ENTREPRENEURIAL ALERTNESS OF FOUNDER-MANAGERS AND THE MODERATING EFFECT OF THEIR FEAR OF FAILURE

Héctor Montiel-Campos*

Universidad de las Americas Puebla, School of Business and Economics, San Andres Cholula, Puebla, 72810, Mexico

(Received 10 November 2020; accepted 19 January 2022)

Abstract

The purpose of this paper is to empirically examine entrepreneurial alertness as a process and the influence of fear of failure on this process in the context of small firms. The hypotheses are tested within a sample of 179 founder–managers from small manufacturing firms in Eastern Mexico using a hierarchical regression analysis. The results show that the association and connection dimension partially mediates the relationship between the scanning and search dimension and the evaluation and judgment dimension. Also, these relationships are negatively moderated by fear of failure. This study contributes to the existing opportunity recognition research, specifically to better understand entrepreneurial alertness as a process that simultaneously crosses three different dimensions and incorporates the influence of fear of failure.

Keywords: Entrepreneurial alertness, fear of failure, founder-manager

1. INTRODUCTION

Entrepreneurial alertness (EA) has received increasing attention in the entrepreneurship literature to explain opportunity recognition (Adomako et al., 2018; Sharma, 2019). In its origin, alertness has been conceptualized as a process that helps some individuals be more aware of changes, opportunities and overlooked possibilities (Kirzner, 1973, 1979). Likewise, EA reflects an entrepreneur’s ability to recognize an opportunity ahead of others and has the potential to improve the understanding of how new business ideas get initiated and pursued (Tang et al., 2012).

Despite previous scholarly efforts to enhance understanding of the EA concept, the literature has two notable gaps. First, no studies have empirically analyzed EA as a process by itself. Second, according to Uy et al. (2015), it is important to examine the
influence of context on the EA process. Fear of failure (FoF) is a construct that has received scholarly interest within the entrepreneurship field, and it has been predominantly investigated as a factor that inhibits entrepreneurial choices (Morgan & Sisak, 2016). FoF serves to sensitize individuals to possible negative consequences of context and can help shape the opportunity recognition process (Wood et al., 2014).

Accordingly, this research makes three main contributions. First, this study seeks to answer to Tang et al.’s (2012) call to empirically explore EA as a process. Second, the present study reflects recommendations made by Wood et al. (2014) on how to develop a deeper understanding of the relationship between FoF and opportunity recognition. Third, the proposed relationships are examined in the context of small firms, where the founder–manager or entrepreneur typically dominates the decision making process (Khan et al., 2019).

The next section of this document includes a review of the literature where EA is conceptualized as a process, FoF as a moderating variable in this process and the working hypotheses are formulated. Subsequently, the methodology is developed and the next section shows the study’s main results. Finally, the discussion of the results is presented.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Opportunity recognition and entrepreneurial alertness

Research on opportunity recognition in terms of a theoretical framework has rapidly increased since the publication of Shane and Venkataraman (2000). In fact, entrepreneurship research has devoted significant attention to investigating the nature of opportunity recognition and, considered as a whole, provides clear evidence of the several key factors that play a role in its occurrence (e.g., Short et al., 2010; Shane, 2012). According to Shane (2012), opportunity recognition is a process through which ideas for potentially profitable new business ventures are identified by specific individuals. Despite the importance of this process in entrepreneurship research, its basic nature is still not well known.

In entrepreneurial opportunity research, EA has been identified as an important entrepreneurial ability to explain the business opportunity identification process. Kirzner (1973, 1979) provided the origin of the EA concept and defined alertness as a process and perspective that helps some individuals to be more aware of changes, shifts, opportunities, and overlooked possibilities. Subsequent work has expanded from Kirzner’s early conceptions of EA (e.g., Busenitz, 1996; Gaglio & Katz, 2001; Kaish & Gilad, 1991), but the literature has not yet settled on one widely accepted definition of the construct (Sharma, 2019).

