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Entrepreneurial Engagement and Growth Aspirations: The Moderating Role of Opportunity Perception

MaríaCecilia Henríquez-Daza[1]
Pontificia Universidad Javeriana Cali, Colombia

Joan-Lluís Capelleras
Universitat Autònoma de Barcelona, Spain

Fabián Osorio-Tinoco
Pontificia Universidad Javeriana Cali, Colombia

Abstract. There is an increasing interest in the antecedents of entrepreneurial growth aspirations, since they have been shown to be important for firm growth. This paper examines the direct impact of entrepreneurial engagement on growth aspirations and the moderating role of opportunity perception. We argue that growth aspirations will be lower for those entrepreneurs in an advanced level of engagement but we also suggest that their perception of good opportunities in the immediate environment will positively moderate this relationship. Using data from the Colombian GEM project over the period 2012-2016, we find support for our predictions. Implications from the findings are discussed.

Keywords: entrepreneurial growth aspirations, entrepreneurial engagement, opportunity perception, GEM.

1. Introduction

New firm growth has been a central topic in the entrepreneurship literature, especially because growth-oriented new businesses are a source of employment and income generation (Davidsson, Achtenhagen, and Naldi, 2010; Gilbert, McDougall, and Audretsch, 2006). One of the main determinants of new firm growth is the entrepreneur's aspiration to grow, which refer to their beliefs about the potential of their new ventures (Levie and Autio, 2013). Prior research has shown a positive relationship between such aspirations and actual firm growth (Baum, Locke, and Smith, 2001; Wiklund and Shepherd, 2003). As a result, there has been an increasing interest in the determinants of entrepreneurial growth

1. Corresponding author. Organizations Department, School of Economics and Business Administration, Pontificia Universidad Javeriana Cali, Colombia. Email: mchenriquez@javerianacali.edu.co

aspirations. These studies have shown that both individual and contextual factors are important to explain aspirations (Autio and Acs, 2010; Capelleras *et al.*, 2016; 2019; Efendic, Mickiewicz and Rebmann, 2015; Estrin, Korosteleva and Mickiewicz, 2013; Puente *et al.*, 2017).

However, not much is known about the relationship between entrepreneurial engagement and growth aspirations. The concept of entrepreneurial engagement includes different steps in the entrepreneurial process, from the initial degree of engagement (potential entrepreneur) to the highest level of engagement (established entrepreneur) (Grilo and Thurik, 2008; Hessels *et al*., 2011). Previous research has investigated which individuals are likely to be involved in the entrepreneurial process and why they move from one level to the next (Grilo and Thurik, 2008; Van der Zwan *et al*., 2016). Yet more study is needed to develop a better understanding of how different levels of engagement affect entrepreneurs' ambitions to grow the new business. In fact, the usual distinction between nascent, new and established entrepreneurs (Reynolds *et al.*, 2005) has not generally been employed to reveal differences in their growth aspirations (Verheul and Van Mil, 2011).

Importantly, the relationship between the level of engagement and the growth aspirations might be affected by the perception of entrepreneurs about potential opportunities in the environment (Kirzner, 1979; Shane and Venkataraman, 2000). In fact, highly ambitious entrepreneurs have been defined as those engaged in the entrepreneurial process with the aim to create value by identifying and exploiting new opportunities (Hermans *et al*., 2015). Nevertheless, while previous studies have shown that opportunity perception is indeed likely to feed the aspirations of entrepreneurs (Verheul and Van Mil, 2011), to our knowledge no study has yet examined how such perception interacts with the level of entrepreneurial engagement to affect growth aspirations.

Therefore, there is still a need to better understand the links between the entrepreneur's engagement level, perception of opportunities and aspirations to grow. Accordingly, the objectives of this paper are to examine how growth aspirations change in every stage of the entrepreneurial engagement process, and to investigate the moderating role of the perception of opportunities in this relationship. We develop two hypotheses taking Penrose's (1959) work as a starting point and using insights from the streams of research about entrepreneurial engagement and opportunity perception.

The paper makes several contributions. First, the study enriches our understanding of the changes in aspirations as entrepreneurs are increasingly engaged in the creation and development of their firms. We show that higher aspirations are associated with low levels of engagement in the entrepreneurial process, confirming the scarce evidence on this issue. Secondly, the research shows how the interaction between entrepreneurs' perceptions about potential opportunities and their level of engagement affect growth aspirations. Specifically, the perception about opportunities positively moderates the

engagement-aspirations link. Our insight here is to suggest that individuals in different stages of the process tend to adjust their growth aspirations depending on their opportunity perception. Third, the paper offers evidence from Colombia, which is a post-conflict country that can be considered a challenging environment for entrepreneurship. In this context different forms of entrepreneurship coexist (Baumol, 1990). Namely, destructive in the form of drug trafficking and concomitant activities; unproductive, reflected in the resistance to new investments in innovation due to the fear of instability and uncertainty; and productive reflected in the form of diversification of the Colombian economy and the growth of sectors such as services (Desai, Acs and Weitzel, 2013; Rettberg, Leiteritz and Nasi, 2011). These three forms of entrepreneurship occur in a context in which the private sector, in general, and entrepreneurs, in particular, have been subject to kidnappings, extortions and other attacks (Miklian and Rettberg, 2017). This diverse configuration is a unique scenario to examine the growth aspirations of entrepreneurs.

The empirical analysis is based on a sample of 6,492 entrepreneurs in Colombia included in the Global Entrepreneurship Monitor (GEM) project between the years of 2012 and 2016. Since we are interested in the link between engagement and aspirations, we consider three levels of engagement: nascent entrepreneur (owns a business between 0-3 months of creation), new (owns a business between 3 and 42 months of creation) and established (owns a business of more than 42 months) (Hessels *et al.*, 2011).[2] The results are consistent with our predictions regarding the differences among the aspirations to grow in each level of engagement, finding higher growth aspirations in the nascent entrepreneurship stage as compared to those in more advanced levels. We also find an important change in this trend when the moderation of perception of opportunities is considered.

