

ON THE WAY TO ENTREPRENEURSHIP: MIDDLE MANAGERS AS INTRAPRENEURS IN ORGANIZATIONS

Hector Montiel-Campos, Universidad De Las Americas Puebla

ABSTRACT

In contrast to previous research that emphasizes strategic decision making in general, this study investigates how middle managers' entrepreneurial capabilities and their interaction with the environment influence two broad dimensions of the strategic decision process. Data were collected from 113 middle managers in Mexico, and a hierarchical moderated regression analysis was used to test the hypotheses presented in the study. The results demonstrate that middle managers' entrepreneurial passion for developing is related to each dimension of the strategic decision process, namely strategic decision comprehensiveness and strategic decision speed. Furthermore, these relationships are moderated by environmental dynamism. On the other hand, the results also show that middle managers' entrepreneurial alertness is only related to strategic decision speed and not to strategic decision comprehensiveness, maintaining in the same sense the moderating effect of environmental dynamism. This study contributes to the literature on entrepreneurship and strategy by demonstrating that entrepreneurial capabilities at the individual level are important precursors for the strategic decision-making process and that this relationship can be better understood when the influence of the context is considered.

INTRODUCTION

Strategic decision-making has become a research area of interest in both the fields of strategy and entrepreneurship (Reymen et al., 2015). However, despite this interest, knowledge of the strategic decision-making process is limited. As Shepherd & Rudd (2014) put it, the research has not advanced significantly and may have resulted in an incomplete, and perhaps inaccurate, picture of the strategic decision process. Therefore, understanding the drivers of the strategic decision process is important, particularly the context in which it takes place.

According to Shepherd & Rudd (2014) the strategic decision process is described as a set of different characteristics, such as rational, comprehensive, political, or as a sequence of activities that involves gathering information, developing alternatives, and choosing among alternatives. Therefore, the strategic decision process is characterized by the need to decide and take action in a competitive environment in which managing a firm is a complex and challenging task. In this sense, Ukil & Akkas (2017) argued that, although the style of management involvement in the process of strategy varies depending on the nature, size, and ownership of the firm, previous research has overlooked middle managers who play an important role in the strategic decision process.

The present study attempts to contribute to the literature in this area based on an empirical investigation of how middle-managers' entrepreneurial alertness (Entre Alert) and entrepreneurial passion for developing (Entre Passion Dev) influence the strategic decision process, and it suggests environment dynamism as a moderator in these relationships. Upon answering this question, this study offers two main contributions. First, it identifies two

important entrepreneurial capabilities at the individual level in the field of entrepreneurship, such as Entre Alert and Entre Passion Dev (Roundy et al., 2018; Cardon et al., 2013) as precursors of the strategic decision process, which increase the general understanding in this research area (Reymen et al., 2015). Second, by investigating environmental dynamism as a contingency, this study addresses the call to consider the context of the strategic decision process Shepherd & Rudd (2014) specifically in how dynamism can increase middle managers' alertness and passion for strategic decisions.

LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES

Strategic Decision Process and Entrepreneurial Alertness

The procedural rationality suggests that strategic decision making can be considered a process. Procedural rationality refers to “the extent to which the decision process involves the collection of information relevant to the decision and the reliance upon analysis of this information in making the choice” (Dean & Sharfman, 1993). Building on this broad theoretical premise, this study focuses on two strategic decision process dimensions, each of which plays a prominent role in the strategy process research: comprehensiveness and speed. Fredrickson and Mitchell (1984, p. 402) defined strategic decision comprehensiveness (Stra Dec Compre) as “the extent to which an organization attempts to be exhaustive or inclusive in making and integrating strategic decisions.” Strategic decision speed (Stra Dec Speed) refers to the velocity of the strategic decision-making process from the initial moment at which possible courses of action are considered to the moment at which the commitment to act is made (Eisenhardt, 1989). Speed and comprehensiveness capture two distinct aspects of the strategic decision process, and this characterization facilitates examination of possible relationships with contextual and other factors.