Despite no agreement being reached on a definition for what constitutes EA, its conceptualization has evolved, and scholarly enquiry has argued that it constitutes an individual’s propensity to notice and be sensitive to information about objects, incidents, and patterns of behavior in the environment, with special sensitivity to make and use problems, unmet needs and interests, and novel combinations of resources (e.g., Tang et al., 2012; Valliere, 2013). Previous studies have identified the
different core components of EA, and they seem to reach the consensus that EA rests, at least in part, on individuals’ cognitive capacities (e.g., Sharma, 2019; Chavoushi et al., 2021). Furthermore, given its importance, EA relates to other concepts. For example, Karimi (2020) found an indirect relationship between entrepreneurial passion and EA, because passionate individuals engage in activities such as finding new ideas, tinkering with the new development of products, or scanning the environment for business opportunities. More directly, Li et al.’s (2020) show that entrepreneurial passion positively and significantly influences EA, which thereby has a positive effect on entrepreneurial intention and behavior. From this same perspective, Montiel-Campos (2021) found that entrepreneurs’ passion is related to the strategic change of their firms and that this relationship is moderated by some elements of EA. Another example of the relationship of EA with other concepts is found, for example, in the work of Kong et al. (2020), who argued that individuals with high psychological capital could more easily overcome the fear of failure and then enhance the probability of discovering and utilizing business opportunities.

Based on previous research, and particularly because of major measurement issues, Tang et al. (2012) conceptualized a model that theoretically divides EA into three complementary dimensions: (1) a proclivity to scan and search for new information, (2) the ability to connect disparate information and (3) the inclination to evaluate whether a new piece of information represents an opportunity. Additionally, Tang et al. (2012) developed a scale that more closely examines the interactions of the different dimensions of EA. The next section develops each of these dimensions and how they are related.

### 2.2. Entrepreneurial alertness as a process

Tang et al. (2012), drawing mainly on the works of Kirzner (1973, 1979), conceptualized EA as a process with three distinct dimensions: scanning and search, association and connection, and evaluation and judgment. Furthermore, this conceptualization considered McMullen and Shepherd (2006), who argue that alertness is not entrepreneurial unless it involves judgment and a movement toward action.

Consistent with Kirzner (2009) and Alvarez et al. (2013), the process of EA begins with the concurrence of two changes: changes in the environment, such as technological innovations or demographic shifts, that have the potential to change the value of products and resources in some market (Kirzner, 2009), and changes in the subjective conceptualization and meaning of these factors to an entrepreneur (Alvarez et al., 2013). According to Tang et al. (2012), these changes trigger the first dimension of the EA process (i.e., scanning and search), because entrepreneurs who are high in EA tend to search for and notice changes in the environment and to adjust their existing mental framework that does not match with the current information available.

The scanning and search dimension is interpreted as a constant and continuous scanning of the environments and searching for new information and dynamics in the environment unobserved by others (Tang et al., 2012). The alert entrepreneur scans for underutilized or unemployed resources, as well as new capabilities or technologies that may offer possibilities to create and deliver...
new value for prospective customers, even though the precise forms the new values will take may be undefined (Urban, 2017). Baron and Ensley (2006) commented that an alert individual has to “identify new solutions to market and customer needs in existing information, and to image new product and services that do not currently exist.” According to Tang et al.’s (2012) model, this is where the second dimension of the EA process takes place, that is, association and connection.

The perception of an existing “match” of market needs and resources represents the association and connection dimension. In other words, this dimension involves an ability to pull together disparate pieces of information and a propensity to build such information into coherent alternatives (Tang et al., 2012). Pattern recognition can be found in the essence of this dimension, which is a cognitive capacity to support the recognition that one situation is similar to another in a meaningful way and then detect patterns at some abstract level between the two situations (Baron & Ensley, 2006).

Tang et al. (2012) argued that this dimension enables entrepreneurs to understand what data are relevant and needed to connect multiple sides of the issue. As such, the association and connection dimension provides a capacity to use creative-cognition to spot and interpret information in varied knowledge domains related to the development of new opportunities. Hence, on the basis of the previous arguments about the two dimensions of EA, this study proposes the following hypothesis:

**H1.** Founder–managers’ scanning and search dimension is positively related to their association and connection dimension.

The alert entrepreneur, by engaging in these activities related to the association and connection dimension, is ready to identify and evaluate if an opportunity arises from new information, that is, the last dimension of EA. According to McMullen and Shepherd (2006), the evaluation and judgment dimension includes two important evaluations that complement each other. First, the entrepreneur has to believe that a potential opportunity exists and can be attractive for someone else. Second, the entrepreneur has to assess if they possess the right cognitive frameworks and sufficient motivation to exploit the opportunity. Tang et al. (2012) emphasized that the evaluation in this dimension does not entail launching and capitalizing on the opportunity, only whether an opportunity exists and is worth exploiting. Alternatively, the evaluation and judgment dimension may require entrepreneurs to get additional insights in order to adjust and reconsider related alternatives (Tang et al., 2012).

