

Reasons for the Almost Complete Absence of High-Growth Ambition and Innovation Activity of Early-Stage Entrepreneurs in Brazil



Ronald Jean Degen and Nicholas Harkiolakis

Abstract This multiple case study contributes to identifying the reasons behind the almost complete absence of high-growth ambition and innovation activity of early-stage entrepreneurs in Brazil by investigating why they did not develop similar cognitive frameworks as the countries high-growth entrepreneurs. The understanding of the reasons can assist in the planning of programs and policies directed toward the creation of the necessary conditions to increase the number of early-stage entrepreneurs with high-growth ambition and hence promote the country's economic growth. The reasons identified by the study were that high self-efficacy in the cognition/personality traits, knowledge (human capital) acquired from family and education complemented by task-related professional knowledge, and social capital that provided support from the professional network based on professional reputation and from family are the key factors in the cognitive framework of high-growth that explains their high-growth ambition and innovation activity are rare in Brazil. These factors are rare in Brazil, particularly the high self-efficacy and knowledge (human capital) acquired from family and education, because only those who belong to the country's very small well-educated and empowered elite like the high-growth entrepreneurs possess them, whereas most early-stage entrepreneurs in Brazil that don't belong to this elite did not acquire these key factors in their cognitive frameworks and so don't have high-growth ambition and develop innovation activities.

Keyword Ambition of entrepreneurs · Innovation activity of entrepreneurs · Cognitive-framework of entrepreneurs · High-growth entrepreneurs · Self-efficacy of entrepreneurs

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1 Introduction

The purpose of this study was to identify the reasons for the absence in general of high-growth ambition and innovation activity of early-stage entrepreneurs in Brazil (Macedo et al. 2013; Singer et al. 2014; WEF and GEM 2015). Since early-stage entrepreneurs with high-growth ambition is a significant predictor of the economic growth of a country (Autio 2011; Stam et al. 2011; Levie and Autio 2013) the absence indicates that entrepreneurship in Brazil is not contributing significantly to the economic growth of the country. This is contrary to the fact that neighboring countries like Chile and Colombia have successfully managed to capitalize on their high-growth early stage entrepreneurs (Singer et al. 2014; Drexler and Amorós 2015).

Brazil appears to be in what Drexler and Amorós (2015) call the entrepreneurial trap. The trap, as described by the authors, unfolds either when less competitive countries have a relatively high-rate of early stage entrepreneurial activity undertaken by entrepreneurs that are rarely innovative or create many jobs, or when more competitive countries have a very low rate of early-stage entrepreneurial activity undertaken by entrepreneurs that are more frequently innovative and ambitious in job creation. The authors explain that in each case the countries lack the conditions necessary to achieve full entrepreneurial potential.

Drexler and Amorós (2015) explain that for countries to break out of the entrepreneurial trap and become entrepreneurial all-rounder economies like Chile and Colombia, their governments must pay attention to the balance of three ingredients: the number of early-stage entrepreneurs, their innovativeness, and their high-growth ambitions. The authors point out that the pathways to a thriving entrepreneurial economy are manifold and countries that try to mimic the Chilean, Colombian or the well-known Silicon Valley models may well be disappointed.

The World Economic Forum and Global Entrepreneurship Monitor study (WEF and GEM 2015) highlights that it is difficult for countries to develop an entrepreneurship policy because entrepreneurial ecosystems are dynamic structures that do not respond in a linear manner to policy interventions. Nevertheless, the study highlights, as in the cases of Chile and Colombia, that government policies can have a positive impact on the evolution of entrepreneurship in an economy, and given the stakes involved, governments would do well to craft policies that are tailored to the needs of their entrepreneurs. The study proposes that by using knowledge about the strengths and weaknesses of an economy's entrepreneurial make-up, policymakers can clearly define objectives for interventions. In order to identify the reasons for the absence in general of high-growth ambition and innovation activity of early-stage entrepreneurs in Brazil this study examined the development patterns or formation over time of the cognitive frameworks of the high-growth entrepreneurs, the high-growth entrepreneurial opportunities they exploited, and the influences of the Brazilian environmental conditions. The results of the study could help educational institutions adopt or improve their entrepreneurship programs as well as government policy makers in designing policies for supporting high-growth

