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**WHAT DETERMINES ENTEPRENEURIAL FAILURE: TAKING
ADVANTAGE OF THE INSTITUTIONAL CONTEXT¹**

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ABSTRACT

Most management literature has been devoted to explaining business success. However, empirical evidence shows that one of the main problems of new ventures is precisely failure. A simple Google search for “business success” provides 986 million results, while “business failure” finds approximately ten times fewer. The same is found in the academic literature, which has been less interested in explaining the determinants of entrepreneurial failure. In this paper, we contribute to the entrepreneurship literature by offering new theoretical insights into and empirical evidence on the determinants of entrepreneurial failure. Our results confirm that both the quality of formal institutions and high-impact entrepreneurship reduce failure and, more importantly, that these two variables reinforce each other. As a consequence, a greater development of formal institutions strengthens the negative relationship between high-impact entrepreneurship and failure.

Keywords: Entrepreneurship, failure, institutions, GEM

JEL codes: L26, M21.

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ABSTRACT

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INTRODUCTION

Entrepreneurial activity has received growing attention from policy makers in recent years. The logic behind this is that new ventures favor innovation, create employment and encourage competitiveness and economic efficiency (van Stel, Carree and Thurik, 2005; Carree and Thurik, 2003). This interest has led to a wide array of initiatives to promote the development of all types of entrepreneurship. Furthermore, it is quite obvious that the abovementioned objectives can only be achieved if new ventures do not fail. In other words, entrepreneurs are not important *per se*, but only if they can create organizations that are successful and have continuity over time (Aldrich and Martínez, 2001).

However, empirical evidence shows that one of the main problems of new ventures is that the probability of failure is high (Aldrich and Auster, 1986). For instance, some studies have shown that between 20 and 40% of new ventures fail within the first two years of existence and only 30 to 50% survive beyond their seventh year (Bartelsman, Scarpetta and Schinvardi, 2005). Similar findings appear in papers such as van Praag (2003), who considers that only 50% of new ventures do not fail within the first three years, and Monk (2000), who suggests that most new ventures do not survive their fifth year.

As a consequence, failure is a phenomenon that deserves further attention both in its causes and consequences (DeTienne, 2010). From an academic point of view, several studies have analyzed the factors that determine the success or failure of new ventures. This research has focused on explaining the role the entrepreneur's personal characteristics (Gimeno, Folta, Cooper, and Woo, 1997), the type of industry (Strotmann, 2007) and organizational concerns (Millán, Congregado and Román, 2012).

It is surprising, however, that, besides individual and industry characteristics, existing entrepreneurship literature has ignored the contextual factors that may intervene in the failure of new ventures. This omission is surprising because the literature recognizes that

entrepreneurship takes place in a given context that determines the performance, viability and growth of the initiatives coming into the market (Covin and Slevin, 1991, Boskin, 1984, Miller and Tolouse, 1986). This is even more shocking given the globalization process due to which firms may have to develop their activity in very different institutional contexts (Acs, Desai and Hessels, 2008, Valdez and Richardson, 2013) and the growing body of entrepreneurship research that incorporates the institutional landscape into the study of several phenomena such as entrepreneurial opportunities (Sine and Lee, 2009), economic growth (Rodrik, 2008) and the type of entrepreneurship (Stenholm, Acs and Webker, 2013).

In this paper, we try to fill the above mentioned gap and, using institutional theory (North, 1990; Scott, 1995), we contend that a greater development of formal institutions decreases entrepreneurial failure. We also argue that the type of entrepreneurship is important to understand the failure of new ventures. We borrow the concept of high-impact entrepreneurship to refer to activities related to the search for new business opportunities and wealth creation (Hitt, Ireland, Sirmon, and Trahms, 2011), with higher growth aspirations, greater returns and higher expected profitability (Cassar, 2006, Evans and Leighton, 1989; Block and Wagner, 2010). Previous studies have argued that this type of entrepreneurship is usually related to an increase in human and social capital and is often more innovative (Block and Sandner, 2009; Liñán, Fernández, and Romero, 2013; Block and Wagner, 2010). Our rationale is that failure should be lower in the activities just described.

More importantly, we explore the effect of both the institutional context and the type of entrepreneurship on entrepreneurship failure. More precisely, we argue that the relationship between the type of entrepreneurship and failure is strengthened by the institutional context in which new ventures operate. Our starting point is that high-impact or high quality entrepreneurship will be more responsive to the incentives offered by a sound institutional context.

Our model will be tested using a panel that includes 69 countries that have participated in the GEM project between 2007-2012. These data are especially adequate for our objectives for several reasons. First, it is a much wider sample than has normally been employed in the literature, which usually analyses a single or a few countries with little institutional variability. Second, GEM distinguishes between opportunity and necessity entrepreneurs, which allows us to differentiate between types of entrepreneurship in the analysis of failure.

The contribution of this work is twofold. First, it incorporates two important arguments usually considered in isolation in the failure literature, namely, the institutional context and the type of entrepreneurship. Second, and more importantly, we show that the relationship between the type of entrepreneurship and failure is contingent on the institutional context in which the entrepreneur operates. This point may have important implications for the design of public policies: governments should emphasize not only the promotion of high-impact entrepreneurship, but also the design of an institutional context that improves the likelihood of survival.

1. LITERATURE REVIEW

Before reviewing the existing literature about business failure, it is important to note that it is not easy to clarify the meaning of failure. To date, there have been numerous definitions whose formulation has mainly been due to the information available or to the goals of researchers (Watson and Everett, 1996). The options range from approaches which consider the discontinuity of the owner in the activity to others that focus on business discontinuity or bankruptcy (Ucbasaran et al., 2012). In general, failure is associated with a poor economic performance that leads to insolvency. At the same time, access to financing becomes more difficult, which leads to businesses exiting the market (Shepherd, 2003).

In any case, and regardless of the indicator selected, the literature suggests that new ventures show higher failure rates than established ones (Baum and Amburgey, 2000; Hannan and Freeman, 1984). Previous research has demonstrated that failure or success is usually the result of a wide set of factors that may have an internal and an external component (see Table 1 for a synthesis). For example, Holmes, Stone and Braidford (2001) argue that there are three types of factors that contribute to small business failure: firm-specific, industry and macroeconomic factors. A similar classification is provided by Cardon, Stevens, and Potter (2011), who distinguish between misfortunes and mistakes. The first include aspects that the entrepreneur cannot control like market forces or the characteristics of the economy. The second are linked to individual mistakes, inadequate strategies or poor business models. Another relevant study is that of Liao (2004), who suggests a wide range of factors that determine entrepreneurial success or failure: personal characteristics, characteristics of the company (structure and strategy) and the micro and macroeconomic environment. The empirical evidence is still inconclusive.

The literature reviewed shows that the founder is key to the success or failure of a business. The individual characteristics most related to success or failure are motivation, age, gender, human capital and social capital (Caliendo and Kritikos, 2010; Millán, Congregado, and Román, 2012; Burke, Fitzroy, and Nolan, 2002; Gimeno Folta, Cooper, and Woo, 1997, Baron and Markman, 2000).

