

The high-growth expectation of early-stage entrepreneurs: An international approach to the role of gendered contexts

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Matilde Ruiz-Arroyo, María del Mar Fuentes-Fuentes, Ana Maria Bojica & Jenny María Ruiz-Jiménez

Abstract

High-growth entrepreneurship emerges as a crucial economic phenomenon, given its remarkably positive impact on job creation and sustainable economic growth. We focus this study on entrepreneurs' high-growth expectation, as growth aspirations have been proven to be chief contributors to firm growth. Specifically, in light of the growing importance of women's participation in entrepreneurship, we evaluate possible differences in high-growth expectations between men and women entrepreneurs and explore the role of context in causing gender differences. Drawing on a sample from 44 countries in the 2009 Global Entrepreneurship Monitor (GEM), we find that the effect of gender differs depending on the country's level of gender inequality. We thus conclude that the effect of gender on the entrepreneur's high-growth expectation is context-specific.

Keywords: High-growth expectation; early-stage entrepreneurs; context; country gender gap; gendered institutions

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1. INTRODUCTION

Entrepreneurship is a key to economic value creation, and both quantity and quality of entrepreneurial activity matter (Tominc and Rebernik, 2007). High-growth entrepreneurship emerges as a crucial trend within entrepreneurship, due to its remarkably positive impact on job creation and sustainable economic growth (Autio and Acs, 2007). Entrepreneurial aspirations reflect the qualitative nature of entrepreneurship (Autio, 2007), and entrepreneurs' aspirations and expectations have been proven to be chief contributors to firm growth (Davidsson, 1989; Delmar and Wiklund, 2008). Given that every high-impact firm began as a start-up (Davis and Shaver, 2012), study of high-growth expectations in new ventures is relevant to understanding the phenomenon of high-growth entrepreneurship.

Although economic growth potential in most industrialized countries is gendered (Arenius and Kovalainen, 2006), analysis of high-growth expectation entrepreneurship from a gender perspective is, to our knowledge, scarce (e.g., Davis and Shaver, 2012; Estrin and Mickiewicz, 2011). Women's entrepreneurship is relevant to economic growth for several reasons. For example, it helps to create jobs for women entrepreneurs and for others, and it leads to value creation through capitalisation on experience, skills and training (Ramadani et al., 2015). Specifically for high potential entrepreneurship and based on previous research on women's growth intentions and aspirations, we expect gender to play a role in the formation of an entrepreneur's expectation for high growth, based on previous research on women's growth intentions and aspirations.

Studying entrepreneurs without considering their context provides limited understanding of entrepreneurship (Welter, 2011). Women's entrepreneurial decisions seem to be more sensitive to contextual factors, since the perceived opportunity cost is higher for them than for their male counterparts (Estrin and Mickiewicz, 2011). In developing their entrepreneurial initiatives, women may experience discrimination (Ahl, 2006), discouraging environments (Langowitz and Minniti, 2007) and/or restricted access to necessary resources (Brush et al., 2002). In relation to this, Elam and Terjesen (2010) argue that most institutions are fundamentally gendered. That is, most institutions, as societal structures that shape patterns of relations in society, tend toward

differential treatment of men and women, creating different opportunities and expectations for them (Pathak et al., 2013). In this research we thus look beyond institutional conditions in general to analyse the role of contextual factors related to gender-specific structural determinants, i.e., gender inequalities in the country as gendered institutions. This study attempts to integrate a gendered institutional approach into analysis of the role of entrepreneurs' gender in high-growth expectation for their firms.

Few previous studies adopt a gendered institutional perspective in studying entrepreneurial phenomena of international scope. Baughn et al. (2006) adopt a macro-level perspective in explaining that the level of female entrepreneurship depends on gender equality. Elam and Terjesen (2010) focus on the individual decision to create a business and macro-level interactions based on institutional conditions. Klyver et al. (2013) study the role of national gender equality in the different propensities of men and women for self-employment, and Pathak et al. (2013) focus on the effect of gendered institutions in women's decision to enter into entrepreneurship. All prior studies observe propensity for entrepreneurial entry but not for high-growth expectation entrepreneurship; therefore, despite its importance for economic development, high-growth expectation entrepreneurship has not been analysed through the lens of gendered institutions. Yet better understanding of possible contextual factors affecting an entrepreneur's propensity to high-growth from a gender perspective can help us to determine ways to facilitate participation of women entrepreneurs in high-growth businesses.

Our research questions are: What is the role of gender in an entrepreneur's high-growth expectation? Is the effect of gender the same in contexts with different levels of gender inequality? Drawing on a GEM (Global Entrepreneurship Monitor) sample for 2009 that includes 8,005 entrepreneurs from 44 countries, we first evaluate the direct effect of gender on an entrepreneur's propensity for high-growth expectation. We test this relationship within a coherent framework using a model of individual and organisational factors that explain an entrepreneur's high-growth expectation based on our literature review. Second, we observe the possible differing effect of gender in institutional contexts characterized by different gender disparities in access to resources and opportunities.

