Determining Factors for the Creation of Innovation-based Ventures

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Abstract

This research aims to create a model that provides a more complete view of the behavior of entrepreneurs, to investigate the influence of Social Capital, Entrepreneurial Self-Efficacy and Person-Entrepreneurship Fit in the transition of nascent entrepreneurs towards the venture creation. For the development of this research, a sample of 500 entrepreneurs located in Colombia who are in the process of creating a company was taken. The research methodology is hypothetical-deductive with a cross-sectional multiple causal correlation design with explanatory scope and is divided into three stages: First, an exploratory analysis of the data relating to the study variables is carried out. Second, a Principal Component Analysis is carried out. Finally, the third stage is the modelling using the Partial Least Squares - Path Modelling methodology. Among the most relevant findings, it is found that Social Capital is significant in explaining Person-Entrepreneurship Fit. In turn, Social Capital and Person-Entrepreneurship Fit are significant in explaining Entrepreneurial Self-Efficacy. Finally, the construct of Venture Creation is only significantly explained by Person-Entrepreneurship Fit. Consequently, it can be concluded that the influence of social and psychological variables within the business cycle are significant, and models and strategies must consider these elements in order to design tools that support the optimal development of start-ups within the business cycle, so that they consolidate as stable ventures.

1. Introduction

Colombia has a relatively high rate of unemployment. According to the National Administrative Department of Statistics (Departamento Administrativo Nacional de Estadística - DANE), the unemployment rate in January 2020 was 13% at the national level, and the situation is even worse among young people, with an unemployment rate of 17.6%. One potential solution is the development of new, innovation-based ventures that not only generate jobs but also create formal employment among the young population. Academia can contribute by providing findings on the phenomenon of entrepreneurship from a social perspective, making it possible to understand the individual and their environment in the transition towards the gestation of new businesses. However, contemporary definitions of entrepreneurship or approaches to entrepreneurship research focus on its emergence, i.e., the stage of conception. While this has been crucial to analyzing the phenomenon, given the wealth of information and abundance of material about this stage, Davidsson and Honig (2003) suggest that studies should address aspects in earlier stages, such as how opportunities are identified and acted upon, or how new organizations emerge. It has also been identified that business cycle research has primarily focused on businesses that are able to survive and grow, i.e., studies focus on the stages of infancy and adolescence. However, if the process is analyzed as a single system, it is clear that most entrepreneurial efforts do not lead to the founding of new organizations (Aldrich and Martinez 2007).

However, there is very little information on the number and characteristics of nascent entrepreneurs who attempt to create a start-up and the likelihood that these attempts will lead to the gestation of new businesses. While it is possible to see the results of entrepreneurial activity in the form of venture creation

and innovations, there is little information on how these new businesses actually came into existence. Studies of entrepreneurship demonstrate the successes of entrepreneurial activity, but there is little insight into why these particular entrepreneurial efforts succeeded while other efforts failed (P. D. Reynolds et al. 2004). One of the arguments put forward by the authors for more research in this context is the problem of identifying people who are starting businesses and are engaged in entrepreneurial activities with the aim of potentially creating a company.

Starting a new business is challenging due to multiple internal and external limiting factors (Weiss, Anisimova, and Shirokova 2019), or as Kannadhasan (2018) argues, new venture creation is the result of the interaction between the entrepreneurs' external environments and internal factors. By understanding those factors in the gestation phase – enabling entrepreneurs to move towards the founding of their companies – it is possible to strengthen the state of the art in this phase of the business cycle.

The identification and analysis of the factors that can improve entrepreneurial performance has become a key topic in the management and entrepreneurship literature. Understanding how and why only some business ventures are successful enough to become true drivers of wealth creation and economic and social development is even more important in developing countries (Vila, Fornoni, and Palacios 2013). Accordingly, there is great merit in discovering how to help nascent entrepreneurs avoid being "stillborn" (P. Reynolds et al. 2004)

To identify key aspects that facilitate the transition towards the development of start-ups, Drnovšek et al. (2010) studying the writings of Gatewood, argue that "self-efficacy influences the development of attributions of nascent entrepreneurs' for creating new businesses".

Based on social cognitive theory, Bandura (1982) develops the theory of self-efficacy to explain the variability of individuals in goal attainment. Individuals with different levels of self-efficacy beliefs are expected to differ systematically in the amount of effort they expend on goal-directed tasks, the extent to which they engage in coping activities to overcome impediments, and the degree to which they persistently pursue goals despite obstacles.

The development of self-efficacy theory in psychology and its contribution to the field of entrepreneurship led to the development of the concept of entrepreneurial self-efficacy (ESE). Drnovšek, Wincent, and Cardon (2010) state that "ESE involves individuals' beliefs regarding their capabilities for attaining success and controlling cognitions for successfully tackling challenging goals during the business start-up process".

Along the same lines, McGee et al. (2009) defines entrepreneurial self-efficacy as "a construct that measures a person's belief in their ability to successfully launch an entrepreneurial venture".

In turn, Hsu et al. (2019) argue that, despite having a high level of entrepreneurial self-efficacy, if entrepreneurship does not meet their personal needs there will be no intention to start a business. The boundary discussed above is studied by the authors through the person-environment fit (P-E Fit) theory,

consequently, these authors develop a new construct called person-entrepreneurship fit (P-ENT Fit). This finding moderates the relationship between entrepreneurial self-efficacy and entrepreneurial intention and should be considered when understanding the factors that influence an individual to transition towards developing a start-up.

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The intention to become an entrepreneur is not only a question of individual personality but also the individual's interaction with the social environment (Chuluunbaatar et al. 2011). In this respect, social capital as an external factor is a determinant for entrepreneurs to transition towards creating new businesses (De Carolis, Litzky, and Eddleston 2009; Myint, Vyakarnam, and New 2005; Eriksson and Rataj 2019; Kreiser, Patel, and Fiet 2013; Kee and Khin 2019; Xu 2016; Westlund, Larsson, and Olsson 2014; Klyver and Schenkel 2013; Xu 2011; Capelleras, Greene, and Kantis 2010; Kannadhasan et al. 2018; Vila, Fornoni, and Palacios 2013).

Analyzing the phenomenon and the contributions of different authors, the re-search problem is defined as follows:

How do social capital, entrepreneurial self-efficacy and person-entrepreneurship fit positively impact the transition of nascent entrepreneurs towards the creation of start-ups?

2. Literature Review

Research in the field of venture creation is not a recent topic. These studies attempt to provide an explanation for why start-ups fail or succeed. This part of the chapter will present the elements, variables, techniques, or tools that have been used over time to respond to the question above.

The origins of this research can be traced back to the 1970s and 1980s. Cooper and Bruno (1977) designed a statistical model that takes as its input the calculated value of teamwork, cooperation and the level of education and experience of team members, while the model's output corresponds to the performance level of the business. In their study, they took a sample of 250 firms, of which 58% are large organizations and the remaining 42% are small organizations (for this study, the authors define large firms as those with 500 employees and small firms as those with fewer). The model can identify the variables that have the greatest influence on the final objective, thus offering a way to study corporate behavior.

