The impact of psychological capital on the entrepreneurial activity and the role of commitment

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Abstract

This empirical study focuses on the constructs of positive psychological capital (PsyCap) and entrepreneurial commitment, to explain differences on the level of entrepreneurial activity among nascent entrepreneurs. Using a sample of 203 nascent entrepreneurs participating in various settings, hierarchical regression analysis indicates that individuals who exhibit higher levels of entrepreneurial activity are those who can combine a high level of PsyCap with a strong commitment to new venture creation. The empirical verification of the synergistic effects of hope, efficacy, resilience and optimism, combined with entrepreneurial commitment, provides a complete view of the reasons why an individual succeed to become an entrepreneur, which could become a useful tool on the hands of entrepreneurship educators, since both PsyCap and commitment are state-like and developmental constructs.

Keywords: psychological capital, entrepreneurial commitment, entrepreneurial activity, new venture creation

Introduction

The continuing quest of discovering the motivations behind the formation of entrepreneurial behavior pushes researchers to constantly search for different more complex and complete constructs that could explain better why some individuals succeed to create new ventures while others abandon their efforts to become entrepreneurs (Delanoë-Gueguen & Fayolle, 2018; Fayolle & Liñán, 2014; Krueger, 2009).

Based on intention models, the numerous studies of nascent entrepreneurship research have overwhelmingly focused on the process leading to the formation of entrepreneurial intentions, disregarding the link between intentions and entrepreneurial behavior (Liñán & Fayolle, 2015; Schlaegel & Koenig, 2014). Meanwhile, recent evidence shows a disproportion between the number of people who wish to become entrepreneurs and those who actually create new ventures (e.g. Delanoë-Gueguen & Fayolle, 2018; Mwange, 2018; Nabi, Liñán, Fayolle, Krueger, & Walmsley, 2017; Treffers, Klyver, Nielsen, & Uv. 2019; Weiss, Anisimova, & Shirokova, 2019), In this spirit, the present study embraces the arguments of Krueger (2009) and Reynolds and Curtin (2008), that entrepreneurial intentionality should express individuals' motivation and commitment about entrepreneurship, since new venture creation presupposes planning and demands from nascent entrepreneurs to invest effort and time (Kickul, Gundry, Barbosa, & Whitcanack, 2009; Reynolds & Curtin, 2009). Consequently, those who decide to become entrepreneurs should not only have the goal intention to become entrepreneurs but also commit themselves to an action plan for the new venture creation (Van Gelderen, Kautonen, & Fink, 2015). In summary, it is understood that there is an urgent need in nascent entrepreneurship research for redefining the meaning of entrepreneurial motivations and intentionality to include the empirical investigation of the intention-behavior link based on robust theories that explain both goalsetting and goal-striving (Adam & Fayolle, 2015; Delanoë-Gueguen & Fayolle, 2018; Keller, Bieleke, & Gollwitzer, 2019; Liñán & Fayolle, 2015; Weiss et al., 2019).

Building upon the theoretical mechanism of conation (Huitt & Cain, 2005), this empirical study focuses on the constructs of positive psychological capital (PsyCap) (Luthans & Youssef-Morgan, 2017; Luthans, Youssef, & Avolio, 2007b) and entrepreneurial commitment (Adam & Fayolle, 2015; Fayolle, Basso, & Tornikoski, 2011), to explain differences on the level of entrepreneurial activity among nascent entrepreneurs in the gestation phase of entrepreneurial process. Specifically, instead of simply investigating their direct effects, this study explores the moderating role of commitment on the relationship between PsyCap and entrepreneurial activity. Moreover, in order to reduce the potential misleading effects of other forms of capital, such as human or social, on individuals' decision to enter a nascent venturing process, this study controls for the effects of gender, age, work experience, education, and entrepreneurial family background (e.g. BarNir, Watson, & Hutchins, 2011; Fayolle, 2013; Fayolle & Liñán, 2014; Jayawarna, Rouse, & Macpherson, 2011; Schlaegel & Koenig, 2014; Xavier-Oliveira, Laplume, & Pathak, 2015).

