FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

PERCEIVED ENTREPRENEUR QUALITY AND COMPANY PERFORMANCE: A STUDY OF ACCELERATOR IMPACT ON STARTUPS

A dissertation submitted in partial fulfillment of

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by

Henry Canfield

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To: Interim Dean William Hardin
College of Business

This dissertation, written by Henry Canfield, and entitled Perceived Entrepreneur Quality and Company Performance: A Study of Accelerator Impact on Startups, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Florida International University, 2021

DEDICATION

To my parents Marta and Jeff for raising me with ethic, values, passion for sharing knowledge and the essence of learning before needing it.

To my brothers Richinha, Georginho and Danico for making life a joyful ride by sharing your dreams, sweat and tears with me.

To my wife Bianca for believing and sharing your life with me, for the unconditional support and love.

To my daughter Cecília for being the eternal fountain of energy and happiness, for giving me the bliss of being your daddy.

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Only with an open mind we can absorb the new.

From my businesses' partners to the dedicated entrepreneurs and all the entrepreneurial ecosystem, that fight every day to make the world better through business. Not only taught me unique lessons but truly made an impact by implementing your visions.

To those amazing people from my DBA cohort, those I hope to keep as a life cohort.

To the FIU academic and staff that made this a reality and helped us achieve it.

Wouldn't be fair trying to name it all with the certainty to miss several names, but cannot avoid the attempt of thanking Dr. Walfried Lassar for the limitless effort and dedication on being a true mentor.

ABSTRACT OF THE DISSERTATION

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by

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The immense entrepreneurship ecosystem includes startup success and funding, public policy, and entrepreneurs themselves. In this applied research study, entrepreneurs' characteristics were studied by applying a traits, skills, and motivation model to a selected group of entrepreneurs who belonged to accelerator programs. The focus was on understanding the contributions of accelerators to entrepreneurs and the growth of their companies. The multi-method study had a qualitative phase with in-depth semistructured interviews of entrepreneurs and accelerator executives that produced rich data. These coded qualitative data served as the basis for design of a quantitative model. During the quantitative phase, 102 members of nine accelerators provided valid responses to an online survey, and the responses were statistically analyzed using PLS-SEM. The results suggest that an entrepreneur's passion has a high impact on their resource creation and growth attainment. Results also showed that unlike intensity of participation in networking and mentoring, intensity of participation in education programs offered by the accelerator had no significant impact on company growth.

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I. INTRODUCTION

A Although 65% of entrepreneurs believe they have the knowledge and skills to start a business (Global Entrepreneurship Monitor, 2020), this self-confidence is put to test during the most challenging period of the life of a business, the first 5 years, beyond which only 45% of entrepreneurs manage to keep their businesses alive (U.S. Bureau of Labor Statistics, 2018). During this period, around the 3rd or 4th year of business, a startup reaches a crossroads from which it can grow or cease to exist (Global Entrepreneurship Monitor, 2020). Such a late-stage startup places the greatest demands on the entrepreneur running it to guide the company's strategies and daily management process in pursuit of better performance (Carpenter et al., 2004).

To reach such a stage, an entrepreneur must focus on growing their company as its main leader and decision maker (Ng et al., 2008; Paglis, 2010) and clearly needs a combination of skills—such as leadership, management, vision, and previous experience (Kroll et al., 2007)—and personal growth characteristics acquired by education and experience (Unger et al., 2011). Becker's (1964) human capital theory emphasizes that although the knowledge and skills developed by an entrepreneur to reach the late stage are important, there is a constant need to develop new human capital (Wright et al., 2007). Taking a different perspective, Ajzen's (1991) theory of planned behavior, which includes the understanding that future behaviors derive from intentions based on preexisting norms and attitudes (Kautonen et al., 2015), predicts that an entrepreneur can continue behaving based on their existing human capital without needing to develop new knowledge and skills.