Grounded in the seminal work of Kirzner (1973), the entrepreneurship literature has used the concept of Entre Alert to explain why some individuals identify business opportunities. Roundy et al. (2018) defined Entre Alert as “the degree to which decision makers can sense and anticipate entrepreneurial opportunities associated with the current and future states of their business environment.” Entrepreneurship and strategy scholars have been interested in the influence of individuals' Entre Alert on strategic decisions. For example, taking the perspective of global sourcing suppliers in China, Ma & Huang (2016) showed that a firm's opportunity-based strategic orientation was influenced by its managers' alertness to opportunities through knowledge acquisition. Similarly, Zhao et al. (2021) found that Entre Alert facilitated decisions regarding business model innovation through the recognition of customers' unfulfilled needs and new activities in new markets, all of which greatly aid firms in finding the new way to link activities or new ways of governing transactions. On the other hand, Roundy et al. (2018) found a direct effect of Entre Alert on strategic change decisions and firm performance. Therefore, this study proposes to identify in greater detail the influence of Entre Alert on the nature of the strategic decision process by proposing the following hypothesis:

H₁: *Middle managers' entrepreneurial alertness is positively associated with each dimension of the strategic decision process, namely strategic decision comprehensiveness (H1a) and strategic decision speed (H1b).*

Entrepreneurial Passion for Developing

In the last years, the field of entrepreneurship has included the study of passion in the entrepreneurial process. According to Cardon et al. (2009) entrepreneurial passion refers to “consciously accessible intense positive feelings experienced by engagement in entrepreneurial activities associated with roles that are meaningful and salient to the self-identity of the entrepreneur.” Using this approach, Cardon et al. (2009) identified a role that individuals can play consistently, called *Entre Passion Dev*, which consists of activities related to the development and growth of existing firms. Previous studies have related passion to strategic decisions that are essential for a firm to be successful in the long term. For example, Stenholm and Renko (2016) found that passion for development positively predicted venture survival over time by fostering entrepreneurial bricolage. In line with goal-setting theory, Drnovsek et al. (2016) found that *Entre Passion Dev* predicted venture growth over time by enhancing goal commitment but not goal challenge. Furthermore, Mueller et al. (2017) found that passion for development predicted a better venture performance by indirectly enhancing entrepreneurs’ grit. Therefore, this study proposed the following hypothesis:

H₂: Middle managers’ entrepreneurial passion for developing is positively associated with each dimension of the strategic decision process, namely strategic decision comprehensiveness (H2a) and strategic decision speed (H2b).

Moderating Role of Environmental Dynamism

The strategic management literature recognizes that the influence of the environment on strategy and on operationalization that has been used for the environment lies in its dynamism, which refers to the rate of change and the degree of instability (Nandakumar et al., 2010). In other words, dynamism is characterized by changes in technologies, customer preferences, product demand, or the supply of materials, which can make current products and services obsolete (Kim & Huh, 2015). Previous studies have explored the environmental dynamism as a contingent predictor of the strategic decision process (e.g., Hough & White, 2003; Baum & Wally, 2003), but none of these studies has explored this contingent effect from the perspective entrepreneurial capabilities of the managerial decision maker. Any literature indicating some kind of interaction between the environment and individual-level variables is scarce. For example, Elbanna & Child (2007) found that the environment moderated the relationship between managers’ rationality and the strategic decision effectiveness. In a similar way, Mitchell et al. (2011) found that, in hostile environments, managers made more erratic strategic decisions, but contrary to their expectations, in dynamic environments, managers make less erratic strategic decisions. Based upon the above arguments, which offer an incomplete description, this study proposes the following hypotheses:

H₃: The positive relationships between middle managers’ entrepreneurial alertness and the dimensions of the strategic decision process, namely strategic decision comprehensiveness (H3a) and strategic decision speed (H3b), are moderated by environmental dynamism.

H₄: The positive relationships between middle managers’ entrepreneurial passion for developing and the dimensions of the strategic decision process, namely strategic decision comprehensiveness (H4a) and strategic decision speed (H4b), are moderated by environmental dynamism.