In turn, Fama and Jensen (1983) construct a qualitative model from the agency perspective. In their study, they attempt to explain which factors are critical for the creation of a company and, furthermore, affect its survival. The results of this model identify the features of business survival from the viewpoint of a control agency.

Subsequently, Bird (1988) develops a model based on a discovery-oriented study, which attempts to explain the behavior of entrepreneurial ideas. Through 20 inter-views with entrepreneurs (seven in service, eight in manufacturing and five in marketing, with between 4 and 20 years of experience as entrepreneurs), she was able to identify distinct patterns of thinking and behavior. Subsequent analysis of transcripts and observer notes suggests that these patterns are relatively consistent across the entrepreneurs. Alongside this study, Bird (1989) develops a second model to complement it. This second model analyses the interaction between the personal and social context with rational and intuitive thinking during the process of intending to create businesses or creating new values for existing businesses. According to Bird, the social context is comprised of the individual's social, political, and economic environment (Webster and Ward 2011; Turner et al. 1994), while the personal context is constructed through their personal history, personality development and abilities (Bandura 2002a; Noonan 2019). In her conclusion, she argues that an entrepreneur's new intentions will be steeped in uncertainty and are the result of rational, analytical and cause-and-effect thought processes or intuitive, holistic, and contextual thinking; these new intentions ultimately become entrepreneurial actions (Barbara Bird 1988).

For their part, Kamm, Shuman, Seeger and Nurick (1990), based on the conceptual foundation of the model described by Cooper and Bruno (1977) and studies carried out by Bird (1988), designed a qualitative model of logical relationships that takes as its input responses to a bank of questions that are closely related to teamwork, development, behavior, and entrepreneurial action. In this study, the results of the model identify the dimensions that have a significant influence on start-ups.

Along the same lines, Mosakowski (1998) builds on the earlier paper and the agency approach of Fama and Jensen (1983), developing an agency model based on the locus of entrepreneurial resources, in which she studies the interaction between entrepreneurial resources, organizational decisions and business outcomes. In the results of the model, Mosakowski concludes that the way entrepreneurial resources (e.g., work teams) are established and allocated creates greater uncertainty about the organization's performance than individual action. The author proposes to control this uncertainty through a risk reduction monitoring system for both individual and collective action.

In turn, Shook, Priem and (2003a) combine the models proposed by Shapero (1982), Bird (1988) and Ajzen (1987) in order to understand entrepreneurial intention. Consequently, these authors develop a measurement tool based on opportunity creation, risk-taking and belief in one's own capabilities. The paper brings together the most important variables in each model, such as individual perceptions of feasibility and desirability, and finally, they add a third variable called social support; these variables correspond to the determinants of entrepreneurial intentions. The authors relate entrepreneurial self-efficacy to social support and understand entrepreneurial self-efficacy as a moderator of the relationship between individual perceptions and the development of entrepreneurial intention.

Along the same lines, De Carolis (2006) develops a qualitative model based on papers by Bandura (2002b) and Bird (1989; 1988). The model involves the link between an individual's external factors (i.e.,

social capital) and internal factors (i.e., cognitive aspect), and how this link influences entrepreneurial behaviors. In their conclusion, they indicate that entrepreneurial behavior is the result of the interaction of environments (i.e., social networks) and certain cognitive biases in entrepreneurs. De Carolis proposes that both individual cognition and social capital are important for understanding entrepreneurial behavior. She further suggests that there is a nexus between the presence of lucrative opportunities and the presence of entrepreneurial individuals; and that this nexus influences the link between the variables proposed in the article.

From another perspective, some authors argue that venture creation is influenced not only by the dimension of social relations but also by the acquisition and development of abilities during university. Accordingly, Fueglistaller (2006) develops a quantitative model in which he evaluates the intention to create businesses based on the personal context and the university context. The social context comprises variables such as age, gender, personal goals, and level of innovation, while the university context includes level of study, skills, and abilities. The model explains entrepreneurial intention by analyzing the interaction of those factors and indicates more generally that intention-based models contend that venture creation must be preceded by the development of business ideas and that by understanding actions, attitudes, and behaviors, we can better predict venture creation intention.

Building on the previous paper, Obschonka (2011) carries out a study that asks the following questions: "What predicts a person's venture creation success over the course of their career, such as making progress in the venture creation process and multiple successful venture creations?" To respond to these questions, Obschonka designs a regression analysis model based on prospective and retrospective data from two independent samples of 88 nascent founders and 148 successful founders (the database was collected retrospectively using the Life History Calendar method). The study's conclusion suggests that early entrepreneurial skills in adolescence have a positive effect on the development of the venture creation process. The current human and social capital of nascent founders also has a direct effect but is not a mediator of the effect of early skills. Finally, the data revealed that early entrepreneurial skills in adolescence positively predict habitual entrepreneurship (creation of multiple successful businesses) exhibited over a longer period in the individual's career (specifically, 18 years).

Subsequently, considering the plethora of tools that are used to explain the venture creation process, Schlaegel (2014) identifies the high interest in developing theories that are capable of predicting and explaining an individual's propensity to start a business, as well as explaining the reason for its success or failure. Schlaegel develops a meta-analytic structural equation model to examine the empirical fit of the theory of planned behavior and the entrepreneurial event model. To apply the model proposed in this study, a sample of 123 investigations is used, considering the operational construct, type of publication, publication status, variables used, and model implemented. The paper's conclusion indicates that the theory of planned behavior and the entrepreneurial event model have a moderating role on the environmental conditions of the individual during the venture creation process. Furthermore, the author asserts that the integrated model provides additional explanatory power and a more complete understanding of the process through which entrepreneurial intention develops.

Tracing the trajectory of research on venture creation, Venessar, Kallaste and Kuttim (2014) observe that the vast majority of studies point to the contribution of entrepreneurs collectively but have not examined individual actions. According to the authors, the individual differences of entrepreneurs (e.g., attitudes, behaviors, capabilities, traits, abilities, expertise, cognitive differences, leadership, ethical and moral values) influence the development of entrepreneurial intentions, the pursuit of new opportunities, risk-taking and decision-making. These authors design a multivariate statistical analysis that attempts to identify the study variables that influence venture creation. The population of the paper was 52,899 students and they concluded that age, gender, level of studies, field of study, field of action, type of financing and parents' occupation are the factors that predict entrepreneurial intention. To extend the idea of this study and make a significant contribution, Aragon, Pardo and Roig (2016) develop an experiment with 120,536 individuals from 25 countries. Their study seeks to provide new evidence on how men and women process information in the venture creation decision and on the differences that may arise when making this decision, depending on the level of development of the countries and their institutions. The results indicate that institutions are necessary but not sufficient to achieve quality entrepreneurship and that information processing is different between men and women, as women – regardless of the level of institutional development – process information in a similar way, while men do not.

