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BUSINESS PERFORMANCE IN THE POST-STARTUP PHASE: THE CASE OF LATAM FOR-PROFIT VENTURES PARTICIPATING IN ACCELERATOR PROGRAMS

DESEMPEÑO EMPRESARIAL EN LA FASE POSTERIOR A LA PUESTA EN MARCHA: EL CASO DE EMPRESAS CON FINES DE LUCRO PARTICIPANTES EN PROGRAMAS DE ACELERACIÓN EN LATINOAMÉRICA

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Abstract

This study aims at a more systematic understanding of the critical factors, based on Sharir & Lerner's (2006) framework, that exert influence over the probabilities of performance development of For-Profit Ventures participating in accelerator programs worldwide, and specifically in the LATAM Region. Using an Ordinal Logit Regression Model on secondary data from a multipurpose survey over a sample of startups in more than 170 countries, the positive effects of such factors were first tested, and differential behaviour was sought, in ventures operating in the LATAM Region. Even though most of the factors accounted for in the framework were validated in the general sample and their effects were quantified, differential behaviour due to socio-economic and geographic conditions was found in the region; the most striking result revolved around the statistically confirmed notion that LATAM ventures have learned to operate in underprivileged conditions. Conclusions are drawn in support of harmonized for-profit entrepreneurship promotional programs and the adoption of standardized impact measurement criteria in order to improve the access to outside-funds. This argument raises ample academic and practical possibilities for investigating the impact of socio-economic and cultural influences on the efficacy of entrepreneurial support mechanisms. This study contributes to the literature by providing more empirical research about performance development in newly created for-profit ventures and the effectiveness of global accelerator programs.

Keywords: For-profit ventures, success factors, international comparative study, global accelerator learning initiative, ordinal logistic regression

Resumen

El estudio busca una comprensión más sistemática de los factores, con el marco de Sharir y Lerner (2006), que ejercen influencia sobre las probabilidades de desarrollo del desempeño de las empresas lucrativas que participan en programas de aceleración en todo el mundo, con énfasis en Latinoamérica, contribuyendo a la investigación empírica sobre el tema. Utilizando un modelo de regresión logística ordinal en los datos de una encuesta multipropósitos sobre una muestra de *startups* en más de 170 países, se probaron por primera vez los efectos positivos de dichos factores, y se buscó un comportamiento diferencial, en empresas que operan en Latinoamérica. A pesar de que la mayoría de los factores considerados en el marco de referencia se cuantificaron y validaron en la muestra general, se encontró un comportamiento diferencial debido a las condiciones socioeconómicas y geográficas en la región; el resultado

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más llamativo giró en torno a la noción estadísticamente confirmada de que los empresarios en Latinoamérica han aprendido a operar en condiciones desfavorables. Los resultados del estudio apoyan el establecimiento de programas armonizados de promoción del emprendimiento lucrativo y la adopción de criterios estandarizados de medición de impacto para mejorar el acceso a fondos externos. Este argumento plantea amplias posibilidades académicas y prácticas para investigar el impacto de las influencias socioeconómicas y culturales en la eficacia de los mecanismos de apoyo empresarial y contribuye a la literatura proporcionando mayor investigación empírica sobre el desarrollo del rendimiento en empresas lucrativas de nueva creación y la eficacia de los programas de aceleración globales.

Palabras clave: empresas lucrativas, factores de éxito, estudio comparativo internacional, Global Accelerator Learning Initiative, regresión ordinal logística

Introduction

Many studies dating from the 1980's to the present, have established that entrepreneurial activity, measured in terms of size and age, is positively related to economic growth (Baumol & Strom, 2007; Carree & Thurik, 2010; Thurik & Wennekers, 2004); some authors deem entrepreneurial activity as productive and worthy of encouragement (Acs et al., 2009; Acs & Stough, 2008; Morris et al., 2013); moreover several researchers believe that new ventures contribute to increasing levels of competition, create value for customers, generate employment and tax revenue and in general play an important role in society (Birch, 1979; Reynolds, 1987; Storey, 1994; Thurik & Wennekers, 2004). With this potential in mind, the surge of a cluster of public policies that encourage entrepreneurship and seek to support new businesses (NVs), such as incubators, accelerators, technology parks, among other initiatives, is not surprising.

Nevertheless, the direct positive effect of NVs over economic growth has not been proven; under a different venue, certain studies also account for differential results regarding the distribution of benefits stemming from entrepreneurial and new businesses activities. Authors such as Van Stel et al. (2005) and Hall & Sobel (2008), argue that depending on the region's general stage of development, and on the quality of their institutional arrangements, entrepreneurial activity by both nascent entrepreneurs and NV managers has a differential geographic effect on economic growth, raising concerns around the notion that alone, the direct economic potential of nascent ventures may possibly be over-emphasized (Alvarez & Barney, 2014). On the one hand, Reynolds (1987) showed that NVs generated between 60-80% of jobs, sales and exports in the United States, but on the other hand, after further research, a strong argument is built around the true economic effect of entrepreneurship that leads to different perspectives and possible alternative conclusions. It has been established that the positive effect of entrepreneurial activity over job creation is strongly related to fast growing firms, as opposed to the contribution of small and medium enterprises (SME's) in advanced countries (Alvarez & Barney, 2014; Wong et al., 2005)); as per the case of this study, these last findings can also be observed in other economies, where competitive conditions have been found to determine the entrepreneurial trajectory of new businesses, as is the case for Latin-American new ventures (Acs & Amorós, 2008). Historically, given the early contributions of Schumpeter (1934), the conceptualization of disruptive entrepreneurs as innovators, has prevailed in the literature (Hagedoorn, 1996). Extant literature, mostly descriptive, considers that entrepreneurial innovation generates economic potential (Lumpkin & Dess, 1996; Miller & Friesen, 1982; Vesper, 1980), despite the intrinsic difficulty to empirically test this assertion (Wong et al., 2005); consequently an argument favouring the notion that entrepreneurial innovation creates disruption and competition while enhancing rivalry, and in that sense, the fact that it is one of the main driver's in today's global economic growth is not undisputed.

Following those lines to the extreme, in his article, Shane (2009) argued that the typical start-up, remains small, is not innovative, creates few jobs, and generates little wealth. He also argued that designing public policies which encourage more people to become entrepreneurs is counterproductive, therefore policy makers should stop subsidizing the formation of the typical start-up and focus on the subset of businesses with growth potential, such as the so-called unicorns or gazelles. Authors such as Morris et al. (2015) state that Shane's position is representative of the dominant perspective in entrepreneurship (Delmar et al., 2003; Stangler, 2010) and counter-argue in favour of a portfolio perspective on entrepreneurship, considering four types of start-up ventures: survival, lifestyle, managed growth and aggressive/high growth, with each having differing needs, to be addressed possibly by public policy, and making unique and positive contributions to the economic welfare of a nation, region, or locality (Morris et al., 2018).