Table 1. Factors that affect entrepreneurial success or failure

Internal factors	<i>Personal characteristics</i>	<ul style="list-style-type: none"> • Motivation • Gender • Age • Human Capital • Social Capital 	Baron and Markman 2000, Bates 1994, Baum et al. 2001, Block and Sandner 2009, Block and Wagner 2010, Bosma, van Praag, Thurik and Wit 2004, Brüderl et al. 1992, Burke et al. 2002, Caliendo and Kritikos 2010, Davidsson and Honing 2003, Gimeno- Gascon et al. 1997, Millán, Congregado and Román 2012, Shane and Stuart 2002, Van Praag 2003, Yoon 1991.
	<i>Business Characteristics</i>	<ul style="list-style-type: none"> • Structure: Size, age • Strategy 	Aldrich and Auster 1986, Audresch and Mahmood, 1991, Baptista, Kraöz and Mendonça 2007, Baum and Amburgey 2000, Brüderl et al. 1992, Stinchcombe 1965, Vivaverelli and Audretsch 1998.
External factors	<i>Microeconomic environment</i>	<ul style="list-style-type: none"> • Industry: market concentration, competition, size of market, life cycle of the product, technology, etc. 	Brüderl et al. 1992, Cefis and Marsilli 2006, Rumelt 1991, Santarelli and Vivarelli 2007, Stearns, Carter, Reynolds and Williams 1995, Strotmann 2007.
	<i>Macroeconomic environment</i>	<ul style="list-style-type: none"> • Economic factors • Socio-cultural factors • Institutional factors 	Armour and Deakin 2003, Bruce 2002, Brinckmann, Griedrich and Kapsa 2010, Bhattacharjee, et al. 2009, Buddelmeyer, Jensen and Webster 2006, Carter and Wilton 2006, Cardon, Stevens and Potter 2011, Davidsson and Henrekson 2002, Everett and Watson 1998, Fertala 2008, Gurley-Calvez and Bruce 2008, Quatraro and Vivarelli 2013, Millán et al. 2012, Minniti and Nardone 2007, Vaillant and Lafuente, 2007.

At the organizational level, the specific characteristics of new ventures mean that they have to face a number of external and internal pressures that make their survival difficult (Aldrich and Auster, 1986). Stinchcombe (1965) synthesizes these factors into what he refers to as the *liability of newness* (Audretsch and Mahmood, 1994) and organizational ecologists talk about the *liability of the small* (Audretsch and Mahmood, 1994). The underlying assumption is that smaller businesses are more likely to fail (Baptista, Karaöz and Mendonça, 2007). This is due to the disadvantages associated with small size, such as the difficulty of accessing the credit or labor market, the higher administrative costs and the difficulties in obtaining tax advantages (Aldrich and Auster, 1986; Baum and Amburgey, 2000; Brüderl et al., 1992).

Finally, some studies have analyzed failure, paying attention to environment factors. Among them, the sector, economic factors, availability of financing, and cultural and institutional factors seem to be the most directly related to performance and success (Stearns, Carter, Reynolds, and Williams, 1995; Bhattacharjee, Higson, Holly, and Kattuman, 2009). Brinckmann, Grichnik, and Kapsa (2010) and Buddelmeyer, Jensen and Webster (2006) suggest that economic instability and access to financing are important factors for the success of small businesses. Everett and Watson (1998) argue that between 30 and 50% of entrepreneurial failure is related to economic factors such as interest rates and unemployment. Other studies, such as Brinckmann et al. (2010), have analyzed how sociocultural factors are also key factors for success, in particular in their impact on the behavior of the entrepreneur, the organization and its performance.

Studies that analyze the relationship between the institutional perspective and entrepreneurial failure usually find contradictory results. Some of them have analyzed the effect of tax or labor laws on the continuity of the company, finding both positive (Bruce, 2002; Armour and Deakin, 2003) and negative outcomes (Gurley-Galvez and Bruce, 2008; Fertala, 2008; Millán, Congregated, and Román, 2012). Other studies have focused on analyzing how institutional

factors influence business failure or success, but they have been tested in limited geographical environments (Carter and Wilton, 2006; Davidsson and Henrekson, 2000, Vaillant and Lafuente, 2007; Quattraro and Vivarelli, 2013).

To sum up, previous research reveals that we can identify several factors that are important for entrepreneurial failure. Most studies have focused on the analysis of individual or organizational factors and only a few on the type of entrepreneurship or the institutional environment. Furthermore, the research that uses the institutional approach is often geographically limited, which reduces the variability of the key variables and makes it difficult to generalize the findings. Likewise, these analyses do not show conclusive evidence with regard to the relationship between institutions and failure.

2. HYPOTHESES

Formal institutions and entrepreneurial failure

In the last two decades, institutional theory has become one of the most usual approaches for analyzing phenomena related to organizations (North, 1990), particularly in the analysis of entrepreneurial dynamics. For example, it helps to clarify how institutions explain differences in entrepreneurship across countries (Stenholm, Acs, and Wuebker, 2013).

Institutions can be understood as the *rules of the game* (North, 1990; Scott, 1995) where organizations act and compete. Institutions provide the structure in which commercial transactions take place, conditioning the behavior of individuals and organizations. North (1990) defines the institutional framework as a set of political, regulatory and social rules that provide support and legitimacy for organizations. These rules are designed to facilitate exchanges and reduce transaction costs, which lead to changes in agents' attitudes. Similarly, Baumol (1990) relates the institutional context and the types of entrepreneurship and talks about productive, unproductive and destructive entrepreneurship, depending on its contribution to the economy and economic development.

In this vein, existing research has demonstrated that there is a clear relationship between the institutional context and the level or the type of entrepreneurship (Stenholm, Acs, and Wuebker, 2013; Sobel, 2008; Baumol, 1990). However, to our knowledge, the literature that analyzes how the institutional environment affects the success or failure of entrepreneurial initiative is scarce.

To study this relationship in greater depth, this work aims to demonstrate that institutions have a significant effect on the options that entrepreneurs chose (McGrath, 1999). Formal institutions can be understood as a set of political, regulatory and economic rules designed to delimitate individual behavior and facilitate exchanges (North, 1990).

New ventures, especially in their early stages, need to establish internal and external rules, introduce new roles in the organization and create organizational routines and new patterns to interact with the environment when resources are scarce (Shane and Foo, 1999). Furthermore, new ventures lack relationships with external agents and with other organizations and the legitimacy that older firms have (Hannan and Freeman, 1989). As a consequence, the effort and cost needed to construct new ventures mean that most of them fail (Hannan and Freeman, 1984).