Utilizing data from 203 nascent entrepreneurs participating in various settings, we evidence that nascent entrepreneurs who exhibit high levels of entrepreneurial activity are those who can combine a high level of PsyCap with a strong commitment to new venture creation. The empirical verification of our proposed conceptual model provides insights with significant theoretical and practical implications. On a theoretical perspective, the conceptual model corresponds to the call for alternative configurations of motivational antecedents of entrepreneurial behavior (Liñán & Fayolle, 2015). Contrary to the fragmented knowledge about the effects of the different personal and psychological variables, the empirical verification of the synergistic effects of hope, efficacy, resilience and optimism, combined with entrepreneurial commitment, provides a complete view of the reasons why an individual succeed to become an entrepreneur. On a practical perspective, the empirical findings of this study could become a useful tool on the hands of entrepreneurship educators, since both PsyCap and commitment are state-like and developmental constructs.

After this introductory section, the remainder of this research unfolds as follows. In the next section, we introduce the conceptual framework that we adopt to investigate the effects of PsyCap and commitment on the entrepreneurial activity. We then describe the method and the empirical results of our hypotheses testing. Finally, we discuss the findings in addition to their theoretical and practical implications.

Conceptual Framework

According to Huitt and Cain (2005) conation is defined as the mental process that activates and/or directs behavior and action. It is the intentional, planful, goal-oriented or striving component of motivation, and the proactive aspect of behavior (Baumeister, Bratslavsky, Muraven, & Tice, 1998).

Conation is closely associated with the concept of volition and self-regulation (Mischel, 1996), defined as the use of will, or the freedom to make choices about what to do. State it otherwise, conation deals with issues such as: "what are my intentions and goals?", "what am I going to do, what actions am I going to take, what investments am I going to make?" and "what are my plans and commitments?" (Huitt, 1999).

Conation, as the connection of knowledge and affect to behavior, facilitates agency, sense of control, and intentionality, all of which are critical for PsyCap, and also facilitates goal-directed energy, which can trigger the motivation and resource deployment necessary for goal pursuit, and promote a positive reaction when obstacles are encountered, which are aspects of commitment (Luthans & Youssef-Morgan, 2017).

In the present research, the target behavior under investigation is nascent entrepreneurship and more specific the actions for new venture creation. In the field of entrepreneurship, it is commonly accepted that new venture creation is a demanding, intended process that needs effort, time, and planning by nascent entrepreneurs (Delanoë-Gueguen & Fayolle, 2018; Liñán & Fayolle, 2015; Schlaegel & Koenig, 2014). Therefore, we propose a conceptual model based on the theoretical mechanism of conation in which we assume that successful (i.e. more active) nascent entrepreneurs are those who can combine their motivational capabilities (i.e. PsyCap) with an effective self-regulation (i.e. entrepreneurial commitment) which will help them direct correctly their efforts to goal pursuit.

Figure 1 Conceptual Model Entrepreneurial Commitment Psychological Capital Hope Entrepreneurial Efficacy Activity Resilience **O**ptimism **Control Variables Demographics** Gender, Age Human Capital Education, Working Experience Entrepreneurial Family Background

Psychological Capital

The creation of psychological capital is based on positive psychology and more specifically, on positive organizational behavior. This stream of research is concentrated on an individual level and includes constructs which are state-like, and thus open to development, and related to performance outcomes (Luthans, 2002, 2003; Luthans & Avolio, 2003; Luthans & Church, 2002). Positive organizational behavior (Cooper & Nelson, 2007; Wright, 2003) was first defined as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace" (Luthans & Church, 2002: 59). Thus, for a psychological strength or capacity to be included in the conception of positive organizational behavior, it must meet the scientific criteria of being theory and research-based, measurable, state-like or developmental, and related to performance outcomes.

Luthans, Youssef-Morgan, and Avolio (2015: p. 2) define PsyCap as "an individual's positive psychological state of development that is characterized by: (1) having confidence (efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity,

sustaining and bouncing back and even beyond (resilience) to attain success". PsyCap is a higher order construct that integrates <u>hope</u>, <u>efficacy</u>, <u>resilience</u> and <u>optimism</u>, or the HERO within, in a way that synergistically results in an impact on performance and attitudinal outcomes larger than the sum of its parts (Luthans, Avolio, Avey, & Norman, 2007a; Luthans & Youssef-Morgan, 2017).

The proposed core construct nature of psychological capital is further supported by psychological resource theories (Hobfoll, 2002), according to which individual resources should be treated as manifestations of an underlying core construct or an integrated resource set rather than in isolation (Cozzarelli, 1993; Rini, Dunkel-Schetter, Wadhwa, & Sandman, 1999; Thoits, 1994). Similarly, multiple-component resource theories support resource synergies, in which the whole is greater than the sum of the constituent parts (Antonovsky, 1979; Kobasa, 1979). Besides resource theory, as Luthans et al. (2007b) propose in their theory-building, psychological capital goes beyond established human and social capital. Specifically, psychological capital recognizes, builds upon and goes beyond the existing theory of human capital, which places emphasis on "what you know", and the social capital, which emphasises "who you know" (Adler & Kwon, 2002; Coleman, 1988; Hitt & Duane, 2002; Wright & Snell, 1999). Psychological capital is concerned with "who you are" and in the developmental sense, on "who you are becoming" (Avolio & Luthans, 2006; Luthans, Luthans, & Luthans, 2004; Luthans & Youssef, 2004).