With respect to the systematic study of entrepreneurship, more specifically its economic importance and the elements of public policy required to harness such potential, a strong bias towards considering successful, technology-based companies as paradigmatic in the study of entrepreneurial activity has been frequently accounted for in the current literature (Lehmann & Schenkenhofer, 2019). Aldrich and Ruef (2018, p. 458) believe that despite the attention given by scholars and policy-makers to the so-called "unicorn and gazelle" firms in many journals and entrepreneurship conferences, the actual occurrence of IPO's and Venture Capital Funding events for these enterprises is quite scarce; thereby these authors argue that entrepreneurship scholars have been paying a disproportionate share of attention to these unusual startups; for that matter, correcting the misperception that has been introduced through selection biases favouring growing and profitable firms will give scholars and policymakers a more accurate and policy-relevant picture of entrepreneurship in the 21st century. Moreover, understanding the diversity of nascent ventures, particularly under the portfolio approach as proposed by Morris et al. (2015) could provide an ample set of guidelines for policy-makers in order to develop a proper framework for entrepreneurial development in various geographic and business settings.

What has been well accounted for, both in practice and in the literature, is that startups usually face difficult operational conditions that subordinate their survival in the early stages. The failure and low-growth risks of NVs are high; several studies show that the mortality rate of new businesses is at least 30% in the first two years of operation (Headd, 2003); a study by Van de Ven et al. (1984) concluded that 54% of businesses survive a year and a half after their inception, and only 25% survive by the sixth year. Phillips and Kirchhoff (1989), using data from Dun & Bradstreet, found that 76% of new companies were still in operation after two years, 47% after four years, and 38% after six years. These figures are consistent with other studies (Audretsch et al., 1999; Bartelsman et al., 2005); nevertheless, it has also been shown that mortality rates are heterogeneous across all industries, and the service sector is the one that reflects highest deaths, followed by retail and technological companies.

With various degrees of success, some mechanisms including venture capitalists (VCs), accelerators, incubators, science parks, angel funders (AFs), co-working environments, educational programs, matching platforms, and pair-up events have been devised to support the creation, development and funding of a small sub-set of nascent enterprises, particularly those that exhibit some potential, in an attempt to mitigate these well-known failure rates (Wise & Valliere, 2014). In the early stages, these institutions help promising NVs in defining and building their products; identifying their business model; recognizing potential market opportunities and attaining access to business resources such as capital, innovative technologies, employees and potential customers (Cohen, 2013).

Accelerators are fixed-term, cohort-based programs formed by groups of experienced businesspeople, offering a combination of small capital seeds (networking and management services, shared office space, education and expertise to NVs) on an as-needed basis to help them succeed in their early stages; they address both, the funding and the information gaps for startups and would-be investors by acting as network brokers, reducing the search costs for AFs and VCs, while creating a pipeline of vetted technologies for the market (Cohen & Hochberg, 2014; Fishback et al., 2007).

After Y Combinator in 2005, the popularity of accelerators has been boosted by famous participants like Dropbox, Reddit, and Airbnb, contributing to the notion of what is known today in the literature as the Silicon Valley mania (Aldrich & Ruef, 2018; Lehmann & Schenkenhofer, 2019; Morris et al., 2018; Walker, 2018). Nevertheless; despite abundant realization stories and presumed benefits of accelerators, their advocates face criticism, not only for these mechanisms' lack of depth and breadth in supporting nascent ventures, but also for the deficiency of statistical data and metrics to validate this impression. Notwithstanding accelerator programs abound worldwide, little is known about their effectiveness. Cohen (2013) claims that the efficacy of these programs is not clear, arguing that given the heterogeneity between programs, it's likely that accelerator outcomes are themselves heterogeneous; moreover, Dempwolf et al. (2014) disputed that the lack of an accelerator's unified definition resides in the wide array of acceleration models and funding sources emerging around the world.

Few publications study the effects that accelerators are having on the ability of selected NVs to grow revenues, create employment, and attract outside investment (Gonzalez-Uribe & Leatherbee, 2017; Hallen et al., 2014; Radojevich-Kelley & Hoffman, 2012; Winston-Smith & Hannigan, 2015); to address the information shortcoming of accelerator's activities, the Social Enterprise @ Goizueta at Emory University and the Aspen Network of Development Entrepreneurs (ANDE), in collaboration with a consortium of public and private funders, launched the Global Accelerator Learning Initiative (GALI), which builds on the work of the Entrepreneurship Database Program at Emory (EDP). This program collects data from individual ventures in more than 170 countries

during their application process at contributing accelerators; after six months they resurveyed entrepreneurs, whether they were accepted or not in the accelerator programs, gathering follow-up data (GALI, 2018).

What Factors Affect Post-Startup Success in For-Profit Ventures Applying to Accelerator Programs?

Since start-up attempts are not always successful, and in the venue of appraising their performance in the post-startup phases, this research attempts to attain further methodical knowledge of factors known to either exert influence over economic performance or, moreover, contribute to the success of for-profit ventures (FPVs) that participate in entrepreneurial support mechanisms, such as accelerators. Using an Ordinal Logistic Regression (OLR) model estimated over a unique and ample dataset provided by the EDP, the first-hand objective of our study is to provide a more systematic understanding of the factors believed to be conducive of success, in FPVs applying to 283 accelerator programs around the world; further-on, based on additional empirical analysis, this research attempts to find differential performance determinants originated by the specific socio-economic and geographic divergences of the factors affecting the probability of success in an EDP's sub-sample of FPVs, in both Latin American and Caribbean (LATAM) countries - as per the World Bank Classification - and the rest of the world.

Critical Success Factors: The Key to New Ventures Performance

Literature reports that *Critical Success Factors* (CSFs) account for the majority of the determinants for a successful enterprise in general (Boynton & Zmud, 1984) and specifically for small and medium enterprises as well (Al-Tit et al., 2019). Rockart (1979) defined CSFs as the limited number of areas in which satisfactory results will ensure successful competitive performance for the organization; whereas other authors such as Lynch (2003) and Bruno et al. (1987), describe them as the resources, skills, and attributes of an enterprise that are essential for success.

As per this quest, NVs being studied (either for-profit or socially oriented) have applied and/or participated in accelerator programs affiliated with more than 90 programs worldwide; these programs share a common interest in selecting ventures with *Impact Investment* potential. Following Canfield and Anzola's (2018) study about factors conducive to success in socially oriented ventures (SOVs), given the social motivation bias present in the sample being studied, in this research, the success factors initially considered derive from the study of social organizations by Sharir and Lerner (2006); their research is grounded on the conceptual framework for describing new venture creation proposed by Gartner (1985) and complemented by Cooper (1993) and Duchesneau and Gartner (1990). This framework integrates four major perspectives in entrepreneurship: characteristics of the individuals who start the venture, the organization which they create, the environment surrounding the new venture, and the process by which the new venture is started. The Sharir and Lerner's factors are successively adapted to the specific conditions of data collected in the EDP's sample in 2013-2018. Besides, considering both, the nature and limitations of the database used in this analysis, attention is given to the relative importance of other approaches and variables that stemmed from Gartner's (1985) framework of new venture creation as per the exploratory study of nascent entrepreneurs in Gelderen et al. (2005). Our research poses two main questions: What are the general factors affecting the probability of success of FPVs that participated in accelerator programs in our sample in 2013-2018? And, if a differential success behaviour, regarding those factors, exists in companies operating in the LATAM Region? The OLR model employed in this approach estimates the effects of considered critical factors over the probability of enhancing the performance of FPVs.

