How do threshold firms sustain corporate entrepreneurship? The role of boards and absorptive capacity

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A B S T R A C T

As companies move from one stage of their cycle to the next, they often have to revamp their skills and build innovative capabilities to survive, achieve profitability, and stimulate growth. Corporate entrepreneurship (CE) activities give these firms a foundation for building and exploiting these capabilities. In turn, stimulating and sustaining CE requires the infusion of resources and new knowledge into the firm's operations, using multiple external sources. In this paper, we highlight the importance of boards of directors and absorptive capacity for gaining access to varied and current knowledge that enriches CE. We suggest that boards and absorptive capacity complement each other in fueling CE activities. Further, boards can sometimes substitute for poor absorptive capacity and vice versa, influencing the intensity of CE activities. Managing these complementarities (or substitutions) is crucial for sustaining CE initiatives and creating value from them.

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1. Executive summary

Corporate entrepreneurship (CE) is important for a company's survival, profitability and growth. CE refers to the activities a firm undertakes to stimulate innovation and encourage calculated risk taking throughout its operations. These activities reinforce the company's position in existing markets while allowing it to enter new and perhaps more lucrative growth fields. Given its importance, researchers have examined the various factors that promote CE, emphasizing larger and well established companies that typically have to address the growing maturity of their markets and industries. As a result, researchers have missed an opportunity to explore the implications of CE for younger companies that have considerable choices as they move across the threshold from their start-up phase to the more "professional management" stage of their organizational life cycle (OLC). These threshold companies, which represent an intermediate stage between start-ups and established companies, need to build new skills in order to augment and replace the dated capabilities they developed during the start-up phase. Building or reconfiguring these capabilities requires these companies to use and integrate knowledge from multiple sources. The infusion of such varied knowledge can stimulate CE activities.

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In this paper, we highlight two key variables that jointly influence threshold companies’ CE: boards of directors and absorptive capacity. Boards of directors represent the apex of the firm’s governance system, defined as the organizational arrangements used to monitor managers and protect shareholders’ interests. We propose that boards can protect shareholders’ wealth and serve as a source of wealth creation, especially when outside directors bring in new skills and capabilities. They also ensure the accountability of managers to shareholders, keeping them focused on their goals. In undertaking both roles, boards guide and motivate managers to accumulate needed resources, effectively configure and bundle them, and leverage their use to create a competitive advantage. As such, effective resource management becomes a central focus of directors, drawing managers’ attention to the critical role these resources play in building those capabilities that allow the firm to explore and exploit opportunities. Boards also help create value by focusing management’s efforts on the pursuit of a viable long-term strategy, providing access to different resources from external groups, focusing building capabilities, identifying opportunities for growth, and promoting CE and other wealth-creating activities. Consistent with this focus, throughout the paper, we emphasize boards’ dual roles in protecting shareholders wealth as well as the creation of new wealth. Both roles can stimulate CE.

Absorptive capacity denotes a firm’s ability to identify, accumulate, process and use the new knowledge gained from external sources. The knowledge-based theory of the firm posits that having this capacity can significantly improve the ability to recognize and explore new opportunities by building new skills and reducing cognitive rigidity among a firm’s senior managers. External knowledge that is transmitted and disseminated through the firm’s absorptive capacity can challenge managers’ assumptions about the industry, customers and competition. This external knowledge can lead managers to explore different options for CE.

We add to the literature on boards and absorptive capacity by advancing a conceptual framework that clarifies the implications of low vs. high accountability (reinforced by boards) and low vs. high absorptive capacity for threshold companies’ CE. When the two variables are low, we expect CE as well as the threshold firms’ ability to create value to decline. When low accountability is coupled with high absorptive capacity, high absorptive capacity can compensate for weaknesses in board contribution and CE will be moderate. When accountability is high and absorptive capacity is low, boards may replace managers with low absorptive capacity, yielding moderate levels of CE. Finally, positive complementarities will be evident between effective boards and high absorptive capacity, a factor that can promote CE in threshold firms.

We further contribute to the literature by focusing on threshold firms, an important context where individual entrepreneurship is replaced by more formalized and institutionalized CE; recognizing the potential complementarities and tradeoffs that managers of threshold companies may encounter as they explore ways to foster CE; and highlighting the importance of boards for building threshold firms’ knowledge bases and keep them fresh, allowing them to innovate and engage in CE. As such, changing management styles might not suffice in promoting CE in threshold companies. Managers need also to reconsider their own boards and absorptive capacity and evaluate their joint contributions to CE.

A large body of research has examined the nature and dimensions of corporate entrepreneurship (CE) as well as its antecedents and implications for a firm’s performance (Teng, 2007; Zahra and Hayton, 2008; Zahra, Neubaum and Huse, 2000). CE refers to a firm’s efforts that inculcate and promote innovation and risk taking throughout its operations (Burgelman, 1983; Guth and Ginsberg, 1990). Prior research has studied established and mature companies and the challenges they face in developing the capabilities necessary to initiate, foster and sustain CE activities that renew their operations and improve performance (Baden-Fuller, 1995; Barringer and Bluedorn, 1999; Junkunc, 2007). CE allows companies to effectively build, leverage and exploit their resources. Effective management of these resources is conducive to creating and sustaining competitive advantage, especially in dynamic environments (Sirmon, Hitt and Ireland, 2007).

Stimulating CE requires companies to acquire and use new knowledge in order to exploit emerging opportunities. This knowledge could be obtained by joining alliances, selectively hiring key personnel, changing the composition or decision-making processes of a company’s board of directors or investing in R&D activities. When the firm uses multiple sources of knowledge (Branzei and Vertinsky, 2006; Thornhill, 2006), some of these sources may complement one another while others may substitute each other (Zahra and George, 2002). A key challenge, therefore, is to understand the conditions under which such substitutions vs. complementarities might exist. The literature on CE does not provide guidance in this regard.

Managing potential complementarities and/or substitutions is especially important for “threshold” companies, those firms moving from the start-up phase to the more professionally managed (or established company) stages of their OLC. In the start-up stage, entrepreneurial activities are typically initiated, led and managed by the firm’s founders whose creativity and innovativeness provide a rich foundation for conceiving ideas as well as identifying and pursuing opportunities. However, as these firms move into the later stages of their OLC, founders’ contributions to entrepreneurship often decline significantly (Covin and Slevin, 1990). To support the rapidly growing scope of business and offset founders’ declining contributions, it becomes essential to institutionalize those systems and processes that support, enhance and sustain entrepreneurship by relying on multiple sources of knowledge to recognize and exploit opportunities. To benefit from these diverse sources, companies also need to have the requisite absorptive capacity to recognize, value, assimilate and exploit new knowledge. These activities are also crucial for the effective integration of different types of knowledge and resources as well as the creation of competitive advantage (Sirmon et al., 2007).

