

CHAPTER 5

CHAPTER 5

Discussion and Conclusion

This dissertation contributes to the understanding of how large organizations can manage the paradox of corporate entrepreneurship. The review of prior studies in Chapter 1 revealed important theoretical and methodological limitations that have been examined in the empirical chapters of this dissertation. This final chapter discusses the main findings of the three studies. I start by answering each of the main questions and then summarize the research findings of the empirical studies and their contributions. Then the theoretical implications are discussed in an integral matter and several recommendations for practitioners are formulized. The chapter concludes with the main limitations and identification of potential avenues for future research.

5.1 MAIN RESEARCH FINDINGS

The previous chapters in this dissertation have discussed the findings of the individual studies and developed insights into how to realize CE at different levels and through different means. Table 5.1 presents the research questions of the individual papers (see also section 1.4), together with the brief answers to these questions. In Table 5.2 the main findings are then evaluated and contrasted with the intended contributions that I presented in section 1.2. I have organized the findings around the topics identified in section 1.1 to show how they are connected. These findings include (1) understanding the multilevel nature of CE, (2) extending the emerging configurational perspective (Stam & Elfring, 2008; Tiwana, 2008) and studying the multilevel effects of social capital (Moliterno & Mahony, 2011; Payne et al., 2010), (3) identifying personal initiative as a key facet of middle managers' entrepreneurial behavior (Frese et al., 1997), (4) considering social capital as an antecedent for entrepreneurial behavior and confirming the presumed importance of network building for CE (Thomson, 2005), (5) improving insight into the boundary conditions and contingencies in the relation between personal initiative and job performance, and (6) generating new insights by extending prior work to the context of managers with a critical strategic role (Hornsby et al., 2005).

Table 5.1: Research questions and answers per chapter

Chapter	Research question	Brief answer
2	<p>Does social capital influence middle managers' pursuit of personal initiative?</p> <p>How do multilevel configurations of different types of ties and organizational context influence middle managers' pursuit of personal initiative?</p>	<p>Network brokerage is a necessary but insufficient condition for enhancing personal initiative. Network brokerage increases the personal initiative of middle managers who have accumulated political capital through supportive ties with senior executives. This political capital removes barriers and increases the legitimacy of managers with broker positions.</p> <p>The link between middle managers' network brokerage and personal initiative varies substantially across different business unit contexts. A configuration of units' social context and individual-level broker position is found to be complementary as they jointly enable the discovery of opportunities and securing of resources. A configuration of units' connectedness and individual level broker position is found to be detrimental as they jointly create an "outsider's role" for the manager.</p>
3	<p>How do multilevel contingencies influence the relationship between personal initiative and job performance?</p>	<p>The relation between personal initiative and job performance is strengthened for middle managers that perceive autonomy, whereas middle managers with high risk-taking propensities obtain fewer performance benefits. However, for managers with high risk-taking propensities, the relationship between personal initiative and performance is positive when their unit's performance management context is strong, but negative when it is weak. Thus, the relationship between personal initiative and job performance becomes stronger when middle managers have the freedom to act and when the environment in which they work encourages them to strive to meet all expectations generated by their explicit or implicit commitments and in which they are stimulated to stretch their own standards and expectations.</p>
4	<p>Do different managerial roles entail a differential effect of boundary-spanning on exploratory innovation?</p> <p>How does boundary-spanning at one level impact managers at adjunct levels?</p> <p>What are the effects of the fit between boundary-spanning activities across levels?</p>	<p>Differences in authority and role-related task demands lead to different effects of boundary-spanning on exploratory innovation. Due to possible information manipulation and control, boundary-spanning helps top management teams achieve the exploratory innovation of units, whereas middle managers boundary-spanning is not related to exploratory innovation.</p> <p>Besides the positive effects of boundary-spanning by top management, these activities have also potential costs; as top management boundary-spanning increases middle managers' role conflict. This role conflict results in a negative effect of units' exploratory innovation, which offsets some of the benefits gained through the boundary activities of top managers. Role conflict can be reduced when considering the fit, in terms of (a) relative size and (b) overlapping ties, between top management and middle managers' boundary-spanning.</p>