METHODOLOGY

Participants and Procedure

This study used a purposive sampling method in which participants had to meet two conditions: they had to be a middle manager in the organizational structure of a firm and to have been active in this position at least for the last three years. For accessibility reasons, the participants were identified through four MBA programs at private universities in Mexico. The responses of the 113 middle managers represented a significant part of all MBA students at the four universities (nearly 300) during the data collection period (January to March 2021). All participants were informed that participation was voluntary and anonymous. The average age of the participants was 3.91 (33-40 years), and there were 70 (62%) men and 43 (38%) women. Furthermore, 35 (31%) of the participants had experience with creating new ventures, and 78 (69%) did not. Regarding the firms in which the middle managers worked, the average age of the firm was between 18 and 24 years (4.28), the firms on average were medium sized (3.1) because they had between 51 and 250 employees, and the scope of operation was predominantly national (4.1).

Measures

All items for the main variables in this study were measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Stra Dec Compre was measured with the five-item scale developed by (Miller et al., 1998). A sample item is “Faced with an immediate, important, non-routine threat or opportunity, our firm usually... considers many different criteria and issues when deciding the course of action to take.” Stra Dec Speed was assessed with the three-item scale developed by (Souitaris & Maestro, 2000). A sample item is, “In our firm, we believe in making quick strategic decisions.” With respect to the independent variables, Entre Alert was measured using the scale developed by Cui et al. (2016), which consists of four items. A sample item is, “I always have ideas for new businesses.” To measure Entre Passion Dev, this study used a four-item scale developed by Cardon et al. (2013). An example of an item is “Nurturing and growing companies is an important part of who I am.” In relation to the moderating variable, environmental dynamism was measured with the five-item scale developed by (Baum & Wally 2003). An item sample is “Our firm must frequently change its products and practices to keep up with competitors.”

This study included control variables due to their possible effect on the strategic decision process. The individual-level control variables were the age of the middle manager in years (1 = Under 25; 2 = 25-32; 3 = 33-40; 4 = 41-48; and 5 = Over 49), gender (0 = female, 1 = male), and entrepreneurial experience in creating new ventures (0 = no, 1 = yes). Previous studies have shown that fear of failure (FoF) influences individual decision-making (e.g., Cacciotti & Hayton, 2015). For this reason, FoF was included as a control variable at the individual level, which was assessed using the five-item scale developed by Conroy et al. (2002). An item sample is, “When I am failing, I worry about what others think about me.” Responses were made on a five-point scale ranging from -2 (do not believe at all) to +2 (believe 100% of the time). Cronbach’s alpha for FoF was 0.73. The firm-level control variables included firm age in years (1 = 1-3; 2 = 4-10; 3 = 11-17; 4 = 18-24; and 5 = More than 25), firm size in number of employees (1 = 1-10; 2 = 11-50; 3 = 51-250; and 4 = More than 251), and firm’s scope of operation (1 = Local; 2 = Statewide; 3 = Regional; 4 = National; and 5 = International).

Validity and Reliability

This study tested the construct validity by means of a confirmatory factor analysis (CFA). According to the procedure developed by Hu and Bentler (1999), the five-factor measurement model was the one that best fits the data: χ^2/df ratio = 2.13, incremental fit index (IFI)=0.94, comparative fit index (CFI)=0.92, Tucker-Lewis index (TLI)=0.91, and root mean square error of approximation (RMSEA)=0.07. Additionally, the average variance extracted (AVE) was checked (Table 1) and revealed that all five factor loadings were higher than the cut-off value of 0.50 (Hair et al., 2006). The square roots of the AVE scores ranged from 0.76 to 0.86, and they exceeded the correlations among variables, which ranged from 0.03 to 0.24 (Table 2). The results of both methods support discriminant validity.