In the first stages, institutions can reduce the risks associated with youth because they provide stability, legitimacy and a better access to resources that can compensate for the lack of experience of new ventures (Baum and Oliver, 1991). The legitimacy provided by the institutional context is especially relevant to the growth of new ventures. It is also important to notice that entrepreneurs face the *liability of the small* associated with the lack of capital, the increased costs of acquiring financing, problems to recruit and train the workforce and higher bureaucratic costs (Aldrich and Auster, 1986). Institutions can help to provide access to financial resources and to facilitate the skills and information necessary for the new

initiatives. This will improve the entrepreneurial performance (Commander and Savejnar, 2011) and increase the probability of success (Aldrich and Auster, 1986).

Contrarily, an unstable institutional context makes it more difficult to predict the behavior of the agents, which puts partnership relations at risk (McMillan and Woodruff, 2002). These relationships can be especially important to new ventures, especially in their first stages. For example, a stable institutional environment facilitates the adoption of a long-term approach in the selection of partners that can bring complementary capacities, but an unstable environment leads entrepreneurs to adopt a short-term perspective when accessing the necessary resources or capabilities. Besides, strategic choices can be conditioned by institutional limitations (Peng, Wang and Jiang, 2008; Peng, 2003) because they can restrict the environment in which the firm competes (Peng, Lee and Wang, 2005).

Similarly, an appropriate protection of property rights will preserve entrepreneurs' investments (Estrin, Korosteleva and Mickewick, 2013). A fair judicial system allows the enforcement of contracts and gives security to transactions, which facilitates exchanges. In short, well defined property rights and a more developed judicial system are relevant factors to the creation and growth of new ventures (Desai, Gompers, and Lerner, 2003). By contrast, weak property rights and a lack of confidence in the judicial system discourage businesses from reinvesting their profits (Johnson, McMillan and Woodruff, 2002), which will have an impact on their probability of success.

In a similar vein, the control of corruption and the development of a secure institutional environment stimulate innovation and entrepreneurship (Rose-Ackerman, 2001). Because innovation is a strategic resource that facilitates firm growth, a lower level of corruption will have a positive impact on the survival of new ventures. By contrast, higher corruption levels are related to entry and export barriers and with lower investment rates (Ades and Di Tella, 1997; Broadman and Recanatini, 2001; Gatti, 1999; Gerring and Thacker, 2005). In general, a

corrupt environment distorts entrepreneurial opportunities, increases uncertainty and agency and transaction costs and reduces entrepreneurial performance (Anokhin and Schulze, 2009; Aidis, Estrin, and Mickiewicz, 2012), thus limiting entrepreneurial aspirations (Bowen and De Clerq, 2008; Aidis, Estrin, and Mickiewicz 2010) and innovation (Baumol, Litan, and Schramm, 2009)

H1: A greater development of formal institutions decreases entrepreneurial failure

High-impact entrepreneur, subsistence entrepreneur and failure.

High-impact entrepreneurs commercialize key innovations, extract entrepreneurial rents, spur employment and growth, and shift the production possibility frontier (Henrekson, Johansson, and Stenkula, 2010; OECD, 2010).

An analysis from a macroeconomic point of view leads us to conclude that high-impact entrepreneur stimulates economic, social and technological change. Contrarily, the subsistence entrepreneur is usually an imitative entrepreneur with little probability of contributing to employment and economic growth (Shane, 2009).

High-impact entrepreneurs usually start their new venture while they are still employed, thus, they have higher opportunity costs (Amit, Muller and Cockburn, 1995). These higher costs increase their expected profit needs, which leads them to pursue more attractive opportunities (Evans and Leighton, 1989; Schiller and Crewson, 1997), with higher expected growth (Cassar, 2006) and profitability (Block and Wagner, 2010).

These entrepreneurs have usually prepared their entry into self-employment on a more solid basis and they start their businesses in an area of their particular expertise, which “leads to a longer survival rate and a higher business growth aspirations” (Liñán, Fernández, and Romero, 2013, p. 25). Furthermore, we would expect that in their planning they have constructed a network of contacts that includes customers, co-founders and valuable financial

partners (Block and Wagner, 2010), thereby increasing their legitimacy in the market and reducing the liability of newness.

As soon as they start their venture, these entrepreneurs tend to invest important amounts of money to create new jobs, to have greater growth or export prospects and to be more innovative (Reynolds, Bygrave, Autio, Cox, and Hay, 2003; Block and Sandner, 2009). The literature (Cefis and Marsili, 2006) has shown that innovation is a particularly important factor for the success or survival of new ventures.

With regard to human capital, high-impact entrepreneurs invest more in education and have a greater knowledge of entrepreneurial tools (Block and Sandner, 2009). They have a greater and more systematic entrepreneurial preparation and have usually invested more in specific human capital. This higher preparation allows them to obtain greater information about the market they are trying to enter, about the necessary technology and about how to create a product or service that properly exploits this technology (Block and Sandner, 2009).

On the contrary, subsistence entrepreneurs are forced to self-employment due to the lack of other labor alternatives and they are usually less prepared to manage a business (Caliendo and Kritikos, 2009). In general, they have abandoned their previous job involuntarily, have not prepared their change to self-employment and have had less time to obtain specific experience (Block and Wagner, 2010). These entrepreneurs have lower opportunity costs and, therefore, they will tend to exploit opportunities of lower profitability (Block and Sandner, 2009). They usually participate in marginal businesses (Vivarelli and Audretsch, 1998) without any job creation (with the exception of that of the founder) (Andersson and Wadensjö, 2007). As a consequence, the profitability of these businesses will be lower and their failure rates higher (Furdas and Kohn, 2011).

H2: High-impact entrepreneurship reduces the level of entrepreneurial failure.

The moderating effect of formal institutions in the relation between high-impact entrepreneurship and failure

Hypothesis 1 posits a negative relationship between the development of formal institutions and entrepreneurial failure, while hypothesis 2 postulates that high-impact entrepreneurship reduces failure rates. In this section, we argue that the relation between high-impact entrepreneurship and business failure is not direct but moderated by how developed formal institutions are.

As argued above, high-impact entrepreneurship reacts to the identification of a business opportunity and tends to increase its growth aspirations, to generate more employment, to be more innovative and to internationalize more easily (Reynolds et al., 2003). These individuals tend to take greater risks and will be more affected by a favorable institutional environment (Aidis, Estrin, and Mickiewicz, 2010). By contrast, smaller and less sophisticated initiatives, usually constituted by only one person, are less sensitive to the institutional context (Estrin, Korosteleva and Mickiewicz, 2013).

In general, entrepreneurs with higher growth expectations have problems finding qualified personnel and reasonably priced financing. The main reason for this is that the agents who provide funds for entrepreneurs perceive a greater risk in high growth ventures, and these firms are more difficult to manage (Stam, Suddle, Hessels and Van Stel, 2009). Formal institutions may provide financial and business support for these entrepreneurs and a social platform that encourages growth (Stam et al., 2009).