Baum and Locke (2004) presented a well-established model of entrepreneurial characteristics that relates to the growth of an entrepreneur's company through understanding of how the traits, skills, and motivation of the entrepreneur link directly and indirectly to the company's performance.

I used all of this existing knowledge in this study, focusing on entrepreneur' traits, skills, and motivations and using Baum and Locke's (2004) model as the basis for a model that represents a focused sample and helps understand the contributions accelerators make to entrepreneurs' growth paths.

Accelerators have gained attention (Mansoori et al., 2019) because they have been producing better results than other businesses that act in a similar way, e.g., venture capital firms (Sahlman & Roberts, 2003). This field of business has been growing in importance: In 2019, startups received investments of over $130,000,000,000 in the United States alone (National Venture Capital Association, 2020). Venture capital firms, accelerators, incubators, other types of organizations, and individuals made these investments after thorough selection processes; understanding these processes is essential to understanding the characteristics an entrepreneur needs to succeed. These characteristics of entrepreneurs form part of investors' selection processes, and several scholars have studied such characteristics to understand their effects (Dattani & Patel, 2017; Drover et al., 2017; Petty & Gruber, 2009; Shepherd & Zacharakis, 1999). These researchers have found differences in the weights given to different factors; for example, venture capital firms emphasizing financial theories over an entrepreneur's background, while accelerators placing much more weight on the entrepreneur.

Another essential fact motivating this study is that although some researchers have analyzed the relationship between a company's performance and top management team (TMT) members, such as outside executives, and CEOs (Le et al., 2013; Parola et al., 2015; Soriano & Castrogiovanni, 2012), few have focused on analyzing the links between the entrepreneurs who found and still lead their ccompanies and the performance of those companies (Simsek, 2007; Wood & Michalisin, 2010). Some scholars have found a need for deeper investigation of entrepreneurs and their relation to company performance (Sexton et al., 1997; Baum & Locke, 2004). Based on existing knowledge, and especially on the fact that accelerators base their selection decisions first and foremost on entrepreneurs' characteristics, I focused in this study solely on companies that still have their founding entrepreneurs as their highest executives.

This study contributes to the existing base of knowledge regarding the entrepreneurial ecosystem through its focus on analysis of

- entrepreneurs who still lead their companies and have not been replaced by external CEOs (Audet & Couteret, 2012; Ensley et al., 2006; Le et al., 2013);
- entrepreneurs in high-growth-focused companies beyond the early stages of startup growth (Álvarez et al., 2014; Drover et al., 2017; Lussier & Halabi, 2010);
- growth motivation and direct links between company growth and the skills and knowledge built by entrepreneurs for high-growth behavior (Crompton et al., 2012; Hall et al., 1999; Laske, 2014);

- accelerator programs and their contribution to the enhancement of characteristics of entrepreneurs and overall company growth (Mansoori et al., 2019; Porat, 2014; Sahlman & Roberts, 2003); and
- growth startups, in contrast to the focus of many other researchers on ideation, seeding, and even entrepreneurs-to-be (Frimodig & Torkkeli, 2013; Miloud et al., 2012; Wales et al., 2019).

To address the corresponding gaps in knowledge and provide a guide based on successful entrepreneurs as a managerial contribution to accelerators and entrepreneurs, I focused in this study on answering the following research question: How does an accelerator contribute to a member entrepreneur becoming a high-growth entrepreneur and delivering a high-performance company?

In this multi-method study, I focused on gathering qualitative data with in-depth semistructured interviews of top-performing entrepreneurs belonging to nine accelerators and the accelerators' top executives. This qualitative phase helped gather insights and validate the model and survey used during the quantitative phase. The goal of this study was understanding of the contributions of accelerators to high-growth-focused entrepreneurs' traits, skills, and motivations, which other entrepreneurs can draw on for advice and insight regarding their own growth paths. Leaders of accelerators can also draw on the findings to guide changes to their programs.

