

The moderating role of individual and social resources in gender effect on entrepreneurial growth aspirations

Frederick W Nyakudya, Tomasz Mickiewicz and Nicholas Theodorakopoulos

International Journal of Entrepreneurial Behavior & Research

Accepted: 25/03/2024

Abstract

Purpose

This study examines how the effect of gender on entrepreneurial growth aspirations is moderated differently by individual resources (human and financial capital) compared to those within the social environment (availability of entrepreneurial knowledge and role models).

Study design/methodology/approach

A multilevel estimator is used to investigate the determinants of growth aspirations of owners-managers of nascent start-ups. The Global Entrepreneurship Monitor (GEM) database is employed, covering the period 2007 to 2019, with 99,000 usable cases drawn from 95 countries.

Findings

The results suggest that individual financial resources and human capital have positive effects on entrepreneurial growth aspirations; yet these effects are weaker for female entrepreneurs relative to males. In contrast, the impact of availability of entrepreneurial social knowledge and role models on their growth aspirations is more positive than for male entrepreneurs.

Originality

This study offers a novel insight into entrepreneurial growth ambition, as it utilises a global perspective to scrutinise whether individual and social resources contribute differently to male versus female growth-aspirations, employing a multilevel approach. It also integrates insights from the resource-based view (RBV) and from the relevant business literature on entrepreneurs' gender to develop theoretical explanations.

Keywords: Growth aspirations; Entrepreneurship; Global Entrepreneurship Monitor; Gender; Resource-based view

1. Introduction

Entrepreneurship is generally considered to be a source of economic growth, innovation, and socio-economic wellbeing. However, while 7.3% of males were involved in nascent start-up activity, the percentage was 5.1% for females worldwide. Moreover, a median female entrepreneur expected her start-up to have employment of 5 people in 5 years' time; for a median male entrepreneur, the corresponding figure was 6, which is 20% higher.¹ In this context, promoting and supporting female entrepreneurs has remained a key agenda item for the economic development policy of most developed and developing nations around the globe (Atherton, 2006). Parallel to this, the rising scholarly research on gender and entrepreneurship shows the distinctiveness of female start-ups, and likewise gender differences related to entrepreneurial growth ambitions. In particular, the female and male entrepreneurs manage their resources differently and often achieve different economic outcomes (Wang *et al.*, 2018). The extant research investigates the determinants of start-ups differentiated by gender, which has been studied within single countries, including by Brush *et al.* (2017), and Sauer and Wilson (2016), as well as from a cross-country perspective, including Baughn *et al.* (2006) and Huang *et al.* (2022).

There are also studies on entrepreneurial growth ambition and on growth, as differentiated by gender, based on single countries, both developing (Ngoasong and Kimbu, 2019) and developed (Yacus *et al.*, 2019), as summarised by Vracheva and Stoyneva, 2020. Although institutional constraints play an important role, as argued by Vracheva and Stoyneva (2020), the gender differences in entrepreneurship cannot be reduced to these factors. Consistent with this broad assertion, we utilise a global perspective to ask whether individual and social resources contribute differently to male versus female entrepreneurial growth intentions, even when controlling for institutional environment. To our best knowledge, the question has not yet been investigated in that way, and we identify three main gaps in the literature.

The first gap is that while the literature analyses effects of resources on entrepreneurial growth aspirations, as differentiated by gender (e.g. Brush *et al.*, 2017; Estrin and Mickiewicz, 2011), we do not know if these effects are general and hold in a wider cross-country perspective. This is not a trivial question, as we know from cultural psychology that many

¹ That was calculated by the authors utilising the 2007-2019 Global Entrepreneurship Monitor data. We postpone the discussion of detail related to the calculation of employment growth aspirations to the Methodology section.

findings, especially those based on data from developed countries, and US in particular, are not universal but local regularities (Heine, 2020).

Second, the literature offers limited understanding of the contrast between the role of individual and social resources, as the basis of gender-differentiated entrepreneurship and self-employment. Further, to our best knowledge, apart from Estrin and Mickiewicz (2011), there are no studies of gender-specific entrepreneurial growth ambition that make a distinction between the individual level and the social level resources. However, this distinction is critical, because the gender-specific role of the resources concerned and in particular of knowledge and role models embedded in the social environment, may differ from the role of individual resources in shaping entrepreneurial growth ambitions (Estrin and Mickiewicz, 2011). An additional dimension to this issue is the gap in the literature related to global, cross-country evidence (Brush and Cooper, 2012). Yet, to identify the effects that are not only country specific but globally valid, and to distinguish between societal and individual resources, one needs to move to a multilevel, cross-country perspective.

Third, the RBV (Alvarez and Busenitz, 2001) is an appropriate theory to analyse the individual and social effects of resources on entrepreneurial ambition. Yet, despite the stream of this literature that focuses on the entrepreneur and the manager (Foss *et al.*, 2008), the RBV literature has paid scant attention to the role that gender plays in entrepreneurial growth ambitions, possibly with the exception of the study by Runyan *et al.* (2006). While there is RBV-based literature on female entrepreneurs that concerns firm-level constructs (Joseph *et al.*, 2022), focus on the entrepreneur-level and the social-level resources is missing.

Addressing these gaps, this study makes a number of contributions. First, it integrates insights from the RBV and from the relevant business literature on entrepreneurs' gender (Runyan *et al.*, 2006) to develop theoretical explanations. As argued by Foss *et al.* (2008), RBV can be integrated with focus on entrepreneurs who decide how to use resources. Emphasising this connection enables adding to the literature that highlights the differences between male and female entrepreneurs, including those associated with their gender-conditioned leadership styles, decision making, and alternative motivation (Buttner, 2001; Vranceva and Stoyneva, 2020).

Second and related, this study extends the RBV-based entrepreneurship literature on differences between male and female entrepreneurs' growth ambitions (Brush *et al.*, 2017; Estrin and Mickiewicz, 2011), drawing upon the literature on social stereotyping (Laguía *et al.*, 2019; 2022).

Third, the study shows that the effect of gender on business growth aspirations is moderated differently by individual resources (financial resources, education, and entrepreneurial skills), compared to those within the social environment (availability of entrepreneurial knowledge and role models). That way, this study identifies critical conditions that shape the effects of resources. In so doing, we build on the literature that emphasises relative advantage in female social abilities and competences that enable female entrepreneurs to reach out and utilise the resources that are socially available (Emami *et al.*, 2023; Hamdani *et al.*, 2023), which helps us explain differences in growth aspirations, and the role of social resources in diminishing the gender gap.

2. Theoretical framework, previous literature and hypotheses

Heterogeneous distribution of resources and capabilities among individuals is associated with heterogeneity in entrepreneurship outcomes. Here, one important contrast is that of gender. The self-reinforcing character of the gender differences in entrepreneurial activity may result from persistent gender stereotyping, where entrepreneurship is seen as associated with ‘masculine’ characteristics (Laguía *et al.*, 2022). Gender-defined roles prevent equal use of resources and capabilities that are valuable, rare and inimitable, and are not traded freely on the market (Wernerfelt, 1984) for entrepreneurial projects.

This RBV framing as applied to entrepreneurship may be utilised to explain why some individuals are more likely to engage in entrepreneurship (Alvarez and Busenitz, 2001). It assumes that potential entrepreneurs have capabilities that enable them to identify new business opportunities and also facilitate assembling appropriate resources required for creating a new business (Bergmann and Stephan, 2013), and for achieving high performance (Runyan *et al.*, 2006). Moreover, entrepreneurs can enhance the value of their venture through effective management, which reduces the cost of resources utilised in the start-up process (e.g. Gerhart and Feng, 2021). Along these lines, the effect of resources required in starting a new business and making it grow would depend on the decisions, skills, motivation, and experience of the entrepreneurs who manage the requisite resources.

While this study employs the RBV, it acknowledges that within this perspective, little attention has been paid to the role that gender plays in the decisions shaping entrepreneurial outcomes (Runyan *et al.*, 2006). Yet, male and female entrepreneurs may employ their financial, human and social capital differently to achieve the desired entrepreneurial outcomes. Accordingly, the objective of this study is not only to examine the influence of resources on

entrepreneurial activity but also to elucidate their interactions with gender, within the analytical framework of RBV.

Before applying this theoretical framework to develop hypotheses, it is important to enumerate the resources to which this study relates. Resources, which can be used in the creation of a new firm and in making it grow, include general human capital proxied by education; specific entrepreneurial knowledge and skills; individual financial resources; and entrepreneurial capital (Audretsch and Keilbach, 2004), which is interpreted here as the social availability of entrepreneurial knowledge. Based on this, the study develops hypotheses related to how the differential impact of gender on new business growth ambitions is moderated by the presence of individual and social resources. Accordingly, we will now proceed to discuss the moderating role of specific resources.

2.1. Financial resources and entrepreneurship

Entrepreneurship literature on the role of financial resources (Harding and Rosenthal, 2017) reports inconclusive findings concerning whether and under what conditions would access to finance influence entrepreneurial outcomes (Disney and Gathergood, 2009). The seminal work by Evans and Jovanovic (1989) was among the first to recognise the importance of financial resources for entrepreneurship. The subsequent literature expanded their work from different perspectives, and two main streams of literature can be identified.