2. Objective and contributions

In this paper, we apply the knowledge-based theory of the firm (Grant, 1996) to propose that developing a threshold company’s absorptive capacity requires sustained investments in human resources, infrastructure and research programs (Zahra and George, 2002; Zahra and Hayton, 2008). This makes potential gains from the firm’s absorptive capacity uncertain. It might also take years for these gains to materialize, leading to a situation where information asymmetries and potential managerial opportunism
become serious problems that undermine shareholders' wealth. To counteract these forces, threshold companies can augment their absorptive capacity by making judicious changes in their boards (Fama and Jensen, 1983; Zahra and Pearce, 1989; Lynall et al., 2003). In particular, to gain new knowledge from CE firms could recruit outside directors with unique skills (Filatotchev and Bishop, 2002) that enhance or even substitute for investments in absorptive capacity.

Our paper contributes to the literature by emphasizing threshold companies as the context in which we study CE activities. These companies, which represent an intermediate stage between start-ups and established companies, face various barriers that can stifle their transition or even lead to the demise of their CE initiatives. Applying the knowledge-based theory in this context clarifies how the transition from individual-based entrepreneurship is replaced by more formalized and institutionalized CE efforts. Even though we focus on “threshold companies,” we believe that our observations apply to a wider range of situations where firms institutionalize and disperse entrepreneurship throughout their operations (Junkunc, 2007).

Another contribution of our paper is highlighting the role of boards of directors in inducing CE activities, an issue that has not received systematic analysis in the literature (Zahra, 1996; Zahra et al., 2000). Most prior research has investigated the monitoring and control function of boards (Keasey and Wright, 1993), emphasizing the protection of shareholders' interests. Far less attention has been given to directors' entrepreneurial function in assisting and guiding managers in conceiving ways to create wealth (Filatotchev and Wright, 2005). Boards can achieve accountability by guiding managers’ decisions as to how to best effectively develop, configure as well as exploit resources and create a competitive advantage that generates wealth (Sirmon et al., 2007). Boards can also help increase shareholders’ wealth by making sure managers develop and pursue a viable strategy, giving the company access to different resources from external groups, assisting and guiding managers regarding the selection of areas in which to build capabilities, working with managers to identify viable opportunities for growth, and promoting attention to CE and innovation. We consider this entrepreneurial role, proposing that outside directors' knowledge and expertise is especially important.

The paper’s final contribution lies in clarifying the role of absorptive capacity in the context of CE. Absorptive capacity denotes a firm’s ability to acquire the knowledge necessary for CE. Given that the variety, currency and quality of external knowledge brought into the firm can influence a threshold company’s CE efforts, understanding how threshold companies build and replenish this capacity is important. Our paper shows when absorptive capacity complements and/or substitutes for changes in boards as a means of promoting CE. This is a challenge that many companies encounter in institutionalizing their CE activities as well as dispersing them throughout their operations (Junkunc, 2007).

3. Theory and propositions

New firms usually come into existence and survive because of their innovativeness. These firms' entrepreneurial activities are often nurtured by their founders’ skills, knowledge, creativity, imagination, and alertness to opportunities. Founders typically have an incentive to foster entrepreneurial activities as a means of creating wealth. These activities allow new companies to develop and enter new market niches, create and introduce new products and use innovative business models. Entrepreneurial activities also encourage young companies to organize their operations in ways that ensure efficiency, speed and agility in responding to changing market conditions. These activities give firms the flexibility that enables them to leapfrog established rivals and capture bigger market shares in domestic or international markets. This flexibility has multiple dimensions that include the firm’s resource base (Sanchez, 1995), coordination of these resources (Sirmon et al., 2007), the adoption of new capabilities (Volberda, 1996) as well as the ability of senior managers to shift their strategic priorities and resource allocations quickly. Managerial flexibility hinges on executives’ cognitive and mental models that make it possible to envision new things, reconceptualize ongoing activities and learn from prior experiences. This learning can become a source of sustainable competitive advantage.

4. Threshold companies’ transition and related challenges

Commitment to entrepreneurship is the hallmark of new ventures, giving them a basis to develop and exploit new capabilities and achieve success. In these ventures, entrepreneurial activities are based in their founders and key members of the top management team (TMT). These activities are usually informal and improvisational. Change in these activities begins to occur as firms move from their start-up phase to the professional management stage of their OLC (Zahra and Filatotchev, 2004). This transition signals that firms have survived the early challenges associated with legitimizing their existence. These firms also struggle with developing new skills and adapting their strategy to match the opportunities and threats they might encounter as they move to the next stage of their OLC (Daily and Dalton, 1992). These changes are necessary if the firm is to obtain the resources and capabilities needed to survive the transition across the threshold to the next stage. To exploit opportunities, executives of

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2 Some threshold firms will have undergone IPOs and therefore have formal boards of directors. Many other companies that remain private might have advisory boards that help managers gather information about the industry and competition, connect them with other companies, and funnel important knowledge about the competitive arena to the firm’s managers. Many of these directors are well known industry and civic figures and enjoy a strong presence and reputations among their constituencies. While advisory in nature, these boards could exert considerable powers in dealing with managers who need these directors to retain public credibility and legitimacy. Managers appreciate the fact that these directors are hard to replace. Through their exercise of informal powers, these boards can compel managers to focus on value creation and keep them accountable through effective monitoring and vigilance. Therefore, we expect these “external” members of advisory boards to play an important role in disciplining managers. Despite these organizational differences, “threshold” firms have an important common characteristic: they are moving from a founder-manager template to a more diverse and formalized decision-making organization.
threshold companies need to retain strategic flexibility in their operations. To do so, companies need to revamp existing capabilities and build new ones, a task that requires CE. Unfortunately, the literature focuses on established companies that have already made this transition, failing to provide guidance on the effective ways managers can successfully transition from the start-up to the professionally managed stage of the OLC.

Threshold companies often experience external pressures to adapt to changing market, technological or social conditions that shape the opportunities available to them. Some firms change also because they become cognizant of new opportunities in their markets. Making such changes often requires reexamining the firm’s resource endowments, configuring the resources and deploying them differently to pursue new strategic priorities (Sirmon et al., 2007). The pressures to adapt, which often coincide with these firms’ transition from the start-up to the threshold phase of the OLC, could be difficult for these companies to address. This difficulty stems from inertial forces that result from their limited or even decaying absorptive capacity. Thus, absorptive capacity that is an asset in an entrepreneurial firm becomes a liability as the firm crosses a threshold in its evolutionary trajectory. These firms must also overcome the dated entrepreneurial imprints they have developed during the founding and early stage of operation; or the prevalence of ad hoc, intuitive, heuristic informal managerial practices in the early stages of these firms’ existence that frustrate organizational learning (Leonard-Barton, 1995). Some founders, who remain in control of the firm, cannot comprehend or respond to changes in their markets. To address these concerns, boards can change the composition of the TMT. These boards can also enrich their firms’ knowledge base by connecting them to external sources, replenishing their absorptive capacity and ability to venture into new markets. Even though managers usually have the power, skills and authority to make resource allocation decisions, boards can guide the development of organizational strategies for obtaining, configuring, bundling and leveraging knowledge-based resources (Sirmon et al., 2007). Directors are usually connected to key industry players and their knowledge can be especially useful in selecting areas where new capabilities could be built to create a competitive advantage.