According to Tang et al. (2012), it could appear that entrepreneurs arrive at the evaluation and judgment dimension without a detailed analysis; however, they have processed relevant and available information from a variety of channels. Entrepreneurs make their judgments based on their patterns to clarify what the associated information entails in terms of an unmet market need (Baron & Ensley, 2006). Accordingly, this study raises the following hypothesis:

**H2.** Founder–managers’ association and connection dimension is positively related to their evaluation and judgment dimension.

2.3. Potential moderating effects of fear of failure

Theoretical frameworks on EA emphasize that alertness is not the outcome
of a unitary cognitive ability but results from an interaction of personal and contextual factors (Sharma, 2019). An important contextual factor for the EA process is FoF, whose influence is situated in a larger social context and can depend on the entrepreneur’s point in the entrepreneurial process. Previous studies have revealed that scholars have used multiple theoretical perspectives to explain the nature of FoF and investigate its effects on entrepreneurial behavior (e.g., Cacciotti & Hayton, 2015; Cacciotti et al., 2016; Morgan & Sisak, 2016). Although these studies confirm that FoF has been predominantly investigated by its negative impact on entrepreneurial activity, some evidence suggests the possibility of both motivating and inhibitory responses of FoF on entrepreneurial behavior.

Cacciotti and Hayton (2015) defined FoF as a "temporary cognitive and emotional reaction towards environmental stimuli that are apprehended as threats in achievement contexts." This definition is consistent with Chua and Bedford’s (2016) proposal, who argued that FoF has frequently been viewed as an avoidant motivation that orients one to strive for success, so that one will not experience shame or humiliation as a consequence of failure. According to Cacciotti et al. (2016), in dynamic situations, such as EA, it is expected that FoF will be based in a more nuanced moment-to-moment interaction among the cognitive evaluations of the person and the context.

Although previous studies have not directly analyzed the influence of FoF on EA, there is evidence to consider a relationship between them. For example, Anokhin and Mendoza Abarca’s (2011) study found that FoF negatively moderated the relationship between perceived opportunities and entrepreneurial activity. Similarly, the studies of Foo (2011) and Grichnik et al. (2010) found that fear influenced individuals’ judgment about the opportunity. Kollmann et al. (2017) demonstrated that the perception of obstacles activates FoF, which, in turn, has a detrimental impact on opportunity evaluation. In summary, previous study results seem to suggest that FoF influences the EA process, and this influence may be inhibitory. Hence, this study states the following hypotheses:

**H3.** Founder–managers’ fear of failure can negatively moderate the relationship between their scanning and search dimension and association and connection dimension, so that the positive relationship will be weaker when the scores for fear of failure are high.

**H4.** Founder–managers’ fear of failure can negatively moderate the relationship between their association and connection dimension and evaluation and judgment dimension, so that the positive relationship will be weaker when the scores for fear of failure are high.

### 3. METHODOLOGY

**3.1. Sample and data collection**

The sample for this study was considered as not probabilistic because the purpose was to identify firms located in the Eastern zone of Mexico. The initial sample for this study consisted of 2,558 firms that had to meet the following criteria: (1) have between 11 and 50 employees to be considered a small firm, according to the Ministry of Economy in Mexico; (2) be in the manufacturing sector; and (3) not franchising. The characteristics of the sample ensured that the founder–
manager had an important role in the decision-making and behavior of the firm (Khan et al., 2019). Electronic invitations were sent to each one of the firms to participate in a survey by Internet. In all, 241 questionnaires were received, representing a 14% response rate. However, 62 questionnaires were eliminated because they were not answered by the founder–manager, leaving 179 small firms as the final sample for analysis in this study. The firms had an average age of 14.7 years and an average size of 32.5 employees. The founder–managers’ age ranged from 31 to 62 years old, with an average age of 44.9. Of the founder–managers, 89% were men and had an average experience of 10.8 years in the industry in which the firm was operating.