The first stream focuses on financial constraints (Evans and Jovanovic, 1989). It is assumed that lower levels of personal wealth (and therefore unavailability of collateral) restrict access to credit, which makes it difficult for entrepreneurs to cover start-up costs and reduces their chances of starting and expanding a new business. Entrepreneurs often have asymmetric knowledge about the market potential of their projects and that makes assessment by the external providers of finance, such as banks, difficult. This leads to an increase in the cost of borrowing or to constraints in financing of the entrepreneurial activities, which limits growth opportunities for new businesses. As individuals with lower levels of wealth are also less likely to be able to compensate for the lack of external capital with their own resources, this may result in undercapitalisation and limited chances for growth of their new venture (Rouse and Jayawarna, 2006). Consistent with this, if women have less control over household financial resources compared to men, it may also limit their opportunities for acquiring external finance for growth of their new ventures. Sauer and Wilson (2016) results suggest that liquidity constraints differ by gender.

However, the second stream of the literature casts doubt on the financial constraints' interpretation. [Hurst and Lusardi \(2004\)](#) provided evidence which indicates that in the US, personal wealth only affected self-employment for those in the top 5 percent of the wealth distribution and argue that individuals with lower levels of wealth were not disproportionately likely to start a business only in sectors which have low start-up costs. [Disney and Gathergood \(2009\)](#) used the UK data and found a similar distribution pattern for the UK. For this reason, they argued that access to finance and personal wealth does not have a significant effect on entrepreneurship. This may imply that gender differences in transforming finance into growth may have other sources.

In particular, males tend to be less risk averse ([Borghans et al., 2009](#); [Emami et al., 2023](#)), and more overconfident. Recent developments in behavioural endocrinology indicate that the steroid hormone testosterone plays a role in attitudes towards economic risk taking, and its level is on average eight times higher in man compared to women ([Apicella et al., 2015](#)). Conceivably for that reason, men are more likely to use the available financial resources to adopt aggressive high-risk, high-growth strategies for their start-ups. At the same time, these differences are likely to be amplified by social stereotyping that ascribes specific business traits to male and female entrepreneurs ([Laguía et al., 2022](#)).

It does not follow, however, that more aggressive use of finance for growth, which is likely to characterise male entrepreneurs, is a more effective strategy. In fact, the reverse may be true. The aggressive use of finance for growth may diverge from the expected utility maximisation. While it is found that female-run start-ups are likely to adopt more balanced, sustainable, and less-risky strategies ([Cliff, 1998](#)), they will also use financial resources to perform better in terms of inputs management and efficiency in use, survival, and long-term sustainability ([Justo et al., 2015](#)). As a consequence, the average efficiency of finance use of female businesses may be higher compared to firms led by male entrepreneurs. The evidence could also be read as suggesting that females might have specific advantages in managing their financial capital. The literature indicates that females are more disciplined, less over-confident and adhere to stricter ethical practices than males ([Van Staveren, 2014](#)). [Graham et al. \(2009\)](#) show that females tend to assess their investment opportunities more accurately than males who often overestimate theirs.

Recently, [Laguía et al. \(2019\)](#) found that how successful entrepreneurs perceive themselves differ significantly from the social stereotypes. Outside observers perceive successful entrepreneurs as exhibiting stereotypically masculine characteristics of 'task orientation' instead of stereotypically feminine characteristics of 'relationship orientation'.

Interestingly however, the reverse is true for entrepreneurs themselves. It follows that entrepreneurs' success may be associated with male entrepreneurs adopting some elements of stereotypically feminine style of management, rather than female entrepreneurs adopting some elements of stereotypically masculine style.

Taken together, these arguments suggest that compared with female nascent entrepreneurs, for nascent male entrepreneurs (but not necessary for owners-managers of mature businesses) the available financial resources will feed more into entrepreneurial growth aspirations. Drawing on the above discussion, the following hypothesis is proposed:

Hypothesis 1: Individual financial resources increase growth ambitions of both female and male entrepreneurs, but less so for female entrepreneurs.

2.2. Human capital and entrepreneurship

Human capital refers to the knowledge, skills and perceptions that increase an individual's effectiveness in performing his/her duties and can be acquired at a cost (Becker, 1964; Unger *et al.*, 2011). It is often gained through formal education and work experience. RBV considers human capital as a critical resource that entrepreneurs possess because when new business opportunities emerge, individuals with higher levels of human capital are, on average, more likely to identify and exploit these opportunities than those with lower levels of human capital (Alvarez and Busenitz, 2001), and in turn identification of opportunities will feed into growth ambitions, as such individuals are better positioned to pursue those.

Formal education and entrepreneurship-relevant skills are the main components of human capital, representing its general and specific forms correspondingly (Estrin *et al.*, 2016). Thus, human capital relevant for entrepreneurial entry and growth ambition represents both objective elements that can be externally measured such as formal education, and subjective elements such as entrepreneurial knowledge and skills. In line with that, this study focuses on two key components of human capital: formal education and entrepreneurship-specific knowledge.

Prior studies provide theoretical and empirical arguments about how education might influence entrepreneurial outcomes. Evidence suggests that high levels of education are positively associated with entry into start-up process (Estrin *et al.*, 2016; Mickiewicz *et al.* 2017), and especially with entry characterised by high growth aspirations (Estrin and Mickiewicz, 2011). Individuals who are highly educated often have a strong knowledge base and cognitive skills which allow them to solve complex problems (Unger *et al.*, 2011), and to

be effective in performing entrepreneurial activities (Brush *et al.*, 2017; Estrin *et al.*, 2016); this is also likely to be associated with higher growth ambition. Others suggest that education increases curiosity, openness to innovative ideas and receptiveness to change (Frese *et al.*, 2007); again, these are attributes likely to be associated with entrepreneurial orientation on growth. These attributes can increase both the willingness and the ability to identify, understand and act on information relating to new opportunities, impacting growth intentions positively. Knowledge can also help either to compensate for the lack of financial resources, or in acquiring resources such as physical and financial capital (Bruton *et al.*, 2015), which are a condition for growth. This is confirmed by empirical results on the link between high level of formal education and growth aspirations of entrepreneurs (Estrin *et al.*, 2013).

Likewise, entrepreneurship-specific knowledge and skills matter (Mickiewicz *et al.*, 2017). Entrepreneurship-specific human capital is defined as the knowledge and skills that facilitate setting up and growing a new business (Arenius and Minniti, 2005). Self-perceptions of one's capabilities and skills influence action in such a way that the more individuals believe that they have the knowledge and skills required to start a business the more likely they will engage in entrepreneurship (Bandura 1978) and will scale up, increasing the growth ambition (De Clercq and Arenius, 2006).

Evidence indicates that both education and entrepreneurial knowledge play a greater role in the development of entrepreneurial self-efficacy for women than for men (see Cetindamar *et al.*, 2012). Furthermore, female entrepreneurs might have some attributes that facilitate managing their human capital. More specifically, evidence suggests that females possess more transformational leadership attributes and are more likely to engage in empowering management and collaborative relationships with various stakeholders (Buttner, 2001). This may help female entrepreneurs to leverage human capital by promoting smoother flow of information. Moreover, transformational leadership style tends to play a vital role in enhancing commitment, interpersonal interactions, innovative behaviour, and performance (Zhang *et al.*, 2015). Therefore, human capital should facilitate entrepreneurs in identifying, evaluating, and exploiting new opportunities, and female entrepreneurs might have a superior ability to leverage the knowledge, skills and talent required to create a new firm.

However, while these arguments are now well rehearsed when applied to entrepreneurial entry, considering the question of entrepreneurial growth ambition may lead to a different conclusion. Similar to the use of financial capital, female entrepreneurs may be more likely to utilise their general and specific human capital more efficiently, as just argued. It does not follow, however, that having higher human capital will affect their growth aspirations to the

same degree as for their male counterparts. Similar to the argument on financial resources presented above, this study posits that human capital endowment may help female entrepreneurs to perform better in terms of inputs' efficiency, business survival, and sustainability (Justo *et al.*, 2015). Yet, adopting these as objectives may also imply less emphasis on growth.

With respect to finance, we were unable to distinguish between two different factors: gender differences in risk-taking propensity (Borghans *et al.*, 2009), and gender stereotypes (Laguía *et al.* 2019; 2022). However, unlike financial resources, human resources cannot be depleted by their application in a growing new business. Even if the latter is not successful, the stock of valuable entrepreneurial experience increases – not diminishes (Fuentelsaz *et al.*, 2023). Thus, we posit that with respect to leveraging human resources into growth aspirations, it is not the gender differences in risk attitudes identified by behavioural endocrinology (Apicella *et al.*, 2015), but stereotype threat that is likely to play a decisive role. Stereotype threat refers to the situation “when people are aware of stereotypes associated with their social group and believe that they may be judged based on those stereotypes, they tend to feel threatened by the stereotype. Consequently, they tend to psychologically disengage from the stereotyped tasks associated with them and this results in decreased motivation for and performance in the stereotyped task” (Laguía *et al.*, 2022, p. 1002). Thus, social stereotyping that associates fast-growing new ventures with masculine characteristics will discourage women from utilising their human capital for such entrepreneurial strategies. As a result, the following hypotheses are proposed:

Hypothesis 2a: Higher education increases growth ambitions of both female and male entrepreneurs, but less so for female entrepreneurs.

Hypothesis 2b: Entrepreneurship-specific knowledge and skills increase growth ambitions of both female and male entrepreneurs, but less so for female entrepreneurs.