The above observations highlight two factors that can significantly influence threshold companies’ ability to inculcate CE activities in their operations: (a) the existence of a board of directors who is dedicated to creating value as well as protecting shareholders’ interests; and (b) high absorptive capacity. Though these two variables allow threshold companies to adapt, other changes (e.g., managing resources and revamping the organizational structure) are needed to bring about a successful transition over the course of the OLC.

5. Threshold firms’ boards and CE

Threshold firm managers might appreciate the strategic value of CE. Yet, to champion these initiatives, they need the motivation, opportunity and skills. CE activities are often time consuming, expensive and complex, making them risky for managers to undertake. As a result, some managers may not have the requisite motivation to nurture CE or fail to see where these activities fall into their firms’ strategic repertoire, missing an opportunity to revitalize their operations. Managers’ (especially founders’) skills also might become increasingly inadequate to foster CE activities. Accustomed to improvising and being the main source of innovation in their companies, founder-managers now need to be more formal in planning and institutionalizing these activities.

These challenges are compounded by the fact that young start-up firms usually have limited resource and knowledge bases, possibly constraining their ability to survive the liabilities of newness. These liabilities arise because these firms are not well-known and resource providers might hesitate to transact with them. Consequently, start-up companies have to work hard to legitimize their operations and garner the resources needed to survive and move to the next stage of their OLC. This transition is seldom simple because the resources that have enabled start-ups to survive become increasingly inadequate to meet future challenges. This requires attention to the firms’ capabilities.

Specifically, directors can focus managers’ attention on revamping current capabilities while building new ones using the firm’s different resources as inputs into developing these capabilities (Grant, 1996; Zahra and George, 2002). However, capability building requires much more than the efficient management of resources. Capabilities are “the bundles of complementary resources... administrative skills, routines, and physical assets with the flexibility to generate adaptive and valuable inputs” (Miller, 2003: 964). As such, having resources is rarely sufficient to build those capabilities; adept and skillful management is also required to select those areas in which to build and use capabilities.

Still, threshold companies have to assemble and deploy their resources in ways that give them a competitive advantage. Sirmon, Hitt and Ireland (2007) highlight the crucial importance of resource management in building capabilities, proposing that three sets of activities are needed. The first is structuring which focuses on acquiring, accumulating and even divesting resources. The second is bundling which emphasizes stabilizing (through making incremental improvements in existing resources), enriching and pioneering activities. The third is leveraging which encompasses mobilizing, coordinating and deploying resources. These sets of activities and associated processes permit the effective management of resources, setting the stage for building capabilities that create value (Morrow et al., 2007).

Building capabilities and exploiting them profitably usually require commitment to CE. Deciding which capabilities to build, how to build them and how to integrate and use these capabilities requires imagination and creativity. Recipes for successful capabilities are almost never known beforehand, and experimentation is necessary to figure out which ones are likely to create value. Further, moving from one stage of the OLC to another frequently render existing founder-centered organizational systems obsolete. Fast-growing firms cannot always support their business strategies with the resources they have developed or assembled earlier in their OLC. As a result, these firms’ growth potentials often far exceed their ability to fund their expanding operations.
To develop required capabilities, threshold firms often need to gain access to external resources (Morrow et al., 2007; Sirmon et al., 2007). Providers of these resources have to be sure that these firms can generate wealth and that this wealth is protected from managers’ abuse (Fama and Jensen, 1983). Sometimes founders confuse their needs with those of the organization, failing to set appropriate boundaries on their use of these resources. As a result, they may not invest sufficiently in new activities, risking their companies’ future. Founders may not share information about the firm’s resources and their uses with other stakeholders, depriving themselves of the feedback necessary for efficient resource utilization and superior performance. These factors could limit threshold companies’ growth capacity. To avoid these problems, external resource providers will demand increased managerial accountability. Boards can assure resource providers of the competence and integrity of the firm’s management and the existence of safeguards against managerial opportunism as well as the firm’s solvency and its capacity to grow.

A firm’s board of directors per se may not be a source of sustained competitive advantage. Yet, some firms are much more skilled at developing and using their boards in ways that give them advantages over their rivals (Barney, Wright and Ketchen, 2001). Given their idiosyncratic qualities, these organizational skills are usually heterogeneously distributed across threshold firms. If this is true, having a board with the right mix of skills and connections can improve the firm’s competitive advantage by nurturing CE activities.

Knowing how to organize the board can also ensure effective decision-making processes (Huse, 2007), fostering the timely and frequent sharing of knowledge between outside and inside directors. It can also expedite the flow of knowledge from outside sources (e.g., trade and industry publications and analysts) to management, allowing them to make better and faster decisions. This can enhance the effective transition of the threshold company.

Boards also provide managers with appropriate incentives that better align their interests with those of the firm. Alignment is accomplished by increasing the stockholdings of both directors and managers (Zahra, 1996). This alignment can impact both the creation and appropriation of rents from the use of valuable, rare, costly to imitate, and non-substitutable resources and experiences among directors (Coff, 1999). Indeed, without an active board, managers may usurp for themselves a disproportionate share of the rents that threshold companies generate. Having skilled directors recruited from outside the firms can help managers realize their firm’s potential for growth and generating economic rents. Some outside directors are also entrepreneurs or entrepreneurial managers who readily appreciate the importance of CE for creating value for shareholders (Franklin, Wright and Lockett, 2001). These directors may use their skills and expertise to guide managers’ decisions regarding appropriate CE activities during a firm’s transition.

Research acknowledges the dual role of boards of directors in governing the firm (Huse, 2007; Johnson, Ellstrand and Daily, 1996; Walsh and Seward, 1990). Directors protect shareholders’ wealth by ensuring managers’ accountability. They also enhance wealth creation by providing knowledge and resources that enable executives to assume the calculated risks that benefit shareholders through improved firm performance (Keasey and Wright, 1993). Having boards is important for younger and founder-managed firms that face barriers to the pursuit of growth opportunities (Gedajlovic et al., 2004). These boards keep managers focused on making appropriate changes in resource allocations while guiding the firm’s transition through its OLC. They can also promote management’s attention to growth, possibly stimulating CE. Further, as noted, directors can work with managers to ensure that a viable strategy for transition exists. Directors can also help identify viable opportunities for growth by giving attention to CE and innovation activities that allow the company to sustain its competitive advantage. Boards also enable wealth creation by sharing information useful for making effective strategic choices; suggesting innovative ideas and initiatives; offering and evaluating avenues for exploiting the discoveries made in CE programs; encouraging investments in building the firm’s absorptive capacity; and making sure members of the TMT have the knowledge, skills and abilities to lead the company and its expansion activities.