The results of this research can contribute to the literature in several ways. First, our gender perspective in studying high-growth entrepreneurship develops the women's entrepreneurship literature by responding to calls for more attention to factors affecting the development of women-owned firms (e.g., de Bruin et al., 2007; Alsos et al., 2011). Second, by considering national contextual conditions, we respond to calls for research on context when studying entrepreneurial phenomena (e.g., Welter, 2011). Moreover, through our focus on particular institutional conditions, i.e. gendered institutions, our findings contribute to developing the institutional perspective in women's entrepreneurship literature. Third, since pursuit of growth through an entrepreneurial venture is a fundamental aspect of strategic entrepreneurial behaviours (Davidsson et al., 2002; Sadler-Smith et al., 2003), better understanding of the factors driving high-growth expectation can advance knowledge in the field of strategic entrepreneurship.

The paper is structured as follows. The following section presents the literature review supporting our model to explain the entrepreneur's high-growth expectation, as well as the arguments for our study hypotheses. We then describe the data, variables and

estimation method. Subsequently, we present the results, which are discussed in the final section, as well as the limitations and suggestions for future research.

2. LITERATURE REVIEW AND HYPOTHESES

2.1. A model to explain high-growth expectation

Before presenting our study hypotheses, we will outline a framework for study of high-growth expectation. Based on previous literature, we construct a model that integrates individual and organisational factors affecting an entrepreneur's growth expectation. Most research on firm growth studies the influence of organisational factors. In the part of the process on which we focus here—entrepreneur's growth expectation—individual factors also play an important role (Dutta and Thornhill, 2008). The entrepreneur's expectations for the future of his/her business are an individual variable affected by other individual determinants and by the firm's characteristics.

Integration of both individual and organisational factors into a model explaining entrepreneur's growth expectations requires corresponding integration of two theoretical perspectives. To incorporate individual factors, we build on entrepreneurial cognition research, while for organisational variables we use insights from the Resource-Based View (RBV). These perspectives can complement one another. For example, the RBV can view cognitive factors as inputs of a venture's performance and growth, and particular entrepreneurial cognitions can be considered as valuable, rare, hard to imitate and non-substitutable resources (Lau et al., 2012).

2.1.1. Individual factors

Cognition has become a critical perspective in entrepreneurship research (Dimov et al., 2013; Baron, 2004). The term *entrepreneurial cognition* can include all aspects of cognition that play a role in important aspects of the entrepreneurial process (Mitchell et al., 2002), from discovering and exploiting opportunities to making decisions related to running a venture (Baron and Ward, 2004), such as the decision to grow the firm (Mitchell et al., 2002). Cognitive factors include attributions, cognitive maps, knowledge structures, perceptions, scripts and schema (Grégoire et al., 2011)—or, more simply, beliefs (Wiklund et al., 2003). Some authors emphasise the close connection of expectations and ambitions to self-perceptions because how entrepreneurs think about themselves influences their willingness to persist in achieving a goal (Gatewood et al., 1995). Self-perceptions are not the only relevant perceptual factor, however. Perceptions and interpretations of the circumstances affecting when and where action is to take place are also important (Grégoire et al., 2011), requiring inclusion of perceptions of the environment. We thus consider self-efficacy, risk propensity and opportunity perception as individual factors that can explain entrepreneurs' growth aspirations.

All of these cognitive factors have previously been related to entrepreneurial behaviour and firm growth. First, self-efficacy refers to an individual's belief that (s)he can successfully accomplish specific tasks (Bandura, 1997). Grégoire et al. (2011) identify self-efficacy as a relevant cognitive resource for entrepreneurial behaviour. Similarly, belief that one has sufficient skills to undertake entrepreneurial tasks (Minniti and Nardone, 2007) and a positive entrepreneurial self-image (Verheul et al., 2005) have been found to be variables determining entrepreneurial decisions. Self-confidence is particularly relevant for the entrepreneur when facing major challenges (Tajeddini and Tajeddini, 2008). Like launching a new venture, managing firm growth entails a

series of challenges about which the entrepreneur projects a self-image of his/her capability to undertake them. In this vein, Morris et al. (2006) find that high-growth entrepreneurs exhibit confidence in themselves. Finally, if the entrepreneur has a favourable disposition to entrepreneurial tasks, (s)he will likely have a positive attitude toward growth (Wiklund et al., 2009).

Second, risk aversion is another cognitive factor widely acknowledged in entrepreneurship research. Risk aversion generally exerts a negative effect on the decision to start a business (Minniti and Nardone, 2007). The same effect has been identified for growth ambitions, as several authors find that entrepreneurs who are less risk averse are more likely to exhibit ambition to grow the firm (Autio, 2007; Cassar, 2007; Verheul and van Mil, 2011; Autio and Acs, 2009). Given that fear of failure is considered as a component of a person's attitude towards risk (Minniti, 2009) and that this perceptual variable is widely employed in GEM studies (Arenius and Minniti, 2005), it can be used as a proxy for risk aversion.