The paper is organized in the following way. In section 2 we present the theoretical background and develop two testable hypotheses. The data, variables and empirical model are described in section 3. The results are displayed in section 4. Section 5 presents the discussion and section 6 the implications and future research.

2. Theory and Hypotheses

2.1. Theoretical Background

Penrose (1959) in the theory of the growth of the firm proposes causal links between the resources of the firm and the perception of productive opportunities

2. We exclude potential entrepreneurs because they intend to start a business in the next few years but are not actively involved in setting up the business.

for growth and innovation. In the initial stage of the activity of the business, dynamism of growth seems particularly limited by managerial skills. Therefore, the managerial skill that the entrepreneur develops is to a great degree a function of the quality of the available resources. One of them, which Penrose denominates as entrepreneurial versatility, which links the managerial skill and the entrepreneurial skill, is the acquired experience by the entrepreneur, displayed in creativity, imagination, recursiveness and execution capacity. The entrepreneur's acquired experience strengthens and increases in time as the entrepreneurial activity takes place, and in that way, she/he gains wisdom, movement, and managerial confidence, which translates into better quality and profit for the business, and also into a better understanding of the options in which a firm could perform and grow (Unger *et al*., 2011).

Variations in the managerial experiences of entrepreneurs are inseparably related to the expansion and operation of the firm. This explains why an experienced entrepreneur can perceive opportunities that others do not see, and can better adjust their capacities and resources to take advantage of them, regardless of the changes in the environment. The experience contributes with specific knowledge about the productive opportunities that are unique for this firm (Penrose, 1959). These skills developed by the entrepreneur are better captured in those firms that keep alert of the opportunities and aspire to grow, in contrast to those that are satisfied with their achieved size in the initial period and in that decision, not only are the resource limitations but also the managerial predisposition, a limiting factor. Penrose refers to the firm as a psychological predisposition of the individual to risk herself/himself with the hope to earn profits (Efendic *et al*., 2015). In that sense, the existence of clear goals and the maintenance of the managerial motivation over time, operationalized by growth aspirations, as well as by learning and the experiences acquired in the process, have a special relevance in the upcoming firm growth (Davidsson, 1989; Hessels *et al*., 2008; Renko *et al*., 2012; Wiklund and Delmar, 2003), due to the fact that the resulting experiences of value in each level of engagement, nourish and influence the subsequent search of new objectives in the following stages (Efendic *et al*., 2015; Messersmith and Wales, 2013; Unger *et al*., 2011). The experience, the knowledge and the derived skills of the entrepreneur's exercise are considered a critical resource when the firm aspirations are analyzed and provide the entrepreneur a better knowledge about the clients, suppliers, products and services (Unger *et al*., 2011).

Under Penrose's postulate (1959) which recognizes the importance of the acquired experience and entrepreneurial versatility for the recognition of unique opportunities for the firm as it advances in its development process, we analyze how the growth aspirations of the entrepreneur change over time when he passes through the different stages of the entrepreneurial process. The important role that Penrose's (1959) work gives to the perception of opportunities is recognized as a potential determinant of the growth aspirations that may reflect in the real firm

growth.Several authors have discussed the importance of this entrepreneurial learning as dynamizer of growth aspirations, especially because they prepare him to discover and make decisions to take advantage of specific opportunities that others don't see (Shane, 2000; Unger *et al.*, 2011; Venkataraman, 1997), to assume risks and plan the strategy which also impacts positively on success (Baum *et al*., 2001), and to gain access to resources such as financial and physical capital that for some businesses are a great limitation (Unger *et al*., 2011). This dynamic generated by exploitation of opportunities and the assumption of risks makes the entrepreneur's process become more challenging and the strength of engagement of the entrepreneur will be critical to the expected results (Martinez and Bryant, 2016). This is where the entrepreneur's versatility becomes key to dynamize the growth, because the decisions and the managerial experience acquired play a special role in this stage of the entrepreneurial process, when the initial stage has been overcome (nascent) and the entrepreneur faces the decision of growing or not and how fast to expand (Efendic *et al*., 2015; Messersmith and Wales, 2013). New entrepreneurs, who aspire to grow, must develop a multiplicity of tasks that imply immediate actions and must respond to situations for which they are not yet prepared. Completing these regular business tasks (as decisions to take advantage of opportunities), presents cognitive challenges to the owners of these new firms (Unger *et al*., 2011). The previous postulates suggest that firms with dynamics and potential to growth, especially those that are in the first stages of their development, are the most adequate terrain for the entrepreneur's managerial skills to be displayed and used, especially in the identification of opportunities that orient an efficient combination of resources; the success of this combination of resources will reflect in the firm growth aspiration.

2.2. Entrepreneurial Engagement and Growth Aspirations

Entrepreneurial growth aspirations are a reflection of the entrepreneur's motivations for running the business and also reflect her/his human, social and financial capital (Levie and Autio, 2013). In that sense, Penrose (1959) emphasizes that, in the decision of growing a firm, the resources are not the limiting factors, but the aspirations of the individual that makes the decision of growing. Instead of thinking about growth with a production approach, the attention is centered in the attitudes, the decisions and the strategies adopted to grow (Efendic et al., 2015). Our suggestion here is that growth aspirations will differ depending on the level of entrepreneurial engagement.