Whether focused on protecting or enriching shareholders, one of the directors’ key responsibilities is to instill and enhance managers’ accountability to stakeholders. The transition of the threshold firm can significantly increase the number of owners and stakeholders, thereby magnifying potential differences in their objectives. With the growing dispersion of the firm’s ownership, opportunities for managers’ shirking their duties are likely to increase. Boards can curtail this tendency through effective role differentiation and creation of meaningful milestones for organizational goal accomplishments.

The importance of the boards of directors increases as a firm changes from a founder-controlled start-up to a professionally managed company, which is rarely a tidy event. Threshold firms often have to rethink the composition of their TMT (Ucbasaran et al., 2003), recruit people with connections to different resource providers, and evaluate closely the composition, structure and decision-making processes of their boards. However, some founders may resist the growing professionalization of their firm’s operations, fearing the loss of control. Others might not recognize the limitations of their own skills or fail to hire professional managers to lead the organization. Threshold companies may also need to redesign the composition and decision-making process that their directors follow, emphasizing the independence of directors from senior management. Outside directors’ independence allows them to focus managers’ attention on CE activities (Zahra, 1996; Zahra et al., 2000). Boards can significantly align the interests of managers and the firm, thereby encouraging wealth-creating CE by providing resources as well as political support (Huse, 2007). The success of these initiatives can improve a firm’s performance, potentially increasing shareholders’ and managers’ wealth.

Managing the firm’s different resources lies in the hands of managers who make allocation decisions to meet organizational goals (Sirmon et al., 2007). Thus, managers are responsible for acquiring, accumulating and divesting resources. They also conceive of ways to mobilize, coordinate and deploy these resources in pursuit of organizational goals. However, boards can influence managers’ priorities by challenging their assumptions about the industry and competition; establishing consistency between organizational strategy and goals; and providing incentives that ensure efficient operations.
Threshold firms also need to develop closer links to external resource providers to support their growth plans. Consistency in resource flows, acquisition and accumulation is important for value creation (Sirmon et al., 2007). The willingness of external stakeholders’ to provide resources declines when the founders who have unique and proprietary knowledge are reluctant to share it with others or fail to recognize its strategic relevance. Board’s use of formal system controls can increase managers’ accountability to shareholders. Board monitoring, therefore, may facilitate threshold firms’ access to the resources needed while encouraging CE. Having the ability to acquire and utilize specific knowledge is another significant contributor to threshold firms’ CE, as will be discussed shortly.

There is disagreement in the literature on what constitutes an effective board (Huse, 2007; Zahra, 1996; Zahra and Pearce, 1989). Some suggest that boards staffed by a majority of outside directors are more likely to act independently from senior executives (Johnson et al., 1996; Walsh and Seward, 1990; Zahra and Pearce, 1989; Zahra et al., 2000). Outside directors are not employees of, or consultants to, the company (Walsh and Seward, 1990; Zahra, 1996). These directors are also successful business and industry leaders who have important connections and possess specialized knowledge and skills that could be an asset to threshold companies (Castanias and Helfat, 2001). To protect shareholders’ wealth, these boards usually set objectives and monitor managers’ decisions through frequent reviews and audits.

Boards protect shareholders’ interests also by being vigilant and watchful of managers’ actions, aiming to reduce misalignments of goals between shareholders and executives. Misalignments give rise to opportunistic behaviors among managers who might wish to enrich themselves at the expense of shareholders. Vigilant boards also ensure managers’ commitment to long-term value-creating activities such as CE. These boards also promote managers’ accountability to shareholders and other key stakeholders such as external capital resource providers. Directors also make sure that resource provision by external stakeholders, usage and coordination should be properly monitored and protected from managers’ opportunistic behavior (Gulati et al., 2000; Jones et al., 1997). Accountability also means that directors make sure executives manage resources effectively to create value for shareholders.

From an information-processing perspective, threshold transitions increase the complexity of transactions and affect the ways in which managers process information when developing corporate strategy. This may lead to strategic errors even when the interests of managers and shareholders are aligned (Hendry, 2002). Directors can help to create wealth by preventing such value-destroying strategic errors. More important, directors make sure that managers devote the necessary resources to pursue CE activities and build capabilities, potentially enhancing shareholders’ long-term value creation. In turn, this task often makes it essential to reconfigure the mix of the firm’s resources and bundle them differently. This is achieved through making improvements in these resources (Sirmon et al., 2007). Once these changes are made, resources could be leveraged differently through effective mobilization, coordination, deployment and refocusing (Sirmon et al., 2007).

Crucial to understanding board contribution is the notion of accountability, a concept that evokes different meanings in different contexts and has been applied at different levels of the analysis. Though rooted in social psychology (Adelberg and Batson, 1978), our focus is on managers’ accountability to shareholders and other stakeholders. As such, it denotes managers’ responsibility to develop and implement the right decisions to protect shareholders’ interests and increase their wealth. Consequently, we focus on the nature, quality, and outcomes of the decisions as well as the processes used to make these decisions (Siegel-Jacobs and Yates, 1996). Viewed from this lens, accountability is a meso-level construct that relates to the group-level of analysis, falling between individual and organizational levels. In this context, accountability has implicit and explicit dimensions. The “implicit” dimension is usually rooted in the firm’s cultural values and norms, guiding and shaping managers’ decisions and instilling integrity in their behaviors. “Explicit” measures of accountability are often financial in nature (Banks, 2004), focusing on creating and protecting wealth.

The threshold transition of an entrepreneurial firm usually creates a need for boards to play different roles that are likely to continue to change and evolve over the course of the OLC. In particular, the need to balance the shareholder value protection and wealth creation roles may change as the OLC unfolds. Directors can also assist executives in obtaining and using knowledge to create value. This role is more important in threshold firms than in established firms. Typically threshold firms have diverse and plentiful opportunities for expansion and growth, enabling them to exploit diverse types of knowledge and skills.

6. Organizational learning, absorptive capacity and CE

Sanders and Boivie (2004: 182) observe that in the threshold firm “sources of competitive advantage move further away from tangible resources and towards intangible and knowledge-based resources”. Knowledge is among the most valuable of these intangible resources (Grant, 1996) because it determines a firm’s product offering, capacity to conceive of new ideas, ability to configure resources differently, and the skill to develop and implement innovative strategies. As a result, the ability to acquire and use new knowledge becomes vitally important when the firm moves to its next stage of OLC.