Third, the perception of business opportunities in the environment is assumed to be relevant to entrepreneurship (Shane and Venkataraman, 2000; Eckhardt and Shane, 2003). It has been suggested that the perception of the opportunity is even more important than the opportunity itself, particularly depending on the culture (Dana, 1995). In analysing growth aspirations, Davidsson (1991) proves that differences in perception of opportunities significantly explain part of the variation in growth aspirations among entrepreneurs, and Stevenson and Gumpert (1985) suggest that entrepreneurial orientations driven by opportunity perception encourage an individual's willingness to pursue growth.

2.1.2. Organisational factors

As stated by the RBV, a firm's unique portfolio of tangible and intangible resources and capabilities influences the rate and direction of its growth (Barney, 1991; Penrose, 1959). Given the close link between realized growth and growth intentions or expectations (Davidsson, 1989; Delmar and Wiklund, 2008), resources and capabilities may also play an important role in determining an entrepreneur's growth expectation. Our model thus includes a set of organisational variables that previous research has related to firm growth: team-based form of organisation, international orientation, innovation capability and technological resources.

First, O'Regan et al. (2006) posit ownership structure as a critical factor for direction and operation of a venture. In analysing firm growth, Gundry and Welsch (2001) find that high-growth-oriented entrepreneurs are nearly twice as likely to use team-based forms of organisation for their firms. Team size in terms of number of owners/founders has a positive effect on firm growth (Davidsson et al., 2006), as a variety of members enables individuals to compensate for each other's competence deficits (Cooper et al., 1994). In analysing growth orientation, Morris et al. (2006) indicate that the presence of equity partners (existence of more than one owner) is important in explaining the desire for their business's growth. Further, being able to count on others and to share risks and responsibilities with them (Gilbert et al., 2006) may lead the entrepreneur to pursue higher goals than (s)he would pursue alone.

Contrary to traditional paths for internationalisation (Johanson and Vahlne, 1977, 1990), in recent decades

Second, some authors claim that decisions about degree of domestic versus international growth are relevant to firm growth (Gilbert et al., 2006). Contrary to

traditional paths based on gradual internationalisation (Johanson and Vahlne, 1977, 1990), in recent decades the number of young ventures not yet consolidated that have been developing activities abroad has significantly increased (Acs et al., 2003; Moen, 2002). An internationally-oriented venture may involve the desire for rapid expansion from the beginning, which is related to the entrepreneur's expectation for growth.

Third, innovation is widely recognized as a driver of firm growth (O'Regan et al., 2006), as it increases competitiveness and overall profitability (Porter, 1998; McEvily et al., 2004). Thornhill (2006) proves that innovations are positively related to revenue growth. Innovation is widely defined as creation of new products and processes (Zott, 2003), but we can also focus just on creation of value for the customer (Linder et al., 2003). Bruton and Rubanik (2002) suggest that firms whose products are viewed as more novel concepts in the marketplace are better positioned for higher success. We therefore focus on the entrepreneur's perception of innovation based on customers' view, adopting a market-based perspective that builds on perceptions of the entrepreneur. This approach to innovation has been used in previous GEM studies as appropriate to studying individual entrepreneurial decisions such as the decision to start a business (e.g., Koellinger, 2008) or, for the purposes of our research, to grow a firm.

Finally, use of advanced technologies may be relevant to new venture growth (Gilbert et al., 2006). Terjesen and Szerb (2008) suggest that application of new technology may influence employment growth positively, especially in young businesses. Gundry and Welsch (2001) show that high-growth-oriented entrepreneurs are more likely to pursue technological change—that is, computerizing operations and acquiring new equipment—which we understand as involving the use of new and advanced technologies. Technological resources, understood as new and very new technologies, can provide the firm with the technological capabilities required for innovation and growth, and the presence of such technologies can influence the entrepreneur's future high-growth expectation.

2.2. Hypotheses: The effect of gender on high-growth expectation and the role of context

Although evidence in the literature is not conclusive—some studies find no gender differences in aspirations and preferences for growth (e.g., Kolvereid 1992; Menzies et al., 2004)—, most prior research supports the idea that women entrepreneurs have lower growth expectations than their male counterparts. Some authors suggest that women have conservative growth expectations (Chaganti, 1986; Cliff, 1998) and deliberately choose not to grow their firms, instead maintaining a small and manageable size (Mitra, 2002). Compared to men, women business owners exhibit lower growth expectations (Rosa et al., 1996) and seem less motivated to grow their businesses (Morris et al., 2006). Along similar lines, Cassar (2006) finds that women present lower estimates of future revenues than men, and women entrepreneurs generally aspire to below-average firm size (Evans and Leighton, 1989). Cowling and Taylor (2001) find that self-employed men are three times more likely than self-employed women to develop a business with employees. Based on a descriptive analysis, Autio (2007) suggests that gender is significantly associated with high-growth aspirations, with men typically indicating higher growth ambitions than women. More recently, Davis and Shaver (2012) find that men are more likely than women to express high-growth intentions. In

another vein, Estrin and Mickiewicz (2011) show that women are less likely than men to undertake high-aspiration entrepreneurial activity under certain institutional conditions.