Table 5.2: Summary of the main findings organized by topic and contribution

Topic	Contribution	Main Findings
Combination of Multiple Levels	1. Understanding the multilevel nature of CE	<ul style="list-style-type: none"> • Unit-level context importantly enables or constrains middle managers to leverage their network relationships for the pursuit of entrepreneurial behavior. Business unit context governs whether social capital elicits personal initiative. (Study 1) • Performance management context was found to be beneficial for middle managers with high risk-taking propensity taking personal initiative. (Study 2) • Examination of the disparity between TMT and middle managers effects on exploratory innovation showed that when considering boundary-spanning, TMT become the drivers of a units' exploratory innovation. (Study 3)
	2. Extending the configurational perspective of social capital and studying multilevel effects	<ul style="list-style-type: none"> • Personal initiative of middle managers is enhanced when they not only broker horizontal knowledge flows, but also maintain vertical buy-in relationships with top management. (Study 1) • The boundary-spanning ties of the TMT's enhance role conflict of middle managers. However, role conflict is reduced when considering fit, in terms of (a) relative size and (b) overlapping ties between TMT and MM boundary-spanning. (Study 3)
Antecedents of Entrepreneurial Behavior	3. Identifying personal initiative as a key facet of entrepreneurial behavior	<ul style="list-style-type: none"> • Personal initiative is found to be an indicator of entrepreneurial behavior as this proactive behavior is anticipatory and forward-looking. (Study 1) • Personal initiative is positively related to middle managers' job performance and can therefore be considered as part of their critical role for CE in organizations. (Study 2)
	4. Considering social capital as an antecedent of entrepreneurial behavior	<ul style="list-style-type: none"> • Middle managers who occupy broker positions do not automatically take more personal initiative. This depends on whether senior management creates an organizational context that supports brokers in pursuing personal initiative. (Study 1) • TMT boundary-spanning is positively related to exploratory innovation whereas middle managers boundary-spanning does not relate to exploratory innovation. Yet, middle managers' boundary-spanning reduces negative consequences of TMT boundary-spanning. (Study 3)
Outcomes of Entrepreneurial Behavior	5. Improving insights into personal initiative-performance relationship	<ul style="list-style-type: none"> • While certain contingencies work in concert with personal initiative and job performance (perceived autonomy), others (risk-taking propensity) work against it. By including the performance management context, the negative influence of risk-taking propensity was reduced. (Study 2)
	6. Testing the applicability of prior research to the context of middle managers	<ul style="list-style-type: none"> • By assuming heterogeneity in boundary-spanning across top and middle management, and by studying the differential effects of brokerage, organizational context, personal initiative on job performance, role conflict and exploratory innovation, I have underlined the value of the potential strategic role of middle managers as corporate entrepreneurs. (Study 1, 2, 3)

5.2 THEORETICAL IMPLICATIONS

In this section, I organize and discuss the key findings of the empirical chapters and expose how they relate to each of the topics addressed in section 1.1. I also explore some broader theoretical implications of the empirical studies that are linked to the main contributions presented earlier in section 1.2 and summarized in Table 5.2.

Combination of Multiple Levels

The multilevel nature of CE

While many studies have indicated the multilevel nature of CE, they have done so with a focus on the organizational-level or individual-level of analysis. With the firm as the primary level of analysis, organizational-level scholars have examined the organizational characteristics that facilitate CE, whereas individual-level scholars have focused on the personal characteristics that determine entrepreneurial behavior. Yet, organizational-level researchers have neglected the bottom-up processes that translate managers' individual behavior into organizational outcomes, whereas individual-level scholars have overlooked the effects of organizational context on individual behaviors. As managers in large established organizations are dispersed across different organizational entities that may feature a distinctively different work environment (Gibson & Birkinshaw, 2004), studying the cross-level moderation effects thus becomes important. Accordingly, scholars have addressed the need that more multilevel research is needed in the field of CE (Hmieleski & Baron, 2009; Phan et al., 2009). In order to address CE as a multilevel phenomenon, the three empirical chapters of this dissertation have adopted a multilevel approach.

A key result from Chapters 2 and 3 has been that middle managers' personal initiative and job performance varies substantially across different business unit contexts. Chapter 2 revealed that unit-level work environments enable or constrain middle managers to leverage their network relationships to pursue new initiatives, whereas Chapter 3 clearly showed that entrepreneurial behavior of middle managers requires an organizational environment that not only tolerates but also supports explorative activities. Together, these studies demonstrate the value of examining the interactive influences of contextual antecedents at multiple levels of analysis. The studies identify important complementarities between prior studies, which have tended to consider either organizational or individual antecedents of middle managers' entrepreneurial behavior.

As discussed in section 1.1, CE creates a paradox for management, which must overcome the tensions that are inevitably produced by the conflict between the

new and the old (Dess et al., 2003). The empirical findings of this dissertation show that it is certainly possible to have conditions that promote both the new (entrepreneurial behavior) and the old (discipline and stretch) within one unit. For instance, the findings of Chapter 3 indicate that middle managers with high risk-taking propensity reaped positive job performance gains from entrepreneurial behavior in units with high levels of discipline and stretch. It appears that risky initiatives of middle managers only become beneficial when top management does not lose the grip on these entrepreneurial activities. Moreover, Chapter 4 shows that when entrepreneurial behavior of middle managers, organizational context and top management are not aligned it can create role conflict among managers which negatively affects exploratory innovation. These findings suggests that a balanced form is possible and emphasizes the importance of human resource practices, like adequate rewards for entrepreneurial behavior, to be in place to ensure middle managers' personal initiative (Hayton, 2005). CE is of great importance for established businesses, but it does matter how and when it is deployed.

This dissertation extends the CE literature by introducing a multilevel perspective for understanding the factors that contribute to the entrepreneurial behavior of middle managers. The observed cross-level effects of business unit context provide new insights into the organizing contexts that amplify returns to entrepreneurial behavior. The examination of social capital, autonomy, risk-taking, role conflict and organizational context sheds new light on the importance of considering person-organization fit (Kristof, 1996). Most of the research on CE is concerned with the antecedents of CE (i.e. how to motivate entrepreneurial activities and generate new ideas) (e.g. Hornsby et al., 2002; Kuratko et al., 2004; Zahra et al., 1999). Although I agree that the encouragement of CE and the resulting initiatives are important, the results of the studies highlight that the fit with the organizational context is as important in successfully nurturing CE activities. There is a clear need for further research in order to understand how other features of work environments, such as reward systems, work discretion, or organizational boundaries (Kuratko et al., 2005), might influence managers' capacity to effectively manage their roles as corporate entrepreneurs.