The remaining sections of the study are structured as follows: In the second section, the relevant literature that supports the conceptual framework as well as the hypotheses under study are established; in the third section, materials and methods are discussed, followed by estimation results and their discussion. The hypotheses of the study are then validated and practical and academic implications of the study and directions for further research are lastly addressed.

Literature Review and Hypotheses Statement

Despite the fact that the economic importance of NVs needs to be re-evaluated and a more accurate and policy-relevant picture of entrepreneurship in the 21st century is required (Aldrich & Ruef, 2018), the study recognizes that a wide array of government and private sector-sponsored mechanisms, among them accelerators, have been established to support business development and improve survival rates, given the high failure rate of small businesses (SBs) and specifically startups; thereby following Zinger et al.'s (2001) research into the factors perceived to influence the performance of emerging SBs is of utmost importance for the proper orientation of public policy regarding this matter.

It has been argued that a founder's performance is determined not only by personal talent, circumstances and good luck, but also by his/her human, social, and financial capital (Bosma et al., 2004); initially NVs' financing is accomplished with their own resources or through the help of friends and family; entrepreneurship is a matter of recognizing and taking advantages of opportunities and transforming them into economic value (Helfat & Lieberman, 2002), yet most founders do not have the capital, material, or expertise to fully exploit the entrepreneurial opportunity (Shane, 2000). Due to their smallness, startups suffer a structural lack of tangible and intangible resources (McMullen & Shepherd, 2006; Wymer & Regan, 2005) and in order to overcome these constraints entrepreneurs attempt to broaden their funding and knowledge bases (Desa & Basu, 2013; Spender et al., 2017).

From an investor's standpoint a success bias in supporting NVs is quite understandable. Yu (2016) argues that information reduces uncertainty in newly formed businesses; this information has economic value and the willingness to pay for its use will usually depend on the venture's ex-ante success probability (Arora & Fosfuri, 2005). Funders have the incentive to invest if the probability of success is high enough; therefore, for the sake of the efficacy of a startup's support mechanisms they are required to reduce information and financial gaps between funders and founders. The interest of this research revolves around the performance of FPVs applying to worldwide acceleration programs; these financial organizations invest in cohorts of start-up companies, usually in exchange for equity -typically around $20,000 investment for 10% of the company- (Yu, 2016). After selecting a hand-picked cohort of companies, accelerators run limited-duration programs offering mentorship, education, co-working spaces and culminate in a public pitch event or *demo-day.* Accelerators become sources of feedback, helping founders to assess the feasibility of the venture's idea. By concentrating resources through seed-funding, access to investment networks, and intensive mentoring, accelerators can identify "winning" ideas more quickly and help NVs grow (Dempwolf et al., 2014, p. 6).

The Measure of FPV's Performance

Performance measurement is critical to the success of any for-profit organization by creating understanding, moulding behaviour, and improving competitiveness (Gunasekaran et al., 2005). Nonetheless, the performance measurement for emerging SBs is complex with no general accepted criteria (Zinger et al., 2001). In the pre-startup stages of entrepreneurship, Gelderen et al. (2005) considered that birth was the first success of nascent firms, while future sound businesses in their early stages, slightly after the start-up phase, but without having achieved a formal structure, require surviving the venture advances in the generation of income, jobs and profit, as a first step towards stability and sustainability (Kazanjian, 1988). At this stage, measures of successful economic performance include: profit generation, cumulative employment generated, and firm-survival times (Bosma et al., 2004; Van de Ven et al., 1984). Given the characteristics of FPVs in the sample in the present study (Bosma et al., 2004), the evolution of the venture's economic development is measured through PERFORMANCE, an ordinal dependent variable (DV) with three levels: the first being "low" which contemplates income generation; the second level is "middle", where in addition to revenue generation, the venture attains objectives such as job creation (over the number of initial founders) or profit generation; the third level is "high" and implies the joint attainment of revenue, employment and earnings.

Critical Success Factors (CSFs) to Be Tested in This Study

Wronka (2013) argues that CSFs account for the majority of determinants of successful enterprises, thereby having several potential uses for various types of ventures; the effect of the CSFs on the performance of private enterprises is studied by Gunasekaran et al. (2005), Mouzas & Araujo (2000), and Al-Tit et al. (2019), while the effect on public-private partnerships is studied by Liu et al. (2014).

In particular the effect of CSFs over successful performance of SOVs operating in Israel was extensively examined by Sharir and Lerner (2006); the above-mentioned authors considered the following variables based on the four Gartner's entrepreneurial framework dimensions: in the individual dimension, they tested previous experience, total dedication and support by family and friends; under the environmental dimension, public acceptance of the ventures' idea, their social network, their support from other organizations and the funds received were considered; under the organization dimension, the initial budget, the board's governance and the staff's composition were analysed; while under the process dimension, planning, long term cooperation and the market test of the venture's product were introduced. Therefore, taking into account Gartner's (1985) four dimensions, Sharir and Lerner factored their surveyed variables and devised a framework of their own, with eight dimensions that helped explain social entrepreneurial success; i) the entrepreneurs' social network; ii) total dedication to the ventures' success; iii) capital

base at the establishment stage; iv) acceptance of the ventures' ideas in the public discourse; v) composition of the venturing team, including the ratio of volunteers to salaried employees; vi) forming co-operations in the public and non-profit sectors in the long-term; vii) ability of the service to stand the market test; and viii) the entrepreneurs' managerial experience.

After rejecting the inclusion of factor vi) as it relates specifically to NFPVs and is not applicable, the present research evaluates seven out of the eight Sharir and Lerner's factors known to be conducive to successful social enterprise performance, for the FPVs in the sample. Provided that the data used in this study is secondary, further adjustments were made for the specific conditions of the information collected from the surveys in the 2013-2018 EDP version. In the present study, the use of these factors is consistent with the explicit social orientation and the acceptance policy of the accelerator programs participating in the GALI initiative; as a matter of fact, nearly nine out of the ten surveyed FPVs in the sample expressed social motivations besides their explicit profit-orientation (2018). In the validation phase of the hypotheses of this study, the above mentioned factors are structured and complemented with the use of variables adapted from the study of for-profit ventures by Gelderen et al. (2005).

At first the proposed factors and variables would be analysed in the sample as a whole in order to test their pertinence and then separately in groups formed by FPVs operating in the LATAM Region and in other countries. This last stage allows us to gain additional insight about possible socio-economic and geographical differential behaviours that could hinder the efficiency of entrepreneurial interventions, paying special attention to Latin America.

Hypotheses Statement

Regarding the first research question, based on the literature, it is believed in this study, that factors conducive to success proposed by Sharir and Lerner (2006) also have a positive effect on the performance of FPVs participating in the EDP's sample. For that matter, seven of the eight success factors would be tested over the probability of the FPVs' performance enhancement. The resulting first set of seven null hypotheses under validation is shown in Table 1

The Effects of Socio-economic and Geographical Conditions On The Factors Affecting the Success of FPVs

It is known that each economy has, not only its own specific entrepreneurial profile, but firms operating under these settings confront strengths that entrepreneurs can leverage over resource constraints for starting their businesses (Bosma & Kelley, 2019). In this study, the EDP data is complemented alongside the cited dimension with information related to the Human Capital Index (World Bank, 2019) and the results of the Intergenerational Mobility Report (GDIM, 2018), more specifically the Inter-generational Relative Mobility (IGM); relative IGM is the extent to which an individual's position on the economic scale is independent of the position of his or her parents (in GDIM, it is an individual's years of schooling in relation to his or her parents' years of schooling). Higher relative mobility across generations is associated with lower inequality of opportunity, which is the extent to which people's life achievements are affected by circumstances they are born into, such as parental education and income, race, gender, and birthplace. In particular, this research uses the IGP or relative index of persistence of dependence on mobility, which is the regression coefficient of intergenerational persistence, where high values of the regression coefficient indicate greater persistence of intergenerational persistence, and consequently lower relative mobility (Narayan et al., 2018, p. 74).