Taking the foregoing into account, we propose:

H1: An entrepreneur's high-growth expectation will differ by gender, such that women are less likely than men to have high-growth expectation for their firm.

On the other hand, entrepreneurship is shaped by the contextual conditions in which it occurs (Welter, 2011). We thus argue that entrepreneurial behaviour is a result of dynamic interrelationships between external and internal (organisational and personal) conditions (Smallbone and Welter, 2006). Previous research emphasizes the importance of distinguishing between the self and macro-societal variables when studying specific entrepreneurial phenomena such as ethnic or minority entrepreneurship (Dana, 1997).

Along these lines, the results of Minniti (2010) suggest a moderating effect of economic context on the mechanisms explaining individual entrepreneurial decisions. In studying female entrepreneurship, Minniti and Naudé (2010) assert that inhibiting cultural institutions and discriminating business environments, among other factors, can explain the lower growth rate in the number of businesses headed by women in many countries. Elam and Terjesen (2010) consider culture and institutional factors related to gender in their research and find that gendered institutions affect the decision to start a business indirectly (through perceptions and gender). Similarly, Baughn et al. (2006) suggest that gender inequality creates drivers that decrease women's level of participation in entrepreneurship, since gender disparities in a society may create barriers to success for entrepreneurial women. For example, there is still a tendency in many societies to assign women responsibility for family and household (Achtenhagen and Welter, 2011), making the task of balancing domestic and economic roles more challenging for women. Traditional and legal obstacles to women's ownership may thus inhibit women's entrepreneurship (Kantor, 2002). Further, women who have less access to education bring less human capital to the entrepreneurial activity (Carter and Brush, 2004), which also affects their possibilities for growth and success.

Since growth aspirations can be seen as an essential characteristic of entrepreneurial behaviour (Sadler-Smith et al., 2003), all of the foregoing arguments can be extended to the high-growth expectation of entrepreneurs. Carter and Marlow (2003) observe that women may, in certain environments, prefer to act within prescribed gender roles to guarantee social acceptance and ease of interaction. This preference may in turn condition the type of activity women choose for their businesses, concentrating them in low-growth sectors (Anna et al., 2000; Orser et al., 2006) and thus limiting their expectation for future growth. In environments where women are less empowered, they suffer from difficulty in acquiring resources and developing successful ventures (Minniti et al., 2005), whereas at the same time better access to resources leads to higher levels of power, visibility and input for decision making. Following Kobeissi (2010), gender empowerment and women's increased economic participation enhance women's ability to decide, through gaining experience and self-confidence. Along these lines, Singh et al. (2001) suggest that empowering women and improving equality levels makes it easier for women to succeed in their business efforts.

Taking the foregoing arguments into account, we can expect that a context favourable to diminishing gender inequalities will enhance women's expectations for

growing their firms and therefore contribute to neutralizing gender differences in entrepreneurial growth expectation. We thus propose that:

H2: The effect of gender on an entrepreneur's high-growth expectation will differ with the level of gender inequality in the country, such that there will be no gender effect when the gender gap is low.

3. DATA AND METHOD

The empirical study is based on individual-level survey data from the 2009 Global Entrepreneurship Monitor (GEM). The GEM project is an annual assessment of the entrepreneurial activity, aspirations and attitudes of individuals across a wide range of countries. Within the adult population, GEM identifies two main types of entrepreneur: early-stage entrepreneurs (nascent entrepreneurs and owner-managers of new firms less than 42 months old), and established business owners (owner-managers of firms that have been in existence for over 42 months) (Reynolds et al., 2005). One of the key GEM indicators is the Total early-stage Entrepreneurial Activity (TEA), or the percentage of the 18-64 population who are either nascent entrepreneurs or owner-managers of a new business.¹

We select only early-stage entrepreneurs from the 2009 GEM global sample and subsequently apply several filters. First, we eliminate several cases of large firms, as our interest is in SMEs. We focus on SMEs because they account for the vast majority in business populations (Buschfeld et al., 2011; European Commission, 2014). Their growth is thus of significant importance to the economy, particularly for solving unemployment and economic recession by creating new jobs (Tominc and Rebernik, 2007). Second, given our goal of analysing different contexts by gender inequality, we take as reference the country classification of the 2009 Global Gender Gap Report, published by the World Economic Forum (WEF). From the countries participating in the 2009 GEM edition, we select the 44 included in the 2009 Global Gender Gap Report. These filters yield a final sample of 8,005 individuals. Participating countries and some descriptive data are shown in Table 1. Countries are classified by their scores in the Global Gender Gap Index, ranging from 1 (total equality) to 0 (total inequality). The GGGI is designed to capture the magnitude and scope of gender-based disparities by benchmarking national gender gaps on economic, political, education and health-based criteria (Hausmann et al., 2009; Zahidi et al., 2013), independently of countries' level of development.²