Newman (2000) also explains that firms subjected to high levels of environmental uncertainty often become open to change. However, firms old routines frequently impede organizational change and undermine their survival. These routines enforce conformity with past practices, even when it becomes evident that CE is a must. Thus, threshold firms’ CE initiatives are also impeded by financial and other resource constraints as well as by managers’ inability to envision, champion, undertake or manage the changes that foster these activities (Mahoney, 1995). Managers’ flexibility in re-configuring, developing and deploying these resources is important for successful performance (Sirmon et al., 2007; Volberda, 1996). Achieving this flexibility requires experimentation, a process that can stimulate organizational learning through the acquisition of new knowledge and then using it to build new capabilities and capture value from CE activities (Phan, 2006).
Threshold firms often compete in dynamic environments where learning is essential for organizational survival; changes in competitive conditions quickly render these companies’ existing skills and products obsolete. Technological changes, frequent shifts in customer preferences, and entry/exit of better established competitors also create significant opportunities to develop new products, processes, and systems (Zahra, 1996). Learning about changing competitive dynamics can also influence managers’ mental models and their ability to champion CE. Even those threshold companies that compete in less volatile environments need to learn since the initial skills that served them well as start-ups often become insufficient to compete in new markets. These firms also have to upgrade their product mix which often requires new production, marketing and distribution skills. This transition is made more difficult because start-ups typically have lopsided skill bases where they are especially strong in some areas but are weak in other areas. Threshold firms, hoping to survive and grow, must offset this lopsidedness by building and/or acquiring new capabilities that allow them to compete differently or compete in different markets. CE activities and the knowledge they generate become a key source of these capabilities.

The above discussion suggests that threshold companies have to learn many new skills. Learning occurs when firms have the requisite absorptive capacity, defined as the ability to recognize and value knowledge from outside sources and acquire and assimilate it in their operations (Cohen and Levinthal, 1990). Absorptive capacity enables firms to bring in externally generated knowledge that improves their ability to build those capabilities conducive to growth. It also increases as the firm learns by doing when it revises its resource management decisions. These decisions are complex, especially when made in rapidly changing environments where traditional rules of rivalry do not apply. Companies could mobilize different resources to learn about their environment and competition or redeploy these resources in ways that allow them to harvest the knowledge they gain from environmental scanning as well as their diverse relationships (Sirmon et al., 2007).

As with accountability, absorptive capacity also has two major functions: wealth creation and protection of shareholders’ interests. From the wealth creation perspective, absorptive capacity enables the threshold firm to make sense of external knowledge, interpret it, combine it with existing knowledge, and successfully exploit it commercially. This capacity facilitates exploration activities that enhance the firm’s innovativeness that leads to value creation. High absorptive capacity may also reduce potential strategic errors that might occur even when the interests of managers and stakeholders are closely aligned, consistent with the wealth-protection function of boards. In threshold firms, a considerable portion of absorptive capacity resides in their TMTs’ diverse expertise, connections and skills (Ucbasaran et al., 2003). Threshold companies, therefore, can strengthen their absorptive capacity by expanding their TMTs with managers who have different skills and experiences.

The literature also suggests that the higher the firm’s absorptive capacity, the greater its ability to learn how to develop and use new knowledge (Leonard-Barton, 1995; Zahra and George, 2002). This knowledge undergirds those routines and skills that generate important capabilities. Building these capabilities requires assembling important resources, developing new systems that recombine resources in unique ways, or deploying the same resources quite differently in pursuit of new sources of competitive advantage by exploring and pursuing innovative strategic options. Organizational learning can fuel threshold companies’ ability to leverage its existing resources (Sirmon et al., 2007) and support CE activities (Zahra et al., 1999) that build new capabilities and apply them quickly to increase value creation.

Now that we have discussed the role of boards (especially their outside directors) and absorptive capacity, we will attempt to integrate these two factors in relationship to threshold companies’ CE. By integrating agency theory (Fama and Jensen, 1983) and the knowledge-based view of the firm (Grant, 1996), we identify complementarity and substitution effects between absorptive capacity and boards in terms of CE. Currently, there is little research that connects threshold firms’ boards and their knowledge to CE efforts.

7. An integrated framework

Our discussion highlights two key variables of importance to understanding threshold companies’ CE. The first is resource flexibility, which demands greater managerial accountability to external resource providers which, in turn, depends on board effectiveness. Dominance of outside directors, the diversity of education and backgrounds of the directors, directors’ independence from senior management, the separation of the CEO and board chair’s position, the existence of specialized committees on the board to carry out different functions, and the speedy dissemination of relevant information among directors are key determinants of board effectiveness (Johnson et al., 1996; Sanders and Carpenter, 2003; Sanders and Boivie, 2004). Accountability forms a continuum ranging from high to low (Walsh and Seward, 1990), as indicated in Table 1.

<table>
<thead>
<tr>
<th>TMT accountability</th>
<th>TMT absorptive capacity</th>
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<tr>
<td>Low</td>
<td>Negative complementarities.</td>
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<tr>
<td>High</td>
<td>Substitutability: High absorptive capacity compensates for ineffective boards.</td>
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<td></td>
<td>Low levels of CE activities (Quadrant 1)</td>
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<td>Substitutability: Effective boards enable the replacement of managers with low absorptive capacity.</td>
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<td></td>
<td>Moderate levels of CE activities. (Quadrant 3)</td>
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<td>High levels of CE activities (Quadrant 4)</td>
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<tr>
<td>Low</td>
<td>Moderate levels of CE activities (Quadrant 2)</td>
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<tr>
<td>High</td>
<td>Positive complementarities</td>
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The second factor required for promoting CE is absorptive capacity. As noted, in the threshold firm, most of this capacity is likely to reside within the TMT. Zahra and George (2002) propose that absorptive capacity facilitates obtaining and exploiting new knowledge that increases a firm’s ability to experiment and innovate, enriching the firm’s strategic variety by infusing CE throughout its operations (Zahra and Hayton, 2008). Strategic variety refers to the ability of the firm to conceive and execute a wide range of strategic options with multiple competitive weapons in pursuit of opportunities in existing and new markets. Given that threshold firms vary greatly in the depth and breadth of their knowledge bases, they are likely to differ in their absorptive capacity which also forms a continuum ranging from low to high, as shown in Table 1. High absorptive capacity enables threshold firms to acquire, process and integrate information from multiple sources and then apply it quickly to ongoing and new operations, enhancing CE efforts. Low absorptive capacity constrains novelty, reduces innovation and stifles CE efforts.

Combining the two dimensions of absorptive capacity and accountability can highlight the potential complementarities and/or substitutions that might exist between these two variables in the context of CE. In Table 1 we identify the four quadrants created by combining low and high absorptive capacity and low versus high accountability.

7.1. Quadrant 1

A weak and ineffective board, combined with low absorptive capacity, limits the firm’s ability to learn new skills. Low absorptive capacity results from the lack of prior investments in building the firm’s knowledge base through well organized R&D activities (Cohen and Levinthal, 1990); failure to establish viable links to emerging sources of new knowledge in the industry or adjacent fields; and an inability to become connected to networks or use the knowledge they provide to adapt to market conditions (Leonard-Barton, 1995). The TMT may not have the knowledge, skills or abilities to appreciate or understand the changing broader competitive landscape or the specific challenges the firm encounters in its industry and markets. Managers might also view their industry based on outdated mental models that fail to recognize emerging changes in the industry’s structure and dynamics. Failure to see and interpret the industry conditions quickly and accurately can limit threshold firms’ capacity to pursue their growth goals. Failure to recognize the firm’s decaying skills can further weaken its resolve to “reinvent” itself through CE.