Table 1. Research Hypotheses Related to the Effect of Success Factors On the Probability of Fpv's Success In the Whole Sample

Null Hypotheses	Factors	Effect on the probability of achieving a higher level of performance
H1	The strength of the entrepreneur's social network	Exists and increases the probability
H2	The ability of the service to stand the market test	Exists and increases the probability
H3	The entrepreneur's previous managerial experience	Exists and increases the probability
H4	The acceptance of the venture idea in the public discourse	Exists and increases the probability
H5	The strength of the capital base at the establishment stage	Exists and increases the probability
H6	The dedication to the venture's success by the founders	Exists and increases the probability
H7	The composition of the venturing team	Exists and increases the probability

Note: The alternative hypotheses Ha are defined as not Ho.

Authors such as Zahra et al. (2009), propose that globally, founders take different approaches to recognizing entrepreneurial opportunities; therefore, arrays deriving from these differences might yield diverse results. Regarding these differences, this quest analyses the effect of the success factors under two different geographic settings. Thereby, as per the second research question, the study seeks additional empirical evidence attempting to validate the existence of a differential success behaviour between FPVs operating in the LATAM Region and other countries worldwide, as related to factors having a positive effect on their performance development. The resulting second set of seven null hypotheses is exhibited in Table 2.

Materials and Methods

The main goal of this research is to empirically investigate the effect of the factors known in the literature to be conducive to successful venture performance, in a sample of FPVs that have either applied and/or advanced from accelerator programs worldwide (Canfield & Anzola, 2018; Gelderen et al., 2005; Sharir & Lerner, 2006). Specifically, it attempts to measure the magnitude and orientation of such effects over the probability of improving the performance of these ventures. Bearing in mind the scarcity of empirical studies on the subject and the difficulties inherent in gathering first-hand information regarding FPVs on a broad geographic basis, this study acknowledges using data from secondary sources, in particular, information collected through surveys in the Entrepreneurship Database Program at Emory University. The 2013-2018 EDP gathered detailed data from entrepreneurs during their application processes; the questions in the survey structure around four themes: focus and goals, structure and acceptance rates, funding sources, services provided by the accelerator and direct investment (GALI, 2018).

The specific socio-economic and geographical conditions that might complement the said factors were obtained through publicly available information from the World Bank (WB); precisely, information about the human capital index (World Bank, 2019) and the IGP (GDIM, 2018), was collected from those sources, and encoded on a country basis in the EDP.

The Sample

The 2013-2018 EDP's databases contain information on 19,418 applications of early-stage ventures over 280 different programs run by more than 90 different organizations, in more than 170 countries (GALI, 2018). Given the orientation of the accelerator partners, and the success-bias inherent to participation in entrepreneur support mechanisms, roughly 80% are for-profit organizations; FPVs were younger on average than the 2,037 non-profit ventures at the time of application to accelerator programs; moreover, in accordance with the impact investment orientation of these acceleration initiatives, 89% of all ventures declared some sort of social motivation besides profit. As can be expected, the sample exhibits both, a strong social orientation and success biases due to the venture selection process in accelerator programs; as accounted for in the EDP, the sample reflects a strong orientation towards success in its composition, because accelerator programs encourage the participation of enterprises with an established track record

Table 2. Research Hypotheses Related to the Differential Effect of Success Factors On FPVs Operating in the LATAM Region and Other Countries

Null Hypotheses	Factors	Effect on the probability of success
H1A	The strength of the entrepreneur's social network	Have the same positive effect on both groups
H2A	The ability of the service to stand the market test	Have the same positive effect on both groups
H3A	The entrepreneur's previous managerial experience	Have the same positive effect on both groups
H4A	The acceptance of the venture idea in the public discourse	Have the same positive effect on both groups
H5A	The strength of the capital base at the establishment stage	Have the same positive effect on both groups
H6A	The dedication to the venture's success by the founders	Have the same positive effect on both groups
H7A	The composition of the venturing team	Have the same positive effect on both groups

Note: The alternative hypotheses Ha are defined as not Ho.

(GALI, 2018, p. 4). Around 16% of businesses received prior outside equity investment (14% debt and 25% philanthropic investments); half of the ventures report positive revenues in at least one of the previous years, and almost two-thirds report having at least one full or part-time employee at the end of the year (GALI, 2018).

Based on the known features of the sample, an initial sub-sample of 15,417 FPVs on 164 nations (34% operating in LATAM countries), are studied. As expected, the conformed sub-sample exhibits the same bias as the original one, with respect to the effect of the proven track record as a pre-requisite to participate in the acceleration programs; 28% of these ventures have been in operation for at least three years, 52% of them reported operational revenue generation since inception, and 78% have hired employees beside their founders.

The Operationalization of Success Factors

The present investigation attempts to validate factors known in the literature to have an influence on the success of FPVs, and at the same time, with the information of the surveys, match the features of the ventures in our sample. The choice of a suitable and practical definition of success in this sample is of outmost importance. In the case of FPVs, mostly in the post-startup phase, Bosma et al. (2004) propose three measures of performance: profit realization, employment generation, and overcoming failure hazard. Its determination in our quest bears in mind important features of the samples due to the bias in the accelerator program's selection processes, such as the main profit-orientation of the companies, their proven track record, their ulterior social motives and the expressed intention of founders to avoid capital restrictions to develop their projects. Given the generality of the survey, the exploratory nature of the study, and the ample representation of FPVs in the sample, in this investigation, the economic evolution of the ventures is measured through PERFORMANCE, an ordinal categorical DV with three levels: "low", which contemplates income generation; "middle", where in addition to revenue generation, the ventures attains objectives such as job creation (a quantity over the number of initial founders) or profit generation; and "high", a level that implies joint attainment of revenue, employment and earnings.

Initially, contemplating the Sharir and Lerner's frame but excluding factor 6, seven of their eight main factors were matched against information for 30 selected variables encoded in the 2013-2018 EDP. Following the above-mentioned authors, on an exploratory basis, these variables were factored with a dimension-reduction procedure using principal components and an oblique rotation (oblimin), given the possibility that the factors might be related. The initial tests favoured the adequacy of the factor analysis; the value of the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) was 0.64, above the commonly recommended value of 0.6, suggesting that the sample was factorable; the Bartlett's test for sphericity was highly significant at the $p<0.0001$ level. Thereby, seven components were extracted and the corresponding factors are exhibited in Table 3.