2.3 Entrepreneurial social capital

Although the discussions above focused on the individual resources of entrepreneurs, the resources in the social environment are also recognised as having significance in explaining entrepreneurial outcomes (Audretsch and Keilbach, 2004; Mickiewicz *et al.*, 2017). The social resources, and knowledge in particular, are accessed via social network relationships. These

social networks are often interpreted as social capital that might have favourable effects on entrepreneurial activities (Anderson and Jack, 2002). More narrowly, entrepreneurial capital can be defined as a type of social capital that is rich with both implicit and explicit knowledge, and other resources supporting entrepreneurial activities (Audretsch and Keilbach, 2004). In this study, the focus on entrepreneurial capital, and its influence on the start-up process, is based on Granovetter's (1973) classic work that distinguishes between strong and weak ties. An entrepreneurs' network characterised by frequent and repeated interactions of people with similar personal attributes, norms, attitudes and preferences implies strong ties (McPherson *et al.*, 2001). But when entrepreneurs have loose relationships, dissimilar characteristics and little emotional intensity regarding others, such relationships can be labelled as weak ties (Granovetter, 1973). Strong ties (e.g., family-based) and weak ties (e.g., acquaintances) provide different benefits, and furthermore the role that they play in the entrepreneurial process may vary between male and female entrepreneurs. Weak ties may provide access to a wider and diverse entrepreneurial knowledge base and information that Audretsch and Keilbach (2004) labelled as entrepreneurial capital. In other words, for diffusion of knowledge across a network, it is the weak ties that are most valuable (representing the 'strength of weak ties' in Granovetter's parlance). In line with this, if a social milieu exhibits higher density of entrepreneurial knowledge, this implies opportunities for individuals to form entrepreneurship-specific weak ties that may enhance their start-up and entrepreneurial growth aspirations. This perspective assumes that higher density of entrepreneurship creates both role models and network opportunities that are based on weak ties, and that facilitate the creation of new businesses characterised by high growth ambitions. Previous studies suggest that weak ties are utilised by entrepreneurs to access both tangible capital and entrepreneurship specific knowledge (Carter *et al.*, 2003) and are a good predictor of entrepreneurial activity (Davidsson and Honig, 2003). Likewise, Audretsch and Keilbach (2004) argue that higher density of businesses implies positive agglomeration effects, which facilitates the creation of new firms.

With respect to female entrepreneurs, evidence suggests that social capital plays an especially important role during the start-up process, and relevant network density has positive effects (Carter *et al.*, 2003). Interestingly, McGowan and Hampton (2007) provide evidence which shows that female entrepreneurs have lower levels of weak ties than their male counterparts. However, even if female entrepreneurs have more limited networks based on weak ties, this drawback can still be more than compensated by their superior social skills compared to males. On this note, there is evidence indicating that women at managerial positions benefit more from participation in networks, in terms of their firms' performance

(Manello *et al.*, 2020). This is in contrast with male entrepreneurs and managers, who are more likely to adopt autocratic management styles (Orser *et al.*, 2010). At the same time, this may prevent male entrepreneurs to appreciate and use socially available knowledge in full. In contrast, female entrepreneurs, relying more on networks, will be more open to draw upon social knowledge.

The greater reliance of female entrepreneurs on social networks can also be seen as a way to gain access to role models (successful entrepreneurs), which are scarce for them compared to their male counterparts (Klyver and Grant, 2010). Notably, the influence of role models has been suggested to be stronger for women than for men in developing self-efficacy and attitudes toward entrepreneurship, as it overcomes the impact of the stereotype threat (Laguía *et al.*, 2022). Thus, given the differential effect on self-efficacy, access to social resources and role models for women would imply a stronger effect on growth aspirations.

Thus, the availability of role models will be a more important factor affecting the strategies of female entrepreneurs compared to male entrepreneurs. Enhancing entrepreneurial knowledge and acquiring resources via social channels will be more likely to enhance growth aspirations of female entrepreneurs compared to men, where the entrepreneurial knowledge will be available in their social neighbourhoods. That is, the opportunities for those social connections that could be utilized by female entrepreneurs will be conditioned on the social density of entrepreneurial knowledge. Therefore, the following hypothesis is proposed:

Hypothesis 3: Social density of individuals who know successful entrepreneurs increase growth ambitions for both female and male entrepreneurs, but more so for female entrepreneurs.

3. Methodology

3.1. Databases

In order to test the hypotheses, the data was compiled from four sources: from Global Entrepreneurship Monitor (GEM) and, for macro control variables, from the Center for Systemic Peace's Polity IV project, World Bank (WB), and Heritage Foundation/Wall Street Journal. This study used GEM data from 95 countries for the period 2007-2019, with a total of 99,111 individual observations in the models of entrepreneurial growth aspirations. Recent examples of use of GEM dataset for cross-country studies include López-Muñoz *et al.* (2023), who focus on determinants of innovative entrepreneurship, and by Fuentelsaz *et al.* (2023) who focus on high growth aspirations, but not on the gender dimension.

These observations relate to GEM-defined individuals engaged in start-up, representing nascent entrepreneurs pursuing business start-up activities who did not yet produce income for more than three months (Reynolds *et al.* 2005). Focus on nascent entrepreneurs is advantageous from the methodological point of view. Unlike owners-managers of young firms or of established businesses, there is less risk of endogeneity (reverse causality) with respect to the key explanatory variables representing the individual resources of the entrepreneur.

3.2. *Dependent variable*

The dependent variable is entrepreneurial growth aspirations. Its construction follows the design adopted by Fuentelsaz *et al.* (2023). The GEM survey asks how many employees the owner-manager expects to employ in five years' time. To this figure the size of the entrepreneurial team is added; this jointly accounts for both the hired labour and the own labour of the entrepreneurs. The resulting figure can be treated as equivalent to the growth in employment that the entrepreneur aspires to, because for nascent start-up the initial point of employment can be safely approximated by zero, as the nascent category includes only those who are at the earliest stage of their entrepreneurial journey.

In the final step, a logarithm is taken to improve the distribution of the intended employment variable, as this reduces its skewness by shrinking the values for large outliers.

3.3. *Key predictors*

The *Female* variable is based on self-declared gender, where 1 corresponds to female entrepreneur, and 0 to male entrepreneur. This paper does not offer a hypothesis related to an autonomous effect of being a female entrepreneur on growth aspirations, as there is no controversy in the literature related to it. Estrin *et al.* (2013), Capelleras *et al.* (2019) and Fuentelsaz *et al.* (2023) all document a negative coefficient. However, the *Female* variable will be used to test all hypotheses as it enters interactions with moderators that are proxies for individual and social resources.

The first of these moderator variables is based on the GEM survey question, where the head of household's income is categorised as low, middle, and high income. We will focus on the interaction with *Female* variable of the *High income* that is the third, upper 33% percentile, to test Hypothesis 1.

The second and third predictor variables that will also serve as moderators relate to general and specific human capital correspondingly and are proxied by: the highest educational attainment that is *Tertiary education*, and the perceived *Start-up knowledge skills and*

experience. Thus, Hypothesis 2a is measured by a categorical variable which is part of the scale that corresponds to four levels of education: entrepreneurs with no formal education completed, with primary completed or some secondary, secondary completed, and tertiary completed. In turn, the last hypothesis-related predictor variable, *Start-up knowledge skills and experience* (Hypothesis 2b), is equal to 1 if an entrepreneur believes that s/he has the knowledge and skills required to start a new firm and 0 otherwise.

3.4. Control variables

A number of controls at the individual level were included. Age of entrepreneur was entered as two terms, linear and squared, because a hump-shaped relationship is expected, as in [Azoulay et al. \(2020\)](#). Being an owner manager of an existing established business, personally knowing other entrepreneurs, quitting a business for either financial or other reasons, being a business angel, and observing positive media stories about entrepreneurs were all shown to affect an entrepreneur's propensity to grow their business ([Fuentelsaz et al., 2023](#)), and therefore they are included as well.

The study controls for per capita GDP (purchasing power parity) to account for a country's level of development; as previous studies suggest, it is associated with growth aspirations ([Estrin et al., 2013](#); [Fuentelsaz et al., 2023](#)). It was verified that using a natural logarithm of GDP or adding a square term made no difference to the key results. Next, GDP growth is entered to control for economic dynamism. The models also control for the size of government spending over GDP, which previous studies suggested to be associated with growth aspirations ([Estrin et al., 2013](#)). Here, the formula utilised by Heritage Foundation/Wall Street Journal is reversed to express the data in its original form². At the constitutional level, the authors include the rule of law measure from Polity IV (executive constraints). At the regulatory level, the authors include the Business Freedom index; this combines World Bank 'Doing Business' indicators related to ease of registering the firm and to licensing requirements into one scalar. Existing research showed both institutional characteristics being associated with high growth aspirations ([Fuentelsaz et al., 2023](#); [Mickiewicz et al., 2021](#)). To control for availability of finance, the authors introduce the Financial Freedom index, also retrieved from the Heritage Foundation/Wall Street Journal. All macro control variables external to GEM are lagged by one year.

² See <https://www.heritage.org/index/pdf/2019/book/methodology.pdf>, retrieved on 8th of February 2022.

All individual level variables are accompanied by their mean calculated over country-year, which is consistent with recommended multilevel methodology (Bell *et al.*, 2019; Hox *et al.*, 2017). Among these variables, the *Share of those who know other entrepreneurs* was used as a proxy for social resources and entrepreneurial knowledge, which may be available to an individual entrepreneur via social channels. As a moderator, it was used to test Hypothesis 3. The definitions and the descriptive statistics of the variables used in the analysis are presented in Table 1 below, and the correlation coefficients are available on request.