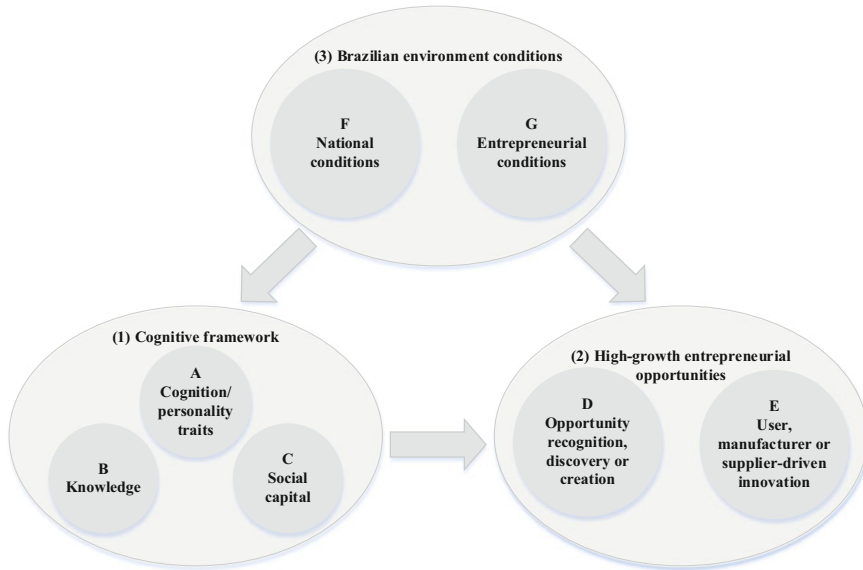


Fig. 1 Theoretical framework of the study

entrepreneurship that could eventually improve Brazil's economic growth (Singer et al. 2014; Drexler and Amorós 2015).

2 Theoretical Framework and Research Questions of the Study

The theoretical framework (Fig. 1) used to analyze the development patterns or formation over time of the cognitive frameworks of the high-growth entrepreneurs in Brazil, the high-growth entrepreneurial opportunities they exploited, and the influences of the countries environmental conditions was constructed from three clusters of factors. The first cluster characterizes the evolution of the cognitive framework of high-growth entrepreneurs, the second, the high-growth entrepreneurial opportunities they exploited, and the third, the influence of the Brazilian market conditions in fostering high-growth entrepreneurs and creating high-growth entrepreneurial opportunities (Degen 2017).

The cognitive framework cluster integrates three important factors—cognition/personality traits, knowledge, and social capital. They have been identified in as significant in the process of opportunity recognition by entrepreneurs (George et al. 2016). More specifically these categories include the following factors:

- The cognitive/personality traits of entrepreneurs that lies in the realm of psychology include creativity (Ardichvili et al. 2003; Baron 2006; Nicolaou et al. 2009;

Ramos-Rodríguez et al. 2010; Heinonen et al. 2011), self-efficacy (Shane et al. 2003; Tominc and Rebernik 2007; Drnovšek et al. 2010; Cardon and Kirk 2015), risk-taking (Baron 2006; Foo 2011; Li 2011), need for achievement (McClelland 1976), need for independence (Rauch and Frese 2007; Nicolaou et al. 2009), and alertness or systematic search for opportunities (Fiet et al. 2005; McMullen and Shepherd 2006; Fiet 2007; Westhead et al. 2009; Zahra et al. 2009; Sarasvathy et al. 2010).

- The knowledge acquired by the entrepreneurs (Audretsch 1995; Venkataraman 1997; Shane 2000; Degen 2009; Haynie et al. 2009; Vaghely and Julien 2010) with the underlying factors—environmental information (Shane and Venkataraman 2000), knowledge of markets, ways to serve, and customer problems (Shane 2000), knowledge about how to innovate (Anderson et al. 2013, pp. 26–27).
- The social capital developed by the entrepreneurs refers to the actual and potential resources they obtain from knowing others, being part of a social network with them, or merely from being known to them and having a good reputation (Baron and Markman 2000; Shane and Venkataraman 2000; Alvarez and Busenitz 2001; Ardichvili et al. 2003; Baron 2006).

The high-growth entrepreneurial opportunities cluster includes two factors as suggested by the literature (Sarasvathy et al. 2010; von Hippel 1988) that contribute to the entrepreneurial opportunities identified by the high-growth entrepreneurs:

- Opportunity recognition: analyses how entrepreneurs find entrepreneurial opportunities (Sarasvathy et al. 2010).
- User, manufacturer, or supplier driven innovation: analyses the source of the innovation developed by entrepreneurs (von Hippel 1988).

The Brazilian environmental conditions include two factors as suggested by the literature (Kelley et al. 2016) that influence the cognitive framework of the high-growth entrepreneurs and the surge of the high-growth opportunities they developed:

- National conditions that include all the policy, social and economic factors that influence the entrepreneurs and the surge of entrepreneurial opportunities (Schwab 2015, 2016; WEF and GEM 2015).
- Entrepreneurial conditions that directly foster or hinder entrepreneurship like entrepreneurial finance, government entrepreneurship programs, entrepreneurship education, research and development transfer, and legal infrastructure (Macedo et al. 2013; Singer et al. 2014; WEF and GEM 2015; Ács et al. 2016; Kelley et al. 2016).

The connection between the three clusters of factors structured the research questions (RQs) as follows:

- RQ1: How did potential entrepreneurs in Brazil develop their cognitive framework to exploit high-growth entrepreneurial opportunities?
- RQ2: How did the Brazilian environmental conditions influence the development of the cognitive framework of the high-growth entrepreneurs?