Among the formal institutions that affect the success or failure of a business, we can mention the legal, regulatory and political framework, the financial system, the control of corruption and labor incentives. As previously argued when developing hypothesis 1, property rights are very important for entrepreneurs because individuals will not invest and expand their business if the fruits of their investments are not guaranteed (Johnson, McMillan, and Woodruff,

2002). Besides, these rights guarantee the *status quo* and have an impact on investment, development and growth (Acemoglu and Johnson, 2005). However, the protection of property rights is even more important for entrepreneurs with greater growth aspirations because these individuals make larger investments, bear more risk, enter new markets and tend to extend their relations beyond their close relatives and friends. The transactional security that a protection of property rights grants is required for these activities (Estrin, Korosteleva, and Mickiewicz, 2013).

Likewise, these entrepreneurs often have higher financing requirements because of the greater dimension of their initiatives. Thus, formal financing becomes very important for entrepreneurs with high growth or export expectations or that use more developed technologies (Bygrave, 2003). Public policies can protect shareholders and improve access to banking loans or stimulate venture capital (Bowen and De Clerq, 2008). Otherwise the lack of financial capital can make it difficult for entrepreneurs to benefit from new opportunities (Johnson, McMillan and Woodruff, 2002), limiting success or business growth (Becchetti and Trovato, 2002).

The control of corruption also appears to benefit higher quality entrepreneurs more than subsistence entrepreneurs. In environments with greater levels of corruption, entrepreneurs with smaller ventures have higher probabilities of going unnoticed (Estrin et al., 2013). As a result, an adequate control of corruption enables the protection of the investments and the expected results of more ambitious entrepreneurs.

The simplification of administrative procedures is again especially positive for the most ambitious entrepreneurs. Their higher growth expectations lead to the necessity of formalizing their situation: it is not easy for them to go unnoticed by the government; besides, they need the protection that registration can offer. These processes are not so important for less

ambitious initiatives, usually more worried about their survival and much less about the obstacles they may encounter (Bosma, Schutjens and Stam, 2009).

Finally, limitations to labor freedom mean that entrepreneurs have difficulties in negotiating wages and other labor conditions, which restricts them from allocating resources to more productive ends (McMullen, Bagby and Palich, 2008). In this context, employment incentives will particularly affect entrepreneurs with greater growth and job creation expectations (Millán, Congregado, and Román, 2012).

H3: A greater development of formal institutions strengthens the negative relationship between high-impact entrepreneurship and failure.

3. SAMPLE AND VARIABLES

To test the hypotheses proposed, we use information from two databases, the Global Entrepreneurship Monitor (GEM) and the World Bank, for a set of 69 countries within the period 2007-2012, which results in 54,292 observations. We employ individual data from the GEM survey to a random sample with at least 2,000 observations per country. We also use the governance indicators developed by Kaufmann, Kraay, and Mastruzzi (2009) for the World Bank and the World development index (WDI) developed by the World Bank. More details on the sample are provided in the descriptive statistics below.

Dependent variable

Entrepreneurial failure is proxied through the information provided by the GEM, which asks the individuals of the sample if they have exited an entrepreneurial activity, including self-employment, in the last 12 months. We should take into account that this variable may include several reasons for exit, some of them not related to entrepreneurial failure. The possible reasons identified by the GEM are (i) low profitability, (ii) the existence of problems to obtain financing, (iii) personal reasons, (iv) sale of the business, (v) finding another job, (vi) an incident, (vii) retirement, (viii) planned closing (ix) other reasons. Given that our aim

is to proxy failure, we only consider individuals who have decided to end their project either because it is not sustainable or because they do not find the necessary financing to develop the business. The first reason is quite obvious. As regards the existence of constraints to access new resources, these are often symptoms of business shortcomings (Santarelli and Vivarelli, 2007) that translate into success and growth constraints of new ventures (Becchetti and Trovato, 2002; Caperter and Petersen, 2002). Some research has argued that the inefficiency of capital markets and credit constraints prevent new initiatives from starting new R&D projects, which increases their probability of failure (Musso and Schiavo, 2008; Mach and Wolken, 2011). In line with this the variable *failure* takes the value 1 if the individual leaves the market because of lack of profitability or lack of financing and 0 otherwise.

Development of formal institutions

To proxy formal institutions, we use the governance dimensions developed by Kaufmann, Kraay, and Mastruzzi (2009) for the World Bank. These indicators are voice and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption (Kaufmann et al., 2009). All of them range between -2.5 and 2.5, with the higher scores corresponding to better performance of institutions and vice versa (Kaufmann et al., 2010).

These indicators present several advantages over other institutional variables. First, they cover 212 countries, which avoids information loss. Second, these indexes gather hundreds of variables from 35 different sources, which allows the capture of the opinions of thousands of respondents around the world, as well as thousands of experts in the private and public sectors and in non-governmental organizations. This variability reduces the bias that may arise when data comes from a single source. Finally, these dimensions facilitate comparability between countries and assess their progress over time (Kaufmann et al., 2009).

Given the high correlation among the indexes described (0.8), we use principal component analysis to elaborate a composite score of the formal institutional environment (Garrido, Gomez, Maicas, and Orcos, 2014). This allows us to capture the formal institutional dimension in a single variable, avoiding the multicollinearity problems produced by a high correlation between these dimensions.

High-impact and subsistence entrepreneurship

High-impact entrepreneurship will be proxied by the variable opportunity entrepreneurship from the GEM project. (High-impact entrepreneurship takes the value 1 if the individual has started his venture because of the identification of a business opportunity and 0 if he has been forced to initiate it by his circumstances. The GEM seems to be particularly appropriate for our purposes because it allows the distinguishing of new ventures according to their motivation. Opportunity entrepreneurship is usually considered of higher quality and is associated with an entrepreneur who has greater growth aspirations, is more innovative and creates more jobs (Reynolds et al., 2003). By contrast, necessity entrepreneurs have less human, social and financial capital and fewer growth expectations, invest less and obtain lower outcomes and growth (Caliendo and Kritikos, 2009; Shane, 2009, Santarelli and Vivarelli, 2007; Block and Wagner, 2010; Andersson and Wadensjö, 2007).

Control variables

Our study also includes several control variables. Among the personal characteristics of the entrepreneur, *age* seems to be a relevant factor when we talk about entrepreneurial failure. Literature argues that age increases experience, maturity and the available resources (Sammis and Kotval, 2013), with the subsequent reduction in the probability of failure. Besides, the literature has also shown that men obtain better performance, create more jobs and have greater survival rates (Bosma, van Praag, Thurik, and Wit, 2004), so we control for *gender*, which takes the value 1 for men and 0 for women.

Human capital increases the capacity to exploit and discover opportunities (Shane and Venkataraman, 2000) and it is positively related to planning and strategizing and, thus, to firm success (Baum, Locke and Smith, 2001). Therefore, the analysis includes a variable that reflects the *educational level*: 0=No education, 1= primary education, 2= secondary education, 3=middle education and 4= higher education.