In turn, FrankhrEldin (2017) develops a logistic regression model to address the problem posed by Bird (2012), which is an evolution of papers previously presented by Bird (1989; 1988). In this study, FrankhrEldin takes emotional intelligence as the main moderator of venture creation, understood as the set of abilities and skills that enable the individual to influence their emotions by adapting to changes in the environment, and thus make the correct decisions. This paper concludes that the emotional intelligence of entrepreneurs has a strong effect on new venture creation and explains why some individuals have a greater potential to create new businesses than others. The results indicate that necessity-driven entrepreneurs have a higher internal motivation to create a business, while opportunity-driven individuals have a lower motivation. She also adds that the individual must have the ability to relate and communicate, and thus increase the success of the venture.

Furthermore, considering the idea presented in the study carried out by Obschonka (2011), Venessar, Kallaste and Kuttim (2014) on age and entrepreneurial education, and the paper on risk-taking by Shook, Priem and McGee (2003b), Basinska and Daderman (2018) develop an experiment to examine in young adults during entrepreneurship-related education the relationships between risk-taking and self-efficacy, and the mediating effects of emotions and attitudes (resilience, self-confidence, attentiveness). The method used by the authors was applied to 153 individuals (mean age 22 years), collecting information on risk-taking, general self-efficacy, attitudes, and emotions through questionnaires. The study used a bootstrap analysis with single and multiple mediators, controlled for gender, to estimate the indirect effects of attitudes and emotions on risk-taking and self-efficacy. The authors found that risk-taking was significantly correlated with self-efficacy. The attitudes of resilience and self-confidence, but not attentiveness, were complete mediators of the relationship between risk-taking and self-efficacy. Based on these findings, the authors argue that self-efficacy may be strengthened in young adults during entrepreneurship-related education and that emotions can lead to an attentive use of resources, including

self-efficacy. In conclusion, these factors may encourage young people to be brave and try new experiences.

Finally, from a new point of view – the psychoanalytic perspective – Metallo, Agrifoglio, Briganti, Mercurio and Ferrara (2020) developed a research study to examine the entrepreneurial process for the generation of new enterprises through a psychoanalytical approach. Based on the existing psychoanalytic literature, the manuscript proposes a model to explain the entrepreneurial process that results in people developing ideas and, consequently, moving towards new venture creation. The structure of the model consists of a set of interconnected processes that describe entrepreneurial behavior through the analysis of three stages: dream, business idea and creation of the new company. The innovation of this study lies in its emphasis on the unconscious mechanisms that encourage new business ventures. The proposed model gives a more complete overview of the behavior of entrepreneurs and offers new possibilities for understanding the evolution of the entrepreneurial process.

This section has presented the most important bibliographic references about venture creation, from the 1970s to the present day. It has demonstrated how authors have addressed the topic of relating social variables to venture creation models, as well as studies and research on them. Nevertheless, there is no agreement regarding which variables should be used, which are the most appropriate for the topic and which are complementary to entrepreneurial studies. Reaching a consensus would make it possible to propose a structure for the study of the topic that could be used in different investigations, while respecting the proportions of the contexts.

3. Operationalisation Of Concepts And Hypotheses

The key theories underpinning the study are summarized as follows:

1.1. Venture creation (VC)

According to the description of the business cycle by Aldrich and Martinez (2007), it can be deduced that venture creation is a stage of entrepreneurship, which occurs in the transition from nascent entrepreneur (gestation phase) to fledgling entrepreneur (infancy phase). To identify which stage of the venture creation, process a business is in, the researchers explore whether the entrepreneur is in one of three stages: planning to start a business, engaging in entrepreneurial activities or newly established (De Carolis, Litzky, and Eddleston 2009). Accordingly, the “Venture creation” variable has two levels: a) Entrepreneurs with the intention to start a business (engaging in activities or planning to start and newly established) and b) Entrepreneurs who have abandoned the process or failed.

In this study, venture creation acts as a dependent variable, directly associated with the constructs of social capital, entrepreneurial self-efficacy and person-entrepreneurship fit.

1.2. Entrepreneurial self-efficacy (ESE)

The development of self-efficacy theory in psychology and its contribution to the field of entrepreneurship (Bandura 1982) led to the development of the concept of “Entrepreneurial Self-Efficacy”. The study of Drnovšek et al. (2010) asserts that “entrepreneurial self-efficacy involves individuals’ beliefs regarding their capabilities to attain goals and control positive and negative cognitions that an entrepreneur has during the process of starting-up a business”.

Along the same lines, McGee et al. (2009) define entrepreneurial self-efficacy as “a construct that measures a person’s belief in their ability to successfully launch an entrepreneurial venture”. Based on the literature review presented in Chapter 2, the operational characterization of entrepreneurial self-efficacy is presented, based on five dimensions suggested by McGee et al. (2009).

1.2.1. Searching dimension (Search)

The entrepreneurs’ confidence in their abilities to develop new ideas and identify opportunities and/or needs; this dimension is related to the entrepreneur’s ability to create and innovate.

1.2.2. Planning dimension (Plan)

The entrepreneurs’ confidence in their ability to roadmap and conceptualize the business model in terms of market quantification, pricing, investment projection and marketing strategies.

1.2.3. Marshalling dimension (Marsh)

The entrepreneurs’ confidence in their ability to convince other people to identify with their business ideas and share their vision or contribute to the needs of their venture. This ability allows entrepreneurs to gather the necessary resources (financing, clients, suppliers, work team, among others) to start their businesses.

1.2.4. Implementing-people dimension (People)

The entrepreneurs’ confidence in their ability to attract, direct and guide their business’s human resources to scale and move through each phase in the business cycle. This dimension is associated with the entrepreneurs’ business management skills.

1.2.5. Implementing-financial dimension

The entrepreneurs’ confidence in their ability to lead the businesses in accounting and financial terms, enabling them to manage and raise sufficient funds to continue to grow the company. This dimension is associated with the entrepreneurs’ business management skills.

Associating entrepreneurial self-efficacy with new venture creation, after conceptualizing its dimensions, the following hypotheses are established:

H₁ In nascent entrepreneurs, the searching dimension of entrepreneurial self-efficacy is positively associated with new venture intention or creation.

H₂ In nascent entrepreneurs, the planning dimension of entrepreneurial self-efficacy is positively associated with new venture intention or creation.

H₃ In nascent entrepreneurs, the marshalling dimension of entrepreneurial self-efficacy is positively associated with new venture intention or creation.

H₄ In nascent entrepreneurs, the implementing-people dimension of entrepreneurial self-efficacy is positively associated with new venture intention or creation.

H₅ In nascent entrepreneurs, the implementing-financial dimension of entrepreneurial self-efficacy is positively associated with new venture intention or creation.