[Insert Table 1 about here]

The variables included are taken from the GEM APS (Adult Population Survey) and consist of dichotomous, categorical and continuous variables (labels, description and values are shown in Table 2). Our dependent variable (entrepreneur's propensity to have high-growth expectation for the firm) takes the value 1 if the entrepreneur expects to create 20 or more jobs in the next 5 years, and 0 if not. The cut-off for number of jobs expected is based on previous studies (Autio, 2007; Hessels et al., 2008). Table 2 provides a detailed description of the explanatory variables in the model for high-growth expectation.

We also include a set of control variables. First, age (AGE) of the entrepreneur has been previously associated with differences in firm growth (Davidsson, 1989;

Schött and Bager, 2004). Human capital has been related to an entrepreneur's growth orientation (Autio, 2007), and education (HIGHEDUC) is a key aspect of the entrepreneur's human capital (Bosma et al., 2004). Entrepreneurial experience (represented in this study as prior discontinuation of a business, EXIT) and experience as an informal investor or business angel (BUSANG) have been associated with growth intentions (Welter, 2001). Intention to set up a business in the near future (FUTSUP) can also be related to growth expectation for the current firm, as a way to add value to the existing venture or to distribute risks (Rosa and Scott, 1999). Finally, according to Terjesen and Szerb (2008) and Autio (2007), recent personal acquaintance with an entrepreneur (KNOWENT) is significantly and positively related to business growth. Although Gibrat (1931) postulates statistical independence between firm size and firm growth, subsequent research on firm growth does not generally confirm this independence (e.g., Evans, 1987; Lotti et al., 2001; Petrunia, 2008). Given the strong relationship between growth intention and realized growth, we must therefore include a control for firm size, in terms of number of employees (SIZE). We also consider two sector-specific characteristics, perception of level of competition (COMPET) (Dutta and Thornhill, 2008) and perception of sector's technology level (TECHSECTOR), as participation in technology sectors can create perceptions about relevant opportunities for innovation and growth (Hansen and Hill, 1991), leading to growth expectations. Finally, the decision to grow a firm cannot be fully understood without observing contextual conditions (Autio and Acs, 2010), as the way in which entrepreneurs decide and act varies depending on the place they are running their business (Capelleras and Greene, 2008). We therefore include an additional variable on environment, perception of the difficulty of growing a business given the crisis scenario (GROWBUS).

[Insert Table 2 about here]

4. ANALYSIS AND RESULTS

The procedure for the statistical analysis is binomial logistic regression, given the nature of our data and variables (Hair et al., 2006). Binomial logistic regression estimates the probability of an event happening (dichotomous outcome) taking into account a mixture of continuous and categorical regressors simultaneously. Logistic regression principles are not affected by either heteroscedasticity or nonlinear distribution of data (DeMaris, 2004).

Based on our proposed model of individual and organisational factors, we first test the direct impact of gender on propensity to have high-growth expectation for the new venture in our total sample. Given that our aim is to evaluate whether institutional and structural factors related to gender inequalities determine the effect of entrepreneur's gender on expectation for the high-growth of their new venture, our second step is to perform a segmented analysis. Following the instructions of Hoetker (2007), we run the proposed model of high-growth expectation in two subsamples, including gender as explanatory variable. To form the two subsamples, we build on the GGGI index. This index allows us to compare countries based on different gendered structural contexts while disregarding their levels of economic development, as it is designed to measure gender-based gaps in access to resources and opportunities independently of overall level of resources in the country (Zahidi et al., 2013).³ We sort the 44 countries in our sample by GGGI ranking and divide the sample into two

subsamples, the first consisting of the individual data corresponding to the first 22 countries in this ranking, and the second of the last 22. Each subsample thus represents a specific context of gender inequalities.

The results (Table 3) for the first part of the analysis (total sample) show a direct influence of gender on the entrepreneur's propensity to have high-growth expectation for their firm. Women appear less likely than men to establish high aspirations, confirming H1, in line with previous related research (e.g., Davis and Shaver, 2012; Rosa et al., 1996). When distinguishing between groups of countries on the basis of gender disparity, however, we observe a different gender effect in each subsample. The gender effect is maintained in the second subsample (countries with more marked gender-based disparities) but disappears in the first (group of countries tending towards low gender inequalities). These results allow us to confirm H2.

The set of individual and organisational factors influencing entrepreneur's high-growth expectation also varies slightly between the subsamples, suggesting a moderating effect of context on the mechanisms explaining entrepreneurial high-growth intentions.