Social capital is another variable often considered by the literature. It provides the entrepreneurs with information about how to evaluate, obtain and use the necessary resources (Davidsson and Honig, 2003; Shane and Stuart, 2002), with the subsequent increase in firm performance (Bosma, van Praag, Thurik, and Wit, 2004). Social capital will be proxied through a dummy variable that the GEM call *role models*. It identifies whether the person surveyed knows anyone who started a new business in the last two years. (0=No, 1=Yes).

Fear of failure is usually related to risk aversion (Minniti and Nardone, 2007). Given that growth is associated with a greater risk, more averse individuals have less ambition to develop their businesses to their highest potential (Verheul and Mil, 2011), limiting growth aspirations (Bager and Schott, 2004). To take this circumstance into account, we use a dummy variable that takes the value 1 when fear of failure prevents the entrepreneur from starting a new business and 0 otherwise.

With regard to environmental variables, the industry can explain differences in business profitability (Rumelt, 1991). As a consequence, we incorporate dummy variables for the industry: *services to consumers*, *services to firms*, *processing and extractive*.

With respect to the macro environment, given that markets are highly changing, it is important to take into account these variables in failure models (Van Praag, 2003). Growing economies tend to be less competitive in the acquisition of the necessary resources. For this reason, we control for market growth, measured as *GDP growth*.

The availability of external financing is also a significant aspect for business growth. Access to financing allows entrepreneurs to compete on an equal basis and improves business growth (Aghion, Fally and Scarpetta, 2007). As a result, the model includes the variable *private and public credit coverage* to proxy the degree of accessibility to the credit information available in public and private registers. The easier the access to this information, the lower the agency costs and the risks for credit providers, thus improving credit availability.

The model also controls for the *rate of unemployment*, since high levels of this variable usually involve less spending, which reduces demand and increases market rivalry, putting the success of new ventures at risk (Fritsch, Brixy, and Falck, 2006). Finally, we control for *population growth* because higher growth rates increase the potential number of consumers and, consequently, increase the probabilities of business success (Sleutjes, 2013). Finally we consider *year dummies* to control for time-specific effects.

Descriptive statistics

Descriptive statistics and the correlations between our variables are shown in Tables 2 and 3. The absence of multicollinearity has been verified through the use of Variance Inflation Factors (VIFs). The corresponding tests result in values below 1.88, showing that there are no significant multicollinearity problems.

As can be seen in Table 2, the mean value of failure is 0.04, which indicates that 4% of entrepreneurs have failed in the last 12 months (country details of the failure rates, the level of development of formal institutions -governance- and high-impact entrepreneurship is provided in Appendix 1). It is important to highlight the high standard deviation of this variable. This is because the sample includes a wide variability of entrepreneurial contexts and there are countries such as Dominican Republic, Puerto Rico and Palestine where the levels of failure are particularly high. The mean of the indicator that proxies formal institutions (governance) is 0.23, with a range between -1.80 and 1.82 which means that the

average country provides a medium institutional development. The ratio that proxies high-impact entrepreneurship) takes a mean value of 0.74, which means that almost 3 out of 4 initiatives emerge as a consequence of the identification of a good opportunity. We can also observe that the percentage of men is higher (59% vs. 41%), as is the share of entrepreneurs without fear of failure (27% vs. 73%)

When we analyze the correlation matrix (Table 3), we observe that the failure rate is negatively related to governance, high-impact entrepreneurship, education, the services to firms sector and private and public credit coverage. The correlation is positive between failure and age, gender, role models, fear of failure, services to consumers, GDP growth, unemployment and population growth. The high and negative correlation between the development of formal institutions and population growth is noteworthy. This may be due to the fact that, in general, the countries that are the least economically developed are also those with the lowest institutional development and the highest population growths.

Table 2. Descriptive Statistics (N=54,292)

Variable	Mean	Std.Dev.	Min	Max
1. <i>Failure</i>	0.04	0.19	0	1
2. <i>Governance</i>	0.23	0.86	-1.80	1.82
3. <i>High-impact Entrepreneurship</i>	0.74	0.44	0	1
4. <i>Age</i>	38.05	11.36	18	64
5. <i>Gender</i>	0.59	0.49	0	1
6. <i>Education</i>	2.26	1.05	0	4
7. <i>Role models</i>	0.62	0.48	0	1
8. <i>Fear of failure</i>	0.27	0.44	0	1
9. <i>Services to consumer sector</i>	0.51	0.50	0	1
10. <i>Services to companies sector</i>	0.20	0.40	0	1
11. <i>Processing sector</i>	0.23	0.42	0	1
12. <i>Extractive Sector</i>	0.05	0.22	0	1
13. <i>GDP growth</i>	2.94	3.61	-7.82	14.1
14. <i>Private and public credit coverage</i>	48.16	35.41	0	100
15. <i>Unemployment</i>	9.61	5.85	0.7	33.8
16. <i>Population Growth</i>	0.88	0.68	-1.60	3.01

Table 3. Correlation Matrix

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. <i>Failure</i>	-															
2. <i>Governance</i>	-0.05*	-														
3. <i>High-impact entrepreneurship</i>	-0.05*	0.13*	-													
4. <i>Age</i>	0.01*	0.14*	-0.07*	-												
5. <i>Gender</i>	0.02*	0.04*	0.06*	-0.02*	-											
6. <i>Education</i>	-0.02*	0.20*	0.16*	-0.05*	0.04*	-										
7. <i>Role Models</i>	0.02*	0.02*	0.09*	-0.08*	0.07*	0.11*	-									
8. <i>Fear of failure</i>	0.02*	-0.02*	-0.09*	0.02*	-0.06*	-0.04*	-0.05*	-								
9. <i>Services to consumer sector</i>	0.01*	-0.13*	-0.03*	-0.05*	-0.20*	-0.09*	-0.02*	0.02*	-							
10. <i>Services to companies sector</i>	-0.02*	0.20*	0.08*	0.01*	0.08*	0.21*	0.05*	-0.03*	-0.51*	-						
11. <i>Processing sector</i>	0.00	-0.01*	-0.02*	0.02*	0.13*	-0.05*	-0.01	-0.01	-0.57*	-0.27*	-					
12. <i>Extractive sector</i>	-0.00	-0.03*	-0.03*	0.05*	0.04*	-0.05*	-0.03*	0.02*	-0.24*	-0.12*	-0.13*	-				
13. <i>GDP growth</i>	0.02*	-0.40*	-0.04*	-0.10*	-0.03*	-0.08*	0.02*	-0.04*	0.08*	-0.13*	0.02*	-0.01*	-			
14. <i>Private and public credit coverage</i>	-0.01*	0.13*	0.02*	0.07*	0.00	0.04*	-0.02*	-0.03*	-0.03*	0.08*	-0.00	-0.06*	-0.01*	-		
15. <i>Unemployment</i>	0.02*	-0.06*	-0.08*	-0.02*	0.04*	0.01*	-0.01*	0.03*	-0.02*	-0.00	0.00	0.04*	-0.29*	-0.31*	-	
16. <i>Population growth</i>	0.01*	-0.31*	0.02*	-0.04*	-0.03*	-0.12*	-0.01*	-0.02*	0.09*	-0.08*	-0.01	-0.04*	0.35*	-0.02*	-0.24*	-

*p<0.05

5 RESULTS

To test the proposed hypotheses and given the dichotomous nature of the dependent variable, we present a logistic regression (logit model), which estimates the probability of occurrence of any event (see Table 4). Initially, we propose three models where the variables are introduced in a nested way. The first only considers the influence of control variables. The second introduces the effect of both the type of entrepreneurship and formal institutional development on failure. Finally, the third incorporates the above variables and the interaction term between high-impact entrepreneurship and formal institutions. As indicated by the Chi-Squared values, the explanatory power of all the models is satisfactory ($p < 0.01$). It is important to note that, according to the F-tests, the full model (model 3) is the one that best fits our data.