1.3. Social Capital (SC)

Social capital is defined by Nahapiet and Ghoshal (1998) as the “sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” p. 243. This construct has been associated with venture creation and, in this regard, the study of Kannadhasan et. al (2018), based on Leana and Van Buren (1999); Adler and Kwon (2002), states that social capital not only facilitates the information, but it also accelerates the timing, relevance, and quality information, which is vital to exploit the opportunity and to start a new venture. The construct of social capital is described in three dimensions (Nahapiet and Ghoshal 1998) and is adopted to analyze entrepreneurs and their venture creation process.

1.3.1. Structural social capital

The overall network of entrepreneurs and the nature of the connection between the members of that network.

1.3.2. Relational social capital

The capacity for links and the development of personal relationships that entrepreneurs can have with the members of the network of contacts they have created, through their interactions.

1.3.3. Cognitive social capital

The resources that encourage collective responsibility and action among the members of the entrepreneur's network.

Based on this theoretical framework, as well as Kannadhasan's et. al (2018) findings that relational capital is not significant in venture creation intention, the following hypotheses are postulated:

H₆ In nascent entrepreneurs, structural social capital is positively associated with new venture intention or creation.

H₇ In nascent entrepreneurs, relational social capital is not positively associated with new venture intention or creation

H₈ In nascent entrepreneurs, cognitive social capital is positively associated with new venture intention or creation.

1.4. Person-entrepreneurship fit (PEF)

This construct moderates the relationship between entrepreneurial self-efficacy and the venture creation process. It involves a strong perception of fit with entrepreneurship, which impacts the decision about whether or not to start a business (Hsu et al. 2019). Person-entrepreneurship fit is understood as the satisfaction of personal needs through venture creation. Based on the above description, the following hypotheses are proposed:

H₉ In nascent entrepreneurs, PEF is positively associated with new venture intention or creation.

H₁₀ In nascent entrepreneurs, PEF positively moderates the relationship between the dimensions of entrepreneurial self-efficacy and new venture intention or creation.

According to the study of Kannadhasan et. al (2018), social capital was positively related to the mediator of self-efficacy. Given that the present study establishes different dimensions to measure entrepreneurial self-efficacy, the following hypotheses are posited:

H₁₁ In nascent entrepreneurs, the dimensions of social capital positively moderate the relationship between the dimensions of entrepreneurial self-efficacy and new venture intention or creation.

Consequently, the hypothetical research model is presented (see Fig. 1).

1.5. Partial Least Squares – Path modelling (PLS-PM)

Partial Least Squares – Path modelling (PLS-PM) is a statistical data analysis methodology that combines the concepts of regression modelling, structural equation modelling and cross-tabulation analysis methods.

Three approaches to the PLS-PM concept are identified in the literature. First, PLS-PM is conceived as a partial least squares approach to structural equation modelling, and it is thus common in the literature to use the terms “Path Modelling” and “Structural Equation Modelling (SEM)” interchangeably. However, for Götz et al. (2010), the concept of PLS-PM is much broader, as in order to create the variable blocks of a model, it is necessary to establish prior theoretical knowledge of the phenomenon under analysis; accordingly, each variable block is considered to be a theoretical concept represented in the form of a latent variable. It is important to mention that one of the differences between structural models and PLS models is the covariance analysis approach present in structural models (Ondé and Alvarado 2018); PLS-

PM models have a broader range of application, due to the absence of a fit to a known statistical distribution.

One of the advantages of PLS-PM models is the possibility of graphically representing the relationships between the variables that comprise the model, through a directed graph. Consequently, a PLS-PM can be conceived as a network of variables in which the arcs (arrows) are assumed to represent a cause-effect relationship. As such, it is assumed that the information provided by the variables flows through the network. The main objective is thus to quantify the relationships between the variables in the network. Along the same lines, assuming that each variable can be represented as a combination of other variables, PLS-PM quantifies the relationships between variables by considering the network to be a system of multiple interconnected linear regressions.

Furthermore, two important concepts must be understood in order to implement the methodology: latent variable and manifest variable. Now, there are different social phenomena in which the variable of interest cannot be observed or measured directly. These situations are known as latent variables but are also referred to in the literature as constructs, compounds, factors, conceptual and intangible variables. Specific examples enable a better contextualization of the concept. For example, in the field of marketing, companies are often interested in identifying "customer satisfaction", while education experts are usually interested in improving "academic success". In service management, industrial engineers are often interested in measuring "perceived quality". In contrast, manifest variables are real variables that can be measured and observed; they indirectly measure latent variables. In general, manifest variables are assumed to contain information that reflects one or more aspects of the latent variable.

Manifest variables are divided into two categories: the reflective category considers that the manifest variables are caused by the latent variables, while the formative category considers that the latent variable is formed by the manifest variables. The relations of the latent and manifest variables are shown on Table 1.

Table 1
Relations of the latent and manifest variables

Latent variable	Dimension	Reference	Manifest variables
Entrepreneurial self-efficacy	Searching	(Mcgee et al. 2009)	<ul style="list-style-type: none"> - Confidence to brainstorm (brains) - Confidence to develop products or services (development) - Confidence to identify needs (needs)
	Planning	(Mcgee et al. 2009)	<ul style="list-style-type: none"> - Confidence to design marketing campaigns (mkt) - Confidence to determine competitive prices (price) - Confidence to identify market demand (demand) - Confidence to estimate initial funds (funds)
	Marshalling	(Mcgee et al. 2009)	<ul style="list-style-type: none"> - Trust for others to identify with the vision (empathy) - Confidence to concisely explain the idea (communication) - Confidence to network (network)
	Implementing-People	(Mcgee et al. 2009)	<ul style="list-style-type: none"> - Confidence to attract and hire employees (hire) - Trust to delegate tasks to employees (delegate) - Confidence to effectively handle problems (problems) - Trust to supervise employees (supervise) - Confidence to train employees (train) - Trust inspire and encourage employees (inspire)
	Implementing-Financial	(Mcgee et al. 2009)	<ul style="list-style-type: none"> - Confidence to maintain business accounting (accounting) - Confidence to manage financial assets (manage) - Confidence to read and interpret financial statements (statements)

Latent variable	Dimension	Reference	Manifest variables
Social Capital	Structural	(Kannadhasan, 2018; Nahapiet, 1998)	<ul style="list-style-type: none"> - State of conversation with many about the idea (divulgaration) - Status of new connections through contacts (new contacts) - Status of new contacts through connections (new connections) - Status of contacts in quantity (quantity)
	Relational	(Kannadhasan, 2018; Nahapiet, 1998)	<ul style="list-style-type: none"> - Status of the level of close relations with contacts (relations) - State of knowledge with contacts (contacts) - State of support for contacts in difficult situations (support)
	Cognitive	(Kannadhasan, 2018; Nahapiet, 1998)	<ul style="list-style-type: none"> - State of understanding of the objectives of the other in personal relationships (rapport) - State of trust so that in contacts neither party takes advantage of the other (respect)
P-EMP	P-EMP	(Hsu, 2019)	<ul style="list-style-type: none"> - State of satisfaction of the needs of independence in thought and actions when starting the business (independence) - State of satisfaction of personal freedom when starting the business (freedom) - State of satisfaction of achievement needs when starting the business (achievement, economy, richness)
Venture creation	Venture creation	(De carolis, 2009)	<ul style="list-style-type: none"> - State of creation in which the enterprise is located (status, experience)

4. Methodology

The study follows a hypothetico-deductive method with a cross-sectional multiple causal correlation design with an explanatory scope (Sampieri, Collado, and Lucio 2006), using the PLS-PM model. The data are distributed and collected through the digital tool Qualtrics (Qualtrics 2005) with pre-validated forms; they are treated in the statistical software R with the Lavaan package (Rosseel 2012), and the model is implemented with the plspm package (Sanchez 2013).