[Table 1]

3.5. Estimation strategy

Following the multilevel approach, all models are estimated by maximum likelihood random effects models, as recommended by Rabe-Hesketh and Skrondal (2012), where random intercepts are based on countries, as in the recent literature (Mickiewicz *et al.*, 2021; Fuentelsaz *et al.*, 2023). This method accounts for lack of independence of observations within each country and avoids both the ecological fallacy and the compositional fallacy, that is attributing conclusions based on macro level to individuals or vice versa (Pettigrew, 2006).

4. Results

4.1. Main results

Table 2 below reports the maximum likelihood results of the multilevel regressions, assessing models of employment growth aspirations at the time of entry into start-up activity (nascent entrepreneurs). Model 1 includes the effects of all the variables utilised in the regressions, but without interactions. For Models 2 to 5, interactions between *Female* and: *High income*, *Tertiary educational attainment*, *Knowledge and skills specific to entrepreneurship*, and *Share of those who know other entrepreneurs* were added respectively.

The argument supporting Hypothesis 1 was that higher levels of initial financial resources make it easier for entrepreneurs to start a new business that is growth oriented. This suggests that financial resources may be positively associated with entrepreneurial activity but as we argued, this relationship should be weaker for females. Based on Model 2, the coefficient on *High income* (0.280, $p < 0.001$) represents the effect of financial resources for males. We obtain the effect for females by adding an interaction term ($0.280 - 0.054 = 0.226$). Thus, the effect is also positive, but its size is 20% smaller than for males. By applying the postestimation test we

found it is also significant at $p < 0.001$)³. Finally, the interaction of high levels of financial resources with *Female* is negative and statistically significant, and so is the gender difference in the effects. All this supports Hypothesis 1.

Based on Model 3, the results related to general human capital, proxied by the highest level of educational attainment, show that the coefficient of tertiary level of education (compared with “no formal qualifications”, the omitted benchmark category) is positive and statistically significant (0.321), again representing the effect for males. The effect of high level of education for female entrepreneurs is weaker but still positive ($0.321 - 0.071 = 0.250$), confirming Hypothesis 2a.

Regarding Hypothesis 2b, it was argued that the entrepreneurial specific knowledge and skills increase the likelihood to start a new business, but the impact of knowledge and skills is weaker for females. For males the effect is 0.069, and for females it is $0.069 - 0.042 = 0.027$, which is weaker while positive and statistically significant. Therefore, Hypothesis 2b is supported.

Based on Hypothesis 3, it was expected that the presence of a higher share of those who know successful entrepreneurs in the society was likely to have a stronger positive effect on females’ propensity to engage in start-up activities with high growth aspirations. Model 5 shows that the coefficient of interaction between *share of those knowing other entrepreneurs* with *Female* is indeed positive and significant, thus indicating a positive difference compared to males. We may note however that while the gender difference in the impact of *share of those knowing other entrepreneurs* is consistent with Hypothesis 3, the overall impact is negative for both genders (-0.923 for males, $-0.705 = -0.923 + 0.218$ for females). This may imply some competition effects and we will explore the issue further in the next section.

[Table 2]

4.2 Extensions

In Table 3 below, we present results that include additional interactions of *Female* with two alternative societal level variables that may represent availability of entrepreneurial competence. The first one relates to the *Share of those with start-up knowledge and skills*, a different indicator of density of entrepreneurial networks. The second one relates to the societal

³ We performed similar tests for all subsequent models; the female effects were always strongly significant at $p < 0.001$.

Share of owners-managers of established businesses. These are utilised in interactions with the *Female* variable in Models 1 and 2 correspondingly. When we proxy societal entrepreneurial knowledge with *Share of those with start-up knowledge and skills*, we still get a positive and significant interaction sign with the *Female* variable. However, interestingly, the overall effect is now positive for both genders (0.006 for males, $1.193=0.006+0.187$ for females). The difference between these effects and those related to *Share of those knowing other entrepreneurs* discussed earlier is consistent with the notion that density of entrepreneurs has a direct competitive effect that limits the growth ambitions of a new venture, while availability of skills does not.

In turn, the gender difference becomes insignificant for the societal *Share of owners-managers of established businesses*. Here, unlike the previous case, the positive effect of potential knowledge transfer may be counterbalanced by the negative competition effect coming from more entrenched and stronger incumbent firms.

Finally, in Model 3, we also explored the societal effect of general human capital represented by *Share of those with tertiary education*. Here we obtain negative significant coefficient on interaction with the *Female* variable. Also, effects are negative for both genders. It is likely that while specific entrepreneurial skills in the society are transferable via social networks and so they enhance entrepreneurial ambition, the same cannot be argued about general human capital. While transferable, the latter does not help in enhancing entrepreneurship by others, who are potential recipients of knowledge.

[Table 3]

5. Discussion

5.1 Contribution and theoretical implications

We aim to enrich understanding of the contrast between the role of individual and social resources, as the basis of gender-differentiated entrepreneurial growth ambitions. Despite the increasing number of high-growth businesses founded by females, the literatures focusing on the entrepreneur and the manager (e.g. Foss *et al.*, 2008), on high growth, and on RBV remain largely silent on the role of gender in growth ambition (Coad *et al.*, 2014). In line with the discussion above, our findings provide evidence supporting a positive relationship linking human and financial capital with high growth ambition, with these relationships being stronger for male entrepreneurs. In contrast, for social capital, the results indicate the opposite: its role is relatively stronger for female entrepreneurs.

The contribution of this study is to integrate the RBV and research on high growth entrepreneurship in order to develop a framework that illustrates the contrast in how individual (financial and human capital) versus social resources moderate the effect of gender on high growth aspirations. We build on previous studies, which indicate that female entrepreneurs often exhibit relational and collaborative decision-making and leadership styles, and demonstrate prudence in financial matters (Wang *et al.*, 2018; Zhang *et al.*, 2015). We agree with a view that there is a positive effect of high levels of human capital, financial, and social resources on high growth for female entrepreneurs (Coad *et al.*, 2014). Yet, it is exactly at this point where this paper's contribution extends the RBV and high growth entrepreneurship literature, by contrasting the impact of an entrepreneur's gender on the relationship between individual versus social resources and high growth. Both the theoretical implications and the policy lessons relate to emphasising the social dimension and the role of network (social) capital when considering gender effects in entrepreneurship and in growth ambitions. Related to this, the positive moderation effects of social resources observed for female entrepreneurs challenge gender stereotypes that portray females as inadequately equipped for entrepreneurial roles (Laguía *et al.*, 2022). One should take note that females appear more capable of effectively utilising social capital to achieve high growth (Buttner, 2001; Zhang *et al.*, 2015).

Moreover, this study supports the notion that female entrepreneurs can effectively leverage human and financial capital to achieve high growth. Yet, despite the positive moderating role of resources in the gender effect on high growth, female businesses on average would focus less on high growth. One possible explanation is that even though female entrepreneurs are capable of achieving high growth, some may choose not to pursue it. Notably, females are more inclined to establish part-time businesses, aiming for improved work–life balance (Biehl *et al.*, 2014). They may engage in entrepreneurship to seek refuge from discrimination and the threat of negative stereotyping (Laguía *et al.*, 2022). It is worth noting that social constraints in the form of stereotyping have a disproportionate effect on women (Laguía *et al.*, 2022), limiting the extent of their aspirations. This is consistent with the results of this study, which suggest that female entrepreneurial ambitions are more affected by the social environment. Consequently, some female entrepreneurs may opt for less growth not due to deficiencies in competences, access to resources, or resource management abilities. This calls for further exploration of the question of motives, but here we face data limitations as acknowledged below. However, the study highlights especially the salience of networks for female entrepreneurs, given that we find social resources to be particularly advantageous to women. Social resources, such as role models, can have a distinctively positive influence on

growth aspirations for female entrepreneurs (Laguía *et al.*, 2022). Yet, female entrepreneurs, compared with their male counterparts, may be less likely to be acquainted with growth-oriented entrepreneurs and they may lack role models in their social networks (Klyver and Grant, 2010).

With regard to female entrepreneurs that consciously opt for lower growth levels, we subscribe to the perspective submitted by Vracheva and Stoyneva (2020): the ultimate objective should not be to make female entrepreneurs identical with male entrepreneurs, but to respect heterogeneity in business objectives. Common, less spectacular entrepreneurship, yet such that makes a substantial socio-economic contribution should be appreciated as well. For female and male entrepreneurs, a cautious approach to growth is not to be dismissed; it is likely to still be significantly beneficial, increasing both the chances of survival of their business and its expected performance in the long-term. This however does not attenuate the need for considering the impact of institutional (including cultural) constraints relating to delimiting social roles and expectations, family support, provision of childcare, negative bias and the threat of stereotyping on female entrepreneurial aspirations. A significant body of research underscores that cultural values and the stigma associated with the stereotype may impede high growth ambition for female entrepreneurs (Laguía *et al.*, 2022).