It is also important to emphasize that, in this kind of estimations, the coefficients do not have a direct interpretation and, consequently, marginal effects should be used (Wiersema and Bowen, 2009). These marginal effects are also presented in Table 4.

When we analyze model 1, we observe that age takes a positive sign and is statistically significant, which suggests that the probability of failure increases with the age of the founder. With regard to gender, results show that the failure rates of men are higher than those of women. This may be due to the fact that men are more likely to take risks, which increases their probability of failure. As expected, the level of education has a negative and significant effect on failure. Surprisingly, the social network of the entrepreneur has a positive and significant effect on failure rates. This is in line with some works that have obtained similar results and that argue that the network is a resource that improves entrepreneurial success if network is used; otherwise, its existence can even be detrimental (Bates, 1994; Yoon, 1991). The variable fear of failure is also positive and significant which suggests that the greater the fear of failure the lower the probability of survival of new ventures.

With regard to the control variables associated with the entrepreneurial environment, we can observe that the industry has some effect on business failure. In particular, failure rates are significantly lower in the extractive and services industries.

Finally, GDP growth is, contrary to what we expected positive and significant. However, unemployment increases the probability of failure, probably because of a lower demand and a deterioration in the quantity or quality of the work force (Ritsilä and Tervo, 2002). It is important to note that the effect of all the control variables is stable through the three models, with the exceptions of education, only significant in model 1 and population growth, in models 2 and 3.

Model 2 shows that the development of formal institutions (governance) has a negative and significant effect on business failure (ME=-0.008, $p < 0.01$), suggesting that in countries where formal institutions are more developed, entrepreneurial failure is lower, which supports Hypothesis 1. In the same way, model 2 shows a negative and significant relationship between high-impact entrepreneurship and failure (ME=-0.017, $p < 0.01$). This result provides support for Hypothesis 2.

Finally, to test hypothesis 3, we analyze the interaction between formal institutions and high-impact entrepreneurship. Model 3 shows that the coefficient is negative and significant ($\beta = -0.200$, $p < 0.01$). This suggests the need to analyze these two dimensions, development of formal institutions and high-impact entrepreneurship, jointly when establishing the marginal effects on failure.

It has been seen that the marginal effect of high-impact entrepreneurship is negative and significant, which implies that the higher the development of formal institutions the greater the marginal effect of high-impact entrepreneurship on failure. Accordingly, the development of formal institutions increases the negative relationship between high-impact entrepreneurship and failure, which supports our hypothesis 3.

Table 4. Logistic estimation of the probability of failure

Variables	Model 1		Model 2		Model 3	
	Coefficient	ME	Coefficient	ME	Coefficient	ME
<i>Governance</i>			-0.226*** (0.034)	-0.008***	-0.092** (0.052)	-0.008***
<i>High-impact entrepreneurship</i>			-0.456*** (0.049)	-0.017***	-0.460*** (0.048)	-0.017***
<i>High-impact entrepreneurship x governance</i>					-0.200*** (0.058)	
<i>Age</i>	0.007*** (0.019)	0.001***	0.007*** (0.002)	0.001***	0.007*** (0.019)	0.001***
<i>Gender</i>	0.219*** (0.047)	0.008***	0.250*** (0.047)	0.009***	0.250*** (0.047)	0.009***
<i>Education</i>	-0.076*** (0.021)	-0.003***	-0.030 (0.022)	-0.001	-0.031 (0.022)	-0.001
<i>Role models</i>	0.247*** (0.048)	0.009***	0.282*** (0.048)	0.010***	0.280*** (0.048)	0.010***
<i>Fear of failure</i>	0.209*** (0.049)	0.008***	0.166*** (0.049)	0.006***	0.163*** (0.049)	0.006***
<i>Sector</i>						
<i>Services to companies</i>	-0.305*** (0.066)	-0.011***	-0.241*** (0.067)	-0.008***	-0.239*** (0.067)	-0.008***
<i>Processing</i>	-0.071 (0.055)	-0.003	-0.068 (0.055)	-0.003	-0.069 (0.055)	-0.003
<i>Extractive</i>	-0.177* (0.102)	-0.006*	-0.206** (0.102)	-0.007**	-0.201* (0.103)	-0.007**
<i>GDP Growth</i>	0.077*** (0.008)	0.003***	0.044*** (0.009)	0.002***	0.043*** (0.009)	0.002***
<i>Public and Private Coverage</i>	0.001 (0.001)	0.000	0.001 (0.001)	0.000	0.001 (0.001)	0.000
<i>Unemployment</i>	0.029*** (0.004)	0.001***	0.020*** (0.004)	0.001***	0.021*** (0.004)	0.001***
<i>Population Growth</i>	-0.034 (0.034)	-0.001	-0.062* (0.035)	-0.002*	-0.059* (0.035)	-0.002*
<i>Year dummies</i>	YES***		YES***		YES***	
<i>N</i>	54,292		54,292		54,292	
<i>Wald chi²</i>	293.24***		455.86***		436.80***	
<i>Log-likelihood</i>	-8807.19		-8734.68		-8728.57	
<i>% Cases correctly classified</i>	80.23%		77.33%		75.72%	
<i>F-Test vs.1</i>			152.00***		153.58***	
<i>F-Test vs.2</i>			42.79***		103.14***	
<i>F-Test vs.3</i>					12.02***	