The predictors thought to have an effect on the success of FPVs include those related to the Sharir and Lerner's factors in table 3 and additional classification and control variables, mostly related to the sample or to country specific socio-economic conditions, were included in the OLR model. The variable's definitions are exhibited in table 4.

The independent variables in the OLR model correspond to the seven factors in the framework F1SNETWORK, F2MKTTEST, F3PREVEXP, F4ACCEPTANCE, F5CAPITALBASE, F6DEDICATION and F7TEAMC. Factor 1, relates to the strength of the venture's social network and is operationalized by the factor loadings over variables corresponding to the use of specific social media. Factor 2, the ability to stand the market test is proxied by loadings on the proven operational model of the venture, being packaging, manufacturing, commercial, distribution, whole sale and retail and services. Factor 3, acceptance of the venture's idea in the public's discourse, is represented by the use of Impact Investment Measurement, being Impact Reporting and Investment Standards (IRIS), The Global Impact Investing Rating System (GIIRS) an analogue of the Standard and Poor's or Morningstar rating systems, employing a common set of indicators to measure the social performance of funds and companies that intend to create impact, or other similar measuring systems reported. Factor 4, the total dedication to the venture's operation, is characterized by the interaction between variables defining participation in accelerator programs, selected and finished, as well as a classification variable, survival, reflecting the founder's resilience and initially signalling success in ventures. Factor 5, the strength of the capital base, expressed through variables representing the use of different sources of funding including outside-funding, angel and venture capitalists and bank debt (Gelderen et al., 2005). Factor 6, representing prior entrepreneurial experience, is expressed through measures of intellectual capital as quantified by previous entrepreneurial, managerial, for-profit and non-for profit experience of founders (Lazar et al., 2019). Factor 7 refers to the team's composition where youth represents the coded variable where the mean age of the founders is <35 years and the variables Female_presence and found_name1_gender_

Table 3. Summary of Exploratory Factor Analysis Results for FPV's Success Dimensions, Using Principal Components Estimation (N = 17,084); Obliquely Rotated Component Loadings*

Item	F1)	F2)	F3)	F4)	F5)	F6)	F7)
Networks (redes)	1.03						
SC_has_twitter	0.84						
SC_has_facebook	0.75						
SC_has_linkedin	0.72						
SC_website	0.67						
Commercial_Model		0.91					
model_distribution		0.84					
model_wholretail		0.73					
model_procpack		0.74					
model_prodmanuf		0.65					
Model_Services		-0.67					
HC_TEAM_Prior_FP_Ventures		0.91					
SERIAL		0.90					
HCTEAM_MGR_EXPQ		0.61					
HC_TEAM_Prior_NP_Enterprises		0.52					
nationality_diversity							
USE_Impact_investment_methods			0.90				
impact_use_othermeasure			0.83				
impact_use_iris			0.72				
impact_use_blab_giirs			0.62				
prior_accelerator_experience							
FUND_Outside_funding				0.91			
FUND_inv_equityfrom_angels				0.72			
FUND_Bank_debt_investment				0.53			
E_VC				0.52			
selected					0.92		
finished					0.91		
Female_presence						0.71	
found_name1_gender_coded						0.70	
youth							
Eigenvalues	3.81	3.22	2.41	2.24	1.83	1.64	1.33
Variance	12.62	10.64	7.93	7.21	5.85	5.31	4.22

Notes: *Loadings =>.4; F1: Strength of social network; F2 Ability to stand market test; F3 Public acceptance of the venture's idea; F4 Dedication; F5 capital base; F6 Previous experience; F7 Team Composition.

coded represent diversity in perspectives due to female leadership in the founder's team (Carter et al., 2003).

Classification and control factors include: internationalization, a variable characterizing those ventures that operate in a different geographic setting from their headquarters' location; the QuartIGP attempts to capture the efforts of founders to overcome socio-demographic constraints at the geographic or regional level; this variable is coded 1 to 4, where 4 is the lowest quartile of intergenerational persistence with higher relative mobility; IC_model_invention_based represents the technological content of the venture; the control variable SIZE represents the number of employees and captures such effect and the interaction WORTH#WB_SMESIZE deals with the overall complexity of managing the venture.

Descriptive Statistics for Variables in the Model

The summary statistics for the variables in the model are shown in table 5.

The OLR Model

Ordered logit models are used to estimate relationships between an ordinal dependent variable (DV) -the response-, and a set of independent variables or predictors; an ordinal variable is a categorical and ordered variable. In this case, the response variable is PERFORMANCE, taking values of "low", "middle" and "high", with an improvement progression. In ordered logit, an underlying score is estimated as a linear function of the independent variables and a set of cut-points. The probability of observing outcome *i* corresponds to the probability that the estimated linear function, plus random error, is within the range of the cut-points estimated for the outcome: $\Pr(\text{outcome}_j = i) = \Pr(\kappa_{i-1} < \beta_{1x1j} + \beta_{2x2j} + \cdots + \beta_{kxkj} + u_j \leq \kappa_i)$ where u_j is assumed to be logistically distributed in ordered logit. In either case, we estimate the coefficients $\beta_1, \beta_2, : : :, \beta_k$ together with the cut-points $\kappa_1, \kappa_2, : : :, \kappa_{k-1}$, where k is the number of possible outcomes. κ_0 is taken as $-\infty$, and κ_k is taken as $+\infty$.

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Table 4. Operationalization of FPV´s Success Factors

Variable	Definition	Origin	Type	Success Factor+
Networks (redes)	Employs three or more social media	Coded	Bernoulli	*F1*
SC_has_twitter	Social Capital: employs twitter	Surveyed	Bernoulli	F1
SC_has_facebook	Social Capital: employs Facebook	Surveyed	Bernoulli	*F1*
SC_has_linkedin	Social Capital: employs LinkedIn	Surveyed	Bernoulli	F1
SC_website	Social Capital: has website	Surveyed	Bernoulli	*F1*
Commercial_Model	Explicit business model	Surveyed	Bernoulli	*F2*
model_distribution	Explicit business model	Surveyed	Bernoulli	*F2*
model_wholretail	Explicit business model	Surveyed	Bernoulli	*F2*
model_procpack	Explicit business model	Surveyed	Bernoulli	*F2*
model_prodmanuf	Explicit business model	Surveyed	Bernoulli	*F2*
Model_Services	Explicit business model	Surveyed	Bernoulli	*F2*
HC_TEAM_Prior_FP_Ventures	Team prior participation in for profit ventures	Surveyed	Discrete	*F3*
SERIAL	+2 previous entrepreneurial experiences	Coded	Bernoulli	*F3*
HCTEAM_MGR_EXPQ	Team managerial experience quartile	Coded	1 to 4	*F3*
HC_TEAM_Prior_NP_Enterprises	Team prior participation in non-for-profit ventures	Surveyed	Discrete	*F3*
nationality_diversity	Founders from various countries	Surveyed	Bernoulli	*F3*
USE_Impact_investment_methods	Employs impact investment metrics	Surveyed	Bernoulli	*F4*
impact_use_othermeasure	Venture uses another measurement approach	Surveyed	Bernoulli	*F4*
impact_use_iris	Venture uses IRIS measures	Surveyed	Bernoulli	*F4*
impact_use_blab_giirs	Venture uses GIIRS measures	Surveyed	Bernoulli	*F4*
prior_accelerator_experience	Previous accelerator programs	Surveyed	Bernoulli	*F4*
FUND_Outside_funding	Variable showing maj. presence of outside resources	Surveyed	Coded	*F5*
FUND_inv_equityfrom_angels	Angel Investors as funding source	Surveyed	Bernoulli	*F5*
FUND_Bank_debt_investment	Debt Source: From banks	Surveyed	Bernoulli	*F5*
E_VC	Venture capital funding source	Surveyed	Bernoulli	*F5*
selected	ventures selected to acceleration program	Surveyed	Bernoulli	*F6*
finished	ventures that finished acceleration program	Surveyed	Bernoulli	*F6*
Female_presence	More than two females in founder´s team	Coded	Bernoulli	*F7*
found_name1_gender_coded	Founder one is Female	Surveyed	Bernoulli	*F7*
youth	Mean age of founders < 35 years	Coded	Bernoulli	*F7*
survival	Ventures with 3 or more years of creation	Coded	Bernoulli	F4
Internationalization	FPV operates in country different than HQ	Coded	Bernoulli	Class
QuartIGP	WB Inverse Quartile of IGP (country)	Coded	1 to 4	Class
IC_model_invention_based	Technology based company	Surveyed	Bernoulli	Class
SIZE	WB Micro and small Business	Coded	1 to 2	Class
WORTH#WB_SMESIZE	Quartile Tot.Fund. interaction with WB venture size	Coded	1 to 4/1 to 4	Class