The methodology used in this paper to carry out the study is divided into three stages. First, an exploratory analysis of the data relating to the study variables is performed. Second, a descriptive multivariate analysis is conducted using the Principal Component Analysis (PCA) technique. Finally, the

third stage is the modelling, which is divided into: construction of the model; structural evaluation of the model and structural regressions; analysis of effects and validation of the model.

1.6. Data collection design

The design involves the collection of primary data through surveys, based on Churchill (1979), the following procedure is established to validate the process of using instruments and indicators in the study.

The information from the surveys was collected through questionnaires based on the literature review presented, which were subsequently adjusted and validated in order to be implemented in the study. The questionnaire has 3 sections, with single and multiple-choice questions.

1.7. Operationalization of the study

To carry out a correct sampling, this study follows the estimation procedure developed by J. Hair, E. Prentice and D. Cano (1999) for statistical analysis using structural equation models. These authors state that, although there is no correct sample size, they recommend that it should be between 100 and 200; this size is known as the critical sample size. They also suggest increasing the size when misspecification is suspected, the model is too large or complex, the data exhibit non-normal characteristics, or an alternative estimation procedure is used.

Considering the above, the sample of the present study is comprised of 500 entrepreneurs located in Colombia who are involved in the process of starting a company; namely, nascent entrepreneurs in the gestation or infancy phases of the business cycle (Aldrich and Martinez 2007). According to the Global Entrepreneurship Monitor (2017), the process of starting a company can take up to 45 months, before it moves on to the next stage as an established business in the adolescence phase. The following inclusion criteria are proposed for the sample:

1. Adults (over 18 years old).
2. Nascent entrepreneurs located in Colombia
3. People considered to be nascent entrepreneurs, engaged in at least two activities involving the intention to create a business (developing a business plan/model, building a work team, renting an office, attending business courses or seminars, developing a product or service, investing resources in the business idea).
4. People with a newly established business. This means that it has not been in existence for more 4 years.

5. Results

In accordance with the theoretical model proposed, the results of the modelling using the methodology presented are described below.

1.8. Data collection design

The aim of the exploratory analysis is to identify the behavioral patterns of the variables. To this end, the first step is to carry out a univariate analysis of each of the manifest variables present in the model.

1.8.1. Structural social capital

In the Entrepreneurial Self-Efficacy (ESE) sub-dimension, a homogeneous pattern of responses from the study participants can be observed, with a higher incidence of responses with values of three, four and five.

1.9. Multivariate descriptive analysis

An alternative method for achieving a comprehensive analysis of the multivariate behavior of the data set is to analyze the correlation between the variables. Accordingly, a PCA is carried out, making it possible to visualize the breakdown of the variables in a new dimensional space. Figure 2 shows the correlation circle associated with the first two principal components of the data; the graph can be read as a radar. For example, the fact that two variables point in the same direction means that they are highly correlated; two variables that form a 90-degree angle indicate a zero correlation; and finally, two variables that point in opposite directions represent a negative correlation. The first aspect to note in the correlation circle is that, in the group of variables representing ESE (in red), there are two groups with negative correlations. In turn, the variables related to entrepreneurship are found in the first quadrant of the plane. In this quadrant, there are 4 manifest variables related to Per-son-Entrepreneurship Fit (PEF) and four related to Social Capital (SC). The PEF latent variable shows the greatest group consistency of responses, as four of its five variables are located in the same quadrant of the plane. The result of the PCA analysis enables an exploratory contextualization of the problem, providing important information for the PLS-PM modelling process in terms of the manifest variables that have the greatest association with the latent variables that they reflect.

1.10. PLS-PM Modelling

As described in the methodological section, PLS-PM models are comprised of two sub-models: the inner model and the outer model. The inner model is formed solely by the latent variables (see Figure 3), while the outer model represents the relationships of each latent variable with its respective block of manifest variables.

1.10.1. Unidimensionality of the model

In the model, the manifest variables are considered to be reflective indicators, i.e., it is assumed that the entire block of variables is measuring the same latent variable and that the manifest variables of each block must therefore have a strong mutual association. That is, if any of the variables increases its value, the rest of the variables in the block must increase their value, and if any variable decreases its

value, all of them must decrease their value. Moreover, one of the key characteristics of reflective models is the quality of the representation, i.e., it would be expected that there is the highest degree of association between a manifest variable and the variable in the same block; if a manifest variable has a higher degree of association with a manifest variable outside of its block, it is considered an abnormality based on the criterion of consistency between the latent variables and their group of manifest or indicator variables.

Table 2 presents the results of the indices for assessing the unidimensionality of the model. In this study, Cronbach's Alpha will be used as a criterion to evaluate how well a block of manifest variables measures its latent variable. It is evident that for all the latent variables, the Cronbach's Alpha value is greater than 0.7, which is the minimum value accepted in the specialist literature, thus demonstrating that the manifest variables are aligned with the latent variables that they represent.

Table 2
Indicators of unidimensionality

Variable	Mode	MVs	C.alpha	DG.rho	eig.1st	eig.2nd
ESE	A	19	0.927	0.936	8.269	1.644
PEF	A	5	0.797	0.862	2.799	0.865
SC	A	9	0.825	0.867	3.849	1.065
VC	A	2	0.712	0.874	1.553	0.447

The representation of the loadings of the latent variables with their respective manifest variable is shown in Figure 4. It is clear that some variables do not reach the threshold of 0.7 to be considered representative within the model. For this reason, a second run will be carried out to determine the variables with the highest representation of their latent variable.

Given the above and considering the lack of representativeness of some manifest variables in the first run of the PLS-PM model, a second model was developed involving only the variables that had a specific weight of 65% in the first iteration. Figure 5 shows the latent variables with the loading of each of their manifest variables, demonstrating that all the variables exceed the required threshold of 0.7.

For a more illustrative visual comparison, a bar chart with the cut-off line of 0.7 is presented (Figure 6). As a result of the second model, the composition of the groups of manifest variables for each latent variable is as follows:

1. PEF (Independence, Freedom, Achievement, Economy).
2. ESE (Planning for demand, Planning for funds, Marshalling - empathy, Staff At-traction, Hiring, Management, Financial performance).
3. SC (New connections, new contacts, Relationship, contacts).
4. VC (entrepreneurship status, entrepreneurial experience).