RQ3: How did the Brazilian environmental conditions create the high-growth entrepreneurial opportunities?

The answers to these three research questions (RQs) leads by inductive logic to the answer of the central research question (CRQ):

CRQ: Why most of the early-stage entrepreneurs in Brazil did not have high-growth ambition and develop innovative activities?

3 Research Method

The explanatory multiple case study research method was chosen because the research questions driving the study demand an in-depth epistemological understanding of the factors that influence the behavior and cognition of entrepreneurs during the process of finding, starting, and building successful businesses (Grégoire et al. 2015). The study of these factors demands the qualitative epistemological examination of motivations, perceptions, and causal mechanisms as they unfold over time (Bluhm et al. 2011; Corbin and Strauss 2015, p. 5).

The theoretical framework and research questions were used to structure interview questions and determine the analytical direction of the study (Yin 2014, p. 136). The data on the cases were collected through face-to-face interviews with eight high-growth entrepreneurs recruited through the databank of high-impact entrepreneurs of Endeavor Brazil (Endeavor 2015), referrals by entrepreneurship professors, entrepreneurs, and angel-investors. The data collected was verified by secondary information about the entrepreneurs and the business ventures they started. The largest possible dispersion of demographic characteristics was sought to reduce gender, location, and industry bias (Table 1).

The transcripts of the interviews with the high-growth entrepreneurs were thematically analyzed and coded using NVivo software. The analysis was supplemented by frequency, matrix coding queries, and node metrics for the descriptive statistics. Pattern-matching logic for comparing empirical based patterns based on findings from the cases with theoretically predicted patterns found in the literature was used to build the explanations and conclusions of the study.

4 Results

The findings of the research organized according to their cluster categories have as follows:

Table 1 Demographic of high-growth entrepreneurs interviewed and their businesses

Entrepreneurs	E111	E121	E131	E141	E151	E161	E171	E181
Gender	Female	Male	Male	Male	Female	Male	Male	Male
Ethnicity	White	White	White	White	White	White	White	White
Age (years)	29	53	41	30	29	44	37	45
Formal education of parents	Father secondary and Mother graduated	Father graduated, and Mother graduated	Father graduated, and Mother secondary	Father secondary, and mother secondary	Father graduated, and Mother graduated	Father graduated, and Mother graduated	Father graduated, and Mother graduated	Father graduated, and Mother secondary
Profession of parents	Father entrepreneur, and Mother works with Father	Father entrepreneur, and Mother teacher	Father executive, and mother does not work	Father entrepreneur, and Mother does not work	Father entrepreneur, and Mother works with Father	Father entrepreneur, and Mother teacher	Father manager, and mother is a medical doctor	Father entrepreneur, and Mother does not work
Formal education	Graduated	Graduated	Graduated	Graduated	Graduated	Post Graduated	Graduated	Post Graduated
Previous professional experience (years)	10	24	14	7	3	14	2	17
Worked for a multinational company (years)	5	23	14	0	3	3	0	2
Last job title before starting the business	Manager	President	Director	Manager	Analyst	Director	Apprentice	Director
Previous entrepreneurial experience	0	0	1 unsuccessful	1 unsuccessful	1 successful	0	1 successful	2 successful

Age when started the business	27	49	32	25	25	30	23	40
Date business started (year)	2014	2012	2007	2011	2012	2001	2002	2010
Type of business	Service using technology	Manufacturing	E-Commerce	Digital products	E-Service (rental)	Digital Products	Processing and distribution of food product	Manufacturing and sale of consumer products
Start-up financing	Personal savings and family	Personal savings	Personal savings	Personal savings	Personal savings and family	Personal savings	Personal savings and family	Personal savings
Geographic location of the business	City of São Paulo	Interior of the state of São Paulo	City of São Paulo	Interior of the state of Minas Gerais	City of São Paulo	City of Rio de Janeiro	Interior of the state of Rio de Janeiro	City of Rio de Janeiro
Sales in 2015 (Reais)	0	11 million	60 million	10 million	5 million	32 million	9 million	15 million
Sales in 2016 (Reais)	70 thousand	3 million	120 million	37 million	8 million	52 million	11 million	19 million
Employees in 2015	6	60	180	99	70	200	75	72
Employees in 2016	8	25	250	210	67	404	93	80

Notes:

Some businesses were more resilient than others to Brazil's severe recession with a contraction of the GDP of -3.8% in 2015 and of -3.6% in 2016

E111 started developing the technology for its service in 2014 and started sales only in 2016

E121 was growing at almost 50% per year up to 2015 when it was hit by the Brazilian recession in 2016