[Insert Table 3 about here]

5. DISCUSSION

This study analyses the existence of differences between men and women early-stage entrepreneurs with regard to high-growth expectations for their new ventures, drawing on an international sample of observations from 44 countries. We also explore the role of context by evaluating whether the gender effect holds in countries with different levels of gender inequality. We therefore measure the proposed relationships in two subsamples differentiated by the 2009 GGI, representing two differently gendered structural contexts.

Our first result indicates women's general lower propensity than men to high-growth expectation for their firms. However, more refined controlling for structural determinants related to gender gaps in the country indicates no gender effect on the high-growth expectation of the entrepreneur in contexts with lower gender inequalities in access to resources and opportunities. This suggests a moderating effect of context on the role of gender in entrepreneurial expectations. Our findings stress the importance of context to the study of entrepreneurship, in line with previous suggestions, such as those by Welter (2011) or Hechavarria and Reynolds (2009). Our results also reinforce those of previous studies that demonstrate the relevant role of gendered contexts and gendered institutions in entrepreneurship (Berg, 1997; Baughn et al., 2006; Elam and Terjesen, 2010; Klyver et al., 2013). In particular, the findings of this research suggest that institutions work through individual and organisational factors to influence an entrepreneur's propensity to high-growth expectation, in line with previous results on entrepreneurial engagement (Elam and Terjesen, 2010; Klyver et al., 2013; Pathak et al., 2013). As for entrepreneurial entry decisions, gendered institutional factors determine the context motivation for high-growth entrepreneurial intentions.

In seeking possible explanations for these results, we must acknowledge that countries with higher gender inequalities have a lower level of economic development, and vice versa. In developing societies, women's activities are largely constrained by cultural and social norms. Women are less empowered and more likely to have, for

example, limited access to networks and geographic mobility (Kobeissi, 2010). On the other hand, prior evidence shows that developing countries have a higher proportion of necessity entrepreneurship (Desai, 2009; Hechavarria and Reynolds, 2009) than of opportunity entrepreneurship. For women specifically, entrepreneurship can be seen as a necessity, as self-employment provides an alternative to restricted labour markets and unemployment, and may even represent a way out of poverty in developing nations (Minniti and Naudé, 2010). At the same time, as necessity entrepreneurship is less ambitious than opportunity entrepreneurship (Autio, 2007), this difference can explain the lower propensity to high-growth expectation of women entrepreneurs in the group of countries with greater gender disparities, as compared to countries better positioned in the gender equality ranking.

6. CONCLUSION AND IMPLICATIONS

The main conclusion of our research is that the role of gender in an entrepreneur's high-growth expectation is context-specific, as its effect varies as a function of gendered structural conditions. This result provides interesting insights into the social and structural dimensions of the role of gender in entrepreneurship. Gender is more than a stable, fixed demographic category. It is not something that *is*, but rather, something that *is done* as a result of social interaction (Ahl, 2006). Gender can thus be shaped through socialization processes and change over time, as contextual factors change.

As to practical implications, since asymmetrical gender systems that preserve strong gender roles may prescribe stereotypically male or female behaviours (Baughn et al., 2006), acting on parameters that can change these roles will facilitate ease of interaction for women (Carter and Marlow, 2003), for example contextual and institutional parameters. Our results suggest that reducing a country's gender disparities at the institutional level could enhance bold entrepreneurial behaviour among women, specifically high-growth orientation for their ventures, in turn reducing or eliminating gender differences in entrepreneurial activity. Consequently, both researchers and policy makers should work for better understanding of gender gaps and their determinants as relevant factors in affecting high-growth entrepreneurship among women. Increasing women's participation in high-growth entrepreneurship may ultimately produce better results in economic development and economic growth in two ways. First, such entrepreneurial activity makes a greater contribution to the economy (Autio and Acs, 2007); second, women entrepreneurs remain an untapped source of economic growth in many countries (Ramadani et al., 2013; Ramadani, 2015). Moreover, entrepreneurship aspiring to high growth takes a long-term approach to firm management. In the case of women, such an approach can warrant durable participation of women in economic activity through management of their own firms. All of these implications may ultimately give rise to changes in the system from the bottom up, as increased participation of women in high-growth entrepreneurial activity will impact institutions, helping to reduce gender inequalities over time.

In conclusion, our research suggests that individual factors explaining high-growth expectation entrepreneurship should be considered within the larger institutional context, specifically within gendered contexts, when analysing gender issues in entrepreneurship. Our study supports the idea that study of the "gendering of entrepreneurship" (Berg, 1997:267) should include context to obtain a more

comprehensive picture of the phenomenon and better explanation of differences between men and women.

This study is not exempt from limitations, which in turn open avenues for future research. First, although we try to construct a comprehensive model of factors explaining high-growth expectation, our results may be inflated by omitted variables, a risk common to most studies based on large data samples (Minniti, 2010) and to quantitative approaches in general, which tend to ignore potential findings not directly linked to the predefined hypotheses (Dana and Dana, 2005). Second, our study approaches the gendered context using a general index that captures several gender gaps simultaneously. Further research should evaluate the differential effect of specific gendered institutional factors to determine which have a stronger influence on entrepreneurs' high-growth expectations.