However, one of the assumptions of PLS-PM models is the uniformity of the block of indicators that represent a latent variable. For this reason, it is important that there are no cross-correlations within the model, as this could lead to confounding problems when an indicator can better explain a latent variable outside of its block. To verify that this assumption is met, Figure 7 shows that the maximum relationship of the manifest variables is with their direct latent variable; this situation is evident when the diagonal of the figure is examined.

1.10.2. Structural evaluation of the model

PLS-PM models are an interrelated network of linear regressions. Accordingly, the structural equations for each latent variable are presented in Table 3.

Table 3
Structural equations for the latent variables

PEF				
	Estimate	Std. Error	t value	Pr (> t)
Intercept	7.85E-17	0.0454	1.73E-15	1
SC	0.2928	0.0454	6.4517	2.90E-10
ESE				
	Estimate	Std. Error	t value	Pr (> t)
Intercept	6.81E-17	0.0441	1.54E-15	1
SC	0.2818	0.0462	6.1055	2.24E-09
PEF	0.1712	0.0462	3.7079	0.000236
VC				
	Estimate	Std. Error	t value	Pr (> t)
Intercept	-5.64E-16	0.0426	-1.32E-14	1
PEF	0.4301	0.0441	9.7614	1.62E-20
ESE	0.0405	0.0441	0.9195	0.3583

It is clear that Social Capital is significant in explaining PEF. In turn, Social Capital and PEF are significant in explaining ESE. Finally, the Venture Creation construct is significantly explained only by PEF. The results of inner model validation are shown in Table 4; the result of the R-squared value for the model's variable of interest is 0.5425, which is within the middle range according to the criteria presented by Sanchez (2013). Consequently, the communality results indicate how much of the variability of the block is reproducible by the respective latent variable. In this case, all the mean communality values are higher than 0.5, showing consistency between the behavior of the indicators and their latent variable.

Table 4
Indicators to validate the structural consistency of the model

LV	Type	R2	Block Communality	AVE
SC	Exogenous	0	0.6177	0.6177
PEF	Endogenous	0.5022	0.6344	0.6344
ESE	Endogenous	0.5145	0.6031	0.6031
VC	Endogenous	0.5425	0.5821	0.5821

1.10.3. Effects

An important result in PLS-PM models is the estimation of the effects between the latent variables that comprise the model. These effects can be direct, i.e., those directly associated with the inner model and represented by the network coefficients. There are also indirect effects, which represent the influence between latent variables following indirect paths in the model.

Figure 8 shows the impact of the effects for each construct relationship. It is important to note that Social Capital, which theoretically is not directly related to Venture creation, has a significant indirect effect in comparison with ESE. At the same time, the impact of PEF on the Venture creation construct is also evident.

1.10.4. Validation of the model

As mentioned in the methodological section, PLS-PM models do not depend on assumptions about the fit to a known distribution, and therefore sampling techniques are used to demonstrate the variability of the estimated parameters. The sampling procedure chosen to validate the model is bootstrapping, performing 200 successive samples. The model can be validated, as the consistency of the inner-outer model has been proven. The results of the validation of the inner model's coefficients are shown in Table 5. The validation by bootstrapping will be performed at a confidence level of 95%, and thus the coefficients for which the zero is not contained in the percentile interval of 2.5–97.5% will be considered significant. Accordingly, the coefficient for the relationship between ESE and VC is found to be non-significant.

Table 5
Results of the bootstrapping for the latent coefficients

Relationships	Original	Mean.Boot	Std.Error	perc.025	perc.975
SC -> PEF	0.2573	0.2629	0.0477	0.1700	0.3559
SC -> ESE	0.2797	0.2849	0.0416	0.2076	0.3663
PEF -> ESE	0.2210	0.2319	0.0451	0.1411	0.3186
PEF -> VC	0.4302	0.4292	0.0395	0.3623	0.5163
ESE -> VC	0.0350	0.0347	0.0490	-0.0566	0.1341

Consequently, the significance of the effects is assessed under the bootstrapping procedure. The result in Table 6 identifies that the effect between ESE and VC is non-significant.

Table 6
Results of the bootstrapping for the effects between latent variables

Relationship	Original	Mean.Boot	Std.Error	perc.025	perc.975
SC -> PEF	0.257	0.263	0.048	0.170	0.356
SC -> ESE	0.337	0.346	0.040	0.273	0.416
SC -> VC	0.122	0.125	0.026	0.080	0.182
PEF -> ESE	0.221	0.232	0.045	0.141	0.319
PEF -> VC	0.438	0.437	0.036	0.372	0.513
ESE -> VC	0.035	0.035	0.049	-0.057	0.134

Finally, the inner model is validated, verifying the significance of all the manifest variables with respect to their direct latent variable. Table 7 shows that all the relationships of the inner model are significant, considering the 95% confidence interval.

Table 7
Validation of the outer model of manifest variables

Relationship	Original	Mean.Boot	Std.Error	perc.025	perc.975
SC-SC_connect	0.1828	0.1786	0.0423	0.0840	0.2398
SC-SC_network	0.3029	0.2961	0.0363	0.2268	0.3622
SC-SC_relata	0.3908	0.3926	0.0360	0.3325	0.4683
SC-SC_trust	0.3768	0.3802	0.0408	0.3065	0.4623
PEF-PEF_ind	0.3267	0.3264	0.0264	0.2763	0.3812
PEF-PEF_free	0.3675	0.3643	0.0217	0.3227	0.4123
PEF-PEF_achievement	0.2783	0.2810	0.0209	0.2401	0.3207
PEF-PEF_economy	0.2769	0.2767	0.0216	0.2279	0.3185
ESE-Plan_demand	0.1751	0.1755	0.0205	0.1384	0.2184
ESE-Plan_funds	0.1839	0.1832	0.0178	0.1452	0.2166
ESE-Marsh_empathy	0.2289	0.2276	0.0187	0.1909	0.2611
ESE-Staff_attract	0.2289	0.2276	0.0187	0.1909	0.2611
ESE-Fin_hir	0.1438	0.1426	0.0231	0.0972	0.1815
ESE-Fin_man	0.1676	0.1680	0.0172	0.1302	0.2003
ESE-Fin_perf	0.1537	0.1544	0.0167	0.1227	0.1870
VC-VC_stat	0.6130	0.6156	0.0694	0.4772	0.7427
VC-VC_exp	0.6953	0.6902	0.0646	0.5605	0.8122

Thus, after the internal validations of the structural equations and the external validation through bootstrapping, the final PLS model can be seen in Figure 9, in which the thickness of the line represents the magnitude of the impact of each variable.

In summary, the structure of the general model (inner model and outer model) is presented in Figure 10.

6. Discussion

Innovation-based ventures are a topic of study that can yield practical results, insofar as methods can be developed to encourage those ventures and academia, as it makes it possible to analyze the variables by forming a set of elements that better reflect reality and broadens the scope of study towards interdisciplinary and comprehensive analyses.