3.2. Measurements

EA was measured using the scale developed by Tang et al. (2012). The items were measured on 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The study included separate measures for each dimension, so that the items were averaged to form three composite measures as follows: Six scanning and search items (Cronbach’s alpha = 0.86); three association and connection items (Cronbach’s alpha = 0.80); and four evaluation and judgment items (Cronbach’s alpha = 0.78). FoF was assessed using the five-item scale developed by Conroy et al. (2002). 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 0.75.

This study used two kinds of control variables. The firm-level control variables included firm age (the number of years the firm had been in business) and firm size (based on the number of full-time employees). The individual-level control variables included founder–manager’s age (in years), gender (female = 0; male = 1) and experience (years of experience that the founder–manager had in the industry).

3.3. Discriminant validity

Although the variables in this study were measured with scales that have been previously used and validated in order to mitigate the potential effects of common method bias, this study conducted a confirmatory factor analysis (CFA). To perform a CFA, two models were used. The first model considered all items as one factor. The second model considered four factors, in which it was expected that all variables load in their respective factors. Results showed that the four-factor model fit indexes very well (i.e., comparative fit index [CFI] = 0.95, normed fit index [NFI] = 0.97, goodness-of-fit index [GFI] = 0.91, root mean square error of approximation [RMSEA] = 0.03, and $\chi^2$/df = 2.37), while the one-factor model did not (Hu & Bentler, 1999). Also, the values of internal validity (Cronbach’s $\alpha$) and composite reliability (both greater than 0.70; Hair et al., 2006), and the magnitude of the average variance extracted (AVE) estimates (greater than 0.50; Bagozzi & Yi, 1988) provided evidence of the convergent validity of the measurement scales.

4. RESULTS

Table 1 shows the means, standard deviations and correlation values between the latent variables of the reference model. Hypothesis 1 predicts that founder–managers’ scanning and search dimension is
positively related to their association and connection dimension. The result of Model 2 of Table 2 provides support for Hypothesis 1, that is, scanning and search is positive and significantly related to association and connection ($\beta = 0.28, p < 0.001$). Hypothesis 2 predicts that association and connection dimension is positively related to evaluation and judgment dimension. Results (Model 5 of Table 3) provide support for H2: association and connection is significantly related to evaluation and judgment ($\beta = 0.35, p < 0.001$).

Hypothesis 3 proposes that FoF can negatively moderate the relationship between the scanning and search dimension and the association and connection dimension. As shown in Model 4 of Table 2, results offer support for Hypothesis 3 ($\beta$ of the interaction between scanning and search and FoF = 0.25, p < 0.01). Consistent with previous arguments, the relationship between scanning and search and association and connection is indeed slightly weaker in the presence of a high level of FoF.

Hypothesis 4 predicts a negative moderating role of FoF with respect to the relationship between the association and

Table 1. Descriptive statistics and correlations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Firm age</td>
<td>14.7</td>
<td>3.51</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Firm size</td>
<td>32.5</td>
<td>8.40</td>
<td>0.26</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Age</td>
<td>44.9</td>
<td>10.6</td>
<td>0.33</td>
<td>0.08</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Gender</td>
<td>0.88</td>
<td>0.03</td>
<td>0.00</td>
<td>0.02</td>
<td>0.00</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Experience</td>
<td>10.8</td>
<td>4.62</td>
<td>0.30</td>
<td>0.17</td>
<td>0.13**</td>
<td>0.01</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. SS</td>
<td>4.28</td>
<td>0.47</td>
<td>0.12</td>
<td>0.05</td>
<td>0.07</td>
<td>0.04</td>
<td>0.10**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. AC</td>
<td>4.01</td>
<td>0.58</td>
<td>0.21</td>
<td>0.00</td>
<td>0.12</td>
<td>0.07</td>
<td>0.05**</td>
<td>0.45****</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8. EJ</td>
<td>4.43</td>
<td>0.25</td>
<td>0.09</td>
<td>0.03</td>
<td>0.20</td>
<td>0.00</td>
<td>0.15**</td>
<td>0.18**</td>
<td>0.48****</td>
<td>-</td>
</tr>
<tr>
<td>9. FoF</td>
<td>0.42</td>
<td>1.03</td>
<td>0.15</td>
<td>0.00</td>
<td>0.15</td>
<td>0.00</td>
<td>-0.03*</td>
<td>-0.02**</td>
<td>-0.01**</td>
<td>-0.04**</td>
</tr>
</tbody>
</table>

