunities" for knowledge-sharing activities throughout their organizational network.

6 Conclusion

To conclude, the examination of CE using a MOA framework provides new and meaningful insights into how firms can develop, manage, and measure their levels of corporate entrepreneurship. Using a MOA framework as a tool to examine the association between knowledge sharing and organizational learning as they relate to the structural linkages established in the CE literature, we were able to build upon the prior knowledge to explain how corporate entrepreneurial activities manifest themselves within a firm through knowledge generation and management, with innovation emerging therefrom. Specifically, our study's findings reinforce the importance to capture and disseminate innovation throughout the firm through formalized knowledge-sharing structures in addition to developing a vision-directed orientation for the firm. Moreover, by viewing CE through a MOA lens, we were also able to establish an additional tool to monitor and analyze corporate entrepreneurial activity and its associated inefficiencies within the firm.

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References

Argote, L., McEvily, B., & Reagans, R. (2003). Managing knowledge in organizations: An integrative framework and review of emerging themes. *Management Science, 49*(4), 571–582.

Argyris, C., & Schön, D. (1978). *Organisational learning: A theory of action perspective*. Reading, MA: Addison Wesley.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*, 99–120.

Barney, J. (1995). Looking inside for competitive advantage. *Academy of Management, 9*, 49–61.

Baucus, D. A., Baucus, M. S., & Human, S. E. (1996). *Consensus in franchise organizations: A cooperative arrangement among entrepreneurs*. Paper presented at the Journal of Business Venturing Franchise Research Conference, January, Atlanta, Georgia.

Bendoly, E., & Hur, D. (2007). Bipolarity in reactions to operational 'constraints': OM bugs under an OB lens. *Journal of Operations Management, 25*(1), 1–13.

Binney, W., Hall, J., & Oppenheim, P. (2006). The nature and influence of motivation within the MOA framework: Implications for social marketing. *International Journal of Nonprofit and Voluntary Sector Marketing, 11*, 289–301.

Block, Z., & MacMillan, I. (1993). *Corporate venturing*. Boston: Harvard Business School Press.

Blumberg, M., & Pringle, C. D. (1982). The missing opportunity in organizational research: Some implications for a theory of work performance. *Academy of Management Review, 7*(4), 560–569.

Boudreau, J., Hopp, W., McClain, J. O., & Thomas, L. J. (2003). On the interface between operations and human resources management. *Manufacturing and Service Operations Management, 5*(4), 179–203.

Brandt, S. C. (1986). *Entrepreneuring in established companies*. Homewood, IL: Irwin.

Busenitz, L. W., West, P. G, I. I. I., Shepherd, D., Nelson, T., Chandler, G. N., & Zacharakis, A. (2003). Entrepreneurship research in emergence: Past trends and future directions. *Journal of Management, 29*(3), 285–308.

Byrne, B. M. (2006). *Structural equation modeling with EQS* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Castells, M. (2001). *The internet galaxy*. New York: Oxford University Press.

Castrogiovanni, G., Combs, J., & Justis, R. (2006). Resource scarcity and agency theory predictions concerning the continued use of franchising in multi-outlet networks. *Journal of Small Business Management, 44*, 27–44.

Cyert, R. M., & March, J. G. (1963). *A behavioral theory of the firm*. Englewoo Cliffs, NJ: Prentice-Hall.

Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal, 34*(3), 555–590.

Davies, M., Lassar, W., Manolis, C., Prince, M., & Winsor, R. (2011). A model of trust and compliance in franchise relationships. *Journal of Business Venturing, 26*, 321–340.

Drazin, R., & Schoonhoven, C. (1996). Community, population and organization effects on innovation: A multilevel perspective. *Academy of Management Journal, 39*, 1065–1083.

Drucker, P. F. (1988). The coming of the new organization. *Harvard Business Review*, January–February.

Eisenhardt, K., & Tabrizi, B. (1995). Accelerating adaptive processes: Product innovation in the global computer industry. *Administrative Science Quarterly, 40*, 84–110.

Falbe, C. M., Dandrige, T. C., & Kumar, A. (1998). The effect of organizational context on entrepreneurial strategies in franchising. *Journal of Business Venturing, 14*, 125–140.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.

Galunic, D. C., & Eisenhardt, K. M. (1994). Dimensions of organizational task environments. *Administrative Science Quarterly, 29*, 52–73.

Ganesan, Shankar. (1994). Determinants of long-term orientation in buyer–seller relationships. *Journal of Marketing, 58*(April), 1–19.

Gavetti, G., Levinthal, D., & Ocasio, W. (2007). Neo-Carnegie: The Carnegie School's past, present, and reconstructing for the future. *Organization Science, 18*(3), 523–536.