During the investigation, a situation was proposed as a hypothesis: although there are strategies and methods to guide start-ups, despite the advice given, many of them do not reach the stage of conception, let alone that of gestation. It has been suggested that this is because little or no rigorous consideration has been given to the inclusion of social and psychological variables within the methods. Accordingly, the present study proposes to include variables internal and external to the entrepreneur: entrepreneurial self-efficacy, social capital and person-entrepreneurship fit as elements that influence the venture creation business cycle, which can determine the impact of personal perception, interests, and social relations within the initial stages of pursuing an entrepreneurial idea.

The proposal of social and psychological variables contributes to the development of holistic models and encourages scholarly interest in developing interdisciplinary papers, approaches and results that better reflect the contexts. Nevertheless, the present study is only an invitation to consider elements beyond the economic and political, placing its focus on the social and cultural. The next step would be a super model capable of successfully linking what has been done in previous studies and what has been proposed here.

To support the hypothesis, the variables within the theoretical framework were identified, as well as the methodology for the definition of venture creation, in order to indicate the way in which this paper understands that process. This was followed by a literature review of authors who have addressed the topic of entrepreneurship. Finally, the variables were defined. It is important to note that within the proposed model, these variables are considered latent variables and are analyzed using manifest variables.

The above is explored within the hypothetico-deductive method of the paper, based on a statistical model called Partial Least Squares - Path Modelling. The data were collected and distributed using the digital tool Qualtrics through validated questionnaires. Within the model, first the research question is addressed, and then the concepts and hypotheses are operationalized (each variable according to the model), collecting the primary data and classifying the manifest variables in order to analyze the latent variables, and applying the questionnaire to the sample (the adjusted questionnaire was sent via email to a database of 7,000 entrepreneurs supplied by the innovation agency Punto Estratégico SAS). The information was analyzed using the R software.

This model operates by defining manifest variables that combine to describe the latent variable, which when passed through the set of regression equations establishes an outcome variable (which is also considered a latent variable). It is important to establish that, after the control variables, 4 manifest variables were identified for social capital, 7 for entrepreneurial self-efficacy, 4 for person-entrepreneurship fit and 2 for the definition of the Venture Creation outcome variable.

It is possible to establish that, after the theoretical framework has been defined and circumscribed, the proposed model and the instrument used are relevant and consistent for identifying the degree of influence of social and psychological variables on the phenomenon of venture creation.

Furthermore, the behavioral patterns of the variables within the final model show that each group of manifest variables correctly explains their associated latent variable. Based on the literature, the minimum accepted value that the Cronbach's Alpha should have for each latent variable is 0.7. The values of the latent variables are 0.927, 0.797, 0.825 and 0.712 for Entrepreneurial Self-Efficacy (ESE), Per-son-Entrepreneurship Fit (PEF), Social Capital (SC) and Venture Creation (VC), respectively.

One way to imagine the magnitude of the contribution of one variable on another is through the effects (direct or indirect). It is observed that the variable that has the greatest effect on or contribution to venture creation is the Person-Entrepreneurship Fit variable. It is important to emphasize that entrepreneurial self-efficacy, which theoretically is not directly related to Venture creation, has a significant indirect effect compared to ESE. At the same time, the impact of PEF on Venture creation is also evident.

This implies that the results obtained indicate the relationships between the latent variables. Here, it is established that one variable is significant in explaining another when its P-value (Pr) is less than 0.05. Table 3 shows that Social Capital is significant in explaining Person-Entrepreneurship Fit. In turn, Social Capital and Per-son-Entrepreneurship Fit are significant in explaining Entrepreneurial Self-Efficacy. Finally, the Venture creation construct is significantly explained only by Person-Entrepreneurship Fit.

In turn, Table 6 validates the significant relationships between the latent variables by bootstrapping sampling. The second column (Original) contains the coefficient value of the relationship; the third column (Mean.Boot) contains the value of the coefficient validated by sampling; the fourth column (Std.Error) contains the standard deviation of the validation; the fifth column (perc.025) contains the lower bound of the coefficient interval; and the sixth column (perc.975) contains the upper bound of the coefficient interval. It should be noted that, if the confidence interval contains the number zero, it can be stated that the value of the coefficient will have the value of zero, and therefore the relationship is not significant. Based on the above, it can be stated that all of the relationships between the latent variables are significant, with the exception of the relationship between Entrepreneurial Self-Efficacy (ESE) and Venture Creation (VC), considering a confidence interval of 95%.

The model shows that while all the variables have an influence on venture creation, the entrepreneurial self-efficacy variable does not have a direct influence, as its most considerable and significant relationship is with the person-entrepreneurship fit variable. In this case, it can be concluded that, despite the results with the entrepreneurial self-efficacy variable, the set of variables proposed was successful in establishing that they do have a positive influence on the intention to start and grow a business.

It is possible to argue that an entrepreneur does not need to have a high degree of entrepreneurial self-efficacy to turn an entrepreneurial idea into a reality. However, another reading of the results could indicate that in regard to this variable – which involves confidence in abilities, belief in the power to achieve goals and its relationship with financial planning – these elements can be acquired as they progress in the business cycle, through training and study. On many occasions, entrepreneurial self-efficacy acts as a personal brake, as the entrepreneur is capable of determining the dangers and risks involved in a venture and prefers not to assume the potential losses, while others, unaware of some of

their abilities or the magnitude of their task, take the risk, driven more by person-entrepreneurship fit to make their idea a reality.

Furthermore, the results indicate that the moderating element par excellence is person-entrepreneurship fit. The needs to be solved and the way in which entrepreneurship can motivate the individual have the greatest impact on the business consolidation process.

Finally, social capital forms the entrepreneur's environment and is an enabler. This is the set of relationships that help them to gradually consolidate a stable baseline environment for their business. Subsequently, the relationships enabled by this variable will become impersonal as the venture grows and must adjust the rules, in line with its expanding market, production levels and target audience.

As final data and to summarize, within the model, venture creation (understood as implementing a business project), which is the outcome variable, is executed through the relationship of the variables defined: entrepreneurial self-efficacy, social capital and person-entrepreneurship fit. It is thus possible to conclude that the influence of social and psychological variables within the business cycle are significant and positive and that models and strategies must consider these elements in order to design tools that encourage the optimal development of fledgling companies within the business cycle, to ensure that they are consolidated as stable ventures.

7. Conclusion

The development of innovation-based start-ups has become an opportunity to create jobs, focused primarily on Colombia's young population. According to figures from the country's national department of statistics, by 2020 (October), unemployment had reached double digits (14%), a situation that is exacerbated by weak policies for developing the confidence of graduates at different education levels and job opportunities commensurate with academic achievements. In this landscape, many opt for entrepreneurship, generating their own income and jobs. However, these initiatives have economic constraints, are informal in nature, largely non-innovative, and the jobs produced are for family and friends.