Notes: S.D., standard deviation; SS, scanning and search; AC, association and connection; EJ, evaluation and judgment; FoF, fear of failure. *p < 0.10; **p < 0.05; ***p < 0.01; ****p < 0.001

Table 2. Results of the moderation effect of scanning and search dimension and fear of failure on association and connection dimension

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm age</td>
<td>0.04</td>
<td>0.03</td>
<td>0.03</td>
<td>0.02</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.10</td>
<td>0.09</td>
<td>0.09</td>
<td>0.08</td>
</tr>
<tr>
<td>Age</td>
<td>0.07</td>
<td>0.07</td>
<td>0.05</td>
<td>0.03</td>
</tr>
<tr>
<td>Gender</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Experience</td>
<td>0.12*</td>
<td>0.10*</td>
<td>0.10*</td>
<td>0.04*</td>
</tr>
<tr>
<td>SS</td>
<td>0.28****</td>
<td>0.20****</td>
<td>0.16****</td>
<td>-</td>
</tr>
<tr>
<td>FoF</td>
<td>-0.09**</td>
<td>-0.08**</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SS × FoF</td>
<td>-</td>
<td>-</td>
<td>0.25***</td>
<td>-</td>
</tr>
<tr>
<td>R²</td>
<td>0.06</td>
<td>0.18</td>
<td>0.21</td>
<td>0.22</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.03</td>
<td>0.17</td>
<td>0.20</td>
<td>0.21</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0.06</td>
<td>0.12</td>
<td>0.03</td>
<td>0.01</td>
</tr>
<tr>
<td>F value</td>
<td>18.11*</td>
<td>21.03**</td>
<td>29.20**</td>
<td>30.53**</td>
</tr>
</tbody>
</table>

Notes: SS, scanning and search; AC, association and connection; FoF, fear of failure. *p < 0.10; **p < 0.05; ***p < 0.01; ****p < 0.001
connection dimension and the evaluation and judgment dimension. Results offer support for H4 (Model 6 of Table 3). FoF negatively moderates the relationship between the association and connection dimension and the evaluation and judgment dimension (β of the interaction between association and connection and FoF = 0.20, p < 0.001). The coefficient decreased from 0.35 (p < 0.001 in Model 5) to 0.20 (p < 0.001 in Model 6).

In order to test the proposal that the FoF-moderated association and connection dimension mediates the relationship between the scanning and search dimension and the evaluation and judgment dimension, this study followed the three conditions developed by Baron and Kenny (1986). In relation to the first condition, the relationship between the independent variable and dependent variable was examined, as well as the relationship between the independent variable and the mediator. As shown in Model 4 of Table 3, the FoF-moderated scanning and search dimension was significantly related to the evaluation and judgment dimension (β = 0.21, p < 0.01). As shown in Model 4 of Table 2, there is a significant relationship between the FoF-moderated scanning and search dimension and the association and connection dimension (β = 0.25, p < 0.01). Then, the first condition is met. According to the second condition, the mediator should be a significant predictor of the dependent variable. As indicated in Model 6 of Table 3, the FoF-moderated association and connection dimension is significantly associated with the evaluation and judgment dimension (β = 0.20, p < 0.001). Third and finally, as Models 4 and 6 in Table 3 demonstrate, the coefficient for the FoF-moderated effects of the scanning and search dimension on the evaluation and judgment dimension is reduced when the FoF-moderated effects of the association and connection dimension were included in the regression. The coefficient decreased from 0.21 (p < 0.01 in Model 4) to 0.08 (p < 0.05 in Model 6). Thus, according to Baron and Kenny (1986), the FoF-moderated