Entrepreneurial Commitment

Having identified the insufficient knowledge and the lack of empirical evidence about how entrepreneurial motivations transform into concrete actions for new venture creation, Fayolle and Liñán (2014) acknowledge the need for a more comprehensive exploration of the different dimensions of entrepreneurial intentionality. Based on the findings from their systematic literature review, Liñán and Fayolle (2015) encourage entrepreneurship researchers to investigate entrepreneurial commitment as the missing link between intention and behavior, since commitment as a self-regulatory mechanism can lead to better goal attainment and help individuals to have a greater inclination to act on their intentions (Adam & Fayolle, 2015; Ajzen, Czasch, & Flood, 2009).

Despite the fact that the role of commitment is under-investigated in the context of nascent entrepreneurship, its relation to decision and action is well established in the fields of social and cognitive psychology, with researchers arguing that people are not committed through their ideas or feelings, but through their actions or behaviours (Kiesler, 1971). In a same vein, Festinger (1964) defines commitment as a decision that directly influences future behaviours. According to Beauvois and Joule (1981), in any given situation the more the individual acts, the more s/he commits her/himself. They also consider that individuals must feel they have a certain amount of freedom (real or perceived) when making a decision for ensuing actions to lead to commitment. Other psychologists define commitment as the force that stabilizes the behavior of individuals (Brickman, Abbey, & Halman, 1987), and gives them the strength to pursue whatever course of action they have undertaken, despite the obstacles met and whatever the attractiveness and potential of alternative options (Dubé, Jodoin, & Kairouz, 1997).

The notion of commitment extended in the entrepreneurship research, when Bruyat (1993) proposed a dynamic model of new venture creation structured around the concept of commitment. According to this model, an individual's commitment to a new venture creation process becomes a determining variable in understanding the actual point in time when the entrepreneurial process is set in motion, as well as how the new organization emerges. Commitment is considered total only when a stage has been reached in the process that makes going back impossible. Once fully committed to the process, the individual will go through with his/her project, as disengagement cost will appear too high.

More recently, Fayolle et al. (2011) defined entrepreneurial commitment as the moment when the individual starts devoting most of his/her time, energy and financial, intellectual, relational and emotional resources to his/her project. According to their perspective, commitment is the result of an action that necessarily leads to more actions. In this regard, commitment is a binding act after which the actor's degree of freedom will be reduced because what individuals accept when committing themselves includes two dimensions. On the one hand, they take part in a series of almost irreversible actions and, on the other hand, commitment relates to other actions that reach beyond what individuals can perceive at the time when they commit themselves. Moreover, commitment includes the total commitment of resources, which automatically excludes any other project (Fayolle et al., 2011).

Hypotheses Building

In the context of this study, PsyCap refers to individuals' positive motivational state that they could be successful entrepreneurs, which results from individuals' combined abilities and psychological capacities. Specifically, individuals with high PsyCap set high goals for themselves and thrive on challenging environments. They are self-motivated and invest the necessary effort to accomplish their goals. They persevere when faced with obstacles and can rebound from adversity, conflict, and failure. They also have a perception of internalized control upon the events in their lives and the necessary willpower to create alternative paths to the desired destination when situations are different from what they originally predicted. However, wishing to become an entrepreneur does not necessarily mean that you will finally acquire the identity of an actual entrepreneur, unless you start acting accordingly (Krueger, 2009). Therefore, nascent entrepreneurs except from being motivated should also commit themselves with a plan of actions to accomplish their goal (Ajzen et al., 2009).

Therefore, we argue that the answer in the question of why some individuals succeed to create new ventures while others abandon their efforts, lays on the theoretical mechanism of conation. Specifically, we expect that, having controlled for the effects of demographics as well as human and social capitals, the individuals who become highly active nascent entrepreneurs are those who can effectively combine their PsyCap with a strong commitment which will help them direct correctly their efforts to goal pursuit. Based on the above, the proposed conceptual model hypothesizes that:

Hypothesis 1: PsyCap is positive related to entrepreneurial activity.