II. LITERATURE REVIEW

To establish the foundation on which this study relied, this chapter presents a broader review of literature regarding existing relations and possible answers to the research question. The section that follows focuses on the background of the qualitative phase of this multi-method study and includes deep discussion of existing knowledge and a range of theories and models that guided the in-depth interviews.

Qualitative phase supporting theories and models

The main goal of this study was to understand the impact of an external factor (accelerators) on company performance. Based on the premise that a venture has different dimensions—such as the ones summarized by Kessler (2007) as the person, the environment, the resources, and the processes, I reviewed a variety of business theories and models to identify possible paths and guide the design of the interview script used in the qualitative phase.

I thoroughly reviewed the literature regarding entrepreneurs and their characteristics—traits, skills, knowledge, motivations, values, attitudes, and behaviors—from different perspectives to understand which characteristics an entrepreneur needs to scale an already established growing startup into a high-performance company. Many researchers have conducted comprehensive literature reviews regarding entrepreneurs (Álvarez et al., 2014; Artinger & Powel, 2016; McGee et al., 2009; McMullen et al., 2020), an indication of how much attention entrepreneurs have received. Researchers have focused on analyzing and relating theories and defining entrepreneurial types, motivations, and actions. They have not focused on already established entrepreneurs and

have instead examined entrepreneurs-to-be or beginning entrepreneurs (Busch & Barkema, 2020; Kautonen et al., 2015; Schmutzler et al., 2019).

Scholars have thoroughly studied entrepreneurs as members of TMTs using upper echelons theory (UE). Analysis of different components of UE/TMT—such as boards, advisors, and top executives—reveals these components as influencers of company performance (Carpenter et al., 2004; Soriano & Castrogiovanni, 2012). Other researchers have analyzed the entrepreneurial aspect of TMTs but have looked beyond entrepreneurs themselves to the entrepreneurial drive of all TMT members and how that relates to company performance (Wood & Michalisin, 2010). Simsek (2007) studied the relationship between CEO tenure and company performance and reported that only 18% of CEOs were founding entrepreneurs of their companies. I gained several insights from the review of UE/TMT, which I explored during the qualitative phase of the study in relation to outcomes attributable to entrepreneurs. The decision to focus in this study on entrepreneurs as sole representatives of TMTs derived both from the gap in existing literature and the fact that the accelerators studied only selected a company if the company's CEO was the company's founding entrepreneur.

Other concepts and theories developed to understand entrepreneurs' behaviors, traits, skills, knowledge, and motivations also contributed to the qualitative phase of this study. I found a variety of seminal work by various scholars. Schumpeter (1934) focused on new ideas and innovation, defining the Shumpeterian entrepreneur as an agent of change. Cantillon (1755, as cited in Brown & Thornton, 2013) analyzed entrepreneurs' propensity for, and ability with, risk. Kirzner (1973) agreed in many ways with

Schumpeter's conception of the individual plus the social role of entrepreneurs in taking advantage of unexplored opportunities.

McClelland (1961) analyzed psychological traits of entrepreneurs—such as goal setting, information seeking, and persistence—and their relationships with need of achievement, the dependent variable in the analysis. Two main paths emerged from this psychological approach of McClelland (1961): internal characteristics and social interference. Bandura (1977) studied a person's self-judgement of how they deal with certain situations based on personal traits. The resulting self-efficacy theory made an immense contribution to the understanding of internal and external motives for people's actions. Business scholars have used this theory widely, focusing particularly on leadership; leadership self-efficacy highlights a leader's goal-setting motivation as a possible mechanism intervening in the relationship between the leader's traits and effectiveness (Ng et al., 2008; Paglis, 2010). Other authors, such as McGee et al. (2009) and Wilson et al. (2007) focused on entrepreneur self-efficacy, among many contributions, defining a list of tasks entrepreneurs engage in to launch a new venture, such as learning (attending seminars and trainings) and planning.