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm age</td>
<td>0.08</td>
<td>0.08</td>
<td>0.08</td>
<td>0.07</td>
<td>0.07</td>
<td>0.04</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Age</td>
<td>0.11</td>
<td>0.10</td>
<td>0.09</td>
<td>0.09</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>Gender</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Experience</td>
<td>0.15**</td>
<td>0.12**</td>
<td>0.12**</td>
<td>0.13**</td>
<td>0.12**</td>
<td>0.07***</td>
</tr>
<tr>
<td>SS</td>
<td>0.16***</td>
<td>0.19***</td>
<td>0.15***</td>
<td>0.14***</td>
<td>0.11**</td>
<td></td>
</tr>
<tr>
<td>FoF</td>
<td>-0.14**</td>
<td>-0.09**</td>
<td>-0.09**</td>
<td>-0.13**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS × FoF</td>
<td></td>
<td>0.21***</td>
<td>0.20**</td>
<td>0.08**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC</td>
<td></td>
<td></td>
<td>0.35****</td>
<td>0.22***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC × FoF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.20***</td>
</tr>
<tr>
<td>R²</td>
<td>0.09</td>
<td>0.11</td>
<td>0.16</td>
<td>0.21</td>
<td>0.25</td>
<td>0.29</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.05</td>
<td>0.09</td>
<td>0.15</td>
<td>0.20</td>
<td>0.24</td>
<td>0.28</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0.09</td>
<td>0.02</td>
<td>0.05</td>
<td>0.05</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>F value</td>
<td>22.17*</td>
<td>22.93**</td>
<td>25.16**</td>
<td>27.83**</td>
<td>29.05**</td>
<td>32.03**</td>
</tr>
</tbody>
</table>

Notes: SS, scanning and search; AC, association and connection; EJ, evaluation and judgment; FoF, fear of failure.
*p < 0.10; **p < 0.05; ***p < 0.01; ****p < 0.001
association and connection dimension partially mediates the positive relationship between the FoF-moderated scanning and search dimension and the evaluation and judgment dimension because the effect of the independent variable is reduced but remains significant.

5. DISCUSSION

5.1. Key findings

Overall, these results indicate that scanning and search activities for information trigger the EA process and allow founder–managers to be persistent in their attempts to take advantage of an opportunity worth pursuing, which is consistent with previous literature (e.g., Alvarez et al., 2013; McMullen & Shepherd, 2006). However, such effects are not direct; rather, they are mediated by intervening activities. Specifically, in the present study, the activities related to connecting previously disparate information were found to partially mediate the relationship between scanning and search activities and the activities related to evaluate whether the information represents an opportunity, which is consistent with the model by Tang et al. (2012) model.

The results also indicate that both the relationship between the scanning and search dimension and the association and connection dimension, and the relationship between the association and connection dimension and the evaluation and judgment dimension, are moderated by FoF. Both relationships were weaker in high-FoF conditions and were predicted on the basis of the literature review (e.g., Anokhin & Mendoza Abarca, 2011; Kollmann et al., 2017). Therefore, this result is consistent with the study by Kong et al. (2020), whose results showed that FoF weakens the relationship between entrepreneurial intention and action. Similarly, Ng and Jenkins (2018) found that FoF might prevent confident nascent entrepreneurs from acting on their entrepreneurial intentions. From a more general perspective, the result obtained in this study contributes to a deeper understanding of FoF and complements those obtained by previous studies (e.g., De Souza & Tomei, 2016; Alkhazaleh & Mahasneh, 2016; Alessa, 2019; Trang et al., 2019), which analyze the influence of demographic variables such as age, gender, professional status, and academic level on the intensity of FoF. Specifically, Trang et al. (2019) found that individuals’ education influences their FoF; that is, the higher the individuals’ education, the weaker the negative effect of FoF on the perception of starting a business. Therefore, these results confirm the arguments of Cacciotti and Hayton (2015), who stated that FoF plays an important role in entrepreneurship, thus influencing individuals’ decisions, their capacity to recognize or create opportunities, and their motivation in the face of adversity.

At this point, one must address the significant relationship between the scanning and search dimension and the evaluation and judgment and the fact that the association and connection dimension partially mediates the positive relationship between scanning and search and evaluation and judgment under the influence of FoF. According to Tang et al. (2012), an individual is unlikely to go from the scanning and search dimension to making judgments about the potentiality of the new opportunity without the information first having been interpreted and considered for more associations and
connections. However, the results of this study are somewhat contradictory to the proposal of Tang et al. (2012). One possible explanation for these findings is that sometimes founder–managers do not need more information to help them make more accurate evaluations on the potentiality of the new business idea. This finding contrasts with the original model developed by Tang et al. (2012), who do not consider a link between the scanning and search and evaluation and judgment dimensions. Instead, the authors consider that the scanning and search dimension involves a recursive relationship with the association and connection dimension, which could trigger additional associations and ideas. FoF can help interpret these results. For example, Hunter et al. (2021) found that FoF prompts the adoption of entrepreneurial strategies, provided that the entrepreneur believes they have the ability to act entrepreneurially. From the same perspective, Tsai et al. (2016) found that FoF was positively related to entrepreneurial intention. On the other hand, the finding by Lerche et al. (2018) is also interesting. They found that a high rate of FoF was related to slow information processing as well as reduced rates of learning. In short, the result obtained in this study contributes to a better understanding of the underlying influence of FoF in the recognition of opportunities through the concept of EA.