Finally, our methodology provides insights into the moderating role of context in shaping the direct effect of gender but does not allow us to observe either the direct effect of context on our dependent variable or the interaction effects between variables at different levels. Further research should build on multilevel modelling, as it is promising for investigation of social and cultural processes driving entrepreneurial decisions (Davidsson and Wiklund, 2001; Klyver et al., 2013). Multilevel techniques will enable more refined understanding of the intertwined relations of micro- and macro-level factors determining entrepreneurial high-growth expectation. This method is somewhat new to entrepreneurship studies, however, and requires further application and development of theories to support its use in cross-national studies (Elam and Terjesen, 2010).

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NOTES:

- 1 For more information about the GEM Project, see: www.gemconsortium.org
- 2 For detailed information, see: <http://www.weforum.org/issues/global-gender-gap>
- 3 To our knowledge, very few studies have previously relied on the Global Gender Gap (WEF) to account for gendered institutions: see, for example, Klyver et al. (2013) and Pathak et al. (2013).

Table 1
Participating countries sorted by GGGI2009, and descriptive data

	N (number of observations per country)	Distribution by gender		TEA 2009 (% of population 18-64)	High-growth expectation rate (% of early-stage entrepreneurs)	GGGI2009 Index
		(% of early-stage entrepreneurs)				
		Male	Female			
<i>Subsample 1</i>						
Iceland	202	59.90	40.10	11.4	8.00	0.828
Finland	108	62.96	37.04	5.2	0.94	0.825
Norway	130	74.62	25.38	8.5	9.52	0.823
South Africa	95	56.84	43.16	5.9	6.41	0.771
Netherlands	95	53.68	46.32	7.2	6.32	0.749
Germany	96	61.46	38.54	4.1	7.53	0.745
Switzerland	115	49.57	50.43	7.7	4.35	0.743
Latvia	159	62.89	37.11	10.5	7.59	0.742
United Kingdom	83	66.27	33.73	5.7	10.00	0.740
Spain	77	59.74	40.26	5.1	1.32	0.735
France	59	76.27	23.73	4.3	10.53	0.733
Ecuador	330	49.70	50.30	15.8	1.84	0.722
Argentina	218	52.29	47.71	14.7	5.19	0.721
United States	104	59.62	40.38	8	12.87	0.717
Belgium	65	75.38	24.62	3.5	7.94	0.717
Uganda	657	47.79	52.21	9.4	1.40	0.707
Panama	175	52.57	47.43	9.6	5.20	0.702
Peru	344	58.43	41.57	20.9	2.33	0.702
Israel	94	59.57	40.43	6.1	13.19	0.702
Jamaica	382	52.88	47.12	22.7	1.59	0.701
Russia	56	58.93	41.07	3.9	8.00	0.699
Slovenia	87	79.31	20.69	5.4	4.60	0.698
<i>Subsample 2</i>						
Croatia	77	76.62	23.38	5.6	11.84	0.694
Colombia	404	60.15	39.85	22.6	17.04	0.694
Uruguay	169	67.46	32.54	12.2	8.38	0.694
China	364	55.49	44.51	18.8	7.99	0.691
Chile	232	55.60	44.40	14.8	6.96	0.688
Hungary	168	69.05	30.95	9.1	6.02	0.688
Dominican Republic	321	51.71	48.29	17.5	3.80	0.686
Venezuela	245	42.45	57.55	18.7	2.99	0.684
Romania	51	62.75	37.25	5	8.89	0.681
Italy	56	73.21	26.79	3.7	5.45	0.680
Brazil	304	47.37	52.63	15.3	1.68	0.670
Greece	131	61.07	38.93	8.8	0.00	0.666
Malaysia	75	76.00	24.00	4.4	0.00	0.647
Guatemala	301	53.82	46.18	19.2	0.00	0.621
United Arab Emirates	201	83.08	16.92	13.3	38.58	0.620
Jordan	186	79.57	20.43	10.2	7.78	0.618
Republic of Korea	131	74.81	25.19	7	3.88	0.615
Algeria	216	61.57	38.43	16.7	9.52	0.612
Syria	151	82.78	17.22	8.5	12.75	0.607
Morocco	211	64.93	35.07	15.7	2.90	0.593
Iran	185	72.83	27.17	12.1	5.78	0.584
Saudi Arabia	95	94.74	5.26	4.7	30.53	0.565