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

ME: Marginal Effects

Standard errors in parentheses

ROBUSTNESS TESTS

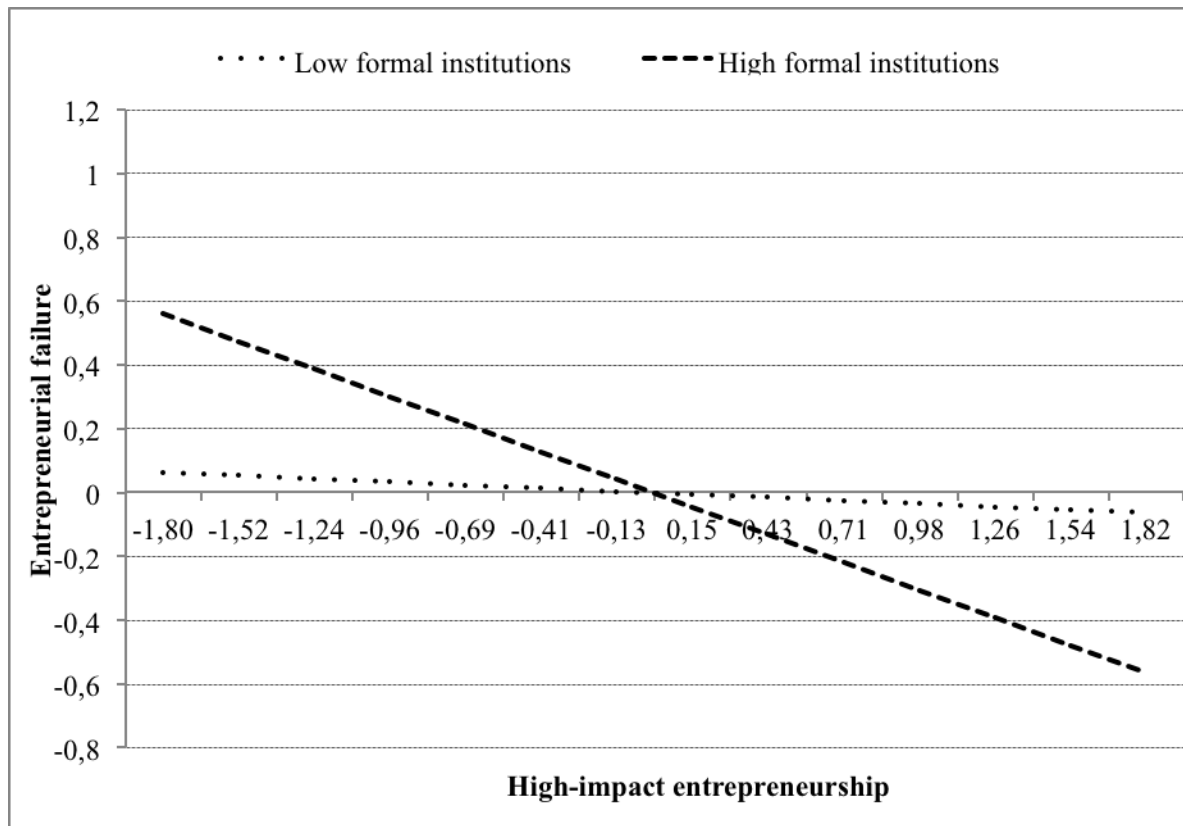
To provide a more nuanced picture of the moderating effect of formal institutions on the relationship between high-impact entrepreneurship and failure, we have conducted additional analyses. With respect to formal institutions, we have divided the sample into two groups. The first includes the countries where the level of formal institutions is equal to or greater than its mean and the second is made up of the countries with a level of formal institutions lower than its mean. As can be inferred from Table 5, the impact of the control variables in the new models hardly changes. The only exceptions are education and GDP growth, which are non-significant in environments where formal institutions are weak, and population growth, that changes its sign and becomes significant in the second group.

As predicted, the negative relationship between high-impact entrepreneurship and failure is greater when entrepreneurs operate in a context with a greater development of formal institutions. High-impact entrepreneurship is associated not only negatively with entrepreneurial failure (β_1 and $\beta_2 < 0$) but, furthermore, this effect is greater when formal institutions are developed ($\beta_1 < \beta_2$), as Figure 1 shows.

Table 5. High-impact entrepreneurship and failure by formal development institutions

Variables	Group 1 (High development of formal institutions)				Group 2 (Low development of formal institutions)			
	Coefficient	ME	Coefficient	ME	Coefficient	ME	Coefficient	ME
<i>High-impact entrepreneurship</i>			-0.595*** (0.075)	-0.017***			-0.332*** (0.064)	-0.015***
<i>Age</i>	0.013*** (0.003)	0.001***	0.011*** (0.003)	0.001***	0.006** (0.002)	0.001***	0.005** (0.002)	0.001***
<i>Gender</i>	0.322*** (0.073)	0.010***	0.349*** (0.074)	0.011***	0.169*** (0.061)	0.008***	0.187*** (0.061)	0.009***
<i>Education</i>	-0.107*** (0.034)	-0.003***	-0.076** (0.035)	-0.002**	-0.013 (0.028)	-0.001	0.009 (0.028)	0.0013
<i>Role models</i>	0.096 (0.071)	0.003	0.127* (0.071)	0.004*	0.341*** (0.064)	0.016***	0.369*** (0.066)	0.017***
<i>Fear of failure</i>	0.196*** (0.075)	0.006***	0.143* (0.075)	0.004*	0.213*** (0.065)	0.010***	0.191*** (0.065)	0.009***
<i>Sector</i>								
<i>Services to companies</i>	-0.259*** (0.090)	-0.007***	-0.251** (0.090)	-0.007***	-0.225** (0.101)	-0.010**	-0.208** (0.101)	-0.009**
<i>Processing</i>	-0.021 (0.084)	-0.001	-0.035 (0.085)	-0.001	-0.092 (0.073)	-0.004	-0.096 (0.073)	-0.004
<i>Extractive</i>	-0.346* (0.180)	-0.010**	-0.345* (0.180)	-0.009**	-0.111 (0.125)	-0.005	-0.121 (0.125)	-0.005
<i>GDP growth</i>	0.087*** (0.017)	0.002***	0.077*** (0.017)	0.002***	0.009 (0.010)	0.001	0.009 (0.011)	0.001
<i>Public and private coverage</i>	0.001 (0.001)	0.000	0.001 (0.001)	0.000	-0.001 (0.001)	-0.000	-0.001 (0.001)	-0.000
<i>Unemployment</i>	0.025*** (0.008)	0.001***	0.021** (0.009)	0.001**	0.022*** (0.005)	0.001***	0.019*** (0.005)	0.001***
<i>Population growth</i>	-0.067 (0.060)	-0.002	-0.047 (0.060)	-0.001	0.109** (0.050)	0.005**	0.125** (0.050)	0.006**
<i>Year dummies</i>	YES***		YES***		YES***		YES***	
<i>N</i>	29,457		29,457		24,835		24,835	
<i>Wald chi²</i>	123.91***		200.80***		186.33***		217.10***	
<i>Log-likelihood</i>	-3970.83		-3940.71		-4764.22		-4750.70	
<i>% Cases correctly classified</i>	80.68%		76.67%		59.46%		60.22%	
<i>F-Test vs.1</i>			63.04***				26.93***	

Figure 1. Moderating effect of formal institutions in the relationship between high-impact entrepreneurship and failure



CONCLUSIONS

In recent years, both public authorities and society have highlighted the importance of business creation for economic growth and wealth. As a consequence, policies aimed at encouraging entrepreneurship have exponentially increased in most countries. However, to contribute to economic growth, it is not enough to create new businesses indiscriminately; it is even more important that most of them acquire the necessary dimension to survive over time. And it is not easy for new business to maintain their activity over long periods: a review of the literature shows that new businesses have high failure rates. Surprisingly, not much is known about the factors that facilitate or impede the success or failure of new ventures (DeTienne, 2010).