Getz, G., & Tuttle, E. G. (2001). A comprehensive approach to corporate venturing. *Handbook of Business Strategy, 2*(1), 277–279.

Goodale, J. C., Kuratko, D. F., Hornsby, J. S., & Covin, J. G. (2011). Operations management and corporate entrepreneurship: The moderating effect of operations control on the antecedents of corporate entrepreneurial activity in relation to innovation performance. *Journal of Operations Management, 26*(5), 669–688.

Grant, R. (1996). Toward a knowledge base theory of the firm. *Strategic Management Journal, 17*((Special Issue)), 109–122.

Griffith, D., Harvey, M., & Lusch, R. (2006). Social exchange in supply chain relationships: The resulting benefits of procedural and distributive justice. *Journal of Operations Management, 24*(2), 85.

Guth, W. D., & Ginsberg, A. (1990). Corporate entrepreneurship. *Strategic Management Journal, 11*(4), 5–15.

Hamel, G., & Prahalad, C. K. (1996). *Competing for the future*. Boston: Harvard Business School Press.

Harrigan, Kathryn R. (1986). *Managing for joint venture success*. Lexington, MA: Lexington Books.

Hornsby, J. S., Kuratko, D. F., & Zahra, S. A. (2002). Middle managers' perceptions of the internal environment for corporate entrepreneurship: Assessing a measurement scale. *Journal of Business Venturing, 17*(3), 253–273.

Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods, 3*(4), 424–453.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1–55.

Ireland, R. D., Covin, J. G., & Kuratko, D. F. (2009). Conceptualizing corporate entrepreneurship strategy. *Entrepreneurship Theory Practice, 33*(1), 19–46.

Jarillo, J. C. (1988). On strategic networks. *Strategic Management Journal, 9*, 3441.

Jelinek, M., & Schoonhoven, C. (1993). *The innovation marathon: Lessons from high-technology companies*. San Francisco: Jossey-Bass.

Kanter, R. M. (1983). *The change masters*. New York: Simon and Schuster.

Kenny, D. A. (2008). Reflections on mediation. *Organizational Research Methods, 11*, 353–358.

Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: The Guilford Press.

Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and their application of technology. *Organization Science, 3*, 383–397.

Kuratko, D. (2008). *Entrepreneurship: Theory, process, practice* (9th ed.). Mason, OH: Cengage/South-Western.

Kuratko, Donald F. (2009). The entrepreneurial imperative of the 21st century. *Business Horizons, 52*(5), 421–428.

Kuratko, D. F., Hornsby, J. S., & Goldsby, M. G. (2004). Sustaining corporate entrepreneurship: A proposed mode of perceived implementation/outcome comparisons at the organizational and individual levels. *International Journal of Entrepreneurship and Innovation, 5*(2), 77–79.

Kuratko, D. F., Montagno, R. V., & Hornsby, J. S. (1990). Developing an intrapreneurial assessment instrument for effective corporate entrepreneurial performance. *Strategic Management Journal, 11*, 49–58.

Leblebici, H., & Shalley, C. E. (1996). The organization of relational contracts: The allocation of rights in franchising. *Journal of Business Venturing, 11*, 403–418.

Leonard-Barton, D. (1995). *Wellsprings of knowledge: Building and sustaining sources of innovation*. Boston: Harvard Business School Press.

Levinthal, D. A., & March, J. G. (1993). The myopia of learning. *Strategic Management Journal, 14*, 95–112.

Love, J. F. (1986). *McDonald's: Behind the arches*. New York: Bantam.

Lusch, R. F., & Brown, J. R. (1996). Interdependency, contracting and relational behavior in marketing channels. *Journal of Marketing, 60*(4), 19–38.

MacInnis, D. J., Moorman, C., & Jaworski, B. J. (1991). Enhancing and measuring consumers' motivation, opportunity, and ability to process brand information from ads. *Journal of Marketing, 55*(4), 32–53.

March, J. G., & Simon, H. (1958). *Organizations*. New York: Wiley.

McEvily, S. K., & Chakravarthy, B. (2002). The persistence of knowledge-based advantage: An empirical test for product performance and technical knowledge. *Strategic Management Journal, 23*(4), 2850305.

McGrath, R. G. (2001). Exploratory learning, innovative capacity and managerial oversight. *Academy of Management Journal, 44*(1), 118–131.

McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review, 31*(1), 135–152.

Miles, R., & Snow, C. (1986). Organizations: New concepts for new forms. *California Management Review, 28*(2), 68–73.