A configurational perspective on social capital

A review of the social network literature reveals various trade-offs between strong and weak ties (Granovetter, 1973; Uzzi, 1997), dense and sparse network structures (Burt, 1992; Coleman, 1988), and relational and structural embeddedness (Rowley et

al., 2000; Steier & Greenwood, 2000). Although this line of work has produced valuable insights into the relative advantages and disadvantages of particular network dimensions or relationships, an important question remains regarding how a combination of multiple network dimensions or types of ties affect the contribution of individual managers to CE and what is the optimal balance of ties. Building on the traditional debate between bridging and bonding forms of social capital (Burt, 1992; Coffé & Greys, 2007; Granovetter, 1973), several chapters in the present dissertation have adopted a multilevel and configurational approach to the study of network effects.

A key finding of Chapter 2 has been that the value of middle managers' embeddedness in one type of network was greatly dependent on the degree to which the manager also maintained ties to other networks. Specifically, the results in Chapter 2 showed that horizontal and vertical network linkages of middle managers had complementary effects on their initiative-taking behavior. In other words, middle managers who develop buy-in relationships with senior management and broker positions in the organization's communication network show greater personal initiative than brokers who lack such political capital. While prior work has mostly considered the positions of middle managers positions in a single network (Burt, 2004; Pappas & Wooldridge, 2007), the findings of Chapter 2 underscore the importance of examining potential complementarities or tensions between distinct types of network ties. These findings advance prior work on the role that top-level management play in nurturing CE (Floyd & Wooldridge, 1997; Kanter, 1985). Future research may extend this emerging configurational perspective (Stam & Elfring, 2008; Tiwana, 2008) by identifying the contingencies that influence what configuration of ties is most conducive for middle managers' entrepreneurial behavior. For instance, whether middle managers in brokerage roles benefit from buy-in relationships with senior executives might depend on the type of initiatives they seek to develop (Lechner et al., 2010), the extent to which middle managers possess the social skills needed to effectively interact with others (Baron & Tang, 2009), and the degree to which senior executives are bound by a shared vision and leadership behaviors that value corporate entrepreneurship (Jansen et al., 2008).

The findings of Chapter 4 further underlined the value of adopting a multilevel perspective towards the social network literature. Chapter 4 revealed that looking at boundary-spanning in terms of fit between top management teams and middle managers is at least as important as examining any of them in isolation. By differentiating between managerial levels, Chapter 4 provides new insights into the

configuration of multilevel boundary-spanning that enables or constrains managers to maximize their units' exploratory innovation. The information derived from more aligned boundary-spanning efforts at the two levels of management reduced role conflict and facilitated exploratory innovation. These findings move the research into social capital beyond separate individual or (sub)-organizational levels of analysis. Instead, the findings extend insights into constructive interaction mechanism between different levels of management (Kleinbaum & Tushman, 2007).

Overall, this dissertation presents a first empirical step towards understanding the nested nature of mechanisms that influence the ability to achieve CE. The studies highlight the fact that, depending on lower-level characteristics, contextual mechanisms may work out differently than expected. Although past work has mostly considered one level of analysis and middle managers' positions in a single network (Burt, 2004; Pappas & Wooldridge, 2007), the findings of the present dissertation underscore the importance of examining potential complementarities or tensions between distinct types of organizational levels and network ties. My adoption of a multilevel approach on CE and social network theory follows other scholars (e.g. Moliterno & Mahony, 2010; Ostroff & Bowen, 2000; Ployhart, 2006) who have found that viewing a particular theoretical perspective through a multilevel lens enhances and expands the original theory's insights. By including and examining multilevel frameworks, this dissertation suggests a path towards linking individual and organizational levels of CE and social capital research into an integrated theory of organization.

Antecedents of Entrepreneurial Behavior

Personal initiative as an indicator of entrepreneurial behavior

An analysis of extant literature on the entrepreneurial behavior of middle managers revealed a variety of individual entrepreneurial behaviors, such as searching for information, out-of-the-box thinking, and championing (Crant, 2000; Hornsby et al., 2005). By examining personal initiative as a key facet of middle managers' entrepreneurial behavior, I have extended prior studies that have considered the degree to which managers champion and implement innovative ideas (Hornsby et al., 2009; Howell et al., 2005). Personal initiative, which encompasses work behavior that is self-starting, proactive, and persistent in overcoming difficulties (Frese & Fay, 2001), constitutes a core driver of strategic renewal in large organizations and has been shown to improve organizational effectiveness and innovation (Crant, 2000). Self-starting activities and overcoming barriers have been identified as key behaviors

that help middle managers identify and exploit entrepreneurial opportunities (Hisrich, 1990; Kuratko et al., 2005).