E151 automated its systems and reduced its employees

4.1 Cognitive Framework of the High-Growth Entrepreneurs

4.1.1 Cognition and Personality Traits

- Self-efficacy was highlighted by all of the participants. Some of the reasons given were: “I always believed that we could innovate by making a better product or more intelligent product”; and “I have great confidence in my skills to develop any business”.
- Determination, need for achievement and (or) high-growth ambition was highlighted by all of the participants, and some of the reasons they provided included: “My objective was not to create a business to improve my lifestyle or make money, it was to revolutionize recruitment in firms, and to have the greatest possible positive impact on the largest possible number of people”; and “I want to leave a legacy for my children and Brazilian society”.
- Managing risk was identified by five participants, and some of the reasons given included: “Sharing of the risk with my partner helped me a lot in overcoming the natural risks of starting a new business”; and “When the opportunity appeared to buy the Brazilian subsidiary of the multinational, I was able to take on the risk because my wife had a very good salary in her job, and I knew that I would easily get a job if needed”.
- Alertness for Opportunities or systematic search for opportunities was highlighted by all participants (four mentioned alertness for opportunities and the remaining four mentioned the systematic search for opportunities). Some of the reasons given were: “I wanted to develop a business in the area I liked, and was looking for an opportunity for a high-growth business in this area”; and “I and my partner systematically searched for a business opportunity that was innovative, had the potential to grow, and that was good for all involved”.

4.1.2 Knowledge

- Knowledge from working in multinationals was identified by six of the participants with statements like: “All the technical knowledge I acquired was working for multinational companies, living abroad, visiting factories, and having contact with people that use the products abroad”; and “I only worked for multinational companies in Brazil, and all my professional knowledge was acquired working for them”.
- Knowledge of markets, knowledge of customer problems or knowledge of ways to serve customers was identified by all of the participants (four selected knowledge of markets, three knowledge of customer problems and one knowledge of ways to serve). Some of the justification they provided included: “I was 49 years old, had knowledge and experience in the business, and felt prepared when the multinational decided to close the factory of the Brazilian subsidiary I managed. I saw the opportunity to continue supplying products to the Brazilian clients, and I

decided to start my own business”; and “Because I had worked selling products to the C class in Brazil, I saw the opportunity of selling a similar product to this class with better performance and at a slightly higher cost than the those that were being offered to them in the market by the large companies”.

- Environmental information about change was brought up by three of the participants. One of them noted: “We exploited the tendency of consumers towards conscious consumption by renting instead of buying that appeared at the time with Netflix, Spotify and Airbnb”.

4.1.3 Social Capital

- Support from professional network was highlighted by six, participants and some of the reasons given included: “Because the multinational closed the factory that I managed in Brazil, I used all the relationships that I had developed with clients, suppliers and collaborators to develop my business”; and “My professional network developed at my former employers’, always helped me in the development of our business”.
- The same participant also referred to capitalizing on their personal reputation for their purposes. Some of the explanations given where: “What gave us some breathing space and tranquility to organize and develop our business was a service contract that I was able to get from my former employer”; and “My professional reputation, besides opening the doors of large clients, allows me to guarantee the credit of my supplier, who does not have credit to buy the raw material he needs to supply us”.
- Support from family was highlighted by five participants in statements like: “I followed the model recommended by my father: work for a multinational, learn the business, and when prepared start your own business”; and “I was born for the business, my father worked with direct sales of similar products, and I learned during my professional career the technical side of how to develop products, research and analyze the needs of consumers, develop new consumers, and sell in retail by orienting clients”.
- Support from social network was highlighted by four participants. One of them said: “My social network, which I developed at the good school and universities I attended, always helped with contacts to do business”.
- Support from entrepreneurial network was highlighted only by two (both female): “We (I and my partner) participated in many events on E-Commerce and entrepreneurship; in these events, we tried to contact people, especially entrepreneurs. We exposed our business ideas to these people in order to hear their criticism and get advice, and with these contacts we built a network of informal mentors that were a great help in the development of our business”.

4.2 High-Growth Entrepreneurial Opportunities

4.2.1 Opportunity Recognition, Discovery, or Creation

- Opportunity discovery was mentioned by four of the participants and as one of them stated it was in the context of “curiosity of trying to understand the difficulties of the area in the firms made me recognize that there was an opportunity of offering a service to solve these problems”.
- Opportunity recognition was identified by three of the participants. As one of them stated: “The opportunity appeared because the multinational decided to close the factory in Brazil, discontinue the supply of customized products from the factory, and concentrate on supplying standardized imported products with more technology”.

4.2.2 User, Manufacturer, or Supplier Driven Innovation

- Manufacturer driven innovation was identified by four participants as a means of success for their business. One of them stated: “The innovation is in the quality of the product, how it is processed, and in the distribution logistics”.
- User driven innovation was the means of growth by three of the participants. One of them stated: “Curiosity and knowledge of the area we were working made us aware of a problem in the area, and able to develop a digital product to solve this problem”.
- Supplier driven innovation was only identified by one of the participants of its significance in the context of this research could be validated based on the remaining testimonials.