Miller, D., & Shamsie, J. (1996). The resource-based view of the firm in two environments: The Hollywood film studios from 1936 to 1965. *Academy of Management Journal, 39*, 519–543.

Morris, M., Kuratko, D., & Covin, J. (2011). *Corporate entrepreneurship and innovation* (3rd ed.). Mason, OH: Cengage/South Western.

O'Reilly, C. A, I. I. I., & Tushman, M. L. (2011). Organizational ambidexterity in action: How managers explore and exploit. *California Management Review, 53*(4), 5–22.

Phan, P. H., Butler, J. E., & Lee, S. H. (1994). Learning: Key to leveraging the value of a franchise. *Journal of Enterprising Culture, 1*(3), 367–382.

Phan, P. H., Butler, J. E., & Lee, S. H. (1996). Crossing mother: Entrepreneur-franchisee's attempts to reduce franchisor influence. *Journal of Business Venturing, 11*, 379–402.

Pieters, R., Bijmolt, T., van Raaij, F., & de Kruijk, M. (1998). Consumer's attributions of proenvironmental behavior, motivation, and ability to self and others. *Journal of Public Policy and Marketing, 17*(2), 215–225.

Pinchot, G. (2000). *Intrapreneuring*. New York: Warner Books.

Podsakoff, P. M., MacKenzie, S. M., Lee, J., & Podsakoff, N. P. (2003). Common method variance in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879–903.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management, 12*(4), 531–544.

Porter, M. E. (1991). Toward a dynamic theory of strategy. *Strategic Management Journal, 12*(Special Issue), 95.

Rothschild, M. (1999). Carrots, sticks and promises: A conceptual framework for the management of public health and social issues behavior. *Journal of Marketing, 63*(1), 24–37.

Schön, D. A. (1973). *Beyond the stable state. Public and private learning in a changing society*. Harmondsworth: Penguin.

Schumpeter, J. A. (1950). *Capitalism, socialism and democracy*. New York: Harper and Sons.

Senge, P. et al. (1990). *The fifth discipline fieldbook: Strategies and tools for building a learning organization.*

Shane, S. A. (1996). Hybrid organizational arrangements and their implications for firm growth and survival: A stud of new franchisors. *Academy of Management, 39*(1), 216–234.

Siemsen, E., Roth, A., & Balasubramanian, S. (2008). How motivation, opportunity and ability drive knowledge sharing: The constraining factor model. *Journal of Operations Management, 26*(3), 426–445.

Simon, H. A. (1991). Organizations and markets. *Journal of Economic Perspectives, American Economic Association, 5*(2), 25–44.

Spender, J. C. (1996). Making knowledge the basis of a dynamic theory of the firm. *Strategic Management Journal, 17*, 45–62.

Spender, J. C., & Grant, R. M. (1996). Knowledge and the firm: Overview. *Strategic Management Journal, 17*((Special Issue)), 5–10.

Stevenson, H., & Jarillo, J. (1990). A paradigm of entrepreneurship: Entrepreneurial management. *Strategic Management Journal, 11*((special issue)), 17–27.

Stevenson, H. H., & Jarillo-Mossi, J. C. (1986). Preserving entrepreneurship as companies grow. *Journal of Business Strategy, 7*(1), 10–23.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533.

Tracey, P., Phillips, N., & Jarvis, O. (2011). Bridging institutional entrepreneurship and the creation of new organizational forms: A multilevel model. *Organization Science, 22*(1), 60–80.

Turner, J. T. (2011). Social capital: Measurement, dimensional interactions, and performance implications. Dissertation, Clemson University.

Vanhaverbeke, W., & Peeters, N. (2005). Embracing innovation as strategy: Corporate venturing, competence building and corporate strategy making. *Creativity and Innovation Management, 14*(3), 246–257.

Von Hippel, E. (1994). Sticky information and the locus of problem solving: Implications for innovation. *Management Science, 40*, 429–439.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science, 16*(4), 409–421.

Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal, 24*(13), 1307–1314.

Williamson, O. E. (1985). *The economic institutions of capitalism*. New York, NY: Free Press.

Williamson, O. E. (1991). Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly, 36*, 269–296.

Wu, Y., Balasubramanian, S., & Mahajan, V. (2004). When is a preannounced product likely to be delayed? *Journal of Marketing, 68*(2), 101–113.

Zahra, S. A. (1993). Environment, corporate entrepreneurship, and financial performance: A taxonomic approach. *Journal of Business Venturing, 8*, 319–340.

Zahra, S. A., & Covin, J. G. (1995). Contextual influence on the corporate entrepreneurship–performance relationship: A longitudinal analysis. *Journal of Business Venturing, 10*(1), 43–58.