The existence of a weak and ineffective board perpetuates low managerial accountability, ensuring that this situation will persist, in contrast to Quadrant 3 (see below). Low accountability discourages external stakeholders from providing the resources necessary for organizational growth, handicapping CE efforts. Low accountability also delays firms’ adaptation to their external environments, because managers are not compelled to change. Managers may also rationalize or postpone these changes, failing to adapt in a timely fashion. Without effective boards that ask discerning questions of management, encourage sustained investments in CE, or provide fresh information about pending industry changes, managers may fail to revise their mental models of the industry (Johnson et al., 1996; Walsh and Seward, 1990).

For example, DJS Technology (pseudo name), a university spin-off in the UK had developed techniques for diagnosing diseases in foods. The company began with a board comprising three academics and two representatives of their University’s technology transfer department, one of whom was CEO. Academic entrepreneurs while technically strong lacked knowledge of commercial processes and markets, and within a year one left to focus on academic activities. This was followed by a lengthy and difficult period of searching for the right balance of board support and commercial capabilities. A year later, a business angel with board representation was introduced to help develop the technology for new markets but this individual subsequently left. This led to delays in commercializing the firm’s promising technologies, slowing its growth. This example illustrates how an ineffective board combined with managers’ inability to learn not only delays organizational growth and development (e.g., creation of wealth) but also has a negative impact on the firm’s achievements at early development stages (i.e., wealth destruction).

This combination of low accountability (resulting from the existence of weak boards) and low absorptive capacity can lead to strategic simplicity where the same competitive actions are used repeatedly, even after they had lost their currency. In turn, this could cause rigidity that stifles innovation, lowers risk taking and reduces proactiveness. Hence:

**Proposition 1.** In a threshold firm, there is negative complementarity between low accountability and low absorptive capacity, leading to low levels of CE activities.

7.2. Quadrant 2

In this situation, threshold firms' managers' high absorptive capacity enables them to adapt to changing market conditions, notwithstanding weak and ineffective boards that fail to ensure a high level of accountability. Managers understand the competitive terrain and have the requisite skills to address the competitive challenges threatening their firms. However, in the absence of high accountability, some managers may act opportunistically to maximize their own gains at the expense of the firm or its shareholders (Fama and Jensen, 1983). Lacking board oversight and being increasingly disconnected from the firm’s ownership, executives may also maximize short-term gains by withholding support for R&D and CE (Zahra et al., 2000). Limited support for CE can delay the firm’s effective transition into a professionally managed organization that nurtures entrepreneurial activities, takes calculated risks, and pursues growth opportunities. Firms that occupy this quadrant may be slow or even fail to learn, innovate and adapt without strong external pressures. Intense competition in the market for corporate control or product markets may provide such inducements, encouraging the firm to change its board’s composition and decision-making process and increase managers’ accountability. Though the potential for wealth creation may be high, the lack of attention to wealth protection will reduce the support of CE activities.

**7.3. Quadrant 3**
An example of the German music software developer, Ableton, illustrates these arguments. The company was established by two software developers who previously worked for a larger software firm to commercialize their ideas. The company attracted venture capital (VC) financing and a US-based business angel who later served on the board. Other board members included another entrepreneur in computer hardware industry and a lawyer. However, these board members did not play a key strategic role within the company, and all main decisions were made by management. Although the company had survived the first challenges of early growth and expanded its sales in Germany and abroad, it had struggled to sustain its market share or develop new products. The founders’ knowledge was confined to a specific industry which limited opportunities for CE, and other board members did not challenge them to learn, identify new growth opportunities and seek resources to create further wealth.

Our discussion suggests that high absorptive capacity among a threshold firm’s managers can substitute for low accountability by providing the knowledge for innovation, experimentation and learning activities that foster CE. However, resource acquisition is problematic and threshold firms have to rely mostly on internally generated resources. In turn, as noted in Table 1, this can allow the threshold firm to pursue a moderate amount of CE activities. Hence:

**Proposition 2.** In a threshold firm, high absorptive capacity substitutes for low accountability, leading to moderate levels of CE.

### 7.3. Quadrant 3

In this quadrant, despite high managerial accountability, low absorptive capacity means that threshold firms are unable to learn new skills. Executives may lack the incentive or ability to learn and use this knowledge to hone their firm’s skills and create those capabilities essential to compete. Boards also give executives the right incentives to learn and develop these new capabilities (Zahra and Filatotchev, 2004). By carefully monitoring managers and reviewing their (and their firms’) performance, directors can identify existing and potential skill gaps in the TMT as well as the firm’s various units and functions. As noted, an effective board can identify ways to gain access to knowledge and skills from external sources and use them in the firm’s operations. Directors can also instill accountability among managers by working with them to craft effective strategies that integrate external resources with their company’s existing knowledge. CE activities could be a major source of ideas for these strategic changes. Clearly, there are heavy strategic penalties for firms with low CE because they cannot fully capitalize on these opportunities and take advantage of the skills that make for high absorptive capacity among their TMT members. High accountability can, therefore, effectively compensate for a threshold firm’s low absorptive capacity in pursuing CE. Over time, qualified boards can hire strong managers with the skills to lead the threshold firm’s transition and facilitate building its absorptive capacity. In the short term, boards with experienced and independent directors with strong external connections can successfully provide information about the industry, markets, and competition, significantly offsetting the negative effects of low absorptive capacity. This can enhance the threshold firm’s CE, as shown in Table 1.

New England Tech (pseudo name) was founded by a promising young engineer trained in one of the premier universities in the US. While working on his Ph.D. thesis, he discovered a new way to design an “intelligent, thinking machine.” Soon after his graduation, he created his company. To obtain VC funding, he established a board that had two leading experts in the field who were his former professors, a business woman with strong high technology marketing background and two local bankers. Trade publications hailed the company as a “technological pioneer” which had the potential to improve the use of artificial intelligence in industry. The company’s success was evident and much of the credit went to the CEO/founder and other top management team members. However, as the company began to grow and competing designs emerged in the industry, it became clear that the top management team was focused on improving what they were doing, rather than understanding changing industry conditions.

Given that the new competitive designs were grounded in different theories and logic, the team appeared to dismiss the threats. Instead, the management team was focused on improving what they were doing, rather than understanding changing industry conditions. The company’s success was evident and much of the credit went to the CEO/founder and other top management team members. However, as the company began to grow and competing designs emerged in the industry, it became clear that the top management team did not challenge them to learn, identify new growth opportunities and seek resources to create further wealth.

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**Proposition 2.** In a threshold firm, high absorptive capacity substitutes for low accountability, leading to moderate levels of CE.