Initially, the literature focused on the personal attributes of the entrepreneur, analyzing whether certain individual characteristics such as age, gender and human or social capital can predict the success or failure of new ventures. Subsequent studies shifted (the focus towards the context in which businesses operate, suggesting that environmental characteristics can be relevant when assessing entrepreneurial success or failure. However, the empirical evidence is not conclusive: research is usually geographically limited and does not distinguish between the different types of entrepreneurship. Consequently, is necessary to study entrepreneurial failure in greater depth to better understand its determinants.

This work contributes to the identification of the factors that affect this phenomenon, paying particular attention to both the type of entrepreneurship and the institutional context where the business operates. Earlier studies have argued that different types of entrepreneurship differ in their success rates (Block and Wagner, 2010). Our results show that the businesses that develop their activity in contexts where the rules of the game are well defined have greater options of survival. In general, a greater development of formal institutions reduces uncertainty in economic transactions and information asymmetries, facilitating economic activity and creating the proper context for firm development and growth. The results obtained in this work also confirm this hypothesis: initiatives with greater growth aspirations, that are more innovative and that create more jobs have lower failure rates than those of lower quality, that operate in marginal businesses and whose main objective is only survival.

More importantly, the results of this analysis show that there is a relationship between these two dimensions, so the effect of the type of entrepreneurship is not independent of the institutional context; indeed, well developed formal institutions strengthen the negative relationship between high-impact entrepreneurship and failure rates.

The above relationship is especially interesting from the point of view of public policies. As noted above, we have seen a growing interest of politicians and other economic and social

agents in recent years to promote business creation. Following this argument, different decisions have been adopted. However, it is important to take into account that it is not only necessary to promote new ventures but also to guarantee their quality to reduce failure rates.

The evidence of this work suggests that the measures to be adopted are clearly conditioned by the environment. As a consequence, the right decisions in an institutional context may or may not be equally effective in another. Those who take political decisions should concentrate their efforts on initiatives with greater potential -and lower failure rates- (Shane, 2009). This means that it will not be enough, for example, to replicate the decisions adopted in other countries or regions if the starting conditions are not comparable. Given that the negative relationship between high-impact entrepreneurship and failure is greater in countries with more developed formal institutions, economies with weak formal institutions should properly define the rules of the game in advance if they want to be efficient in promoting quality entrepreneurial initiatives.

Obviously, this work has some limitations that will deserve future further attention. First, we have approached entrepreneurial failure through GEM data. Although GEM is an international initiative that analyzes entrepreneurial activity in a large sample of countries, failure is measured through the answer to a question where individuals are asked whether they have closed a business in the last 12 months. Consequently, this is a cross section analysis that does not allow us to know how long the venture had been working. The availability of longitudinal information to better track each business will improve our knowledge of the determinants of entrepreneurial failure. Similarly, our model proxies the quality of entrepreneurship by the perception of the founders, who consider whether they start an initiative due to the identification of a business opportunity or not. Where possible, having more detailed information regarding the quality of the ventures will also strengthen the quality of our results.

In short, the study of the failure of business initiatives is a promising area for future research. This work has tried to develop a theoretical framework that incorporates the institutional context, the type of entrepreneurship and the relationships between these two dimensions into the discussion.

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Appendix 1. Average values of failure, formal institutions and high-impact entrepreneurship by country

Country	Failure	Governance	High-impact e'ship	Country	Failure	Governance	High-impact e'ship
Dominican Republic	0.14	-0.73	0.67	United States	0.03	1.08	0.78
Puerto Rico	0.12	0.50	0.84	Portugal	0.03	0.72	0.80
Palestine	0.09	-1.08	0.65	Hungary	0.03	0.51	0.72
China	0.09	-0.94	0.61	Kazakhstan	0.03	-0.98	0.74
Namibia	0.08	0.04	0.62	Russia	0.03	-1.17	0.69
South Africa	0.08	-0.05	0.71	Poland	0.03	0.60	0.57
Ecuador	0.08	-1.22	0.69	Israel	0.03	0.36	0.73
Hong Kong	0.08	1.36	0.70	Thailand	0.03	-0.62	0.76
Jamaica	0.07	-0.36	0.53	United Kingdom	0.03	1.28	0.85
Montenegro	0.07	-0.29	0.62	Spain	0.02	0.68	0.80
Bosnia	0.06	-0.54	0.44	Venezuela	0.02	-1.81	0.70
Algeria	0.06	-1.38	0.71	Australia	0.02	1.51	0.83
Morocco	0.06	-0.74	0.75	Austria	0.02	1.39	0.87
Slovakia	0.06	0.53	0.69	Estonia	0.02	0.84	0.79
Peru	0.06	-0.64	0.73	Belgium	0.02	1.18	0.88
Brazil	0.06	-0.07	0.63	France	0.02	1.05	0.81
Bolivia	0.06	-0.77	0.68	Germany	0.02	1.31	0.76
Egypt	0.06	-0.98	0.68	Lithuania	0.02	0.49	0.74
Argentina	0.05	-0.68	0.65	Norway	0.02	1.59	0.92
Singapore	0.05	1.45	0.86	The Netherlands	0.02	1.58	0.89
Chile	0.05	1.01	0.73	Iceland	0.02	1.46	0.94
Macedonia	0.05	-0.43	0.44	Switzerland	0.02	1.63	0.87
Latvia	0.05	0.40	0.75	Malaysia	0.02	0.03	0.84
Serbia	0.05	-0.65	0.56	Barbados	0.01	0.97	0.87
Uruguay	0.05	0.51	0.73	Italy	0.01	0.27	0.81
Ireland	0.05	1.37	0.76	Czech Republic	0.01	0.75	0.73
Mexico	0.04	-0.50	0.83	Denmark	0.01	1.76	0.93
El Salvador	0.04	-0.48	0.65	Guatemala	0.01	-1.01	0.70
South Korea	0.04	0.49	0.60	Finland	0.01	1.76	0.83
Turkey	0.04	-0.36	0.64	Sweden	0.01	1.70	0.91
Romania	0.04	-0.20	0.65	Japan	0.01	1.01	0.71
Croatia	0.04	0.09	0.66	Slovenia	0.01	0.73	0.88
Tunisia	0.04	-0.55	0.72	Panama	0.00	-0.24	0.74
Greece	0.04	0.19	0.71	Mean	0.04	0.23	0.74
Colombia	0.04	-0.65	0.72	Standard Deviation	0.19	0.86	0.44
Costa Rica	0.04	0.36	0.72				

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