Measurement of Bandura's (1977) pillar concept of general self-efficacy has received attention, as has valid measurement of other focused self-efficacies, such as leadership self-efficacy and entrepreneur self-efficacy (McGee et al., 2009). Others have conducted specific studies of the relationship between an entrepreneur's exterior environment and self-efficacy (Schmutzler et al., 2019). These kinds of research indicate how vast and specific the knowledge around self-efficacy can be. For this study, which did not investigate self-efficacy in a profound way but relied on the base of existing

knowledge regarding self-efficacy, the focus was on understanding the influence of self-efficacy on entrepreneurs' actions (Zhao et al., 2005) as well as related concepts, such as the impact of self-efficacy and other cognitive internal attributes (e.g., commitment and motivation) on the growth of a venture (Yamakawa et al., 2015), in attempt to gather insightful qualitative data.

Other theories, such as Fishbein and Ajzen's (1975) theory of reasoned action and its derivative, Ajzen's (1991) theory of planned behavior, complement self-efficacy theory with prediction of individuals' behaviors based on preexisting intentions and attitudes. Researchers have debated how much of an entrepreneur's behavior is predetermined and how much is susceptible to learning; one result of this debate is human capital theory (Becker, 1964; Schultz, 1963), which specifies education as a major factor of human capital investment. Another result is Soriano and Castrogiovanni's (2012) model, based on human capital theory, that focuses on leadership knowledge, which introduces additional significant influences of performance, such as new knowledge and advisors.

Attribution theory (Heider, 1958; Jones & Davis, 1965; Kelley, 1967) identifies factors, such as personalism and social desirability, that impact an individual's behavior as part of a society, taking into consideration both internal and external factors. Pardo and Alfonso (2017) used attribution theory to understand which factors relate to an entrepreneur's success and produced insightful results that highlight the importance of management skills and motivation as factors. I also analyzed two divergent theories that follow the thought of an entrepreneur being part of both society and a company: agency theory and stewardship theory. Agency theory, attributed to both Ross (1973) and

Mitnick (1974), relies on the assumption that employees (considered as agents) act individualistically—in opposition to owners (considered as principals). Stewardship theory (Donaldson & Davis, 1991) rests on the assumption that agents care for more than themselves and care for the whole they belong to, the company. Moral disengagement theory (Bandura, 1996) contributes to this line of thinking with the belief that ends justify means, that is, that a leader's questionable decisions (moral and ethical) are justifiable as being for a greater good. Bringing these thoughts together, during the qualitative phase of my study I took into consideration important relationships between entrepreneurs and their teams, as well as entrepreneurs' social and moral perceptions.

Lussier (1995) made an interesting contribution to the variety of models focused on startup success by proposing a model to predict the success of startups based on "quantitative and qualitative managerial factors that may contribute to success or failure" (p. 8). Lussier and Pfeifer (2000) and Lussier and Halabi (2010) tested this model in different countries, generating fundamental data to support the significance of the model. Lussier's model highlights important personal characteristics of entrepreneurs that I needed to consider during my study's in-depth analysis, such as planning, professional advisors, and education. Aligned with Lussier's model, Black et al. (2009) explored the new venture template method for evaluation of startups and prediction of their future success, paving the way for a unique contribution through a qualitative approach to the new venture template method, identifying and understanding key factors such as persistence over time and their impact on a startup's performance during different lifecycles.

Concepts' development

Researchers have taken different perspectives when studying the relationships between entrepreneurs and the performance of their companies: These perspectives include the influence of knowledge creation based on outside generated opportunities (Chrisman, 1999) and established models such as McClelland's (1961) connection of independent variables to need of achievement, Sullivan's (2000) model for mentoring entrepreneurs, Lussier's (1995) model of success versus failure, and the values–attitudes–behavior model used by many authors (Kim & Hall, 2021; Soininen et al., 2013).