### 7.4. Quadrant 4

In this situation, high accountability ensures that executives act in shareholders’ interests by investing in building the organizational skills and capabilities that allow their threshold firms to compete successfully. High accountability combined with growth prospects ensure access to external pools of resources that cannot be generated internally. They also can provide the context and appropriate incentives to encourage executives to explore innovative ideas and new strategic options through CE.

These arguments can be illustrated by the case study of Proximagen, a university spin-off in the UK that eventually went through an IPO. The company was set up by a professor of neuroscience in King’s College London with the help of the College’s...
technology transfer office. It subsequently received funding from a VC specializing in the development of university spin-offs. The VC introduced a new CEO with substantial experience in developing and listing bio-tech firms and also started a rapid process of “professionalization” of the firm’s board by bringing-in independent directors, including a former CEO of much bigger listed company. Following the strategic advice of board members, the firm successfully obtained a stock market listing that provided resources for further R&D and new technologies. Independent directors also prompted managers to diversify into licensing, contractual R&D and alliances with big pharmaceutical companies. Therefore, their role was not only to safeguard the investment made by the VC and public market investors, but also to contribute to the generation of wealth through corporate entrepreneurship.

High absorptive capacity promotes managerial learning and the recognition of growth opportunities that create wealth through CE. Consequently, high accountability can positively complement high absorptive capacity among the threshold company’s senior managers, providing a strong foundation for increased CE. Hence:

**Proposition 4.** In the threshold firm, high accountability complements high absorptive capacity, leading to high levels of CE activities.

8. **Discussion**

In this paper, we have argued that CE activities are indispensable for threshold firms’ survival, profitability and growth. These activities are useful in revamping existing skills and building new capabilities, giving managers an opportunity to explore a wide range of strategic options and create a distinctive advantage for their companies. To stimulate and sustain CE activities, managers need to acquire resources from external sources. Therefore, we have proposed that external providers of resources will demand increased managerial accountability which is achieved through effective boards. Executives also need to learn how to mobilize and deploy these resources, effectively. We have integrated our analysis of threshold firms’ accountability systems and absorptive capacity to identify how their complementarities and/or substitutabilities can help avoid creeping inertial forces that induce rigidity by limiting CE.

Our discussion extends both knowledge- and agency-based views of the threshold firm. Although previous research on the role of the firm’s absorptive capacity and knowledge management has established important links between learning, decision-making and organizational outcomes, it largely ignores the way decisions may be shaped by corporate governance factors. By identifying important complementarities between board effectiveness and absorptive capacity, we contribute to this stream of research by suggesting that, to sustain CE, entrepreneurial leadership should be encouraged, but within the framework of accountability. Our study also improves our understanding of corporate governance problems of threshold firms. Previous research has focused on the process of “professionalization” of entrepreneurial firms. This may involve the arrival of a non-founder CEO, independent board members and early stage investors, and in this respect it is based on a number of simplistic, context-free assumptions generated by agency theory. Our discussion shows that these changes in board effectiveness may be necessary but not sufficient conditions for the development of CE. Such structural changes cannot effectively perform both wealth-protecting and wealth-creating functions, unless they are combined in ways that enrich organizational learning and increase absorptive capacity. Our analyses add to existing theories on the governance of threshold firms by showing that boards matter, not only in terms of protecting shareholders wealth but also creating wealth.

Our discussion also contributes to the knowledge-based theory in the context of threshold firms by showing how they creatively offset some of the limitations of their resources (especially knowledge) and use their directors as a means of gaining knowledge that stimulates innovation. Most prior theoretical discussions and empirical analyses of absorptive capacity have highlighted the role of internal R&D and firms’ relationships as means of gaining this knowledge (see, Cohen and Levinthal, 1990; Zahra and George, 2002).

Our paper also clarifies the role of boards in early stage firms, underscoring the importance of directors in protecting and even increasing shareholders’ wealth. It makes clear that widely accepted definitions of board roles that have been developed for larger firms cannot be simply transferred to early stage firms reaching the “threshold” stage. Effective boards can identify and replace threshold companies’ TMT members whose skills and cognitive limitations reduce CE (Sanders and Boivie, 2004). We have also proposed that experienced outside directors who introduce and share their knowledge and diverse experiences with managers and other inside directors can enrich threshold firms’ absorptive capacity (Filatotchev and Bishop, 2002). Making these changes is often complicated by the fact that the firm is moving from its informal start-up phase to a more formalized and professionally managed stage.

Our discussion underscores the important role directors play in managing resources. To be sure, directors do not manage resources. Rather, their decisions and behaviors influence how these resources are used, potentially influencing the firm’s competitive advantage. Resource management is a comprehensive and oftentimes complex process (Sirmon et al., 2007). It is also an iterative process where the acquisition, accumulation and divestment of resources may occur. However, when these resources are bundled and leveraged to promote CE, managers might have to reassess the earlier decisions they have made. Board monitoring and guidance can help ensure managers’ attention to these decisions, especially because different CE activities might require different resources. Directors can also draw managers’ attention to the resources (e.g., systems, process, knowledge and software) that CE might generate and how they could be used to create value.

Our analysis also contributes to entrepreneurship research by explaining why firms with different boards may co-exist even within the same industrial sector. The firm’s CE and resulting performance depend on a constellation of boards and learning mechanisms that enhance absorptive capacity, possibly substituting or complementing each other. This constellation is apt to vary based upon the firm’s industry, growth opportunities and salient contingencies.
We contribute to the young but growing literature on the role of boards as an important antecedent of a threshold firm’s strategic decisions (e.g., Gibbs, 1993; Goodstein and Boeker, 1991; Hitt et al., 1996; Hoskisson et al., 1994). In threshold firms such strategic decisions are also driven by TMT knowledge, experience and cognitive capacities that may operate in concert with the general board parameters in determining CE. Thus, our paper answers the question: how can threshold firms be set on the path to better performance and growth by promoting CE, by having effective boards? The paper emphasizes the potential complementarities between the internal depth of knowledge and external diversity of the sources of new knowledge, and the potential tradeoffs (substitutions) that managers may encounter in making their decisions. The paper also suggests specific requisites for changes in the threshold firms that have somewhat overcome the liability of newness and approached adolescence. These changes include having effective boards that instill and enforce managerial accountability while building and cultivating the firm’s knowledge base reflected in its changing absorptive capacity.³

The theoretical analysis developed in this article lays the groundwork for follow-up empirical research. We envision that the constructs we have elaborated upon in this paper can be operationalized in future studies. Specifically, accountability can be operationalized using measures of board independence such as the majority of directors being outside directors unaffiliated to management as well as measures of the extent and nature of the expertise of board members since there are needs for skills related to both wealth creation (e.g., as may be measured by prior business ownership and experience in the threshold firm’s market) and wealth protection (e.g., as measured by prior experience in a venture capital firm). Empirical testing of our propositions should include the measurement of the ownership stakes of management and board members as these are associated with the incentives to create value and engage in monitoring. Similarly, empirical analysis also needs to incorporate measures of the presence and nature of different block holders and institutional investors such as venture capitalists. These different groups may have different effects on threshold companies’ CE (Huse, 2007; Zahra, 1996; Zahra et al., 2000). Entry and exit among top management teams is an important feature of threshold firms that may also influence absorptive capacity (Lynall et al., 2003; Ucbasaran et al., 2003), and empirical work needs to incorporate recognition of the extent of these changes and the type of knowledge involved.