5.2 Implications for policy and practice

Our study indicates that female entrepreneurs can effectively utilize human and financial capital for high growth, but some may choose not to pursue it. Whilst choices as to levels of ambition for growth should be respected, as just discussed, by the same token the impact of institutionally/culturally conditioned attitudes toward entrepreneurship and growth ambition should be considered and addressed by the policy makers and the society. Notably, although there seems to be a shift towards integrated support packages to address institutional constraints in many countries, access to mainstream entrepreneurial support may still be implicitly gender biased. A holistic approach for uninhibited ambition in female entrepreneurship needs to consider policies and programmes aimed at changing the gender narrative about entrepreneurship (for instance in media and education), and strengthen the promotion of tailored initiatives to address negative gender stereotype threats (Laguía *et al.*, 2022).

In light of the findings of this study, policy making should consider gender differences that may exist in the quality of networks, particularly in the science, engineering, and technology sectors, viewed traditionally as male-dominated (Hampton *et al.*, 2011). Hence, designing and developing initiatives concerned with enhancing networking for female

entrepreneurs in order to facilitate their growth aspirations should take this into account, and further support is needed to avoid over-reliance on female-only networks. The latter, to a certain extent could lead to continuity of gendered sectoral patterns.

Moreover, to address inhibition in growth aspirations, programmes focused on education and development should actively identify, motivate, and train an increased number of female entrepreneurs to pursue high growth successfully. Constraints stemming from family obligations, societal influences, and other factors can limit women's aspirations for growth, against the outcomes they would desire to see realised (Wang *et al.*, 2018). Consequently, implementing policies that promote a more equitable distribution of childcare responsibilities, such as offering paid paternity leave for males (Shelton, 2006), and providing training programmes that expose female entrepreneurs to high growth networks (Terjesen *et al.*, 2016) could foster greater growth ambitions among women and make such ambitions more likely to be realised.

Morris *et al.* (2006) showed that growth-oriented tendencies can be combined with embracing stronger feminine identities. In light of these findings, our study advocates for training initiatives aimed at helping women establish gendered business identities supportive of high-growth entrepreneurship as a viable career path (Laguía *et al.*, 2022). Such programmes should also underscore the critical role of start-up conditions, particularly in terms of access to human, financial and social (network) capital, in achieving high growth. Moreover, these initiatives should specifically involve self-efficacy training, observation of role models, mentoring and internships (Laguía *et al.*, 2022), which may in turn enhance growth aspirations.

5.3 Limitations and future research

We present limitations that warrant consideration in future research. Firstly, the inability to measure the whole range of entrepreneurs' aspirations, motivation and objectives is acknowledged (Buttner, 2001). A further difficulty is that objectives are shared between entrepreneurial teams, which may or may not be uniform in terms of gender. High growth entrepreneurs exhibit greater risk-taking (Schumpeter, 1934), quicker actions, and demand more human and financial capital (Evans and Jovanovic, 1989), and all this may imply involving more owners. Consequently, future research should consider the influence of relational and collaborative decision-making leadership styles, and account for internal heterogeneity of motivation and objectives within entrepreneurial teams, particularly in the context of high growth ambition firms (Wang *et al.*, 2018; Zhang *et al.*, 2015).

Second, another limitation in the data pertains to the cross-sectional nature of the GEM dataset. Although GEM provides extensive and detailed individual-level information, it lacks a true panel structure, with a different sample of individuals each year. Having longitudinal data at the individual level across a number of countries would enhance and diversify the findings and capture growth outcomes over time.

Third, we miss some objective variables that may affect growth aspirations. The GEM survey does not contain information relating to an individual's marital status, or number of children that could have been used to understand how household characteristics influence start-ups. This links with the question of the entrepreneurs' motivations, discussed above. The presence of children and the character of a household/family is likely to shape entrepreneurial objectives and growth ambition (Biehl *et al.*, 2014). More fundamental factors may also include those identified by endocrinology research (Apicella *et al.*, 2015), or social psychology (Laguía *et al.*, 2019; 2022), with implications for different business objectives and differential emphasis on growth. Considering the latter, the role of specific entrepreneurship development initiatives should be examined empirically for their potency to counter the effects of negative stereotyping for female entrepreneurs.

Finally, a further potential research line may be to utilise the distinction between the necessity and opportunity types of entry, included in the GEM dataset, in examining the relationships postulated in this study. It is likely that the differences between male and female entrepreneurs may be less pronounced within the opportunity cohort, as opportunity driven entrepreneurs may be more aspirational with respect to growth regardless of gender.

Conclusion

This study sought to enhance our understanding of whether and to what extent does an entrepreneur's gender influence on growth ambition is moderated by the effect of resources, both individual and those present in the social environment. Specifically, this study discussed the differential gender effects of initial financial resources, human capital, and social availability of entrepreneurial competence on entrepreneurial growth ambitions; that is, how these relationships differ among female and male entrepreneurs. Arguably, female entrepreneurs are more cautious in leveraging their financial resources and human capital to adopt high growth strategies for their new businesses. The individual financial resources and human capital are positively associated with start-up growth aspirations, yet this relationship is weaker for female entrepreneurs. In contrast, the societal entrepreneurial skill and knowledge resources have relatively stronger positive effect on female entrepreneurs' growth ambitions,

consistent with the notion that female entrepreneurs are both more receptive to and more capable of taking advantage of social resources.

These results add to the minority stream in the RBV literature that focuses not on firms but on the role of entrepreneurs in utilising resources (Foss *et al.*, 2008). This emphasis on the individual should lead the gender-aware RBV literature, which typically explores firm-level characteristics (Joseph *et al.*, 2022), to also consider the entrepreneurs. To our knowledge this has not been the case; a notable exception is the study by Runyan *et al.* (2006). Not only does this paper address this gap, but it utilises a multilevel approach to introduce an important distinction between individual and societal resources. As argued, they play a very different role in conditioning the impact of gender on entrepreneurial growth ambition.

References

- Alvarez, S. A., and Busenitz, L. W. (2001). The entrepreneurship of resource-based theory. *Journal of management*, 27(6), 755-775. doi.org/10.1177/014920630102700609
- Anderson, A. R., and Jack, S. L. (2002). The articulation of social capital in entrepreneurial networks: a glue or a lubricant? *Entrepreneurship and Regional Development*, 14(3), 193-210. doi.org/10.1080/08985620110112079
- Apicella, C. L., Carré, J. M., and Dreber, A. (2015). Testosterone and economic risk taking: a review. *Adaptive Human Behavior and Physiology*, 1, 358-385. doi.org/10.1007/s40750-014-0020-2
- Arenius, P., and Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Business Economics*, 24(3), 233-247. doi.org/10.1007/s11187-005-1984-x
- Atherton, A. (2006). Should government be stimulating start-ups? An assessment of the scope for public intervention in new venture formation. *Environment and Planning C: Government and Policy*, 24(1), 21-36. doi.org/10.1068/c0436
- Audretsch, D. B., and Keilbach, M. (2004). Does entrepreneurship capital matter? *Entrepreneurship Theory and Practice*, 28(5), 419-430. doi.org/10.1111/j.1540-6520.2004.00055.x
- Azoulay, P., Jones, B. F., Kim, J. D., and Miranda, J. (2020), “Age and high-growth entrepreneurship”, *American Economic Review: Insights*, Vol. 2 No.1, pp.65-82. doi.org/10.1257/aeri.20180582
- Bandura, A. (1978). Reflections on self-efficacy. *Advances in behaviour research and therapy*, 1(4), 237-269. [doi.org/10.1016/0146-6402\(78\)90012-7](https://doi.org/10.1016/0146-6402(78)90012-7)
- Baughn, C. C., Chua, B. L., and Neupert, K. E. (2006). The normative context for women's participation in entrepreneurship: A multicountry study. *Entrepreneurship Theory and Practice*, 30(5), 687-708. doi.org/10.1111/j.1540-6520.2006.00142.x
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. New York: University of Chicago Press.
- Bell, A., Fairbrother, M., and Jones, K. (2019). Fixed and random effects models: making an informed choice. *Quality and quantity*, 53, 1051-1074. doi.org/10.1007/s11135-018-0802-x
- Bergmann, H., and Stephan, U. (2013). Moving on from nascent entrepreneurship: Measuring cross-national differences in the transition to new business ownership. *Small business economics*, 41(4), 945-959. doi.org/10.1007/s11187-012-9458-4
- Biehl, A. M., Gurley-Calvez, T., and Hill, B. (2014). Self-employment of older Americans: do recessions matter? *Small business economics*, 42(2), 297-309. doi.org/10.1007/s11187-013-9479-7
- Borghans, L., Heckman, J. J., Golsteyn, B. H., and Meijers, H. (2009). Gender differences in risk aversion and ambiguity aversion. *Journal of the European Economic Association*, 7(2-3), 649-658. doi.org/10.1162/JEEA.2009.7.2-3.649
- Brush, C., and Cooper, S. Y. (2012). Female entrepreneurship and economic development: An international perspective. *Entrepreneurship and Regional Development*, 24(1-2), 1-6. doi.org/10.1080/08985626.2012.637340
- Brush, C. G., Ali, A., Kelley, D., and Greene, P. G. (2017). The influence of human capital factors and context on women's entrepreneurship: Which matters more? *Journal of Business Venturing Insights*, 8, 105-113. doi.org/10.1080/08985626.2012.637340
- Bruton, G., Khavul, S., Siegel, D., and Wright, M. (2015). New financial alternatives in seeding entrepreneurship: Microfinance, crowdfunding, and peer-to-peer innovations. *Entrepreneurship Theory and Practice*, 39(1), 9-26. doi.org/10.1111/etap.12143