4.3 Brazilian Environmental Conditions

4.3.1 National Framework Conditions

- All of the participants indicated that their success was not the result of government policies or incentives.
- Favorable economic or social circumstances as a reason for success was highlighted by seven of the participants with statements such as: “There is a trend in the world towards people wanting to be happy in their work, searching not only for a salary, but also for a purpose that satisfies their expectations at that moment of their lives”; and “The tendency towards conscious consumption by renting instead of buying that appeared at the time with Netflix, Spotify and Airbnb”.
- Complicated and costly labor and tax laws was highlighted as an inhibitor to growth by seven of the participants. Statements included: “I have to invest a lot of

my time to take all the necessary precautions, to follow all the labor and fiscal rules correctly so as not to have problems”; and “The Brazilian labor and tax laws are barriers to entrepreneurship, they are obsolete, complicated, and costly”.

- Six of the participants identified social and cultural barriers that could also have inhibited growth. Some stated: “Firms, even Brazilian firms, have a prejudice against buying technology from Brazilian firms; they don’t believe that Brazilian technology is equal to that of large global firms”; and “At the beginning of my business, I sold and delivered my product personally, and my middle-class acquaintances mocked me, because I was doing work that they considered humiliating”.

4.3.2 Entrepreneurial Framework Conditions

- Favorable entrepreneurial environment was identified by four of the participants as a contributor to growth while the remaining did not consider it as significant to their success. One stated: “In the last years’ entrepreneurship has become fashionable in Brazil, and today it is much easier to start a business than it was some years ago, when people did not know what entrepreneurship was”.
- Support from other entrepreneurs was highlighted by three as a positive influence to their success. As one of them stated: “We had a lot of help from the entrepreneurs that became our mentors, they gave us ideas and advice that were a great help in finding the opportunity, and in starting and developing our business”.

5 Findings on the Research Questions

The findings on the factors of each cluster validated by predicted factors found in the literature led to conclude the connections between the three clusters and so answer the three research questions (RQs) and the central research question (CRQ) as follows.

5.1 *(RQ1): Why and How Did Potential Entrepreneurs in Brazil Develop Their Cognitive Framework to Exploit High-growth Entrepreneurial Opportunities?*

The analysis of the findings on cognitive framework of the high-growth entrepreneurs and the high-growth entrepreneurial opportunities they exploited leads by inductive logic to the key factors in their cognition/personality traits, knowledge, and social capital responsible for their success and to understand how they acquired these factors.

The high-growth entrepreneurs in the interviews highlighted five cognition and personality traits they considered to be important to their success: self-efficacy, determination, need-to-achieve, high-growth ambition, and manage risk. Of these factors, as argued by Drnovšek et al. (2010), self-efficacy is important for understanding entrepreneurial success, and a substantial body of evidence supports its influence on start-up and business growth processes. Shane et al. (2003) posit that individual with high self-efficacy will exert more effort for a greater length of time on a given task, persist through setbacks, set, and accept higher goals, and develop better plans and strategies for the task. This explanation given suggests a direct relationship between self-efficacy and the other factors highlighted by the high-growth entrepreneurs—determination, need-to-achieve, high-growth ambition, and the ability to manage risk. The importance of self-efficacy for the success of the high-growth entrepreneurs can also be inferred by the significant hurdles they had to overcome do develop their businesses in Brazil—complicated and costly labor and tax laws, and social and cultural barriers—government support for entrepreneurs, and that all had to finance the start-up of their businesses with their own personal savings and only three had additional financing from their family.

From the statements of the high-growth entrepreneurs, the demographic data, and their experiences we can infer that their self-efficacy was acquired from the influence of university-educated parents, fathers that are or were entrepreneurs or managers, academic education, as well as professional, management and entrepreneurial experience (Bandura 1977, 1993; Boyd and Vozikis 1994; Bandura et al. 1996). This means they all belong to the very small minority of better educated and empowered elite in Brazil. Four belong to the 0.4% of the Brazilian population that had two parents that graduated in the early and mid-1990s, and three belong to the 4.7% for whom one parent graduated (Guedes 2008). All of them belong to the 11.3% that had the privilege of an academic education at the end of the 1990s or early twenty-first century (Censo 2012), and to the 45.5 of whites that earn on average twice as much as the 53.6% of mixed and blacks (Censo 2012; Ipea 2012; IBGE 2015a, 2015b; 2015c; Slavery's legacies 2016). They therefore belong to the country's empowered elite, consequence of the high inequality in Brazil with a GINI index of 52.7% (United Nations Development Program 2015) and a high-power distance, PDI (Power Distance Index), of 69 (Hofstede 2010; Hofstede et al. 2010). These influences in the formation of the high self-efficacy of the high-growth entrepreneurs that induced the believes they attribute being responsible for their success are resumed in Fig. 2.