To assess reliability, two common indicators were used: composite reliability (CR) and Cronbach's alpha (α). As shown in Table 1, all five variables' CR scores were higher than the cut-off value of 0.70 Hair et al. (2006) and were higher than their AVE scores, reflecting good convergent validity. Cronbach's α scores ranged from 0.75 to 0.84, and all values were above 0.70, indicating acceptable reliability (Hair et al., 2006).

Variables	Factor loadings	Cronbach's α	CR	AVE
Entre Alert	0.68-0.70	0.77	0.73	0.58 (0.76)
Entre Passion Dev	0.55-0.62	0.75	0.78	0.62 (0.78)
Dynamism	0.69-0.75	0.80	0.81	0.71 (0.84)
Strat Dec Compre	0.72-0.76	0.84	0.82	0.74 (0.86)
Strat Dec Speed	0.65-0.72	0.81	0.75	0.65 (0.80)

Variables	Mean	SD	1	2	3	4	5	6	7
<i>Control variables</i>									
1. Middle manager' age	3.91	0.62	1						
2. Middle manager' gender	0.62	0.08	0.10	1					
3. Entrepreneurial experience	0.31	0.02	0.16	0.15	1				
4. Fear of failure	0.96	0.21	0.21	0.27	-0.08*	1			
5. Firm age	4.28	0.52	0.02	0.06	0.14	0.02	1		
6. Firm size	3.10	0.63	0.06	0.01	0.19	0.11	0.14	1	
7. Scope of operation	4.1	0.42	0.11	0.03	0.03	0.14	0.04	0.02*	1
<i>Main variables</i>									
1. Entre Alert	3.68	0.35	(0.76)						
2. Entre Passion Dev	4.20	0.47	0.10*	(0.78)					
3. Dynamism	4.03	0.72	0.18**	0.24**	(0.84)				
4. Stra Dec Compre	3.92	0.84	0.14**	0.21**	0.19***	(0.86)			
5. Stra Dec Speed	3.25	1.03	0.05*	0.07*	0.15***	0.03*	(0.80)		

Notes: Values in parentheses on the diagonal are the square of average variance extracted
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

RESULTS

The hypotheses were tested using hierarchical moderated regression (Aiken & West, 1991). The results indicate that the regression, even with the inclusion of the interaction terms,

did not present a multicollinearity problem, because the variance inflation factors were below the suggested cutoff level of 10 (Aiken and West, 1991). Table 3 shows the results concerning hypotheses H1a and H1b, which predicted that middle managers' Entre Alert is positively associated with each dimension of the strategic decision process. The results (Model 5 of Table 3) provide support for H1b: middle managers' Entre Alert is positively associated with Stra Dec Speed ($\beta=0.20$, $p<0.001$). However, the results do not provide support for H1a (Model 2 of Table 3), where β (0.16) was statistically not significant. Concerning hypotheses H3a and H3b, the results offer a similar picture. The results only offer support for H3b: Environmental dynamism moderates the positive relationship between Entre Alert and Stra Dec Speed (Model 6 of Table 3, $\beta= 0.26$, $p<0.001$). The results do not provide support for H3a because β (0.14) was statistically not significant.

Variables	Strategic decision comprehensiveness			Strategic decision speed		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Control variables</i>						
Middle manager' age	0.23	0.22	0.22	0.17	0.17	0.15
Middle manager' gender	0.11	0.09	0.09	0.05	0.04	0.04
Entrepreneurial experience	0.03*	0.02*	0.02*	0.08*	0.07*	0.07*
Fear of failure	-0.13*	-0.11*	-0.12*	-0.04*	-0.08*	-0.05*
Firm age	0.18	0.10	0.08	0.18	0.18	0.16
Firm size	0.12*	0.12*	0.10*	-0.02*	-0.04*	-0.04*
Scope of operation	0.28	0.24	0.23	0.10	0.10	0.07
<i>Main effect variables (H1a, H1b, H2a, and H2b)</i>						
Entre Alert		0.16	0.15		0.20***	0.19***
Entre Passion Dev		0.24**	0.22**		0.11*	0.12*
Dynamism		0.12**	0.11**		0.13**	0.13**
<i>Interactions (H3a, H3b, H4a, and H4b)</i>						
Entre Alert x Dynamism			0.14			0.26***
Entre Passion Dev x Dynamism			0.26**			0.15**
R ²	0.11	0.18	0.22	0.10	0.21	0.26
Adjusted R ²	0.08	0.16	0.21	0.06	0.20	0.25
F	2.9*	4.1**	4.5**	2.4*	4.3**	4.9**