- Buttner, E. H. (2001). Examining female entrepreneurs' management style: An application of a relational frame. *Journal of business ethics*, 29(3), 253-269. doi.org/10.1023/A:1026460615436
- Capelleras, J. L., Contin-Pilart, I., Larraza-Kintana, M. and Martin-Sanchez, V. (2019), "Entrepreneurs' human capital and growth aspirations: the moderating role of regional entrepreneurial culture", *Small Business Economics*, Vol. 52 No 1, pp.3–25. doi.org/10.1007/s11187-017-9985-0
- Carter, N. M., Gartner, W. B., Shaver, K. G., and Gatewood, E. J. (2003). The career reasons of nascent entrepreneurs. *Journal of Business Venturing*, 18(1), 13-39. [doi.org/10.1016/S0883-9026\(02\)00078-2](https://doi.org/10.1016/S0883-9026(02)00078-2)
- Cetindamar, D., Gupta, V. K., Karadeniz, E. E., and Egrican, N. (2012). What the numbers tell: The impact of human, family and financial capital on women and men's entry into entrepreneurship in Turkey. *Entrepreneurship and Regional Development*, 24(1-2), 29-51. doi.org/10.1080/08985626.2012.637348
- Cliff, J. E. (1998). Does one size fit all? Exploring the relationship between attitudes towards growth, gender, and business size. *Journal of Business Venturing*, 13(6), 523-542. [doi.org/10.1016/S0883-9026\(97\)00071-2](https://doi.org/10.1016/S0883-9026(97)00071-2)
- Coad, A., Daunfeldt, S.-O., Hölzl, W., Johansson, D., and Nightingale, P. (2014). High-growth firms: introduction to the special section. *Industrial and corporate change*, 23(1), 91-112. doi.org/10.1093/icc/dtt052
- Davidsson, P., and Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301-331. [doi.org/10.1016/S0883-9026\(02\)00097-6](https://doi.org/10.1016/S0883-9026(02)00097-6)
- De Clercq, D., and Arenius, P. (2006). The role of knowledge in business start-up activity. *International Small Business Journal*, 24(4), 339-358. doi.org/10.1177/0266242606065507
- Disney, R., and Gathergood, J. (2009). Housing wealth, liquidity constraints and self-employment. *Labour economics*, 16(1), 79-88. doi.org/10.1016/j.labeco.2008.05.002
- Emami, A., Ashourizadeh, S., and Packard, M. D. (2023). The impact of social network support on opportunity intention among prospective male and female entrepreneurs during 2019-nCov pandemic. *International Journal of Entrepreneurial Behavior and Research*, 29(11), 132-169. doi.org/10.1108/IJEBR-03-2022-0223
- Estrin, S., Korosteleva, J., and Mickiewicz, T. (2013). Which institutions encourage entrepreneurial growth aspirations? *Journal of Business Venturing*, 28(4), 564-580. doi.org/10.1016/j.jbusvent.2012.05.001
- Estrin, S., and Mickiewicz, T. (2011). Institutions and female entrepreneurship. *Small business economics*, 37(4), 397-415. doi.org/10.1007/s11187-011-9373-0
- Estrin, S., Mickiewicz, T., and Stephan, U. (2016). Human capital in social and commercial entrepreneurship. *Journal of Business Venturing*, 31(4), 449-467. doi.org/10.1016/j.jbusvent.2016.05.003
- Evans, D. S., and Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. *Journal of political economy*, 97(4), 808-827. doi.org/10.1086/261629
- Foss, N. J., Klein, P. G., Kor, Y. Y., and Mahoney, J. T. (2008). Entrepreneurship, subjectivism, and the resource-based view: toward a new synthesis. *Strategic entrepreneurship journal*, 2(1), 73-94. doi.org/10.1002/sej.41
- Frese, M., Krauss, S. I., Keith, N., Escher, S., Grabarkiewicz, R., Luneng, S. T., Heers, C., et al. (2007). Business owners' action planning and its relationship to business success in three African countries. *Journal of applied psychology*, 92(6), 1481. doi.org/10.1037/0021-9010.92.6.1481

- Fuentelsaz, L., González, C., and Mickiewicz, T. (2023). Entrepreneurial growth aspirations at re-entry after failure. *International Journal of Entrepreneurial Behavior and Research*, 29(2), 297-327. doi.org/10.1108/IJEBR-05-2022-0433
- Gerhart, B., and Feng, J. (2021). The resource-based view of the firm, human resources, and human capital: Progress and prospects. *Journal of management*, 47(7), 1796–1819. doi.org/10.1177/0149206320978799
- Graham, J. R., Harvey, C. R., and Huang, H. (2009). Investor competence, trading frequency, and home bias. *Management Science*, 55(7), 1094-1106. doi.org/10.1287/mnsc.1090.1009
- Granovetter, M. S. (1973). The strength of weak ties. *American journal of sociology*, 78(6), 1360-1380. doi.org/10.1086/225469
- Hamdani, N. A., Ramadani, V., Anggadwita, G., Maulida, G. S., Zuferi, R., and Maalaoui, A. (2023). Gender stereotype perception, perceived social support and self-efficacy in increasing women's entrepreneurial intentions. *International Journal of Entrepreneurial Behavior and Research*, 29(6), 1290-1313. doi.org/10.1108/IJEBR-02-2023-0157
- Hampton, A., McGowan, P. and Cooper, S. (2011), Developing quality in female high-technology entrepreneurs' networks, *International Journal of Entrepreneurial Behavior and Research*, 17 (6), 588-606. doi.org/10.1108/1355255111117468
- Harding, J. P., and Rosenthal, S. S. (2017). Homeownership, housing capital gains and self-employment. *Journal of urban economics*, 99, 120-135. doi.org/10.1016/j.jue.2016.12.005
- Heine, S. J. (2020). *Cultural psychology: Fourth international student edition*. New York: Norton and Company.
- Hox, J., Moerbeek, M., and Van de Schoot, R. (2017). *Multilevel analysis: Techniques and applications*. New York: Routledge.
- Huang, Y., Zhang, M., Wang, J., Li, P., and Li, K. (2022). Psychological cognition and women's entrepreneurship: A country-based comparison using fsQCA. *Journal of Innovation and Knowledge*, 7(3), doi.org/10.1016/j.jik.2022.100223
- Hurst, E., and Lusardi, A. (2004). Liquidity constraints, household wealth, and entrepreneurship. *Journal of political economy*, 112(2), 319-347. doi.org/10.1086/381478
- Joseph, C., Norizan, S., Enggong, T. S., Rahmat, M., and Nyet, C. A. (2022). Realizing sustainable development goals via entrepreneurial digital mindset: resource-based view perspective. *International Journal of Accounting*, 7(42).
- Justo, R., DeTienne, D. R., and Sieger P. (2015). Failure or voluntary exit? Reassessing the female underperformance hypothesis. *Journal of Business Venturing* 30: 775-792. doi.org/10.1016/j.jbusvent.2015.04.004
- Klyver, K., and Grant, S. (2010) Gender differences in entrepreneurial networking and participation. *International Journal of Gender and Entrepreneurship*, 2(3), 213-22. doi.org/10.1108/17566261011079215
- Laguía, A., García-Ael, C., Wach, D., and Moriano, J. A. (2019). “Think entrepreneur-think male”: a task and relationship scale to measure gender stereotypes in entrepreneurship. *International Entrepreneurship and Management Journal*, 15, 749-772. doi.org/10.1007/s11365-018-0553-0
- Laguía, A., Wach, D., Garcia-Ael, C., and Moriano, J. A. (2022). “Think entrepreneur–think male”: the effect of reduced gender stereotype threat on women's entrepreneurial intention and opportunity motivation. *International Journal of Entrepreneurial Behavior and Research*, 28(4), 1001-1025. doi.org/10.1108/IJEBR-04-2021-0312