The findings about the knowledge and demographics of the high-growth entrepreneurs imply that the differentiated initial human capital (acquired from graduate parents with entrepreneurial or management experience, and an academic education) complemented by professional and management experiences (knowledge of markets, customer problems or ways to serve, acquired in most cases working for multinationals, and having entrepreneurial experiences) was directly responsible for their success in discovering or recognizing entrepreneurial opportunities and successfully developing them into high-growth businesses. The statement: "Because I had worked selling products to the C class in Brazil, I saw the opportunity of selling

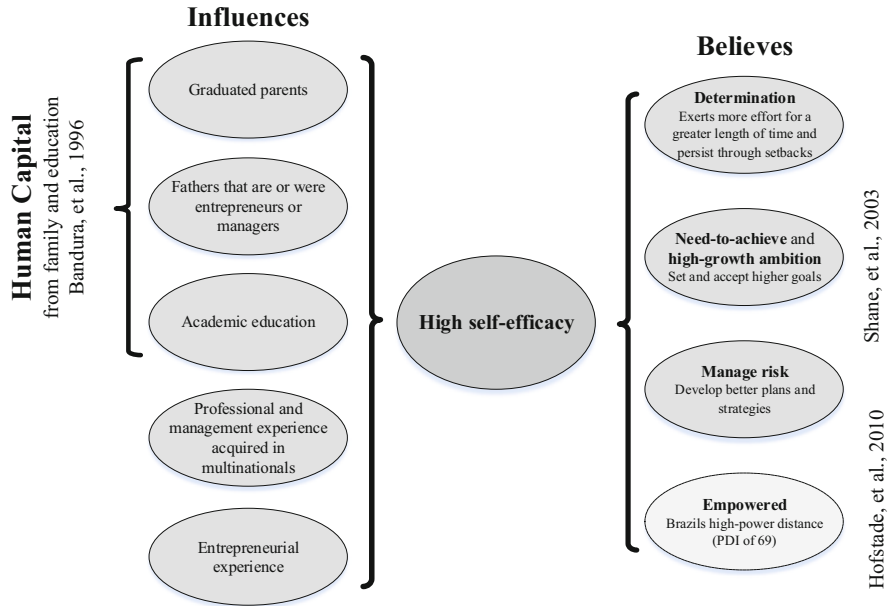


Fig 2 How the high-growth entrepreneurs acquired their high self-efficacy that induced the believes they attribute responsible for their success

a similar product to this class with better performance and at a slightly higher cost than the those that were being offered to them in the market by the large companies” support the importance of task-related knowledge to their success.

The finding that the knowledge (human capital) of entrepreneurs with task-related knowledge contributes to their success is corroborated by the findings of Cooper et al. (1994) and Unger et al. (2011). Cooper et al. (1994) found that the human capital of entrepreneurs with specific industry knowledge contributed to success in terms of both the survival and the growth of their businesses, and Unger et al. (2011) found that that the human capital-success relationship was higher for human capital that was directly related to entrepreneurial tasks compared to human capital with low task-relatedness.

The findings on the social capital and demographics of the high-growth entrepreneurs imply that their successful professional careers (most had been managers) secured support from their professional networks, which was decisive in the identification and development of their high-growth businesses, and that the support was based on their professional reputation. The statement “What gave us some breathing space and tranquility to organize and develop our business was a service contract that I was able to get from my former employer because they liked and trusted my work” supports the importance of their professional network based on their reputation for success.

An additional finding about the social capital of the high-growth entrepreneurs is that the support of families was important for their success. The statement “I followed the model recommended by my father: work for a multinational, learn the business, and when prepared start your own business” supports the importance of family in their success.

The finding that the social capital of the high-growth entrepreneurs—support from the professional network and support from family—are important factors is corroborated by the findings of Baron and Markman (2000), Hisrich and Peters (2002), Aldrich and Cliff (2003), Carr and Sequeira (2007), and Baron (2012). Baron and Markman (2000) posit that a high level of social capital, built on a favorable reputation, relevant previous experience, and direct personal contacts, often assists entrepreneurs to gain access to venture capitalists, potential customers, and others. Aldrich and Cliff (2003) and Carr and Sequeira (2007) explain that families influence entrepreneurs in opportunity recognition, start-up decisions and resource mobilization. Hisrich and Peters (2002, p. 69) highlight that having a father who is self-employed provides a strong inspiration for entrepreneurs. Baron (2012) points out that entrepreneurs obtain a wide range of benefits from their social capital, including support, advice, encouragement, acquisition of tangible financial resources, cooperation and trust from others, and enhanced access to information.

The finding that the high-growth entrepreneurs belong to the very small well-educated empowered Brazilian elite also has an influence on their social capital. This is because the empowered elite discriminates against those they consider to be below their social class. This discrimination was described by two high-growth entrepreneurs that started their businesses modestly, or by doing what is considered low paid work. The statements “My social network did not support me, on the contrary they mocked me because I was selling my product directly door to door. For them my work was humiliating and was below their social level” illustrate this discrimination”.