The level of engagement of an individual in an entrepreneurial process is understood as their participation in the discovery, evaluation and exploitation of the opportunities, and depends on individual and environmental factors (Shane, 2000). This level of engagement is usually associated to the stages of

development of an entrepreneur: potential, nascent, new and established. The order of these levels is also known as the entrepreneurial ladder or the entrepreneurial path (Grilo and Thurik, 2008; Van der Zwan and Thurik, 2017). In the first place, the discovery of opportunities refers to the stage of recognition and interpretation of the opportunity, not only to make the decision of creating a business, but also as a trigger for the growth of a business that is already operating. The second stage is a process centered in the future through which entrepreneurs evaluate the attractiveness of an opportunity in terms of its potential benefits; in this stage, the specific opportunity adopts a perspective in first person (i.e. an opportunity for me) rather than a more general view in third person (Haynie, Shepherd and McMullen, 2009; Lim, Oh, and De Clercq, 2016), and from this point, decisions are taken either for the creation of a new business (nascent), or to take advantage of this opportunity in the new business, continuing with the development process (new) and consolidation of the firm (established). In this path, multiple challenges are faced, such as lack of resources, financial and market pressures, and entry barriers. The individual's persistence and the passion for goal achievement, as well as the commitment with the firm project, can explain why engagement is maintained and strengthened over time (Martinez and Bryant, 2016).

Differences in every stage of the process are likely to be reflected in varying aspirations of entrepreneurs. However, extant research has focused on the determinants of entrepreneurial engagement i.e., what makes an individual move from being a potential entrepreneur, overcome the first years and become an established entrepreneur (Grilo and Thurik, 2008; Hessels *et al*., 2011; Lim *et al*., 2016; Van der Zwan *et al*., 2013, 2016). Prior studies have investigated the characteristics of each level of engagement, concluding that there are important differences between the nascent, the new and the established entrepreneurs that should be considered while studying their growth aspirations (Davidsson, 1991; Reynolds *et al*., 2005).

Here we argue that nascent entrepreneurs will have higher growth aspirations than those in more advanced stages of engagement for several reasons. First, these differences could arise due to a survival bias, where the nascent entrepreneur usually has a less realistic view of the future (Bager and Schøtt, 2004; Dutta and Thornhill, 2008). Inexperienced entrepreneurs seem to have high hopes and growth aspirations for their businesses, but they could be dreamers, since actual growth not only depends on enthusiasm but also on other factors (Verheul and Van Mil, 2011). This could reflect a great number of over optimistic and naive entrepreneurs in an incipient stage that abandon the process or reduce their growth ambitions once they have started the entrepreneurial path (Levie and Autio, 2013).

Second, nascent entrepreneurs are also more likely to have difficulties to estimate the future size of their firms, mainly due to the higher levels of uncertainty and complexity that they face as compared to the established ones

(Bager and Schøtt, 2004). The entrepreneur in this stage requires an intense effort for a long time to complete multiple challenging tasks, and deal with the uncertainty and setbacks of this stage. Thus, they must be willing to work intensely and be persistent despite the great uncertainty and obstacles (Hopp and Sonderegger, 2015). This phase is particularly plagued with uncertainty, ambiguity, and challenges. For example, nascent entrepreneurs generally face resource constraints. Being new in the market also means that they have little legitimacy before potential customers and suppliers (Delmar and Shane, 2003). Those having been longer in business might have developed the entrepreneurial versatility postulated by Penrose (1959) and thus have more precise growth aspirations.

Third, willingness is important to explain the growth aspirations of nascent entrepreneurs, but it is not the only driver of growth for those who have acquired certain experience (Verheul and Van Mil, 2011). Gradually, it becomes clearer for entrepreneurs which market opportunities are available, and what products their firms should produce. This learning process based on experience might increase or decrease their ambitions and expectations, but maybe the first option is less frequent than the last one which results in a general reduction of growth aspirations in the advanced stages of the firm (Bager and Schøtt, 2004). In effect, those with higher levels of engagement are likely to have the opportunity to learn from mistakes and avoid them in future projects (Farmer, Yao and Kung-McIntyre, 2011). In this sense, established entrepreneurs have first-hand information about the difficulties involved in growing a business and even surviving. Thus, these entrepreneurs may be more aware than nascent entrepreneurs of what needs to be done to realize growth and have a more realistic view of the new firm growth process. Overall, one would expect that established entrepreneurs would have lower aspirations to grow their firms. Therefore, our first hypothesis is:

H1: The level of engagement in the entrepreneurial process is negatively related to the entrepreneur's growth aspirations.

2.3. The Moderating Role of Opportunity Perception

So far we have suggested that growth aspirations differ among entrepreneurs at every stage of the entrepreneurial process. However, it is likely that perceiving opportunities in the environment will have a moderating effect on that relationship. The arguments on which we base this proposal are the following:

First, the existence of opportunities gives an idea of the favorable or unfavorable context in which entrepreneurship develops. Therefore, having the ability to perceive favorable contexts or the perception of opportunities contributes to the growth of the firm and the development of the business

(Arenius and De Clercq, 2005; Arenius and Minniti, 2005; Davidsson, 1991; Gnyawali and Fogel, 1994; Kirzner, 1979; Wiklund and Shepherd, 2003). The importance of the opportunities perception for firm growth was analyzed by Baum *et al*. (2001), who argue that, in addition to the factors of human and social capital, there are two entrepreneurial skills that have traditionally been associated with growth: alertness, defined as the continuous monitoring of new opportunities, and tolerance to risk.

Penrose defines the opportunities for a firm as all productive possibilities that the businessman sees and takes advantage of. The exploitation of those possibilities energizes the firm and helps it grow. In this sense, the opportunities guide the activities of the firm. Penrose emphasizes that the productive opportunity of a firm will be reduced to the same extent that its manager does not see expansion opportunities, does not wish to exploit them or is unable to respond to them, highlighting the experience and knowledge that is accumulated by the entrepreneur-manager (Penrose, 1959).

Verheul and Van Mil (2011) call attention to the importance of perceived opportunities in the next 5 years to explain the growth of new entrepreneurs, rather than the growth of nascent entrepreneurs. The latter have already started a business as a result of the perceived opportunity, while the new and established ones are looking for new opportunities to exploit in their current business or to create a new one (Verheul and Van Mil, 2011).