Hypothesis 2: Commitment moderates the relationship between PsyCap and entrepreneurial activity.

Methodology

Sample

This study embraces the recommendations of Fayolle and Liñán (2014) about the necessity of sampling from a variety of contexts. Following techniques similar to multistage sampling (Dillman, Smyth, & Christian, 2014), we first clustered target population of nascent entrepreneurs into 3 groups, namely (a) participants at business incubators/accelerators, (b) participants at start-up contests and (c) postgraduate students enrolled in at least one entrepreneurship course. After that, we stratified the programs of each group from the biggest to the smallest and then we followed disproportionate sampling procedure to ensure a representative sample of each subpopulation (Dillman et al., 2014).

For the first two groups we decided to sample approximately 64 percent of all individuals, namely those in the four most popular incubators/accelerators and in the two biggest start-up contests. For the group of students, we decided to sample all of them because this group is numerically the smallest and the fact that students have done a business plan within a course of entrepreneurship does not mean that they also intend to become entrepreneurs, which is a prerequisite characteristic for this study.

From the total sample of 860 individuals, 220 have completed the questionnaires. After performing a data validation process for missing data and outliers (Hair, Black, Babin, Anderson, & Tatham, 2006), we excluded 17 questionnaires from the final analysis, succeeding a useful completed sample of 203 nascent entrepreneurs and a response rate of approximately 24 percent which is comparable to other studies of the entrepreneurial process (Kautonen, Van Gelderen, & Tornikoski, 2013; Van Gelderen et al., 2015).

Regarding the total sample, 39 percent of the respondents are female. The average age of the respondents is 33.5 years. Most of them have completed postgraduate or doctoral studies (67.5 percent). The average work experience of the respondents is 10 years and 36.5 percent have an entrepreneur parent. Furthermore, 55 percent of the sample has a monthly income under 1000 euros.

Measurement of variables

The dependent variable, namely entrepreneurial activity is measured by 21 discrete start-up activities referring to actions prior to the establishment of a new firm adapted from the second edition of Panel Study of Entrepreneurial Dynamics (PSED II) (Reynolds, 2011), as described in Appendix. Psychological capital is measured by the 24 items of the Psychological Capital Questionnaire developed by Luthans et al. (2007a) as a distinctive higher-order construct. The four selected measures, from which the final items of the PCQ emerged, are the scale for hope of Snyder et al. (1996), the scale for

resilience of Wagnild and Young (1993), the scale for optimism of Scheier and Carver (1985) and the scale for self-efficacy of Parker (1998). Entrepreneurial commitment is measured based on a 4-item scale from the Entrepreneurial Profile Questionnaire (Welsch, 1998) and PSED I. Liao, Murphy, and Welsch (2005) argue that these 4 items measure the commitment and focus of entrepreneurs regarding their entrepreneurial ventures. Stated differently, the items refer to the extent to which an entrepreneur spends time and resources on venture creation and the extent to which an entrepreneur gives up other pursuits to create and own a business.

Also, based on the recommendations and findings of prior studies and in order to reduce the potential misleading effects of other forms of capital, we control for the effects of demographic variables (i.e. gender and age), as well as human (i.e. education level and working experience) and social (i.e. entrepreneurial family background) capital (e.g. Delanoë-Gueguen & Fayolle, 2018; Mwange, 2018; Nabi et al., 2017; Treffers et al., 2019; Weiss et al., 2019; Xavier-Oliveira et al., 2015).

Analysis and results

This study uses STATA software (version13.0) to conduct the statistical analysis. Table 1 presents the descriptive (mean, standard deviation, min and max) and summary statistics of the confirmatory factor analysis that was used to verify variable structures of PsyCap and commitment. The figures show the chi-square values and multiple indexes (CFI, SRMR, RMSEA) that indicate a good model fit (Bollen, 1990; Hu & Bentler, 1999). In addition, the interitem reliability coefficient of the measures is acceptable according to the organizational attribute reliability standards suggested by Van de Ven and Ferry (1980). The arithmetic mean of the scores was computed to create a composite indicator that measures each variable, which will be used for further statistical analysis.