5.2. Limitations and suggestions for future research

The results of the present study are subject to some limitations that should be attended in future studies. First, all the participants in the present study operated their small firms in one region of Mexico. Further, although these small firms were located in the manufacturing sector, it is possible that the sample was not truly representative of founder–managers in other sectors. Additional data gathered in other geographic regions of Mexico—and perhaps outside of Mexico—are necessary to evaluate the extent to which the results of this study can be generalized. Second, although the results indicate that FoF moderates the relationships stated in this study, other variables not specifically investigated here may moderate the same relationships. For example, passion for inventing (Cardon & Kirk, 2015) might facilitate high relationships among EA dimensions. Another moderator variable could be environmental dynamism, which may reduce or increase the relationships among the dimensions of EA (Baron & Tang, 2011). Third, researchers who have studied FoF have called attention to the fact that the scale used in this study takes a personological orientation (Cacciotti & Hayton, 2015). The personological approach refers to FoF as a stable disposition that explains why people behave differently in similar situations (Cacciotti & Hayton, 2015). Future research should address this important issue using measures that have been designed to assess FoF as a temporary emotional state resulting from the perception of environmental threats.

5.3. Contributions and conclusion

Despite the limitations that have been argued, the findings of this study offer useful contributions. First, this study provides empirical evidence of the relationships among the dimensions of EA and their influence on how opportunities get identified and developed, which is especially important
in entrepreneurial opportunity research. Second, attaining a greater understanding of the relationships among individual-level variables, such as scanning and search, association and connection, and evaluation and judgment, contributes to the analysis of entrepreneurial thinking and cognition, which ultimately has been identified as an important task in the field of entrepreneurship.

From a more general perspective, these results serve to provide the potential influence of FoF in the field of entrepreneurship. The present findings strengthen the arguments that FoF can inhibit, but at the same time boost the entrepreneurial intentions of the individuals. In other words, the findings suggest that FoF among founder-managers can encourage the determination to recognize entrepreneurial opportunities. Since EA, in turn, is a key ingredient in the entrepreneurial process, the tendency to experience FoF in a wide range of contexts might indeed confer important advantages on founder–managers and the firms that they manage. More research should be conducted in order to obtain more granular information about the relationship between EA and FoF and more even multilevel models, especially those that involve antecedents or consequences of the EA process. We hope that the findings of this study will be useful for our fellow researchers in the opportunity recognition research.

References


ПРЕДУЗЕТНИЧКА ОПРЕЗНОСТ ОСНИВАЧА - МЕНАЦЕРА И МОДЕРАТОРСКИ ЕФЕКАТ ЊИХОВОГ СТРАХА ОД НЕУСПЕХА

Héctor Montiel-Campos

Извод

Сврха овог рада је да се емпиријски испита предузетничка опрезност као процес и утицај страха од неуспеха на овај процес у контексту малих предузећа. Хипотезе су тестиране на узорку од 179 оснивача-менаџера из малих производних фирми у источном Мексику, користећи хијерархијску регресиону анализу. Резултати показују да димензија удруживање и повезивање делимично посредује у односу између димензије скенирање и претраживање и димензије евалуације и процена. Такође, ови односи су у негативној интеракцији са страхом од неуспеха. Ова студија доприноси истраживању препознавања постојећих прилика, посебно да би се боље разумела предузетничка опрезност као процес који истовремено укрућу три различите димензије и укључује утицај страха од неуспеха.

Кључне речи: предузетничка опрезност, страх од неуспеха, оснивач-менаџер

Business Venturing, 26 (1), 49-60.
Grichnik, D., Smeja, A., & Welpe, I. (2010). The importance of being emotional:
how do emotions affect entrepreneurial opportunity evaluation and exploitation?


analysis: conventional criteria vs new alternatives. Structural Equation Modeling, 6 (1), 1-55.

Hunter, E., Jenkins, A., & Mark-Herbert, C. (2021). When fear of failure leads to
intentions to act entrepreneurially: insights from threat appraisals and coping efficacy.


Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of