Innovation behaves as an idea involving transformation, new uses for what already exists, flexible and context-specific models, and creative solutions at affordable costs, among others. It is therefore logical that innovation-based entrepreneurship produces fear, doubts, and mistrust. This has created an environment defined by social, economic, psychological, political, and cultural elements, which contribute to entrepreneurial initiatives becoming a reality. This study sought to identify the internal and external social and psychological elements that are transversal to entrepreneurship processes.

This social perspective makes it possible to understand the process as a coordinated system made up of variables that may be latent, and others that are manifest. They lead to the question: Why, despite the entrepreneurial models constructed to develop innovative ideas, do these ventures fail to become consolidated? Part of the answer can be found by understanding the existence of an environment

intersected by the above elements. The next part of the answer is that some of these variables are social and psychological; they comprise the internal universe and external space of the entrepreneurs. In fact, they indirectly influence the consolidation of ventures.

The variables highlighted were entrepreneurial self-efficacy, social capital and person-entrepreneurship fit (PEF). It is important to note that the literature on the subject has not unified the criteria for variables of this type, nor their degree of influence on the construction of models for entrepreneurship and the consolidation of innovative ventures. This is because it is difficult to create models that adequately measure social and psychological variables qualitatively and quantitatively and that can also be related to entrepreneurship processes. The model proposed is a network in which each point represents a study variable; the points are connected using lines and these lines are called relationships. Each relationship will have an associated value called the Cronbach's Alpha; based on the literature, a value greater than 0.7 indicates that the manifest variables are aligned with the latent variables that they represent.

Accordingly, the study sought to describe the association of factors that were determinants in facilitating the transition towards the gestation of start-ups in innovation-based entrepreneurship programmes within Colombia. As well, to identify elements that contribute to initiatives failing to become consolidated within the business cycle (Aldrich and Martínez, 2007), which, once identified, make it possible to develop new comprehensive strategies focused on those elements.

Entrepreneurial self-efficacy was taken as a self-efficacy variable from Albert Bandura's Social Cognitive Theory. It is considered to be the individual's knowledge of their capabilities, skills and coping mechanisms in different situations, the way in which they can take on specific tasks, valuing what they have and what they are, but focused on believing that they can achieve their goals with their resources. For the entrepreneur, it represents how to achieve what they have set out to do, even without previous experience, due to their confidence in their belief and their abilities. It is worth noting that psychology can identify traits of creative and proactive personalities within entrepreneurs, in which people take advantage of opportunities to develop innovative solutions for their initiatives.

In the entrepreneur, the attribute of entrepreneurial self-efficacy may be linked to entrepreneurial behaviors and the achievement of business outcomes. Goal setting and visioning, entrepreneurial orientation, development of new products and market opportunities, building an innovative environment and planning emerge as key characteristics. These elements can be strengthened through education and training.

The concept of social capital was used as a transversal element in business processes, characterized by its collective nature, producing individual and group benefits. This variable is notable for referring to the abilities that people have to contribute to the pursuit of a common goal, beyond material contributions. Goods with social characteristics are constructed in groups and it is the exchange of relationships that allows individuals to learn to make their personal resources available to the network, in order to build interaction and trust. Shared relationships thus enable benefit-producing networks to exist and individuals to understand that the gains from belonging to a social group will outweigh their individual efforts.

Social capital is understood according to three dimensions: structural, based on the construction of relationships between individuals and institutions and the social structure; relational, such as the interaction of individuals based on trust and associability; and cognitive, which are the common meanings, language, and codes that a group can use. This is how interpersonal relationships contribute to satisfying interests. Trust and interaction are important for entrepreneurship because they contribute to establishing successful market relationships and forming alliances that offer positive results within the environment.

Person-entrepreneurship fit is a moderating element for the relationship between entrepreneurial self-efficacy and the venture creation process. It is the satisfaction of their personal needs that an entrepreneur finds by developing an entrepreneurial idea. This component establishes three traits that form a triangle: identification (of the opportunity), needs (that can be satisfied) and coping skills (that they have to carry out tasks). By analyzing this set within the context of opportunities (the social, economic and governmental structures), the entrepreneur can develop a true commitment to their business idea. Theoretically, if they have the skills to perform an activity and that activity satisfies their personal needs, they will have a high level of person-entrepreneurship fit, strong motivation and credibility to pursue a venture.

After identifying the variables, the research problem asked how they could positively impact the transition of nascent entrepreneurs towards the creation of start-ups. The context develops a social perspective that research can contribute to the efforts made by most entrepreneur, enabling them to establish new innovation-based organizations.

The starting point was the idea that there is little information on the factors that determine whether these initiatives will fail, as corroborated by the literature on venture development as it relates to the stages of the business cycle. Although the initial stages are rarely studied, they could help identify why some initiatives are successful, while others are not.

Nevertheless, the variables identified in the research model have been established, indicating that, in the final model, only the Person-Entrepreneurship Fit variable has an influence on venture creation, while Entrepreneurial Self-Efficacy does not have an influence. Social Capital has an indirect effect on venture creation and, additionally, a direct effect on the Person-Entrepreneurship Fit and Entrepreneurial Self-Efficacy variables.

Beyond the results obtained, the above variables are some of the new elements that must be considered in order to successfully plan a venture. This is evident in the design of the research objectives: in which the general objective describes the association of the determining factors that facilitate the transition from the idea to the reality of entrepreneurship; and the specific objectives propose to evaluate social capital, the relationship between self-efficacy and person-entrepreneurship fit, and the development of an interest in studying the internal and external factors that influence the creation of start-ups.

The study achieves the general and specific objectives, making significant contributions by proposing and including internal and external social and psychological variables (entrepreneurial self-efficacy, social capital and person-entrepreneurial fit) that influence the processes of the business cycle. It thus broadens the context for studying those processes, developing interdisciplinary models that better reflect reality and make it possible to design strategies that are sustainable over time, in order to support the development of innovative ventures.

In academia, it contributes to enriching the spectrum that can be studied in order to promote holistic analyses that encourage interdisciplinary work, a model that supports the theoretical framework because it makes it possible to include latent variables through manifest variables and move towards a more realistic understanding of how to develop strategies to improve the number of ventures that can successfully pass through all the stages of the business cycle.

Abbreviations

ESE
Entrepreneurial self-efficacy
Search
Searching dimensión
Plan
Planning dimensión
Marsh
Marshalling dimensión
People
Implementing-people dimensión
SC
Social Capital
PEF
Person-entrepreneurship fit
PLS-PM
Partial Least Squares – Path Modeling.

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Authors' contributions

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Adalberto Escorcía, Jose Ramos-Ruiz, Rohemi Zuluaga-Ortiz and Enrique

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Figures

Figure 1

Hypothetical research model

Figure 2

Correlation circle of the manifest variables

Figure 3

PLS-PM model of the study

Figure 4

Specific loadings by latent blocks

Figure 5

Representation of the inner model's fit

Figure 6
Specific loadings by significant latent blocks

Figure 7

Cross-loadings between latent variables

Figure 8

Bar chart of direct and indirect effects

Figure 9

Final pls-pm structure

Figure 10

General structure of the model