Second, entrepreneurs with more knowledge and experience know which opportunities should be exploited and which should not. Some entrepreneurs are better able to identify opportunities than others; the fact that the entrepreneur is "alert" is essential to quickly take advantage of emerging business opportunities and translate them into business growth (Kirzner, 1979; Lecuna *et al*., 2016). We argue that, because more experienced entrepreneurs are better able to spot the 'right' (more promising) opportunities, they are better able to translate opportunities into growth aspirations and actual growth.

Different capacities are developed by entrepreneurs to identify opportunities, associated with their experience and knowledge of the business. The ability of an entrepreneur to be alert is crucial in order to quickly exploit emerging business opportunities (Kirzner, 1979; Lecuna *et al.*, 2016). This experience and knowledge of the business that an entrepreneur acquires over time, affect the strategic decisions and influence her/his ability to discover and exploit these new opportunities for growth (Wiklund and Shepherd, 2003). The experience in management is one of the resources that is acquired as one progresses along the path as an entrepreneur (Penrose, 1959).

Therefore, the mere fact that opportunities exist does not imply that the firm grows. Changes in the environment present opportunities, but opportunities are not there as open entities in the eyes of all people. It requires an entrepreneur who owns the knowledge, experience, and ability to exploit them (Shane, 2000). This requires alertness not only of those who intend to start but also of those who have

started the way through the business ladder and are in more advanced stages in their level of engagement (Van der Zwan *et al*., 2013).

Third, the experience and knowledge required to take advantage of opportunities are acquired in the entrepreneurial process, as the entrepreneur engages in it. Ardichvili *et al*. (2003) proposes that prior knowledge of the market, the needs, and problems of customers, as well as knowing the best way to serve those markets, increase the probability of successful recognition of opportunities since they are critical elements of alertness before identification of opportunities. The entrepreneur carries out these evaluations several times, at different stages of the firm's development (nascent, new, and established) recognizing the existence of additional opportunities or making adjustments to the initial vision (Ardichvili *et al*., 2003).This knowledge proposed by Ardichvili *et al*. is acquired over time as an entrepreneur matures and accumulates experience in the management of the firm.

The work developed by Sarasvathy on effective decision-making suggests that there is a mutual relationship between changes in an entrepreneur's experience, knowledge and resources, and changes in their assessment of opportunities (Wiklund and Shepherd, 2003; Shepherd *et al*., 2015). Therefore, we can infer that the evaluations and decisions related to opportunities perceptions of nascent entrepreneurs differ from established entrepreneurs and these differences have an effect on their growth aspirations.

Therefore, it would be expected that established entrepreneurs having a greater accumulated experience, will be more effective in spotting opportunities and making decisions aimed at the growth of the firm, because they know much more about their markets and clients, and are more aware of their own resources and capabilities. In contrast, for those who are in the initial stages of the business process, their perceptions of opportunities in the environment seem to be more important for the speed of business creation rather than for their growth aspirations (Capelleras and Greene, 2008). Therefore, it is likely that a nascent entrepreneur, with less experience due to the time he has been managing the enterprise, has not fully developed the capacity to effectively identify those opportunities that contribute the most to its growth.

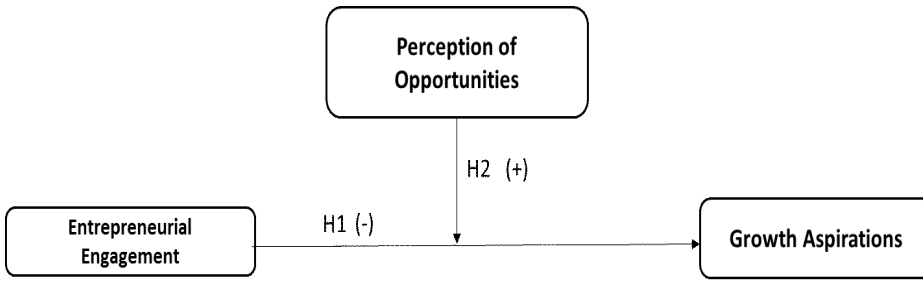
Based on the previous considerations, we propose that the entrepreneur's perception of opportunities will play a moderating role in the link between the level of engagement and growth aspirations. Therefore, we propose the following hypothesis:

H2: The perception of opportunities positively moderates the relationship between the level of engagement and the entrepreneur's growth aspirations.

Overall, the conceptual model of the study suggests that growth aspirations are a function of the level of engagement, represented by three variables that reflect the current stage of the entrepreneur (hypothesis 1) (nascent, new or

established). The perception of opportunities is hypothesized to moderate the relationship between each one of the three levels of engagement and the growth aspirations (hypothesis 2). Figure 1 shows graphically these relationships.

Figure 1: Conceptual framework and hypotheses



3. Method

3.1. Data

Data is taken from the Adult Population Survey (APS) of the Colombian GEM 2012, 2013, 2014, 2015 and 2016. The GEM Project is probably the biggest study done for investigating the relation between entrepreneurial activity and economic development. GEM has been done since 1999 and since then it has been a worldwide source of data which allows to compare entrepreneurial activity in the participant countries. There were 60 countries participating in GEM in 2016. For Latin America 11 countries participate; in Colombia the study is conducted since 2006. GEM provides harmonized, internationally comparable data (Amoros and Cristi, 2008; Reynolds *et al*., 2005). GEM annually collects information from a representative sample of adults between the ages of 18 and 64. From a total of 19,317 data records in the initial data base from the mentioned years, 7,000 were entrepreneurs in the stages of nascent, new and established entrepreneurship. Due to missing observations for some of the model variables, the regression models included 6,492 data records.