Table 1 Descriptive, Confirmatory Factor Analysis and Reliability Summary Statistics

Variable	Mea n	SD	Min	Ma x	x²(df)	p>x	CFI	SRM R	RMSE A	α
Psychological Capital ¹	5.43	0.7 8	2.2 8	7.0 0	0.70(2)	0.70	1.00 0	0.01	0.00	0.8 1
Норе	5.40	0.9 1	2.5 0	7.0 0	8.17(6)	0.23	0.99 6	0.02	0.04	0.8 5
Efficacy	5.80	0.9 4	1.6 7	7.0 0	9.26(6)	0.16	0.99 6	0.02	0.05	0.8 8
Resilience	5.52	0.9 0	2.8 0	7.0 0	3.81(5)	0.58	1.00 0	0.02	0.00	0.8 1
Optimism	4.99	1.1 2	1.5 0	7.0 0	1.66(2)	0.44	1.00 0	0.01	0.00	0.8 3
Entrepreneurial Commitment	5.06	1.3 5	1.0 0	7.0 0	1.23(1)	0.27	0.99 9	0.01	0.04	0.8 1

Number of observations: 203, ¹Higher order CFA

To test our hypotheses, we perform hierarchical regression analysis to confirm the presence of a positive direct effect of PsyCap on entrepreneurial activity (H1) and a moderating effect of entrepreneurial commitment on the link between PsyCap and entrepreneurial activity (H2). This involved running a series of regression analyses, starting with a model with control variables only, then introducing PsyCap and commitment, and subsequently the interaction between these two to evaluate the possible moderating effect of commitment. As shown in Table 2, the results of this analysis show that PsyCap (β =0.074, p=0.005) and commitment (β =0.056, p=0.000) are both positively associated with entrepreneurial activity, and that the interaction term between PsyCap and commitment is significant (β =0.054, p=0.000), supporting both hypotheses of this study.

Table 2 Hierarchical Regression - DV: Entrepreneurial Activity

(Beta reported) n=203	Model 1	Model 2	Model 3	Model 4
Controls				
Gender	-0.212**	-0.169*	-0.155*	-0.178**
Age	0.175	0.205	0.229	0.251
Education	-0.218**	-0.233**	-0.186**	-0.161*
Working Experience	0.023	-0.009	-0.017	-0.074
Entrepreneurial Family Background	0.094	0.097	0.117	0.145*
Independent Variables				
Psychological Capital		0.217**	0.143	0.191**
Entrepreneurial Commitment			0.230**	0.253***
Interaction Term				
PsyCap*Commitment				0.245***
Constant	0.509**	-0.005	-0.172	-0.323
R ²	0.14	0.19	0.23	0.28

Notes: *** p=0.000; ** p≤0.01; * p≤0.05

Furthermore, to test the nature of the interaction effect, we conduct a simple slope analysis (Aiken, West, & Reno, 1991). According to this analysis, we create plots for the significant moderating variable (i.e. commitment) by using values of one standard deviation below mean (low commitment), one at mean (medium commitment) and one standard deviation above mean (high commitment). Then we test the significance of these slopes using a bootstrapping approach with 5000 replications (Hayes, 2013; Preacher, Rucker, & Hayes, 2007) to obtain standard errors and confidence intervals. We prefer this approach over the normal theory-based approach because the biased corrected and percentile confidence intervals are non-symmetric and can better reflect the sampling distribution of interaction effects. Figure 2 shows the plots for the direct effect of PsyCap on entrepreneurial activity and the moderating effects of entrepreneurial commitment on the relationship between PsyCap and entrepreneurial activity. These plots suggest that the interaction effects increase slowly as the value of the moderator variable increases. In other words, the relationship between PsyCap and entrepreneurial activity is more positive as the entrepreneurial commitment increases. Table 3 presents the significance tests of the slopes.

Figure 2 Moderating Effects of Entrepreneurial Commitment on the Relationship between PsyCap and Entrepreneurial Activity

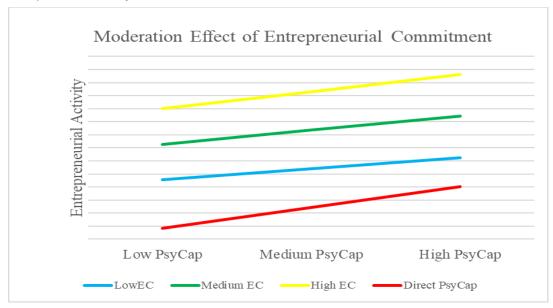


Table 3 Simple Slope Analysis for the Moderating Effects of Entrepreneurial Commitment on the Relationship between PsvCap and Entrepreneurial Activity