A key finding of Chapters 2 and 3 has been that top management plays an important role in the process of taking personal initiative. The findings of Chapter 2 indicate that top managers provide middle managers legitimacy and protection needed for the pursuit of new initiatives and the findings of Chapter 3 support the notion that the relationship between personal initiative and performance becomes stronger when middle managers have access to resources. An explanation for these findings is that the key role of the supervisor may be to enhance individuals' job autonomy. Studies of the relationship between leader-member exchange and performance (Chen & Klimoski, 2003; Liden et al., 2000) have shown that employee empowerment, a large part of which reflects job autonomy, mediates the relationship between supervisory behaviors and employee behaviors (Parker et al., 2006). For instance, a supervisor may consider a team member who takes care of neglected issues and works self-reliantly to be a reliable individual who can be assigned tasks that involve more responsibility and control (Frese, 2005).

There are two ways in which the conceptualization of personal initiative as an indicator of entrepreneurial behavior in large organizations advances our understanding. Firstly, rather than focusing on the personalities of individuals who tend to behave proactively (cf. Bateman & Crant, 1993; Seibert et al., 2001), personal initiative focuses squarely on the proactive behaviors themselves. Although proactive personality and personal initiative are conceptually related, personality factors involve adopting to change whereas proactive behavior involves initiating change (Frese & Fay, 2001; Griffin et al., 2007). The behavioral manifestation of personal initiative has been shown to be more strongly related with organizational performance and other meaningful variables than a personality variable (Frese et al., 1997). Secondly, personal initiative expands conceptualizations of proactivity beyond the definition offered in the proactive personality literature. Whereas Bateman and Crant (1993) described proactive behaviors as actions that effect change, Frese et al., (1997) added the important criterion that proactive behaviors are anticipatory and forward-looking. Frese and Fay's (2001) definition of personal initiative only included pro-company behavior and referred to actions that are intended to benefit the organization. Frese and Fay (2001) referred to these as "active performance concepts" because, in contrast to traditional performance concepts that assume a given task or goal, the active performance concepts imply that people can go beyond assigned tasks, develop their own goals, and adopt a long-term

perspective to prevent problems. Despite the importance of such proactive behavior, a greater amount of attention has been given to reactive concepts of performance, in which it is assumed that there is a set job to which an individual must be matched (Frese & Fay, 2001). For instance, much research has been devoted to investigating the predictors of standard task performance (Viswesvaran, 2001) as well as citizenship behaviors (Podsakoff & Mackenzie, 1997). However, these concepts have been criticized for their emphasis on rather passive behaviors (Morrison & Phelps, 1999). On the other hand, Crant (2000 p. 435) suggested that proactive behavior has the potential to be a “*high-leverage concept rather than just another management fad*” because of its wide-ranging impact. For instance, it would be interesting to further examine how employees with a high degree of personal initiative participate in workplace changes and how this influences their performance. Personal initiative could provide CE research with its proper psychological base as entrepreneurs score higher on self-starting activities and overcoming barriers than the rest of the population (Frese et al., 1997). In large organizations, most change processes cannot be programmed and prepared in such a way that nothing goes wrong (Frese et al., 1997). Thus, in change situations, top management depends on their employees to deal with unpredictable events and to prepare to avoid mistakes-activities that take initiative. Since top managers have an influence on the general motivation and self-efficacy of the “followers” (Krueger, 2000), personal initiative may be the important variable to be affected. I encourage future studies to incorporate personal initiative, as an indicator of entrepreneurial behavior in large organizations, to more fully understand how initiative taking might contribute differently the success of various corporate entrepreneurial activities.

Social capital as antecedent for personal initiative

Since individuals’ and organizational subunits are simultaneously embedded in intra-organizational networks, social network theories can influence their involvement in corporate entrepreneurial activity (Floyd & Wooldridge, 1997; Pappas & Wooldridge, 2007). Yet, prior studies on social network as antecedent for personal initiative have mainly dealt with network building (Kuratko et al., 2008; Thompson, 2005), while social network scholars have argued that an individual’s position within a network determines the extent to which that individual can gain information, wield influence, and effect change within an organization (Brass, 2001; Burt, 1992). Therefore, it is important to understand the determinants of social

capital and the extent to which middle managers reap the benefits of their network position when pursuing entrepreneurial behavior.

In an effort to address this, Chapters 2 and 4 have empirically examined how middle managers' social capital influenced their personal initiative and their units' exploratory innovation. The findings from these chapters confirm the presumed importance of network building for entrepreneurial behavior (Thompson, 2005) and advance the emerging literature on the brokerage roles of middle managers (Shi et al., 2009). A key finding from Chapter 2 is that middle managers who occupy a broker position do not automatically take greater personal initiative. The same unexpected result occurred in Chapter 4, where no positive relation was found between middle managers' boundary-spanning and exploratory innovation. These findings were somewhat surprising because researchers have asserted that managers with boundary-spanning relationships may develop more entrepreneurial initiatives and wield greater strategic influence than those without such relationships (Pappas & Wooldridge, 2007; Rodan & Galunic, 2004). One possible explanation for these conflicting results could be that middle managers who broker are well positioned to identify opportunities for new initiatives (Burt, 2004), but may encounter substantial resistance and role conflict as they attempt to integrate ideas throughout the organization (Kelley et al., 2009; Obstfeld, 2005). Top management plays an important role in such attempts to integrate these ideas. As Chapter 2 shows, middle managers' broker position only results in personal initiative when senior management creates an organizational context that supports them in their pursuit of entrepreneurial initiatives.