3.2. Variables

Entrepreneurial Growth Aspirations
The expectation to create new jobs has been considered by several authors as a rational decision aimed at maximizing profits and growth (Autio and Acs, 2010). The use of employment to measure growth aspirations has been employed in this area of research (Estrin *et al*., 2013).

Employment growth indicates that a change has occurred in the organizational composition or strategy of the firm (Hanks *et al*., 1994), which warrants an increase in the number of individuals working for the firm. This change is often due to expansion in the scope of firm operations or an immediate increase in business. With employment growth, a venture is equipped with new human capital through which its objectives can be executed. The venture is also better enabled to assess the external environment to ensure it can compete most effectively (Gilbert *et al*., 2006).

Growth aspirations are obtained from the answers to the following questions of block 2 of the APS questionnaire, oriented to nascent entrepreneurs, and block 3, oriented to new and established entrepreneurs: "How many people currently work for this business, excluding owners, but including exclusive contractors?" and "How many people do you think will work for this business five years from now, excluding owners, but including exclusive contractors?". The variable is measured as the difference of the logarithms of future and current jobs[3], which are answered in these two questions (Capelleras *et al*., 2019; Estrin *et al.*, 2013).

In the cases in which multiple answers are given, meaning that an entrepreneur is new (3-42 months) and/or established (over 42 months), and is also currently initiating a business (nascent; 0-3 months), the highest engagement level declared by the respondent is chosen (Hessels *et al*., 2011) and the totality of jobs reported is assigned, both the current and the expected jobs in 5 years.

Entrepreneurial Engagement

Nascent entrepreneurship is measured as a binary variable which equals 1 if the respondent agrees the following item: You are, alone or with others, currently trying to start a new business, including any self-employment or selling any goods or services to others? To define new and established entrepreneurs, the GEM consortium provides two variables based on the date of creation of the business: if the enterprise is between 3 and 42 months old, it is considered a new entrepreneur; if it is older than 42 months, it is considered an established entrepreneur.

Relative to the original measure of entrepreneurial engagement suggested by Grilo and Thurik (2008), we made an adjustment, due to the way that growth aspiration is defined (current jobs vs new jobs in 5 years). We did not include the level that considers entrepreneurial intention because the firm has not been created yet and, therefore, the questions related to current and expected jobs in 5 years have not been answered by individuals in this situation.

3. Following prior work (e.g. Estrin *et al*., 2013), we added the owner-manager to the expected and current number of employees to calculate the dependent variable and allow the logarithmic transformation for observations with zero employees.

Perception of Opportunities

The perception of opportunities is measured in the GEM APS as a binary variable that takes value 1 if the respondent answers yes to the following question: In the next six months there will be good opportunities for starting a business in the area where you live? (Arenius and Minniti, 2005; Reynolds *et al*., 2005) and it is asked to the totality of the sample that responds to the questionnaire. In our model, the perception of opportunities is included as a moderating variable in the relationship between each of the three levels of engagement (i.e. nascent, new and established) and the growth aspirations.

Control Variables

The variables used in our regressions are taken from the APS of GEM; from the first block directed to the totality of the population, we took the control variables fear of failure, which inquires if fear of failure would be an impediment to starting a business; the self-perception of skills, in which it is asked if the individual has the necessary skills and experience to start a new business; and the knowledge of other businessmen (role models), which tries to establish if the respondent personally knows someone who has undertaken a business in the last couple of years. The set of variables is complemented with the entrepreneur's age, gender, educational level and occupation that are taken from the block of demographic data generated in the same survey. All these variables have been widely used in previous studies about entrepreneurial activity (Arenius and De Clercq, 2005; Arenius and Minniti, 2005; Lim *et al*., 2016; Shane, 2000; Thurik *et al*., 2010; Van der Zwan *et al.*, 2016). Moreover, we also account for the current number of jobs as bigger firms are often found to grow slower than smaller ones (Gilbert *et al*., 2006; Zhou *et al*., 2018). The definition of every variable and the way it is measured is presented in Table 1.

Table 1: Description of variables

DESCRIPTION OF VARIABLES	QUESTIONS IN GEM	MEASURE
Dependent: Growth Aspirations	**Current jobs:** How many people currently work for this business, excluding owners, but including exclusive contractors? **Future jobs:** How many people will be working for this business, not counting the owners but including all exclusive subcontractors, ve years from now?	Difference of the logarithms of the future (in 5 years) and current Jobs
Independent: Entrepreneurial Engagement	**Nascent:** Are you alone or with others currently trying to start a new business, including any self-employment or selling any goods or services to others?	Yes=1 No=0
	The age of the firm is defined taking as reference the first month and year in which wages were paid. The GEM consortium provides two variables calculated from this date of creation:	
	New: Manages and owns a business that is up to 42 months old	Yes=1 No=0
	Established: Manages a business that is older than 42 months	Yes=1 No=0
Moderation: Opportunity Perception	**Opportunity Perception** In the next six months, will there be good opportunities for starting a business in the area where you live?	Yes=1 No=0
Controls	**Self-perception of skills** Do you have the knowledge, skills, and experience necessary to start a new business?	Yes=1 No=0
	Fear of failure In your case, would fear of failure prevent you from starting a business?	Yes=1 No=0
	Gender What is your gender?	1=Man 0=Woman
	Age What is your age in number of years?	
	Educational level Which is the educational level or highest level of studies that you have completed?	1= Collegiate of first or second level 0=Other level of education
	Role models: Knowledge of other entrepreneurs. Do you know someone personally who started a business in the past 2 years?	Yes=1 No=0
	Occupation: Which of the following options best describes your current employment situation?	1= Works full time or part time 0= Doesn't work / Other

4. Empirical Analysis

A multiple regression analysis was used, initially calculating the zero (base) model in which only the control variables are included (Model 0 in Table 4). For estimation purposes, six models are calculated. The first, second and third model calculate the main effects for each stage of the level of engagement: nascent, new and established. The fourth, fifth and sixth model calculates the moderating effect

of opportunity perception for each of the stages of the level of engagement. The multiple regression was estimated by the method of Ordinary Least Squares (OLS).