5.2 (RQ2): Why and How Did the Brazilian Environmental Conditions Influence the Development of the Cognitive Framework of the High-growth Entrepreneurs?

The analysis of the findings on the Brazilian environmental conditions and the cognitive framework of the high-growth entrepreneurs leads by inductive logic to conclude that the country offers favorable economic or social circumstances to start a high-growth business, however it requires from the entrepreneur’s alertness or systematic search for these opportunities and a high self-efficacy to overcome significant hurdles without support. The brighter side is that the environment is becoming more favorable for entrepreneurship and it is possible to get support from other entrepreneurs to start a business.

5.3 (RQ3): Why and How Did the Brazilian Environmental Conditions Create the High-growth Entrepreneurial Opportunities?

The analysis of the findings on the Brazilian environmental conditions the cognitive framework of the high-growth entrepreneurs, and the high-growth entrepreneurial opportunities leads by inductive logic to conclude that Brazil creates entrepreneurial opportunities due to favorable economic and social circumstances, however does not offer support and creates significant hurdles for entrepreneurs to explore them. Significant is that all the innovations were based on the professional experience of the high-growth entrepreneurs, which was mostly acquired in multinationals, and that the innovations were only innovations for the Brazilian market, filling a local need or market gap. None of the innovations came from private or government sponsored research, or were spinoffs of universities. Additionally, none of the innovations were disruptive innovations with the potential to shift the wealth creation curve at the industry and the individual level. Consequently, none of the eight high-growth entrepreneurs belonged to the sub-group defined by Ács et al. (2008) and Ács (2008) as high-impact entrepreneurs.

5.4 (CRQ): Why Most of the Early-stage Entrepreneurs in Brazil Did Not Have High-growth Ambition and Develop Innovative Activities?

The high self-efficacy of the high-growth entrepreneurs (Fig. 2) responsible for their success as entrepreneurs was acquired by the influence of parents who had graduated, fathers that are or were entrepreneurs or managers, academic education, as well as professional and management experience mostly in multinationals (Bandura 1977, 1993; Boyd and Vozikis 1994; Bandura et al. 1996). The demographic data of the high-growth entrepreneurs and the fact that all belong to the countries 45.5% white means that they all belong to the very small elite of better educated Brazilians (Censo 2012; Guedes 2008; Ipea 2012; IBGE 2015a, 2015b, 2015c) that is naturally empowered over the rest of the country's population, a consequence of the high inequality with a GINI index of 52.7% (United Nations Development Program 2015) and high-power distance index (PDI) of 69 (Hofstede 2010; Hofstede et al. 2010). This finding leads, by inductive reasoning, to the conclusion that high-growth entrepreneurs with high-growth ambition and innovation activity are rare in Brazil, and consequently, most of the countries early-stage entrepreneurs that don't belong to the very small well-educated and empowered elite have not acquire the factors, particularly high self-efficacy, in their cognitive framework that would have induced their high-growth ambition and innovation activity.

The corollaries from the finding on the central research question (CRQ) are: (1) There is no upward mobility from self-employed entrepreneurs to high-growth entrepreneurs; (2) Task-related knowledge, acquired mostly in multinationals, guided high-growth entrepreneurs to identify their entrepreneurial opportunities; (3) Due to the low quality of the Brazilian education system (Schwartzman 2012, 2014), high-growth entrepreneurs needed to acquire additional task-related knowledge through professional experience in order to identify entrepreneurial opportunities; and (4) Task-related knowledge, acquired through professional experience mostly in multinationals, can lead to innovations to fill needs and market gaps, but hardly to breakthrough innovations that can significantly move the wealth curve of the country and propel Brazil from the efficiency-driven stage to the innovation-driven stage of economic development.

6 Conclusions

The findings that the important factor in the cognitive framework of high-growth entrepreneurs in Brazil responsible for their success are high self-efficacy in the cognition/personality traits, knowledge (human capital) acquired from family and education complemented by task-related professional knowledge, and social capital that provided support from the professional network based on professional reputation and from family is corroborated by findings from other researchers, for example George et al. (2016). However, the finding that there is no social upward mobility from self-employed to high-growth early-stage entrepreneurs in Brazil is new and needs more research to confirm it. This lack of social upward mobility for early-stage entrepreneurs can be explained by the influence on the self-efficacy of early-stage entrepreneurs by the education of parents, as posited by Bandura et al. (1996), and by differences in social class or even in ethnic group because of the high inequality and the high-power distance in Brazil, as posited by Hofstede et al. (2010).