Measures of managers’ skills, experiences and cognitions are key indicators of firms’ absorptive capacity. Similarly, the extent and nature of the networks of management and board members provide measures of social capital related aspects of absorptive capacity. Social capital can determine the pace, timing and type of external knowledge flows that can influence absorptive capacity. Other measures of this capacity include R&D investments (Cohen and Levinthal, 1990).

CE could be captured using available measures relating to innovation, new business creation, venturing into new domestic and international markets, etc. (Zahra et al., 2000). We can then use these different measures to examine the extent of support for our propositions and empirically determine whether different types of CE measures are associated with different combinations of accountability and absorptive capacity.

Future empirical analyses need to incorporate measures of environmental conditions as these may influence the nature of the complementarities and substitutabilities between accountability and complementarity. These analyses should consider the moderating effect between board effectiveness and absorptive capacities on CE under different environmental conditions.

9. Managerial implications

Our discussion also suggests four avenues for managerial action. First, threshold firm managers need to appreciate the importance of CE for survival, profitability and growth. These companies often need to venture beyond what they have done and explore new markets. CE activities make these changes possible. Second, changing the management style to accommodate the challenges of transition might not suffice. Instead, companies need to revamp and restructure their boards’ composition and decision-making process in ways that connect them to different sources of knowledge and capabilities. Therefore, careful recruitment of outside directors with special connections and skills is essential. Third, keeping the firm’s absorptive capacity current is also important for its successful transition through CE. As a result, managers need to invest in internal R&D, building connections to universities and research centers, and gaining access to knowledge from other companies. Finally, our discussion highlights potential tradeoffs (see Table 1, cells 2 and 3) between having effective boards and the firm’s absorptive capacity. Managers aiming to promote CE, need to consider these tradeoffs. Similarly, companies that fall into cell 1 (Table 1) have to work on revamping their boards, absorptive capacity or both. Still, while important for CE, effective boards and high absorptive capacity are not sufficient for successful transitioning through the OLC. Managers’ motivation and competence are also required to determine which CE activities are needed and appreciate the importance of different information sources for different CE efforts.

10. Future research directions

Our analyses also suggest several promising future research avenues. Notably, we have considered only one threshold: the firm’s movement from its founder to the professionalization of its management. However, there are multiple stages in the OLC (e.g., Jawahar and McLaughlin, 2001; Filatotchev and Wright, 2005). Researchers have also discussed the major changes in the organizational structure and control mechanisms that occur along the various phases of OLC, rather than making changes in boards—an exception is the study by Lynall et al. (2003). Thus, companies might experience other “thresholds” as they move from

³ We appreciate the insightful suggestions and observations of an anonymous reviewer regarding the paper’s potential contribution.
one phase of their OLC to the next. Examples are the move from professionalization to IPO, from IPO to maturity, from mature to decline and from decline to reinvention through a management buyout (Filatotchev and Wright, 2005). Each of these transitions has important implications for boards and absorptive capacity. These transitions can also influence the intensity and nature of CE activities as well as firms’ ability to create value. Path dependencies in determining threshold firms’ governance systems (Lynall et al., 2003) may become more influential in determining various organizational outcomes as firms mature across thresholds. Empirical testing of these changes would be informative. Further research should also examine the potential interactions between managerial accountability and absorptive capacity at different thresholds of firms’ evolution and how these interactions might influence companies’ performance. There is a need also to consider the processes through which governance mechanisms (e.g., boards) evolve and become formalized in different threshold stages (Lynall et al., 2003), suggesting the importance of considering how and whether absorptive capacity could be developed.

We have treated accountability and absorptive capacity as orthogonal variables, arguing that both may contribute differently to the success of threshold firms. Future research should determine if these two variables are indeed independent and if their contributions to company performance vary over the course of the OLC. Future empirical analyses would allow us to better appreciate the complementarities and/or substitutions that might exist between boards and absorptive capacity. Our discussion of complementarities and substitutions (Table 1) raises the possibility that complementarities are more readily evident and stronger than substitutions. Thus, the firm is more likely to gain from having effective boards and possessing high absorptive capacity. The potential for substitution is not as clear cut as complementarities because different types of knowledge are needed for CE and different sources are likely to possess different knowledge bases. Researchers need to test these observations and relate these potential complementarities (substitutions) to shareholders’ wealth creation and protection among threshold firms.

Our arguments have benefited from using and integrating several theoretical perspectives. Though these diverse literatures have enriched our arguments, future researchers would benefit greatly from studying how the systems described herein (i.e., boards and absorptive capacity) and the operations and processes that underpin them are institutionalized (or de-institutionalized). For instance, it would be useful to link changes in board effectiveness and absorptive capacity to changes in the various CE activities that threshold firms undertake. Such analysis would provide an accurate evaluation of the consequences of the complementarities and tradeoffs we discussed on CE and wealth creation. This analysis would also need to consider the need to manage creeping inertia, address the growing rigidity arising from founding conditions, and renegotiate founders’ powers.

Researchers would benefit also from exploring whether threshold firms learn about the value of boards through an iterative process during the early phases of the OLC or whether it occurs as an exogenous ‘shock’ imposed at the time the firm seeks external finance. Future research on this issue can improve our understanding of the costs and benefits associated with monitoring and their effects on threshold firms’ development and, in turn, on CE activities.

Given our focus on internal organizational aspects of CE, we did not discuss potential roles of the firm’s institutional environments such as network embeddedness, national business models, etc. These environments may have an important moderating impact on the potential complementarities/substitutions between governance parameters and organizational learning. Future research should explore this issue in more depth.

Finally, we have posited that resource management is intimately linked to CE activities. Future empirical studies should help show how resources are accumulated, bundled and leveraged to support CE activities. How do CE activities add to the firm’s knowledge and resources bases? Under which conditions are these benefits likely to materialize? What are the relative roles of middle managers, senior executives and directors in each of the phases of resource management (Sirmon et al., 2007)?

11. Conclusion

As companies move from the start-up to the threshold stage of their OLC, important changes in their boards often become necessary. The success of threshold companies rests on fostering and sustaining CE which, in turn, requires increased managerial accountability and greater absorptive capacity that enable executives to learn new skills and develop new capabilities. Absorptive capacity allows threshold companies to convert their knowledge into products, goods and services that create wealth. Threshold companies’ boards can also help to achieve this goal. This paper shows that managerial accountability and absorptive capacity can sometimes substitute for each other while being complementary under other circumstances, influencing threshold companies’ CE. Empirical testing of our paper’s propositions can add richness to the literature.

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