- López-Muñoz, J. F., Novejarque-Civera, J., and Pisá-Bó, M. (2023). Innovative entrepreneurial behavior in high-income European countries. *International Journal of Entrepreneurial Behavior and Research*, 29(7), 1516-1540. doi.org/10.1108/IJEBR-06-2022-0546
- Manello, A., Cisi, M., Devicienti, F., and Vannoni, D. (2020). Networking: a business for women. *Small Business Economics*, 55, 329-348. doi.org/10.1007/s11187-019-00300-3A
- McGowan, P., and Hampton, A. (2007). An exploration of networking practices of female entrepreneurs. In *Female entrepreneurship: implications for education, training and policy* (pp. 110-134). New York: Routledge.
- McPherson, M., Smith-Lovin, L., and Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual review of sociology*, 27(1), 415-444. doi.org/10.1146/annurev.soc.27.1.415
- Mickiewicz, T., Nyakudya, F. W., Theodorakopoulos, N., and Hart, M. (2017). Resource endowment and opportunity cost effects along the stages of entrepreneurship. *Small business economics*, 48(4), 953-976. doi.org/10.1007/s11187-016-9806-x
- Mickiewicz, T., Stephan, U., and Shami, M. (2021). The consequences of short-term institutional change in the rule of law for entrepreneurship. *Global Strategy Journal*, 11(4), 709-739. doi.org/10.1002/gsj.1413
- Morris, M. H., Miyasaki, N. N., Watters, C. E., and Coombes, S. M. (2006). The dilemma of growth: Understanding venture size choices of women entrepreneurs. *Journal of Small Business Management*, 44(2), 221-244. doi.org/10.1111/j.1540-627X.2006.00165.x
- Ngoasong, M. Z., and Kimbu, A. N. (2019). Why hurry? The slow process of high growth in women-owned businesses in a resource-scarce context. *Journal of Small Business Management*, 57(1), 40-58. doi.org/10.1111/jsbm.12493
- Orser, B., Spence, M., Riding, A., and Carrington, C. A. (2010). Gender and Export Propensity. *Entrepreneurship Theory and Practice* 34: 933-957. doi.org/10.1111/j.1540-6520.2009.00347.x
- Pettigrew, T. F. (2006). The advantages of multilevel approaches. *Journal of social issues*, 62(3), 615-620. doi.org/10.1111/j.1540-4560.2006.00477.x
- Rabe-Hesketh, S., and Skrondal, A. (2012), *Multilevel and longitudinal modeling using Stata*. STATA Press, College Station, TX.
- Reynolds, P., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., Lopez-Garcia, P., and Chin, N. (2005). Global entrepreneurship monitor: Data collection design and implementation 1998–2003. *Small Business Economics*, 24(3), 205-231. doi.org/10.1007/s11187-005-1980-1
- Rouse, J., and Jayawarna, D. (2006). The financing of disadvantaged entrepreneurs: are enterprise programmes overcoming the finance gap? *International Journal of Entrepreneurial Behavior and Research*. doi.org/10.1108/13552550610710162
- Runyan, R. C., Huddleston, P., and Swinney, J. (2006). Entrepreneurial orientation and social capital as small firm strategies: A study of gender differences from a resource-based view. *The International Entrepreneurship and Management Journal*, 2, 455-477. doi.org/10.1007/s11365-006-0010-3
- Sauer, R. M., and Wilson, T. (2016). The rise of female entrepreneurs: New evidence on gender differences in liquidity constraints. *European economic review*, 86, 73-86. doi.org/10.1016/j.euroecorev.2015.10.010
- Schumpeter, J. (1934). *The theory of economic development*. New Brunswick: Transaction Publishers.

- Shelton, L. M. (2006). Female entrepreneurs, work–family conflict, and venture performance: New insights into the work–family interface. *Journal of Small Business Management*, 44(2), 285-297. doi.org/10.1111/j.1540-627X.2006.00168.x
- Terjesen, S., Bosma, N., and Stam, E. (2016). Advancing public policy for high-growth, female, and social entrepreneurs. *Public Administration Review*, 76(2), 230-239. doi.org/10.1111/puar.12472
- Unger, J. M., Rauch, A., Frese, M., and Rosenbusch, N. (2011). Human capital and entrepreneurial success: A meta-analytical review. *Journal of Business Venturing*, 26(3), 341-358. doi.org/10.1016/j.jbusvent.2009.09.004
- Van Staveren, I. (2014). The Lehman sisters hypothesis. *Cambridge Journal of Economics*, 38(5), 995-1014. doi.org/10.1093/cje/beu010
- Vracheva, V., and Stoyneva, I. (2020). Does gender equality bridge or buffer the entrepreneurship gender gap? A cross-country investigation. *International Journal of Entrepreneurial Behavior and Research*, 26(8), 1827-1844. doi.org/10.1108/IJEBR-03-2020-0144
- Wang, G., Holmes Jr, R. M., Devine, R. A., and Bishoff, J. (2018). CEO gender differences in careers and the moderating role of country culture: A meta-analytic investigation. *Organizational Behavior and Human Decision Processes*, 148, 30-53. doi.org/10.1016/j.obhdp.2018.04.002
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180. doi.org/10.1002/smj.4250050207
- Yacus, A. M., Esposito, S. E., and Yang, Y. (2019). The influence of funding approaches, growth expectations, and industry gender distribution on high-growth women entrepreneurs. *Journal of Small Business Management*, 57(1), 59-80. doi.org/10.1111/jsbm.12491
- Zhang, X.-a., Li, N., Ullrich, J., and van Dick, R. (2015). Getting everyone on board: The effect of differentiated transformational leadership by CEOs on top management team effectiveness and leader-rated firm performance. *Journal of management*, 41(7), 1898-1933. doi.org/10.1177/0149206312471387

Table 1: Description of variables used in the analysis

Variable name	Definition	Source	Mean	SD
Employment growth aspirations	Log of employment growth aspirations	GEM	0	13.81651
Female	1 = if respondent is female 0 = male	GEM	0	1
Age	Exact age of respondent at the time of interview	GEM	15	64
Middle 33%tile of income	1= if head of household income is in the middle third of income distribution, 0 = otherwise	GEM	0	1
High 33%tile of income	1= if head of household income is in the upper third of income distribution, 0 = otherwise	GEM	0	1
Some secondary education	1 = respondent has some secondary education 0 = otherwise	GEM	0	1
Secondary education	1 = respondent has completed secondary education 0 = otherwise	GEM	0	1
Tertiary education	1 = respondent has completed tertiary education 0 = otherwise	GEM	0	1
Has startup knowledge, skills &experience	1 = if respondent has knowledge and skills required to start a business, 0 = otherwise	GEM	0	1
Knows someone who has started a business in the past 2 years.	1 = personally knows entrepreneurs in past two year 0 = otherwise	GEM	0	1
Manages & owns an established business	1 = respondent manages and owns a business which is more than 42 months old, 0 = otherwise	GEM	0	1
Discontinued: unprofitable or no finance	1 = if closed a business in last 12 months because it was unprofitable or not getting finance, 0 = otherwise	GEM	0	1
Discontinued: other reasons	1 = if closed a business in last 12 months for other reasons, 0 = otherwise	GEM	0	1
Financed new business(es) in past 3 years	1 = respondent has financed a business in previous 3 years, 0 = otherwise	GEM	0	1
See stories in public media on entrepreneur success	1= if the respondent has seen stories in the media about entrepreneurial success, 0 = otherwise		0	1
Business freedom (lagged)	Proxy for the efficiency of government regulations of businesses and score measures items such as difficulties in starting a business and closing a business	Heritage Foundation	37.3	99.9
Financial freedom (lagged)	An indicator of independence from government control in the financial sector	Heritage Foundation	10	90
Executive branch constraints (lagged)	Executive Constraints, scores from 1 = “unlimited authority” to 7 = “executive parity”, higher denotes less arbitrariness of the executive branch of the government	Polity IV	1	7
GDP per capita constant USD (lagged)	GDP per capita, constant USD	World Bank	.8150265	88948.08
GDP growth rate (lagged)	Indicator of annual percentage growth rate of GDP	World Bank	-14.23815	25.16253
Government expenditure / GDP (lagged)	Indicator of the level of government expenditure as a percentage of GDP	Heritage Foundation	11.69045	57.73503

Table 2: Estimation results

Dependent Variable: log of employment growth aspirations	(1)	(2)	(3)	(4)	(5)
Female	-0.267*** (0.0071)	-0.235*** (0.014)	-0.221*** (0.024)	-0.231*** (0.018)	-0.361*** (0.023)
Middle 33%tile of income	0.0751*** (0.0098)	0.0878*** (0.013)	0.0761*** (0.0098)	0.0753*** (0.0098)	0.0749*** (0.0098)
High 33%tile of income	0.258*** (0.0096)	0.280*** (0.012)	0.258*** (0.0096)	0.258*** (0.0096)	0.258*** (0.0096)
Female # Middle 33%tile of income		-0.0260 (0.019)			
Female # High 33%tile of income		-0.0537** (0.018)			
Some secondary education	0.0704*** (0.016)	0.0708*** (0.016)	0.0930*** (0.021)	0.0704*** (0.016)	0.0705*** (0.016)
Secondary education	0.141*** (0.015)	0.142*** (0.015)	0.153*** (0.019)	0.141*** (0.015)	0.142*** (0.015)
Tertiary education	0.290*** (0.015)	0.291*** (0.015)	0.321*** (0.019)	0.290*** (0.015)	0.291*** (0.015)
Female # Some secondary education			-0.0495+ (0.030)		
Female # Secondary education			-0.0230 (0.027)		
Female # Tertiary education			-0.0711** (0.026)		
Has startup knowledge, skills & experience	0.0508*** (0.010)	0.0507*** (0.010)	0.0505*** (0.010)	0.0693*** (0.013)	0.0501*** (0.010)
Female # Startup knowledge, skills & experience				-0.0418* (0.020)	
Share of those who know other entrepreneurs	-0.842*** (0.071)	-0.844*** (0.071)	-0.844*** (0.071)	-0.841*** (0.071)	-0.923*** (0.074)
Female # Share of those who know entrepreneurs					0.218*** (0.052)
Control variables					
Age	-0.252*** (0.024)	-0.252*** (0.024)	-0.252*** (0.024)	-0.252*** (0.024)	-0.251*** (0.024)
Age # Age	0.237*** (0.025)	0.237*** (0.025)	0.238*** (0.025)	0.238*** (0.025)	0.237*** (0.025)
Manages & owns business older than 42 months	0.157*** (0.010)	0.157*** (0.010)	0.157*** (0.010)	0.157*** (0.010)	0.157*** (0.010)
Discontinued: unprofitable or no finance (failure)	0.0615*** (0.016)	0.0615*** (0.016)	0.0616*** (0.016)	0.0616*** (0.016)	0.0612*** (0.016)
Discontinued: other reasons	0.105*** (0.014)	0.105*** (0.014)	0.105*** (0.014)	0.105*** (0.014)	0.105*** (0.014)
Know someone who started a business in the past 2 years	0.0781*** (0.0077)	0.0783*** (0.0077)	0.0782*** (0.0077)	0.0781*** (0.0077)	0.0778*** (0.0077)
Financed new business(es) in past 3 years	0.262*** (0.0099)	0.262*** (0.0099)	0.262*** (0.0099)	0.262*** (0.0099)	0.262*** (0.0099)
See stories in public media on entrepreneur success	0.00192 (0.0076)	0.00205 (0.0076)	0.00201 (0.0076)	0.00205 (0.0076)	0.00201 (0.0076)
Business freedom (lagged)	0.0416*** (0.012)	0.0414*** (0.012)	0.0416*** (0.012)	0.0418*** (0.012)	0.0412*** (0.012)
Financial freedom (lagged)	-0.0106 (0.014)	-0.0106 (0.014)	-0.0106 (0.014)	-0.0107 (0.014)	-0.0108 (0.014)
Executive branch constraints (lagged)	-0.00548 (0.018)	-0.00550 (0.018)	-0.00612 (0.018)	-0.00553 (0.018)	-0.00526 (0.018)
GDP per capita constant USD (lagged)	-0.0674+ (0.036)	-0.0667+ (0.036)	-0.0671+ (0.036)	-0.0674+ (0.036)	-0.0680+ (0.036)
GDP growth rate (lagged)	0.0243*** (0.0060)	0.0243*** (0.0060)	0.0243*** (0.0060)	0.0243*** (0.0060)	0.0242*** (0.0060)
Government expenditure / GDP (lagged)	-0.00825 (0.014)	-0.00818 (0.014)	-0.00811 (0.014)	-0.00826 (0.014)	-0.00819 (0.014)
Mean age	-0.0100*** (0.0027)	-0.0101*** (0.0027)	-0.0101*** (0.0027)	-0.0101*** (0.0027)	-0.0099*** (0.0027)
Share of females	-0.0817*** (0.0078)	-0.0816*** (0.0078)	-0.0816*** (0.0078)	-0.0816*** (0.0078)	-0.0817*** (0.0078)