Notes: + F1: Strength of social network; F2 Ability to stand market test; F3 Public acceptance of the venture's idea; F4 Dedication; F5 capital base; F6 Previous experience; F7 Team Composition; Class, Classification variables related to the FPV´s conditions in the sample.

All of this is a direct generalization of the ordinary two-outcome logit model (StataCorp, 2013, p. 1531). The equation coefficients quantify the effect of the predictors over the log-odds ratio; the interpretation of the ordered logit coefficient is that for a one unit increase in the predictor, the response variable level is expected to change by its respective regression coefficient in the ordered log-odds scale while the other variables in the model are held constant. When the odds-ratio is one, no association between the variables is found; values less than one imply a

Table 5. Descriptive Statistics for Variables in the OLR Model

#	Variable	Obs	Mean	Std. Dev.	Min	Max
1	selected	17,084	0.11	0.31	0.00	1.00
2	finished	17,084	0.23	0.42	0.00	1.00
3	QuartIGP	17,084	2.52	1.10	1.00	4.00
4	survival	17,084	0.32	0.51	0.00	1.00
5	Internationalization	17,084	0.01	0.22	0.00	1.00
6	SC_website	17,084	0.70	0.51	0.00	1.00
7	SC_has_facebook	17,084	0.67	0.51	0.00	1.00
8	SC_has_twitter	17,084	0.42	0.52	0.00	1.00
9	SC_has_linkedin	17,084	0.33	0.43	0.00	1.00
10	SCRedessociales	17,084	1.33	1.14	0.00	3.00
11	model_prodmanuf	17,084	0.34	0.51	0.00	1.00
12	Model_transformation	17,084	0.35	0.52	0.00	1.00
13	model_procpack	17,084	0.12	0.42	0.00	1.00
14	model_distribution	17,084	0.23	0.44	0.00	1.00
15	model_wholretail	17,084	0.25	0.42	0.00	1.00
16	Commercial_Model	17,084	0.33	0.53	0.00	1.00
17	Model_Services	17,084	0.71	0.43	0.00	1.00
18	IC_model_invention_based_model	17,084	0.52	0.52	0.00	1.00
19	WB_SMESIZE	17,084	1.21	0.43	1.00	4.00
20	FUND_Outside_funding	17,084	0.24	0.45	0.00	1.00
21	E_VC	17,084	0.01	0.21	0.00	1.00
22	FUND_inv_equityfrom_angels	17,084	0.12	0.32	0.00	1.00
23	FUND_Bank_debt_investment	17,084	0.12	0.2	0.00	1.00
24	HC_TEAM_Prior_FP_Ventures	17,084	2.13	1.24	0.00	4.00
25	HC_TEAM_Prior_NP_Enterprises	17,084	0.53	1.02	0.00	4.00
26	SERIAL	17,084	0.34	0.43	0.00	1.00
27	prior_accelerator_experience	17,084	0.33	0.52	0.00	1.00
28	youth	17,084	0.65	0.52	0.00	1.00
29	Female_presence	17,084	0.8	0.43	0.00	1.00
30	nationality_diversity	17,084	0.1	0.44	0.00	1.00
31	found_name1_gender_coded	17,084	0.36	0.51	0.00	1.00
32	SIZE	17,084	1.08	0.10	1.00	2.00
33	WORTH	17,084	2.52	1.11	1.00	4.00
34	F1SNETWORK	17,084	3.1E-17	1.01	-1.71	2.01
35	F2MKTTEST	17,084	-5.2E-17	1.04	-1.01	2.61
36	F3PREVEXP	17,084	-5.9E-17	1.03	-1.41	3.07
37	F4ACCEPTANCE	17,084	-2.9E-17	1.04	-1.11	3.21
38	F5CAPITALB~E	17,084	7.6E-17	1.12	-1.22	5.11
39	F6DEDICATION	17,084	5.7E-18	1.21	-0.91	3.04
40	F7TEAMC	17,084	-1.9E-17	1.02	-3.41	3.21

negative association, whereas values greater than one imply positive association.

Estimation Results

For the purpose of testing our hypotheses, Table 6 reports the results from the *OLR* model, with PERFORMANCE being the response variable. All estimated coefficients are significant at the 0.1% level, with the exception of the following variables: F4ACCEPTANCE (Factor 4) and F7TEAMC (Factor 7), which are significant at the 5% level and F6DEDICATION (Factor 6) which is significant at the 10% level; the five interactions WORTH#WB_SMESIZE [1,2], [2,2], [3,2], [4,1] and [4,2] were also found significant.

The global model is appropriate; its overall significance measured through the value of the likelihood ratio LR chi 2(26) is 3,986 with a probability > chi 2 of 0; The pseudo-R2 of the model is 0.29; a possible misspecification using the linktest command in STATA™ proved not significant at the 5% level. For that matter the probability of improving performance of an FPV can be obtained through the following OLR model, reported in coefficients (ln of odds-ratios)

PERFORMANCE = -0.08F1+0.2F2+0.2F3+0.06F4+0.3F5+ 0.05F6 -0.07F6 -0.7 Internationalization +…
- 0.3QuartIGP + 0.3 survival + 3.1SIZE + 3.9 [1 2] + 4.2 [2 2] + 4.05 [3 2] + 0.32[4 1] + 3.8 [4 2] ***(1)***

For the sake of clarity, Table 7 summarizes the first OLR model as it relates to the first set of seven hypotheses tested.

For the whole sample, the first set of hypotheses tested, H1 through H7, are those about the conduciveness to success of the seven factors in the framework; in our case *Bi's* associated with Factors 1 through 7 are statistically different from 0 at a significance level of 10%; nevertheless, the coefficients of Factors 1 and 7 are negative; the model's null hypotheses H2 through H6 are rejected in favour of validating the existence of a positive effect over success of the Factors 2 through 6.