Prior research has contended that top-level managers may support entrepreneurial behavior by championing innovative ideas and providing resources to promising initiatives (Burgelman, 1983; Kanter, 1985; Stevenson & Jarillo, 1990). The findings of this dissertation extend this view by revealing that the political capital engendered in buy-in ties with senior executives provides middle managers with the legitimacy and protection they need to pursue personal initiative. This logic is in accordance with Burt's (2000) argument that since brokers are often viewed as outsiders by the groups they connect, they can overcome this legitimacy problem by "borrowing" social capital from prominent insiders. Furthermore, the findings underscore that the potential availability of top management support will not guarantee that middle management spawns more initiatives. Support from top-level managers only seems to enhance the personal initiative of middle managers, who can identify promising opportunities by brokering knowledge flows in the

organization. Thus, the findings of Chapter 2 and 4 refine the notion that “*managers differ in their structural ability to use top management support as a resource for entrepreneurial action*” (Hornsby et al., 2009 p. 238) by exposing how managers’ social network position may influence this disparity.

Overall, this evidence highlights the important role of top managers and emphasizes the differential role of formal positions in determining the positive and negative outcomes of social capital as antecedents of middle managers’ entrepreneurial behavior. Prior studies have underscored self-starting activities and overcoming barriers as key behaviors that help middle managers identify and exploit entrepreneurial opportunities (Hisrich, 1990; Kuratko et al., 2005). In this sense, the present dissertation provides a foundation with which future research can consider how personal initiative might influence middle managers’ propensity to perform certain strategic roles (Floyd & Lane, 2000) and become effective corporate entrepreneurs.

Outcomes of Entrepreneurial Behavior

The relationship between entrepreneurial behavior and performance in large organizations has been assessed differently across levels (Kuratko et al., 2008). Most scholars have reported potential benefits at the business unit or organizational levels, while virtually no accounts have considered potential benefits or costs at the individual level. Additionally, the empirical evidence on the success of entrepreneurial behavior at the individual level is mixed (Morris et al., 2007; Thompson, 2005). That is, personal initiative does not consistently lead to higher performance evaluations (e.g. Chan, 2006). These mixed findings suggest that there is variation in the effectiveness of individual entrepreneurial behavior.

At the individual level, numerous scholars have recognized that organizations need employees to engage in entrepreneurial work behavior that goes beyond their formal job requirements (e.g. Crant, 2000; Frese et al., 1996; Parker, 2000). Given that middle managers’ entrepreneurial behavior can be considered as both task-related and extra-role behavior, the likelihood that middle managers will receive both reward and punishment reinforcements for their actions (Stajkovic & Luthans, 1997; Staw, 1984) is heavily dependent on how their supervisors evaluate their entrepreneurial behavior (e.g. Ashford et al., 2003; Williams et al., 1999). Accordingly, scholars have argued that, although investments in entrepreneurial behaviors might be good for group and organizational effectiveness (Podsakoff & MacKenzie, 1997), they may be detrimental for individual outcomes such as rewards

and career advancement (Bergeron, 2007). In order to reconcile these mixed findings, this dissertation seeks to redress the imbalance by considering both the benefits and costs associated with managers' entrepreneurial behavior.

One of the key findings from Chapter 4 was that top management boundary-spanning is positively related to units' exploratory innovation, but also increased middle managers' role conflict. This finding highlights the idea that, through their cross-unit activities, top managers add pressure on middle managers whose roles are already demanding (Burgelman, 1994). Chapter 4 also showed that role conflict of middle managers is negative in relation to their units' exploratory innovation. This finding suggests that middle managers who experience role conflict will be less engaged in exploration activities. This point is important because it emphasizes that the presence of incompatible work-role related demands places the effective implementation by middle managers at risk (Donaldson & Hilmer, 1998). This result supports Currie and Procter's (2005) notion that inconsistent expectations and cues from key stakeholders, including top managers, make middle managers reluctant to enact appropriate roles.

In a similar vein, Chapter 3 observed how top managers evaluate and appraise middle managers' personal initiative. The findings suggest that personal initiative can be detrimental to performance when middle managers lack autonomy and exhibit high levels of risk-taking. Interestingly, Chapter 3 demonstrates that in order to reap job performance benefits out of personal initiative, middle managers must receive autonomy and, at the same time, receive stretch and discipline out of the unit for their radical personal initiatives. These results suggest that the pursuit of high-risk initiatives can either be beneficial or detrimental to performance, depending on the organizations' context. This key finding suggests that job performance is not solely a function of identifying managers with entrepreneurial behavior, but also a matter of assigning them to jobs where they have a relatively high degree of autonomy to determine how they do their job. As one middle manager during an interview stated: *"When I see an opportunity, I want to have the freedom to go for it and to act upon it. However there are always two main things that could hinder you from doing so; not getting the needed resources and not having the willingness to take risks"*.