The graphic tool Q-Q Plots allowed us to revise the normal distribution of the variable corresponding to the number of jobs expected in 5 years, since some atypical values were found that could affect the structure of the data and the results of the model. Although in our case, the size of the sample is sufficiently large, after the analysis of normality there were 44 data records (outliers) that were eliminated from the data base.

To control for any potential multicollinearity issues, the variance inflation factors (VIF) were calculated for each independent variable. The VIF values ranged between 1.01 and 2.62, with an overall mean of 1.58, well below the critical values. Likewise, the matrix of correlations between the independent and control variables was calculated. Heteroscedasticity was controlled for using White robust standard errors.

4.1. Descriptive Statistics

Table 2 presents the mean and the standard deviation of each variable and the bivariate correlations. There are some significant but low correlations among the independent and control variables. The distribution of observations over nascent, new and established entrepreneurs in our sample is 62%, 21% and 17% respectively. The average age is 38 years. 55% of the entrepreneurs in our sample are men and 45% are women. 37% considers that fear of failure would be an obstacle to start-up a business. Only 25% of the respondents have previous education of first or second level. However, 77% of the respondents considered they have abilities to create a business. Moreover, 43% know people in their area that were entrepreneurs in the last 2 years. With regard to the current occupation of respondents, 89% of them declare working either part time or full time. A total of 64% of the individuals perceives that in the following six months there will be good opportunities to start-up in their region, which could reflect the strengthening of the economy in Colombia between the years 2012 and 2016. In our empirical analysis this variable acts as a moderator in the relationship between the level of engagement and the growth aspiration.

Table 2: Means, standard deviations and bivariate correlations (N=6,492)

	VARIABLES	Mean	Std. Des	1	2	3	4	5	6	7	8	9	10	11	12
1	Growth aspirations	1.1	1.27	1.0000											
2	Self-perception of skills	0.77	0.41	0.1164	1.0000										
3	Fear of failure	0.37	0.48	-0.0574	-0.1535	1.0000									
4	Gender (male)	0.55	0.49	0.0906	0.0706	-0.0302	1.0000								
5	Age	38	12	-0.1334	0.0523	0.0600	-0.0069	1.0000							
6	Occupation	0.89	0.30	0.0865	0.1035	-0.0072	0.1472	-0.0087	1.0000						
7	Educational level	0.25	0.43	0.1004	0.0562	0.0295	0.0772	0.0236	0.0669	1.0000					
8	Role Models	0.43	0.49	0.1111	0.1111	-0.1378	0.0573	-0.0643	0.0493	0.1228	1.0000				
9	Nascent	0.62	0.48	0.1575	-0.1064	0.0163	-0.0790	-0.0991	-0.1900	-0.0788	-0.0897	1.0000			
10	New	0.21	0.4	-0.0470	0.0879	0.0079	0.0294	-0.0584	0.1283	0.0564	0.0835	-0.6753	1.0000		
11	Established	0.17	0.37	-0.1559	0.0429	-0.0304	0.0718	0.1961	0.1086	0.0415	0.0256	-0.5711	-0.2198	1.0000	
12	Opportunity Perception	0.64	0.47	0.0648	0.0986	-0.1460	0.0278	-0.0212	0.0131	-0.0148	0.1117	-0.0092	0.0306	-0.0218	1.0000

Correlations in bold are significant at 5% level.

The comparison between the number of current and expected jobs in 5 years per each level of engagement is presented in Table 3. This shows that nascent entrepreneurs have, on average, a higher expectation to create jobs than new and established entrepreneurs. While for the nascents the difference between expected and current jobs is 11.97 jobs in 5 years, for the new entrepreneurs it is 1.42 and for the established ones it is 3.99. These descriptive results provide preliminary support to our first hypothesis.

Table 3: Current and future jobs by the level of entrepreneurial engagement

Variables	N	%	Current employees		Future employees		Difference
			Mean	St. Dev.	Mean	St. Dev.	
Nascent	4,417	62.5%	0.009	0.199	51.30	11.98	11.97
New	1,460	21.3%	2.34	28.41	3.76	24.35	1.42
Established	1,123	16.2%	3.12	8.66	7.11	25.28	3.99

4.2. Results

Table 4 presents the results of the regression models. The six models show a statistically significant F-test. The results of the main effects model indicate that being a nascent entrepreneur (i.e. those in the first level of engagement) increases significantly the growth aspirations. In contrast, the results for both new and established entrepreneurs (those in the second and third level of engagement, respectively) show a negative and significant effect on growth aspirations. It should be noted that established entrepreneurs display the lowest growth aspirations, whereas nascent entrepreneurs have the highest. Overall, these results provide support to H1.