The reason for the negative sign in both factors F1 and F7, might reside in the limitations of the study that uses secondary sources and in the expressed EDP sample's bias; specifically regarding F1, the true importance of

Table 6. Summary of OLR´s Analysis of Variables Predicting FPVs´ Performance. The General Model

PERFORMANCE	Odds Ratio	Std. Error.	*z*	*P>z*	[95% Conf.	Interval]
SIZE	22.20	16.82	4.10	***0	5.16	97.5
IC_model_invention_based	1.31	0.11	5.31	***0	1.21	1.53
survival	1.34	0.14	4.62	***0	1.23	1.45
F5CAPITALBASE	1.32	0.01	9.20	***0	1.22	1.43
F3PREVEXP	1.23	0.01	7.11	***0	1.23	1.36
F2MKTTEST	1.25	0.01	7.12	***0	1.14	1.34
F4ACCEPTANCE	1.17	0.01	2.43	**.02	1.01	1.14
F6DEDICATION	1.09	0.01	1.81	*.07	1.04	1.15
F7TEAMC	0.92	0.01	-2.41	**.02	0.92	1.06
F1SNETWORK	0.94	0.01	-2.72	**.01	0.91	1.02
QuartIGP	0.76	0.01	-12.06	***0	0.75	0.83
Internationalization	0.54	0.12	-5.21	***0	0.47	0.64
WORTH#WB_SMESIZE						
1 2	49.31	20.1	9.60	***0	22.24	109.75
2 2	67.33	21.9	12.91	***0	35.64	127.38
3 2	57.46	13.4	17.42	***0	36.35	90.78
4 1	1.42	0.20	2.73	***0	1.15	1.79
4 2	42.04	7.61	20.51	***0	29.45	60.06
/cut1	-0.51	0.81			-2.10	0.94
/cut2	3.82	0.84			2.33	5.36

Notes: *$p < 0.10$; **$p < 0.0$; ***$p < 0.001$

Table 7. Summary of Ordinal Logistic Regression Analysis by Means of Validated Hypotheses in the study (First Set of Hypotheses)

Null Hypotheses	Factors in the Model	Hypotheses´ status
H1	Factor 1: The strength of the entrepreneur's social network	Not Validated (significant but negative)
H2	Factor 2: The ability of the service to stand the market test	Validated
H3	Factor 3: The entrepreneur's previous managerial experience	Validated
H4	Factor 4: The acceptance of the venture idea in the public discourse	Validated
H5	Factor 5: The strength of the capital base at the establishment stage	Validated
H6	Factor 6: The dedication to the venture's success by the founders	Validated
H7	Factor 7: The composition of the venturing team	Not Validated (significant but negative)
SIZE	Control Variable	Validated (positive effect over performance accounted for
"MANAGERIAL COMPLEXITY"	Control Variable	Validated (positive effect over performance accounted for
COUNTRY SPECIFIC SOCIO-DEMOGRAPHIC CONDITIONS	Control Variable	Not expected negative effect. Possible explanations with respect to the entrepreneur´s resource leveraging behavior

the FPVs' social networks may not necessarily reside in the use of social media to outreach investors and attract business opportunities; moreover, it may possibly be that participation in accelerator programs outgrows the possibilities of social media for connecting with targeted audiences; notwithstanding, not having the opportunity to formulate that question directly, one can pay attention to outside funding (AFs, VCs and equity funding) as both, a funding source and a signal for bridging funding and information gaps in the future. Respective to the negative sign in F7, there is a great possibility that the EDP's bias regarding gender diversity contributes to the explanation; as reported, female founders worldwide have a lower probability of raising capital, however, their ventures tend to generate early operational revenues (GALI, 2018); moreover, the age-effect is not strong and this is partially due to the fact that, as mentioned above, the mean age for the FPVs in the sample is smaller than the overall figure.

After controlling by size and managerial complexity of the FPVs, the negative signs around geographical conditions strike our attention; operating in other countries different from the head-quarters' location could be considered either difficult in itself or might not truly reflect the venture's operating conditions, possibly being one of the limitations of the study. The magnitude of the equation's coefficient for QuartIGP, measure of inequality of opportunities, is very important; moreover, socioeconomic variables, such as the Human Capital Index, the World Bank's Economic classification of countries, and others included in the preliminary phases of the model, yielded the same negative coefficients. Bosma and Kelley (2019) have provided explanations in other contexts that could be applied here; entrepreneurs in underprivileged markets may take additional efforts to overcome constraints with creative solutions, nevertheless such limitations exist and need to be overcome, as well as sample bias where accelerators normally accept only well established and successful ventures from the beginning.

As per the second set of hypotheses, they test for differential success behaviour of FPVs operating in Latin America and other countries; the study attempts to find a dissimilar international impact of success factors derived from specific socio-economic and cultural conditions. For that matter the same OLR model was fitted by groups, being one for those FPVs participating in the LATAM Region and another for the rest of the world.

Predictor variables considered to be conducive to performance enhancement for our cases, as well as their effect on the odds ratio, are exhibited in Table 8.

Both models are appropriate; their overall significance measured through the values of the likelihood ratio LR chi 2(26) is 2723 with a probability > chi 2 of 0 for the rest of the world model and 1309, with a probability > chi 2 of 0 for the LATAM Region model. The pseudo-R2 are 0.29 and 0.33 respectively; also a possible misspecification using the linktest command in STATA™ proved not significant at the 5% level.

For the sake of clarity, Table 9 summarizes the OLR model as it relates to the second set of seven hypotheses tested.

Using the same OLR model as that one in equation 1, in the groups formed by FPVs with operations in the Latin America, it was found that only Factor 3, Factor 5 and Factor 6 were positive and significant at the 5% level. Surprisingly enough, the socioeconomic variable QuartIGP was also found significant and its effect was positive. The magnitude of the coefficient of survival is

Table 8. Summary of OLR's Analysis of Variables Predicting FPVs' Performance in the LATAM and Rest of the World's Models

Rest of the world Model					LATAM Region Model			
PERFORMANCE	Effect	Odds Ratio	*z*	*P>z*	Effect	Odds Ratio	*z*	*P > z*
F1SNETWORK	Neg.	0.91	-2.20	**0.03	NS	1.02		NS
F2MKTTEST	Pos.	1.32	6.61	***0	NS	1.12		NS
F3PREVEXP	Pos.	1.23	6.20	***0	Pos.	1.23	2.81	**0.01
F4ACCEPTANCE	Pos.	1.14	1.82	0.07	NS	1.04		NS
F5CAPITALBASE	Pos.	1.32	8.31	***0	Pos.	1.21	4.31	***0
F6DEDICATION	Pos.	1.17	1.91	**0.05	Pos.	1.14	2.23	**0.03
F7TEAMC	NS	1.06		NS	NS	1.01		NS
Internationalization	Neg.	0.41	-5.20	***0	NS	0.72		NS
QuartIGP	Neg.	0.73	-13.51	***0	Pos.	1.24	2.92	**0.01
IC_model_invention_based	Pos.	1.41	5.01	***0	Pos.	1.16	1.23	***0
survival	Pos.	1.12	2.11	**0.04	Pos.	1.95	5.94	***0
SIZE	NS	0.01		NS	Pos.	9.14		**0.01
WORTH#WB_SMESIZE								
1 2	Positive	35.91	7.92	***0	Pos.	152.41	4.91	***0
2 1	NS	0.01		NS	Neg.	0.72		*0.07
2 2	Pos.	52.91	11.12	***0	Pos.	118.84	6.42	***0
3 2	Pos.	53.72	14.23	***0	Pos.	64.12	9.01	***0
4 1	Pos.	1.32	1.82	*0.08	Pos.	1.93	2.92	**0.01
4 2	Pos.	36.05	17.34	***0	Pos.	69.44	11.13	***0
4 3	NS	0.01		NS	Pos.	13.33	2.01	**0.05
/cut1		13.71				-0.61		
/cut2		17.92				4.43		