Table 2
Variables description

VARIABLE NAME	LABEL AND VALUES
DEPENDENT VARIABLE	
HIGHGROWTHEXP	High-growth expectation, i.e., expects to create +20 new jobs (1 = yes; 0 = no)
INDEPENDENT VARIABLES	
<i>Control variables:</i>	
AGE	Exact age at the time of interview
HIGHEDUC	High Education Level Attainment (1 = yes; 0 = no)
BUSANG	Informal investor in the last 3 years (1 = yes; 0 = no)
FUTSUP	Expects to start-up in the next 3 years (1 = yes; 0 = no)
EXIT	Discontinued a business in the past 12 months, including business that continued (1 = yes; 0 = no)
KNOWENT	Knows someone personally who started a business in the past 2 years (1 = yes; 0 = no)
SIZE	Size 2009, understood as number of jobs in 2009
TECHSECTOR	Firm operates in a Technology sector (1 = medium or high-tech; 0 = low-tech or none)
COMPET	Level of competition in the sector (1 = high; 0 = low/none)
GROWBUS	Growing a business now compared to one year ago is more difficult (1 = yes; 0 = no)
<i>Individual-level variables</i>	
SELF-EFFICACY	Has the knowledge/skills to start a business (1 = yes; 0 = no)
FEARFAIL	Fear of failure would prevent you from starting a business (1 = yes, 0 = no)
OPPORT	In the next six months there will be good opportunities for starting a business in the area where you live (1 = yes; 0 = no)
<i>Organisational variables:</i>	
TEAMOWNERS	Team of owners-managers, i.e., more than one (1 = yes; 0 = no)
EXPORT	Export intensity relative to turnover (0 = 0% or no export; 1 = 1-10%; 2 = 11.25%; 3 = 26-50%; 4 = 51-75%; 5 = 76-90%; 6 = over 90%)
INNOVATION	The firm is high or some innovative based on the (potential) customers' view (1 = all or some; 0 = none)
NEWTECH	Technology employed in the business is new or very new, i.e., available for less than 5 years (1 = yes; 0 = no).
<i>Gender:</i>	
GENDER	Gender (1 = female; 0 = male)

Table 3
Logistic regressions for HIGHGROWTHEXP (total sample, subsample 1, subsample 2)

	<i>Total sample</i>			<i>Subsample 1</i>			<i>Subsample 2</i>		
	Coeff. B	Wald	Exp(B)	Coeff. B	Wald	Exp(B)	Coeff. B	Wald	Exp(B)
Control variables									
AGE	-0.003	0.479	0.997	0.017 *	4.863	1.017	-0.012 †	3.564	0.988
HIGHEDUC	0.530 ***	21.812	1.699	0.419 *	4.087	1.520	0.549 ***	15.916	1.732
BUSANG	-0.005	0.001	0.995	0.161	0.419	1.175	0.025	0.017	1.025
FUTSUP	0.829 ***	40.361	2.291	0.780 ***	12.550	2.181	0.764 ***	21.433	2.146
EXIT	0.202	1.875	1.224	-0.196	0.438	0.822	0.346 *	3.932	1.413
KNOWENT	0.121	0.885	1.129	0.311	1.681	1.364	0.057	0.134	1.058
SIZE	0.027 ***	36.682	1.028	0.021 **	10.812	1.021	0.035 ***	26.974	1.036
TECHSECTOR	-0.215	0.391	0.807	-0.016	0.001	0.984	-0.314	0.515	0.730
COMPET	-0.156	1.801	0.856	-0.284	1.699	0.753	-0.151	1.150	0.860
GROWBUS	-0.176	2.125	0.839	-0.217	0.964	0.805	-0.146	0.983	0.865
Individual-level variables									
SELF-EFFICACY	0.138	0.487	1.148	0.061	0.028	1.063	0.235	0.985	1.265
FEARFAIL	-0.571 ***	13.949	0.565	-0.538 *	3.893	0.584	-0.556 **	8.814	0.574
OPPORT	0.078	0.433	1.081	0.298	1.789	1.347	0.029	0.041	1.029
Organisational variables									
TEAMOWNERS	0.625 ***	29.633	1.868	0.585 **	8.050	1.795	0.647 ***	21.033	1.909
EXPORT	0.255 ***	74.782	1.290	0.299 ***	37.474	1.349	0.234 ***	37.671	1.264
INNOVATION	0.427 ***	12.721	1.532	0.382 †	3.126	1.465	0.349 *	5.703	1.418
NEWTECH	0.455 ***	15.772	1.576	0.552 **	7.039	1.736	0.291 *	4.366	1.338
Gender									
GENDER	-0.600 ***	20.333	0.549	-0.223	1.013	0.800	-0.719 ***	17.743	0.487
Constant	-4.183 ***	166.453	0.015	-5.557 ***	85.620	0.004	-3.528 ***	80.475	0.029
Model diagnostics									
N (valid cases)	5 697			2 661			3 036		
Model X ²	489.092 ***			173.302 ***			315.937 ***		
R ² Cox and Snell	0.082			0.063			0.099		
R ² Nagelkerke	0.205			0.203			0.214		
% correct predictions	92.700			95.400			90.700		

† significant $p < 0.10$
* significant $p < 0.05$
** significant $p < 0.01$
*** significant $p < 0.001$