Table 4: Regression results

Dependent: Growth Aspirations	**Model 0**	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	0.9326***	0.67305***	0.89299***	0.74530***	.69040***	0.91207***	0.76882***
	(0.07633)	(0.07728)	(0.07646)	(0.07702)	(0.07989)	(0.07906)	(0.07963)
Controls							
Self-perception skills	0.31490***	0.35084***	0.33064***	0.31668***	0.33355***	0.31506***	0.30096***
	(0.03763)	(0.03714)	(0.03764)	(0.03721)	(0 .03822)	(0.03872)	(0.03831)
Fear of failure	- 0.03325	- 0.04351	- 0.03174	- 0.04963	- 0.03544	- 0.02524	- 0.04208
	(0.03524)	(0.03471)	(0.03516)	(0.03488)	(0.03570)	(0.03618)	(0.03589)
Gender (male)	0.16756***	0.18688***	0.16715***	0.18955***	0.18280***	0.16321***	0.18502***
	(0.03124)	(0.03080)	(0.03117)	(0.03095)	(0.03167)	(0.03207)	(0.03184)
Age	- 0.01411***	- 0.01227***	- 0.01456***	- 0.01098***	- 0.01224***	- 0.01461***	- 0.01104***
	(0.00125)	(0.00124)	(0.00125)	(0.00126)	(0.00127)	(0.00128)	(0.00130)
Occupation	0.28555***	0.41029***	0.31838***	0.34589***	0.39946***	0.30693***	0.03336***
	(0.05176)	(0.05169)	(0.05195)	(0.05142)	(0.05373)	(0.05403)	(0.05349)
Educational level	0.23704***	0.26107***	0.24428***	0.24584***	0.26029***	0.24180***	0.24431***
	(0.03540)	(0.03490)	(0.03533)	(0.03501)	(0.03569)	(0.03615)	(0.03582)
Role Models	0.19714***	0.22686***	0.20921***	0.20142***	0.22107***	0.20265***	0.19819***
	(0.03177)	(0.03135)	(0.03176)	(0.03141)	(0.03222)	(0.03264)	(0.03230)
2013	- 0.11484**	- 0.07681	- 0.99374**	- 0.10982**	- 0.05319	- 0.06867	- 0.08838**
	(0.04820)	(0.04753)	(0.04816)	(0.04766)	(0.04996)	(0.05066)	(0.05006)
2014	0.10837**	0.10512**	0.11162**	0.09597**	0.10284**	0.11087**	0.09291**
	(0.04499)	(0.04431)	(0.04488)	(0.04450)	(0.04621)	(0.04683)	(0.046420
2015	0.12536***	0.10944**	0.12535***	0.10691**	0.12433***	0.14406***	0.12255***
	(0.04347)	(0.04281)	(0.04336)	(0.04300)	(0.04461)	(0.04520)	(0.04482)
2016	0.12513***	- 0.18231***	- 0.22993***	- 0.21363***	- 0.16542***	- 0.21553***	- 0.20414***
	(0 .05296)	(0.05233)	(0.05290)	(0.05243)	(0.05367)	(0.05427)	(0.05377)
Current Jobs	- 0.00708***	- 0.0047***	- 0.00638***	- 0.00617***	- 0.00488***	- 0.00640***	- 0.00626***
	(0.00104)	(0.00104)	(0.00105)	(0.00103)	(0.00104)	(0.00105)	(0.00104)
Predictors							
Nascent		0.47305***			0.47733***		
		(0.03289)			(0.03374)		
New			- 0.22023***			- 0.23027***	
			(0.03858)			(0.03969)	
Established				- 0.52479***			- 0.51505***
				(0.04304)			(0.04410)
Moderators							
Opportunity Perception					0.10125***	0.10377***	0.08440**
					(0.03410)	(0.03456)	(0.03426)
Opport x Nascent					- 0.16625**		
					(0.06736)		
Opport x New						0.058872	
						(0.08215)	
Opport x Established							0.19222**
							(0.08817)
R2	0.074	0.103	0.079	0.095	0.104	0.079	0.095
R2		0.029	0.005	0.021	0.030	0.005	0.020
Adj R2	0.072	0.101	0.077	0.093	0.102	0.077	0.092
Adj R2		0.029	0.005	0.021	0.030	0.005	0.020
F	43.39	57.28	42.76	52.4	47.47	35.39	43.21
# obs	6492	6492	6492	6492	6203	6203	6203

Note: Significant at *** 1%, ** 5%, * 10% level. Robust standard errors are in parentheses.

Models 4, 5 and 6 present the moderating effect of opportunity perception in the relationship between growth aspirations and each of the engagement levels. First, we notice that the linear opportunity perception variable is significantly positive in each of the three models with a coefficient around 0.10. However, for nascent entrepreneurs this coefficient is canceled out by the negative interaction term (-0.166) whereas for established entrepreneurs this positive effect is reinforced by the interaction term (+0.192) so that for established entrepreneurs the total effect of opportunity perception is strongly positive (0.084+0.192=0.276). For new entrepreneurs the interaction term is not significant so that the effect of opportunity perception equals the linear term. Overall, these results suggest that opportunity perception does not contribute to growth aspirations of nascent entrepreneurs, whereas it does for new and established entrepreneurs, with an even stronger positive impact for established entrepreneurs. Hypothesis 2 is strongly supported.

The positive and significant results that we highlight in the control variables are the occupation and the educational level, confirming conclusions of previous investigations about the importance that the human capital of the entrepreneur has for growth aspirations. Likewise, we note that the variables capturing role models and self-perception of skills have positive coefficients as well. The negative sign for the current number of jobs is also according to expectations.

5. Discussion

This study has investigated how the level of engagement of entrepreneurs affects their growth aspirations and how this relationship changes according to the perception of opportunities. The first main finding is that the greatest growth aspirations correspond to those that are in the first level of engagement, which is consistent with the view that nascent entrepreneurs are more ambitious than those in more advanced stages of the entrepreneurial process (Davidsson, 1991; Gilbert *et al*., 2006). This might be due to the fact that these entrepreneurs are generally inexperienced and less realistic (Cielik *et al*., 2018). Nescience about business life could generate aspirations based more on enthusiasm than on market realities, which may cause that many withdraw from the process in this early stage and those who continue tend to reduce their growth aspirations as they mature as entrepreneurs. In fact, we find a decrease in the number of entrepreneurs when comparing the number of entrepreneurs in each stage of the level of engagement and many of them don't overcome that first level. Additionally, and framed in the postulates of Penrose (1959), a nascent entrepreneur doesn't have the entrepreneurial versatility to make projections based on the realities and own experience and knowledge of the business. Considering the view of entrepreneurship as an engagement process, an entrepreneur in an early stage doesn't have a reference of a previous stage that could mold or adjust their growth

aspirations, as the new or established do, and it is possible that their aspirations are based more on enthusiasm and dreams than on real data and previous experiences.