Notes: *$p < 0.10$. **$p < 0.05$; ***$p < 0.00$; NS, not significant.

quite, important; resilient companies have almost twice as much opportunity to enhance their performance than those who actually fail by the third year milestone. SIZE and the managerial complexity effects have a special impact over the probabilities of performance development, especially when compared with firms in the rest of the world; the effect of the technological base of the ventures is moderate as compared with the other factors. Factors one, two and four, were reported as non-significant in the estimation. The effect of factors one and seven can be related to the explanation in the general model; Factor 4 deals with the point that impact measurement systems may not be well established in the region and the fact that there might be other measures that were not surveyed in the EDP. The results in the model for the rest of the world are consistent with those in the LATAM model, the exception being internationalization; this can be explained in the same tenor as the original model. Surprisingly, the effects of the size and the complexity interactions, and the resilience variables in this model are roughly half the values of the LATAM's model and the effects of Factor 1 and 7 are consistent with the general model's explanation.

Discussion and Final Remarks

As per different conditions and economic contributions, as posted in the literature, small new businesses worldwide, in their own right, constitute themselves as economic drivers for the future; having survived their founding stage, they contribute to the creation of jobs, sales and exports in many regions. Under an entrepreneurial perspective they introduce innovation, create disruption, increase competition and enhance rivalry among all economic agents. Nevertheless these ventures face many constraints, not only in unprivileged settings but almost everywhere; with

Table 9. Summary of Ordinal Logistic Regression Analysis by Means of Validated Hypotheses in the Study (Second Set of Hypotheses)

Null Hypotheses	Factors in the Model	Hypotheses´ status
H1A	Factor 1: The strength of the entrepreneur's social network	Not Validated (not significant)
H2A	Factor 2: The ability of the service to stand the market test	Not Validated (not significant)
H3A	Factor 3: The entrepreneur's previous managerial experience	Validated
H4A	Factor 4: The acceptance of the venture idea in the public discourse	Not Validated (not significant)
H5A	Factor 5: The strength of the capital base at the establishment stage	Validated
H6A	Factor 6: The dedication to the venture's success by the founders	Validated
H7A	Factor 7: The composition of the venturing team	Not Validated (significant but negative)
QuartlGP		Validated (Significant and positive)
SIZE	Control Variable	Validated (positive effect on performance accounted for)
survival	Control Variable	Validated (Significant and positive)
"MANAGERIAL COMPLEXITY"	Control Variable	Validated (positive effect on performance accounted for)
COUNTRY SPECIFIC SOCIO-DEMOGRAPHIC CONDITIONS	Control Variable	Not expected negative effect. Possible explanations with respect to the entrepreneur´s resource leveraging behaviour
Internationalization	Control Variable	Not Validated (significant but negative)

different rates of success, support mechanisms stemmed from government and private-sector sponsorship help them overcome many restrictions in their initial stages. Accelerators have contributed to their development by bridging many funding and information gaps that otherwise limit their opportunities.

Given the documented fragility of new businesses, there is a clear need for systematic knowledge about how well these support mechanisms contribute to the development of the entrepreneurial eco-system. Shedding some light on contributing factors of economic performance seems like a small but strong step in the right direction. Besides inherent limitations to the use of secondary information and even though this study is circumscribed to FPVs applying to accelerator programs, the wide geographic base of the EDP sample provides us with new possibilities in the future to learn about the development of NVs development. Thereby, what have we learned from this exercise?

After the partial validation of the effect of a set of CSFs in the economic performance of a broad range of FPVs, we can pinpoint many things. Firstly, in our sample, even after having considered the success bias that characterizes the acceptance policy of accelerator programs, and controlled by size and managerial complexity of the venture, it was found that FPVs worldwide, with the aid of these much needed support mechanisms, must focus on: strengthening their capital base and appeal to a wider audience of investors and funders, aim to expand the founder's human capital as it relates to job and managerial experience, develop mechanisms for strategic acquisition of intellectual capital stocks, adopt business models with proven track records, use certifications and sustainability and impact measurement systems in order to reduce search and transaction costs, bridge the funding and information gaps, compensate for costly reputation-building mechanisms for instituting business networks instead of adversary relations, and most importantly, the above mentioned support mechanisms must provide the necessary tools for business survival in the early stages of NVs.

Secondly, this research highlights the fact that, even though FPVs in the LATAM region are affected by almost the same factors as their counterparts in the rest of the world, there is a differential behaviour that translates into a different perspective for support policies. For one thing, it strikes out that ventures in the LATAM region, where not only economic but also education inequality reign, have learned to operate in underprivileged conditions; this is not to say that institutional developments and a more levelled ground are not required. It was proven in the study that after having controlled for size and managerial complexity, the probabilities of performance development in FPVs in the region almost double if they survive their initial constraints; moreover, the effects of resource availability as it relates to financial and human capital improve their probabilities to enhance their performance. The same can be said about the effect of dedication and resilience, in particular the positive effect of support mechanisms such as accelerating programs

participation, as well as a sound technological base which improve the probabilities of attaining better performance results of FPVs in the sub-sample.

Thirdly, even though it has not been possible to appraise systematically the efficacy of accelerator programs due to information limitations, some general considerations are highlighted. Aside from cultural and socioeconomic differences, that would certainly account for the specificity of the problems confronted by FPVs and for disparities in the dedication and the efficacy of individual entrepreneurial resources applied in their solution, the assurance of globalized and homogeneous selection processes in acceleration and other support programs, as well as the use of sound standard performance measures, such as those derived from impact investment methodologies, have a positive influence on FPVs. This contention leverages plenty of academic and practical prospects for exploring the influence of socio-economic and cultural influences over the efficacy of startups and SBSs' interventions. After controlling for efficiency in the disposition of entrepreneurial resources, the organizations based on government, market and civil society sectors can allocate their attention to those country specific situations, affecting the efficacy of development programs such as the problems to be solved, the particular eco-systems, and the suitability of the organizational arrays adopted.

And lastly, the present research continues to reduce the gap on empirical studies related to success in FPVs with the use of rich longitudinal datasets, based on multi-purpose surveyed data. It is quite clear that given the expressed bias in the figures collected, generalization beyond the sample is not straightforward. Nevertheless, this study leads the way for supplementary clarification regarding the incidence of specific socio-economic and multicultural factors affecting the effectiveness of international partnering efforts, based on entrepreneurship support, to provide solutions to specific compelling problems in all societies and to create economic growth and sustainable development by reinforcing global efficiency standards and procedures in developing programs around the world.

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