Share of those with some secondary education	-0.107 (0.080)	-0.106 (0.080)	-0.108 (0.080)	-0.106 (0.080)	-0.109 (0.080)
Share of those with secondary education	-0.0994 (0.072)	-0.0990 (0.072)	-0.101 (0.072)	-0.100 (0.072)	-0.101 (0.072)
Share of those with higher education	-0.293*** (0.077)	-0.293*** (0.077)	-0.295*** (0.077)	-0.294*** (0.077)	-0.293*** (0.077)
Share of those with startup knowledge skill experience.	0.0874 (0.091)	0.0871 (0.091)	0.0897 (0.091)	0.0861 (0.091)	0.0896 (0.091)
Share of established business owners	-0.126*** (0.0099)	-0.126*** (0.0099)	-0.126*** (0.0099)	-0.126*** (0.0099)	-0.127*** (0.0099)
Share of those discontinued bus. Due to finance	0.0599*** (0.015)	0.0601*** (0.015)	0.0594*** (0.015)	0.0598*** (0.015)	0.0600*** (0.015)
Share of those discontinued bus. Due to other reasons	0.0393*** (0.012)	0.0390*** (0.012)	0.0392*** (0.012)	0.0394*** (0.012)	0.0392*** (0.012)
Share of those who financed business	0.0563*** (0.011)	0.0565*** (0.011)	0.0567*** (0.011)	0.0564*** (0.011)	0.0561*** (0.011)
Share of those who see pos. media stories on entrepreneurs.	0.181** (0.063)	0.181** (0.063)	0.181** (0.063)	0.180** (0.063)	0.185** (0.063)
Share of those with medium range of income	-0.0915* (0.046)	-0.0919* (0.046)	-0.0910* (0.046)	-0.0918* (0.046)	-0.0936* (0.046)
Share of those with higher range of income	-0.105* (0.048)	-0.106* (0.048)	-0.104* (0.048)	-0.105* (0.048)	-0.106* (0.048)
Constant	2.345*** (0.15)	2.331*** (0.15)	2.326*** (0.15)	2.332*** (0.15)	2.374*** (0.15)
Observations	99111	99111	99111	99111	99111
Number of countries	95	95	95	95	95
Log likelihood	-147574.1	-147569.5	-147567.6	-147571.9	-147565.2
Wald Chi sq.	6940.7	6949.9	6953.6	6945.1	6958.5
SD of random intercept	0.354	0.354	0.354	0.354	0.354
Residual intraclass correlation.	0.0985	0.0985	0.0986	0.0984	0.0985

Standard errors in parentheses

+ p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Annual dummies included but not reported.

Table 3: Estimation results

Dependent Variable: log of employment growth aspirations	(1)	(2)	(3)
Female	-0.373*** (0.029)	-0.269*** (0.013)	-0.164*** (0.016)
Share of those with startup knowledge, skill & experience	0.00603 (0.093)	0.0768 (0.091)	0.0830 (0.091)
Female # Share of those with startup knowledge, skill & experience.	0.187*** (0.050)		
Share of established business owners	-0.127*** (0.0099)	-0.127*** (0.010)	-0.127*** (0.0099)
Female # Share of established business owners		0.0229 (0.12)	
Share of those with higher education	-0.294*** (0.077)	-0.293*** (0.077)	-0.190* (0.079)
Female # Share of those with higher education			-0.288*** (0.039)
Control variables			
Age	-0.251*** (0.024)	-0.252*** (0.024)	-0.251*** (0.024)
Age # Age	0.237*** (0.025)	0.238*** (0.025)	0.237*** (0.025)
Some secondary education	0.0712*** (0.016)	0.0708*** (0.016)	0.0727*** (0.016)
Secondary education	0.142*** (0.015)	0.141*** (0.015)	0.144*** (0.015)
Tertiary education.	0.292*** (0.015)	0.290*** (0.015)	0.293*** (0.015)
Has startup knowledge skill & experience	0.0521*** (0.010)	0.0528*** (0.010)	0.0517*** (0.010)
Middle 33%tile of income	0.0745*** (0.0098)	0.0746*** (0.0098)	0.0743*** (0.0098)
High 33%tile of income	0.258*** (0.0096)	0.258*** (0.0096)	0.257*** (0.0096)
Share of those who know other entrepreneurs	-0.848*** (0.071)	-0.851*** (0.071)	-0.854*** (0.071)
Manages & owns business older than 42 months	0.158*** (0.010)	0.158*** (0.010)	0.158*** (0.010)
Discontinued: unprofitable or no finance (failure)	0.0519** (0.016)	0.0526** (0.016)	0.0527** (0.016)
Share of those discontinued bus. due to other reasons	2.050*** (0.52)	2.058*** (0.52)	2.051*** (0.52)
Know someone who started a business in the past 2 years	0.0797*** (0.0077)	0.0795*** (0.0077)	0.0802*** (0.0077)
Financed new business(es) in past 3 years	0.270*** (0.0098)	0.269*** (0.0098)	0.269*** (0.0098)
See stories in public media about entrepreneurial success	0.00204 (0.0076)	0.00227 (0.0076)	0.00239 (0.0076)
Business freedom (lagged)	0.0405*** (0.012)	0.0404*** (0.012)	0.0412*** (0.012)
Financial freedom (lagged)	-0.0101 (0.014)	-0.00949 (0.014)	-0.0100 (0.014)
Executive branch constraints (lagged)	-0.00581 (0.018)	-0.00576 (0.018)	-0.00605 (0.018)
GDP per capita constant USD (lagged)	-0.0682+ (0.036)	-0.0681+ (0.036)	-0.0664+ (0.036)
GDP growth rate (lagged)	0.0246*** (0.0060)	0.0246*** (0.0060)	0.0246*** (0.0060)
Government expenditure / GDP (lagged)	-0.00837 (0.014)	-0.00822 (0.014)	-0.00833 (0.014)
Mean age	-0.00989*** (0.0027)	-0.00990*** (0.0027)	-0.00993*** (0.0027)
Share of females	-0.0815*** (0.0078)	-0.0814*** (0.0078)	-0.0814*** (0.0078)
Share of those with some secondary education	-0.104 (0.080)	-0.102 (0.080)	-0.106 (0.080)

Share of those with secondary education	-0.0971 (0.072)	-0.0967 (0.072)	-0.0989 (0.072)
Share of those discontinued business due to finance	0.0587*** (0.015)	0.0591*** (0.015)	0.0576*** (0.015)
Share of those who financed business	0.0556*** (0.011)	0.0558*** (0.011)	0.0561*** (0.011)
Share of those who see pos. media stories on entrepreneurs	0.180** (0.063)	0.178** (0.063)	0.179** (0.063)
Share of those with med range head of household income	-0.0895+ (0.046)	-0.0884+ (0.046)	-0.0838+ (0.046)
Share of those with high range head of household income	-0.108* (0.048)	-0.108* (0.048)	-0.109* (0.048)
Constant	2.327*** (0.14)	2.290*** (0.14)	2.249*** (0.14)
Observations	99111	99111	99111
Number of countries	95	95	95
Log likelihood	-147593.7	-147600.7	-147573.7
Wald Chi sq.	6901.6	6887.4	6941.5
SD of random intercept	0.354	0.354	0.353
Residual intraclass correlation.	0.0987	0.0985	0.0982

Standard errors in parentheses

+ p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Annual dummies included but not reported.