Possibly, their reference could be other entrepreneurs who have been successful and have grown, but this selective perception, resulting from inexperience and nescience, prevents him/her from seeing all the difficulties and problems that are inherent to the exercise of running a business and only observe the positive results of the entrepreneurs as a reference. One additional reason to explain that higher aspiration is that the nascent entrepreneurs have a lower understanding of the costs related to their activities and how they change in time, precisely because they lack of a reference in the previous stages (Davidsson *et al*., 2006; Moreno and Casillas, 2007). Likely, our results are consistent with the postulates of Gilbert *et al*. (2006) regarding the need that the new ventures have of achieving a higher growth compared to firms that are already established, which determines their aspirations, especially due to pressures to gain survival and viability that facilitate the walk through the more advanced levels of engagement. In contrast, for the established firms that, despite having reached a more stable level, want to keep growing, the growth aspirations are determined by factors associated to the consolidation in the market.

The second main finding of the research concerns the moderating role of opportunity perception in the relationship between engagement levels and growth aspirations. We find that growth aspirations are higher for those in an advanced level of engagement when they perceive good opportunities in the environment. One possible explanation for this result is that an established entrepreneur tends to be more realistic and is likely to perceive those opportunities that contribute more to growth in the next years. This may suggest that, as entrepreneurs get more engaged in the entrepreneurial process, they develop the ability to link the opportunities in the environment, that are available for all, to their specific growth aspirations. The nascent entrepreneurs are exposed to the same opportunities, but the effect of perceiving opportunities in this early stage of engagement does not translate into greater growth aspirations. They would possibly translate into a higher speed of venture creation (Capelleras and Greene, 2008).

From the view of the level of engagement proposed by Grilo and Thurik (2008), we find important differences for every stage of the process; an established entrepreneur in comparison to a nascent, bases his/her aspirations possibly on more realistic analysis, is more mature and makes more down to earth decisions, whereas a nascent entrepreneur relies on the enthusiasm of the first stage. The entrepreneurs in a mature stage decide in a more realistic way guided by previous knowledge about the markets, the ways of serving the markets and the problems of clients (Shane, 2000), taking full advantage of their resources in those opportunities that are more effective for growth aspirations. In the same way, it is observed how for every stage the evaluations related to opportunities vary according to the experience and the knowledge of the business. As

Sarasvathy (2001) suggests, effective decision making is evident because we find an entrepreneur that identifies opportunities from his/her own knowledge, resources, and experiences and as they change, the evaluation of opportunities changes. In particular, because more experienced entrepreneurs are better able to spot the 'right' (more promising) opportunities, they are better able to translate opportunities into growth aspirations and actual growth.

6. Implications and Future Research

For entrepreneurs, the results of our study point at the importance of recognizing the limitations and challenges they face at each stage of the entrepreneurial process and providing their resources and capabilities to overcome them. An important consideration, especially for nascent entrepreneurs, is to be more realistic to define their growth aspirations, according to the uncertainty and risks of this stage. For nascent and new entrepreneurs, having support in business training, as well as belonging to support networks, can help overcome challenges and move towards a higher level of engagement. This training and experience acquired over time along with a state of permanent alertness to new opportunities may result in greater growth aspirations.

For public policy, the results imply recognizing the differences in the stages of development of the entrepreneurs and the different support needs for each stage, in such a way that regulation and special supports are designed so that new companies can grow and consolidate. In this regard, it is important to recognize that those entrepreneurs who are less experienced, differ in their ability to perceive opportunities and therefore, policy should be oriented to increasing their managerial capacity so as to recognize promising opportunities and to achieve maximum profits from those opportunities in the environment that the entrepreneurs actually pursue.

For entrepreneurship researchers, the findings increase our knowledge about the factors associated with the growth aspirations of newly created firms in a context of uncertainty and risk, as until now the research about high growth entrepreneurship in countries in conflict has been very limited. We consider it important to deepen the studies on the behavior of the different variables related to entrepreneurship in a context of high uncertainty and risk, since entrepreneurship in countries in conflict can play a key role in the reconstruction of the social and economic framework, and become an option to generate family income and survive in the middle of difficulties.

The present study has some limitations that should be addressed in future research. First, the paper is limited by the cross-sectional nature of the GEM data, especially because the study employs a process perspective. Although we have used data from five different years, it would be necessary to have longitudinal information of the different variables related to entrepreneurial engagement and

growth aspirations. An exciting new research question such as examining how aspirations are adjusted throughout the entrepreneurial process –from the inception of the firm until it is considered an established business– could be examined by using panel data sets containing information on growth aspirations for the same individuals over time.

Secondly, the binary character of the key independent and moderating variables of the study can also be considered a limitation. Dichotomous variables in large questionnaires such as those used in the GEM questionnaire are included to simplify the data gathering process and the subsequent coding. However, future research should search for more fine-grained measures, especially for opportunity perception.

Third, it would be interesting to consider other potential moderating variables. For instance, to explore if the relationships with other entrepreneurs (role models) affects the growth aspirations of nascent, new and established entrepreneurs differently. Likewise, understanding the influence of access to financial resources in every stage of the engagement process would provide valuable insights. In fact, entrepreneurship research has long noted that both role models and access to finance are of capital importance to understand entrepreneurial decisions (Capelleras *et al*., 2011) but not much is known about their moderating role in explaining the relationship between engagement levels and growth aspirations.

Finally, the study is based on data for a single, post-conflict, country. A useful extension would be to test our model with data from other countries, particularly from the Latin American context, and extend the approach by including national-level determinants. Such an approach would also allow to investigate to what extent the results of the present study can be generalized to non-conflict countries.

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