It is important to understand how to avoid the trade-off between individual and organizational performance outcomes because of the potentially costly consequences to both individuals and organizations. Individuals who engage in high levels of risk-taking entrepreneurial behavior may unintentionally harm their careers

(Kuratko et al., 2008). By investigating the potential risks of entrepreneurial behavior, this dissertation has provided an important extension to the literature that has often stressed only the benefits of CE (Shimizu, 2012). The examination of role conflict and its effects on exploratory innovation sheds new light on the importance of the implementation processes of CE for business creation (Burgelman, 1983; Shimizu, 2012). The findings provide additional insight into why strategic decisions are not well implemented (e.g. Floyd & Wooldridge, 1992; Nutt, 1999). Although it has been suggested that resistance of inertial employees is the major cause of implementation failure (Floyd & Lane, 2000; Guth & McMillan, 1986), another problem may be embedded in the approach itself. Encouraging CE without understanding its risks and potential problems can easily destroy the value of CE by increasing frustration and unclear expectations among middle managers, which can result in role conflict.

Organizational and individual outcomes both play a key role in sustaining CE. Although recent evidence suggests that entrepreneurial behavior enhances performance (Thompson, 2005), researchers have also speculated about the potential “dark side” of such behavior by suggesting that it may entail significant costs and role conflict as a result of facing simultaneous and often conflicting pressures (Bolino & Turnley, 2005; Kahn et al., 1964; Katz & Kahn, 1978). This dissertation contributes in this area by identifying previously overlooked contingencies and showing how they combine to influence the performance benefits of personal initiative. In so doing, some of the mixed findings are reconciled and it can be concluded that providing autonomy to middle managers and encouraging them to span boundaries and elaborate on their ideas is a more promising approach than formal strategy development that relies solely on top management (Burgelman, 1994; Mintzberg & McHugh, 1985).

5.3 MANAGERIAL IMPLICATIONS

In addition to implications for theory, this research also offers several important implications for practitioners. The findings of the three studies imply key issues regarding managing CE in established organizations. Managers seeking to stimulate CE should be aware of the need to perform balancing act and to organize processes and context accordingly. The findings of this dissertation show that CE requires combinations of mechanisms that have counterbalancing influences: performance management context versus social context, structural versus relational social capital (brokerage versus connectedness), and combinations of informal versus formal

organization (autonomy and risk-taking versus stretch and discipline). Based on the empirical results and conclusions, I formulize several recommendations for practitioners. I make a distinction between recommendations for top management and recommendation for managers working at Management Development (MD) department. These recommendations are summarized in Table 5.3.

Recommendation for Top Management

It is possible that some top managers do not feel that the risks or challenges discussed in this dissertation are substantial. In fact, in some of the field interviews I have heart some claims from top managers: *“Middle managers are not very entrepreneurial, their ideas are often very similar”*, and concerning autonomy and risk-taking behavior: *“I rather occasionally forgive someone afterwards than providing someone permission upfront”*. From these observations, I believe that top managers should not only understand both the benefits and risks of CE, but also make sure they do not send negative signals to middle managers or evaluating them from past possible obsolete standards. As illustrated by Morrison and Milliken (2000), when top managers are not committed to accepting unfamiliar ideas from lower-level management, the organization is likely to develop a culture of silence. Thus, when top management feels that the middle managers are not very entrepreneurial, it may be that those managers who were entrepreneurial at one point have been conditioned not to be entrepreneurial because top management failed to appreciate their personal initiatives or even penalized them for such behaviors (Shimizu, 2012). Therefore, I recommend top management to send positive signals to middle management by accepting (or at least listening to) their personal initiatives and unfamiliar ideas.

Highlighting its importance in the broad organizational mission and agenda can stimulate entrepreneurial behavior. For instance, top management may trigger exploration within a unit by changing the characteristics of the organizational structure such as increasing other managers' participation in decision making or decreasing managers' formalization of tasks (e.g. Duncan, 1976; McGrath, 2001; Tushman & O'Reilly, 1996), or by implementing cross-functional interfaces (Egelhoff, 1991; Galbraith, 1973). The goal then is to commit middle managers throughout the organization to the strategic agenda and believing that personal initiative is an essential ingredient of success. Top managers can take action consistent with their words, granting some freedom within the broader strategic parameters, and not punishing well-intended proactive efforts that don't work out. For instance, scholars

argue that top management can trigger managers' exploration activities, by fostering a culture that allows for deviant behavior and differing opinions and ideas (Volberda, 1998), or by challenging the strategic status quo of the firm (Bartlett & Ghoshal, 1993; O'Reilly & Tushman, 2004). Allowing more entrepreneurial behavior thus requires leisure of the controlling tendencies of a company's policies and structures (Bateman & Crant, 1999). As one middle manager stated; "*The only way to act entrepreneurial is to ignore some of our policies*".

One of the main findings in this dissertation is that top management can optimize the value of social capital in order to create entrepreneurial behavior in their units. The empirical findings signal that the organizational business unit context plays a significant role in realizing CE. Specifically, top managers should facilitate appropriate support for network building activities of middle managers. Despite the costs associated with maintaining strong networks, their value for realizing the internal value of the personal initiatives and reduction of role conflict of middle managers is apparent. Top management may therefore adopt a more enabling attitude towards network creation and maintenance allowing the time and effort that is involved in building ties.