Also new is the finding that the task-related knowledge acquired mostly in multinationals by the high-growth entrepreneurs guided them to discover or recognize the entrepreneurial opportunities, that their average professional experience was 11 years, and that the average age was 31 when they started their successful ventures, leads us to infer that a fundamental factor for their success was their extensive professional experience and not knowledge acquired through education. A corollary of this finding is that, due to the low quality of the Brazilian education system (Schwartzman 2012, 2014), early-stage entrepreneurs needed to acquire additional task-related knowledge through extensive professional experience in order to go on to find entrepreneurial opportunities. In the case of Brazil, this finding puts into question the myth of the student entrepreneurs created by Steve Jobs, Michael Dell, Bill Gates, and Mark Zuckerberg. This finding implies that the best recommendation for aspiring entrepreneurs in Brazil is the recommendation followed by one of the high-growth entrepreneurs: "I followed the model recommended by my father: work for a multinational, learn the business, and when prepared start your own business".

Additionally, we can infer that task-related knowledge acquired through professional experience mostly in multinationals can lead to innovations to fill needs and market gaps, but hardly to breakthrough innovations that can significantly move the wealth curve of the country and propel Brazil from the efficiency-driven stage to the innovation-driven stage (the knowledge-driven stage) of economic development. A corollary of this inference is that, due to the low quality of the Brazilian education system, the country's early-stage entrepreneurs will hardly create breakthrough innovations. Both these inferences are new and need more research to validate them.

6.1 Implications for Brazil

Brazil is in what Drexler and Amorós (2015) have called an “entrepreneurial trap,” with a high percentage of early-stage entrepreneurial activity, but with early-stage entrepreneurs that have almost no high-growth ambition, and generate almost no entrepreneurial innovation activity. Chile and Colombia that have similar inequality and power distance indexes (United Nations Development Program 2015; Hofstede 2010), have avoided the entrepreneurial trap with successful public-private policies that promoted high levels of new businesses to be launched by high-impact entrepreneurs (Drexler and Amorós 2015). These countries demonstrate that Brazilian policy makers could develop policies to support early-stage entrepreneurs in Brazil, and so promote the country's economic growth.

The need for policies authored by the Brazilian government to promote entrepreneurship is also demonstrated by the country's very low score of 26.1 and rank of 92 in the 2016 Global Entrepreneurship Index (GEI). In Latin America, this compares with Chile, which scored 62.1 and was ranked 16, and Colombia, which scored 44.8 and was ranked 43 (Ács et al. 2016). One of the Pillars of the GEI in which Brazil scored well below other Latin American countries is the Human Capital Pillar, which captures the level of education of entrepreneurs. The importance of human capital for generating a surge of high-impact entrepreneurs was highlighted by the findings of this study, and corroborated by Ács et al. (2016), who explain that a high score in human capital is important because entrepreneurs with higher education are more willing and capable of starting high-growth businesses.

6.2 Suggestions for Future Research

The World Economic Forum and Global Entrepreneurship Monitor (WEF and GEM 2015) used early-stage entrepreneurs' estimates of how many people they expected to employ in the medium term as a good proxy for their ambition. This is an oversimplification of the reasons why early-stage entrepreneurs in Brazil don't develop high-growth businesses and needs to be better understood through more research. Indicators like education, social class, and power distance are probably

better at explaining why they are unable to develop high-growth businesses even when they have high ambition.

The report from the World Economic Forum and Global Entrepreneurship Monitor (WEF and GEM 2015) highlights that only two economies in their sample—Colombia and Chile—are all-round entrepreneurial economies that combine high early-stage entrepreneurial activity with a high proportion of ambitious and innovative entrepreneurs. All other economies fall within the average (or below the average) on at least one of these three dimensions. Drexler and Amorós (2015) explain that for countries to become all-round entrepreneurial economies like Chile and Colombia, their governments must pay attention to the balance of the three dimensions: the number of early-stage entrepreneurs, their innovativeness, and their growth ambitions. The authors point out that the pathways to thriving entrepreneurial economies are manifold, and the countries that try to copy the Chilean, Colombian, or well-known Silicon Valley model may well be disappointed. The reasons why Chile and Colombia, which have similar levels of inequality (United Nations Development Program 2015) and power distance (Hofstede 2010) as Brazil, were able to become entrepreneurial all-rounder economies needs more research, the findings of which may guide government policy makers in Brazil and other developing economies to help their countries become entrepreneurial all-rounder economies. One possible explanation is that these countries have a better education system (Schwab 2016).

The finding that there is no social upward mobility from self-employed individuals to high-growth early-stage entrepreneurs in Brazil is new and needs more research to confirm it, particularly if the lack of social upward mobility can be explained by the difference in the education of an entrepreneur's parents, which has an influence on their self-efficacy, as posited by Bandura et al. (1996), or by the difference in social class or even ethnic group because of the high inequality and the high-power distance in Brazil, as posited by Hofstede et al. (2010). Additionally, the inference that, due to the low quality of the Brazilian education system (Schwab 2015), early-stage entrepreneurs need to acquire additional task-related knowledge through extensive professional experience to find entrepreneurial opportunities, and that these innovations, which are found through professional experience, will rarely be breakthrough innovations needs to be confirmed through more research.

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