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

Finally, the results on the influence of Entre Passion Dev on the dimensions of the strategic decision process are shown in Table 3. The results show that Entre Passion Dev is positively associated with Stra Dec Compre (Model 2, $b=0.24$, $p<0.01$) and Stra Dec Speed (Model 5, $b= 0.11$, $p<0.05$). Therefore, H2a and H2b are supported. On the other hand, H4a and H4b hypothesized a moderating effect of environmental dynamism on the relationships between Entre Passion Dev and the dimensions of strategic decision process. The results of Model 3 ($b=0.26$, $p<0.01$) and Model 6 ($b=0.15$, $p<0.01$) provide support for these hypotheses.

DISCUSSION

The significance of the findings in this study lies in the empirical exploration of the middle managers' entrepreneurial abilities influence on strategic decision-making. Specifically, it tested the influence of Entre Alert and Entre Passion Dev on two dimensions of the strategic

decision process, namely Stra Dec Compre and Stra Dec Speed. It also tested the moderating influence of environment dynamism on these relationships. The findings not only support the majority of the hypotheses stated in this study, but also extend entrepreneurship and strategy literature by confirming that both Entre Alert and Entre Passion Dev influenced middle managers' Stra Dec Speed. This result was even more salient when the dynamism of the environment was conducive to strengthening these influences.

Furthermore, the results show that some control variables influence the strategic decision process. The findings on entrepreneurial experience, firm size, and fear of failure were revealing. The finding that entrepreneurial experience influences the strategic decision process is consistent with the findings of Elbanna and Child (2007) and (Roundy et al., 2018). Furthermore, firm size also influenced Stra Dec Compre and Stra Dec Speed, which presents the same perspective as the results of Kim & Huh (2015) and Nandakumar et al. (2010), who argued that organizational structures and characteristics, specifically size, play an important role in speeding up or slowing down strategic decision making. On the other hand, the result that the fear of failure demonstrated a negative influence on the strategic decision process calls for further attention. The influence of fear of failure was more considerable on Stra Dec Compre than on Stra, which may indicate that decision makers who have more time to analyze their decisions develop more fear of failure. This result confirms the importance of including fear of failure within the study of entrepreneurial endeavors (Cacciotti & Hayton, 2015). Also, the results show that, when decisions must be made quickly, the fear of failure decreases considerably. This result should be considered with caution, since it could indicate that speed plays against good decision-making, an aspect that has already been commented within previous studies (e.g., Eisenhardt, 1989; Mitchell et al., 2011).

The results of this study also have some practical implications. For example, the top management of a firm must understand that individuals who are alert to business opportunities, are passionate, have entrepreneurial experience, and have no fear of failure can be agents of change within a firm. This can have a greater impact if the work environment and the organizational structures support individuals with these kinds of attributes. In this order of ideas, training should be seen as an investment in human capital. Middle managers play an important role between top management and operational staff, as they are responsible for executing strategic planning (Ukil & Akkas, 2017). Thus, the allocation of resources that strengthen the abilities and decision-making of these actors within companies should not be constrained.

Finally, this study has some limitations. First, the role of middle manager is not homogeneous within all firms, since the scope of responsibility and significance of decisions might depend on other factors (Elbanna & Child, 2007). Future studies could further detail the profile of the middle manager as well as the characteristics of the companies and industries in which they compete. Second, this study did not consider the internal conditions of the companies, which can influence decision-making (Easterby-Smith et al., 2008). Future studies could include variables such as autonomy for decision-making or the support that middle managers receive from top management or internal environment to carry out their work.

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