	Observed Coefficien ts	Bias	Bootstrap Standard Errors	Z	P> z	[95% Confidence Interval]		
Low EC	0.275	-0.012	0.072	3.830	0.000	0.134	0.415	(N)
						0.096	0.394	(P)
						0.125	0.403	(BC)
Medium EC	0.348	-0.016	0.093	3.730	0.000	0.165	0.530	(N)
						0.123	0.502	(P)
						0.152	0.514	(BC)
High EC	0.421	-0.020	0.115	3.650	0.000	0.195	0.647	(N)
						0.142	0.611	(P)
						0.175	0.628	(BC)

Notes: (N) normal-based confidence interval, (P) percentile confidence interval, (BC) bias-corrected confidence interval

Conclusion

This study provides evidence that can be utilized in the so-called gestation phase of the entrepreneurial process, by shifting the focus from the formation of the initial interest about entrepreneurship to the goal-striving period (Fayolle & Liñán, 2014). Responding to the need about testing alternative, more complex configurations of motivational and self-regulating factors leading to the start-up decision (Liñán & Fayolle, 2015), the presented evidence highlights a) the importance of PsyCap as the motivating factor behind entrepreneurial activity, and b) the moderating role of commitment, which explains the optimal conditions within which PsyCap thrives and lead to the desired outcome of new venture creation (Luthans & Youssef-Morgan, 2017).

Utilizing knowledge of the diversified levels of PsyCap and commitment among nascent entrepreneurs could result in tailor-made training and mentoring initiatives. Since PsyCap is a developmental structure, which emphasizes on "who you are" and "who you can become" instead of "what and who you know" that is the primary focus of human and social capital accordingly (Luthans et al., 2004) such initiatives could help nascent entrepreneurs cultivate their PsyCap by gaining hope, fostering resiliency, and having more faith in their soft skills that are occasionally more important than qualifications.

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Appendix: List of measurement items and sources of variables

Scales References

Entrepreneurial Activity

PSED II

For the following start-up activities please indicate if you have completed the action, if you are going to do it soon, or if you think it is irrelevant for the creation of your venture.

- 1. Thinking/Writing first business idea.
- 2. Gathering start-up specific information.
- 3. Visiting start-up specific events.
- 4. Organizing start-up team.
- 5. Determining our role and participation in the new venture.
- 6. Talking with potential clients.
- 7. Talking with potential suppliers, distributors.
- 8. Preparing a business plan.
- 9. Talking with an accountant, lawyer.
- 10. Looking for facilities, equipment.

Scales References

- 11. Buying/Renting facilities, equipment.
- 12. Saving money to invest.
- 13. Investing own money.
- 14. Asking for funding.
- 15. Getting financial support.
- 16. Devoting on a full-time basis.
- 17. Developing models/prototypes.
- 18. Applying for license/patent.
- 19. Forming legal entity.
- 20. Determining our role and participation in the operation of the new venture.
- 21. Hiring employees.

Entrepreneurial Commitment

Liao et al..

Please indicate (from 1 to 7) the extent to which you agree with the following 2005 statements:

- 1. Owning my own business is more important than spending time with my family.
- 2. There is no limit as to how long I would give a maximum effort to establish my business.
- 3. I would rather own my own business than pursue another promising career.
- 4. My personal philosophy is to do "whatever it takes" to establish my own business.

Psychological Capital

Luthans et

al., 2007

Please indicate (from 1 to 7) your level of agreement with the following statements: Confidence/Self-efficacy

- 1. I feel confident analyzing a long-term problem to find a solution.
- 2. I feel confident representing my work in meetings.
- 3. I feel confident contributing to discussions about strategic issues.
- 4. I feel confident helping to set goals.
- 5. I feel confident contacting key people to discuss problems.
- 6. I feel confident presenting information to a group of colleagues.

Hope

- 1. I could think of many ways to get out of a jam.
- 2. I am energetically pursuing my goals.
- 3. There are lots of ways around any problem.
- 4. I see myself as being pretty successful.
- 5. I can think of many ways to reach my current goals.
- 6. I am meeting my work goals.

Resilience

- 1. I have trouble recovering from a setback and move on.
- 2. I usually manage difficulties one way or another.
- 3. I can be "on my own" if I have to.
- 4. I usually take stressful things in stride.
- 5. I can get through difficult times.
- 6. I feel I can handle many things at a time.

Optimism

- 1. When things are uncertain, I usually expect the best.
- 2. If something can go wrong, it will.
- 3. I always look on the bright side of things.
- 4. I'm optimistic about what will happen to me.
- 5. Things never work out the way I want them to.
- 6. I approach issues as if "every cloud has a silver lining".