Another key finding is that enhancing stretch and discipline helps to guide personal initiatives of middle managers with high risk-taking propensity. The challenge thus becomes to balance between providing autonomy and at the same time stretching and structure middle managers' initiatives. This requires both control and freedom. It is important to realize that strategy may kill off risk involving initiatives and cause less variety in the strategic repertoire of the organization. Strong strategic intent might limit the scope for initiatives, and thus the potential strategic variety that managers could have at their disposal. For this reason, many top managers are promoting empowerment as a means to increase entrepreneurial behavior of employees or because it is just the politically correct thing to do (Argyris, 1998). However, if autonomy means a lack of strategy, it will reduce risk-involving initiatives because there is no foundation to hatch on. Chapter 3 shows that although perceived autonomy benefits managers who take personal initiatives, control systems are necessary for managing the tight coupling that is needed to develop and implement the initiative. In order to manage this, I recommend empowering people in the beginning, with limited strategic influence, yet taking control towards the end with strong strategic influence. I expect that this would result in a reasonable variety of initiatives, yet enough foundation to embed

them in the organization. The crucial role for top management is thus to find an appropriate balance and realize that for initiatives the balance changes over time.

Recommendations for Management Development department

The findings of the empirical studies in this dissertation clearly show that entrepreneurial behavior is a function of both individual dispositions and organizational context. Hence, entrepreneurial behavior can be harvest, grow, and sustained via appropriate approaches such as selecting, training, liberating and encouraging.

Frese et al., (1997) have shown that personal initiative is close related to proactive work behavior. Individuals with a tendency to engage in proactive work behavior may be identifiable among job applicants. Pro-activity can be assessed via a validated self-report measure, analysis of past achievements, and appropriate interview questions. For instance, managers can be asked to rate their proactive behavior and to think about and identify opportunities to increase such work behavior. Training can emphasize each of the elements of such behavior, as well as planning and commitment to proactive goals and activities (Bateman & Crant, 1999). Therefore, I recommend including proactive work behavior as core competence for the recruitment and selection purposes.

Furthermore, the findings of this dissertation indicate that legitimacy is necessary for middle managers to take personal initiatives. Therefore, I recommend introducing mentoring structures in which top executives monitor and support personal initiatives of middle managers by acting as their sounding board. Similarly, how managers respond to mistakes and failures will motivate -or fail to motivate- new initiatives. Some companies have a strong blame culture, in which finger pointing are the norms, and even no-fault setbacks may be punished. Contrarily, some companies include "learning from mistakes", and even reward the effort, based on open discussion without stigma (Bateman & Crant, 1999). The blame culture, of course, discourages entrepreneurial efforts, while the learning culture encourages them. Mentoring could function as psychosocial support that involves the development of increased feelings of competence and self-identity within the organization. Mentoring is said to contribute to the mentee's self-confidence, rapport, decision-making skills, and a better understanding of organizational culture and structure (Burke, 1984). Therefore, I suggest establishing a mentorship programs as part of the human resource development strategy.

Furthermore, I recommend engaging in a more balanced promotion scheme that would increase the level of risk-involving initiatives. In most companies employees play it safe because they know a single failure can end their career. Therefore, I suggest enhancing middle managers' risk-taking propensity and personal initiative by establishing high-job performance work systems, in which human resource management systems explicitly target the improvement of workforce competence, attitudes, and motivation (Takeuchi et al., 2009). This will lead towards an interesting tension for supervisors, as they have to find a way to create an environment that provides autonomy and at the same time constrain and guide middle managers that are willing to take risks. A good example of this can be found in companies like Google and 3M. Both companies show that within one firm conditions to promote change and stability are possible. For instance, 3M allows employees to devote thirty percent of their time to autonomous explorative activities which means that those explorative activities are under a separate set of conditions without using spatial separations. Also Google provides employees one day a week to experiment on projects outside of their day-to-day tasks. With twenty percent of the time to practice employees can conduct a lot of trial and error. Practically, this means that personality-oriented job analysis should be an important part of any system designed to extract the most from managers selected for their entrepreneurial behavior (Tett & Burnett, 2003). Thus, bonuses, promotions, and special awards can be based on criteria other than making the numbers. This directly implies to reorganize the performance management cycle in which job evaluations and performance appraisals should not only be focused on continuously routines but also include an objective for appropriate experimentation, personal initiative and exploration activities.

Last, managerial considerations at both top management and middle management level are shown to significantly add to the value of creating potential of CE. This provides compelling insights for firms seeking to advance their CE function by reconsidering the composition of management teams. I recommend including social network composition to increase insights on the several positions managers occupy in intra-organizational relationships. This dissertation clearly shows that managers' network embeddedness facilitate their involvement in divergent activities (Pappas & Wooldridge, 2007), and reveals that unit-level work environments may importantly enable or constrain middle managers to leverage their network relationships for the pursuit of new initiatives. By composing the intra-organizational networks an overview is created of the network activities of

individuals, teams, departments and business entities. Consequently, insights into the expectations of members network activities are created that may prevent the potential development of role conflict among managers. Therefore, I recommend adopting a network approach to both top management team composition and allocation of middle managers as well as unit conditions. The fluctuation of the network composition can then be used as guideline for succession planning and promotion purposes.

Table 5.3: Recommendations for practitioners

Recommendations for top management

- *Include entrepreneurship as part of the overall corporate strategy and communicate how entrepreneurial behavior of middle managers contributes towards this strategy*
- *Encourage a learning culture by allowing deviant behavior*
- *Facilitate middle managers' personal initiative, by providing support for network building activities in order to optimize the value of social capital*
- *Enhance stretch and discipline to help guide risk involved personal initiatives of middle managers*

Recommendations for MD department

- *Include proactive work behavior as core competence for recruitment and selection purposes, and for training and development*
- *Introduce a mentoring system that function as psychosocial support in entrepreneurial behavior*
- *Reorganize the performance management cycle such that job evaluations and performance appraisals include exploration activities*
- *Use the fluctuation of the network composition as guideline for succession planning and promotion purposes of management*

5.4 LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

There are several limitations in this dissertation's research that demand further inquiry. Since specific limitations of the individual studies have already been mentioned in preceding sections, the focus here will be on communal limitations and corresponding future research suggestions.

First, the three studies of this dissertation were conducted within a one-company study. Such a focus helped to account for corporate- and industry- specific differences that might have otherwise masked significant effects. Some of the unique features of the research setting, such as the long established nature of the multinational and the importance of the developments within its industry, may have impacted my findings. Even though data was collected from multiple sources and levels, empirical studies in a wider variety of organizations within different industries are necessary to derive generalizations on entrepreneurial behavior in traditional organizations and to test the robustness of my results. Future research may replicate and extend the current study by examining multiple industries that differ in technological intensity or institutional context.

Second, my research has shown that the relationship between entrepreneurial behavior and performance outcomes is not as straightforward as may have been assumed before. The results, however, do not describe the detailed processes of CE and possible actions of middle managers in different stages. By taking a process approach toward CE, future researchers could disentangle what happens. For instance, because some organizations allow employees to spend a certain percentage of their time pursuing new ideas (e.g. 3M, Google), the relationship between autonomous time, moderating conditions and long-term outcomes of those entrepreneurial activities can be an interesting setting to test the hypothesis. Because the real value of CE is long term (Burgelman, 1984; Shimizu, 2012; Zahra et al., 1991), midrange success measures (e.g. a number of new ideas, an increase of commitment) can be used to avoid mistakes of evaluating CE activities from a short-term performance perspective.

Third, the collected cross-sectional data used in this dissertation, fail to capture the dynamic interplay between social capital, entrepreneurial behavior and performance. Specifically, the studies assume that social networks and entrepreneurial behavior influence performance outcomes. Yet, causality may also run into the opposite direction. The potential recursive relationship between managerial action and networks is indeed a recurring theme in the literature (Emirbayer & Goodwin, 1994) and could be better understood by longitudinal studies examining how managers' entrepreneurial behavior and social network position mutually co-evolve over time. Longitudinal studies tracking the interactions among middle managers' network configurations, individual and organizational characteristics and performance are necessary to shed more light on the causal relationships among these constructs. Accordingly, I am cautious in inferring the

direction of causality among the key constructs used in this dissertation and invite future research to consider the interplay between network building, entrepreneurial behavior and performance outcomes over time.

Fourth, research on CE and social networks has only just begun to tap into the multilevel and embedded nature of both constructs. The three studies presented in this dissertation indicate that entrepreneurial behavior and social capital may be differentially achieved and have different consequences at various levels. These results ask for further examination. For instance, scholars have indicated other features of work environments that may influence managers' social capital and entrepreneurial behavior, such as reward systems, work discretion, organizational boundaries (Kuratko et al., 2005), member diversity (Beckman, 2006), conflict regulation (Guttel & Konlechner, 2006) and supportive coaching (Smith & Tushman, 2005). It would be an interesting avenue for future research to examine whether these features work out otherwise at different levels of analysis, or between levels of analysis. In addition, Chapter 2 and 4 utilize the interplay between middle managers and top management relationships, yet research might extend this line of inquiry by also including, for instance, client and suppliers relationships, as each may have distinct influence on entrepreneurial behavior and performance outcomes (Rizzo et al., 1970; Sidhu et al., 2007).

5.5 CONCLUDING REMARKS

Entrepreneurial behavior of middle managers constitutes a key driver of CE. By showing that the relationships between middle managers' network position, entrepreneurial behavior, and performance outcomes vary substantially across different organizational contexts, this dissertation has demonstrated the value of examining the interactive influences of contextual antecedents at multiple levels of analysis. The three studies presented in the dissertation highlight different contingencies and considerations that increase our understanding of how to enhance CE. It has become apparent that there are multiple ways of achieving CE and, depending on the configurations, not all contexts are equal in this pursuit. These findings present possibilities for further academic research, as well as considerations for practitioners. Both academics and practitioners should be aware of the notion that there is no one best approach to reconciling CE. The findings of this dissertation provide several theoretical and practical insights into how to manage the paradox of CE. This further underlines the strategic importance for CE as key driver for current and future organizational performance and sustainable competitive advantages.

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