From the vast base of knowledge and concepts available, I chose to use as a guide the simplified and improved model of traits, skills, and motivation developed by Baum and Locke (2004) based on the earlier model of Baum et al. (2001). The simplified model includes relationships between venture growth and six other variables, instead of the 18 variables used in the original model. The six variables are passion, tenacity, new resource skills, self-efficacy, communicated vision, and goals. I adapted the model for the purposes of my study, and the sections that follow define each of the six variables to support development of further hypotheses.

Passion

When understanding an entrepreneur's characteristics, psychological variables such as values and lifestyle (Singh, 1989) serve as a foundation for building up more comprehensive and focused studies of the contributions of an entrepreneur's traits, values, attitudes, and motivation to their company's performance; passion is a major determinant of company performance (Baum & Locke, 2004; Baum et al., 2001).

Many researchers have studied the concept of entrepreneurial passion: Biraglia and Kadile (2017) researched the impact of entrepreneurial passion on entrepreneurial intentions and self-efficacy, suggesting that passion is a sufficient driver on its own of an entrepreneur's actions. Stenholm and Nielsen (2019) studied the origins of entrepreneurial passion, arguing that an entrepreneur who understands these origins can enhance their passion. The majority of researchers investigating entrepreneurial passion refer to Cardon et al. (2009) as their initial source of understanding of the topic. Cardon et al. (2013) made an immense contribution by creating an instrument for measuring entrepreneurial passion; they argued that what had been preventing researchers from undertaking deep studies of the relationship between passion and entrepreneurs was lack of a robust measuring instrument in the entrepreneurship context, proposing "a theory of entrepreneurial passion that provides a systematic foundation for examining what passion is and what it does for entrepreneurs" (p. 528).

Tenacity

The other entrepreneurial trait defined as essential by Baum and Locke (2004) is the tenacity needed by entrepreneurs to face challenges during company growth. Brixiová et al. (2020) highlighted the critical importance of tenacity to the ability of an entrepreneur to perform well with their finding that tenacious entrepreneurs deliver the best results.

From a motivation perspective, tenacity is a trait variable of an entrepreneur (Shane et al., 2003), and experiencing failure increases the motivation of an entrepreneur to pursue and achieve success (Stefanovic et al., 2010; Yamakawa et al., 2015). I defined tenacity in my study in this sense, and I included it as a variable based on Baum and

Locke's (2004) consideration of tenacity to be a major determinant of an entrepreneur's success growing their venture.

Growth attainment

Although characteristics of entrepreneurs and the contribution of accelerators to the enhancement of those characteristics were the main topics explored while building the assumptions for my study, it is important to highlight the work of other researchers who have attempted to link entrepreneurs and their behavior, knowledge, and skills to company performance. Baum et al. (2001) created an initial model that included 18 factors; Baum and Locke (2004) consolidated these in their redefined model into six factors that directly impact company growth. McClelland's (1961, 1962, 1965) model includes characteristics an entrepreneur needs to succeed, which Johnson (1990) relied on for a multidimensional model study. Although some researchers have failed to find significant relationships between these factors and company performance (Sullivan, 2000), others have found such relationships (Laitinen, 2017; Pellegrino & Savona, 2017; Simsek, 2007; Soriano & Castrogiovanni, 2012; Wood & Michalisin, 2010) in certain settings and groups (e.g., early-stage startups and external CEOs).

I derived the growth attainment construct used in my study from this existing knowledge combined with the qualitative results gained from the in-depth interviews, from which I gained understanding that the focus of entrepreneurs on exceeding growth goals represents motivation to engage in activities that will eventually deliver higher growth to the company. Statements supporting this conclusion included "I'm driven by hyper-growth, by exceeding the goals we set" (Interviewee 13) and "The company grew and started exceeding goals" (Interviewee 5). Entrepreneurs also supported this construct

in relation to their perceptions of the relationship between existing skills and delivery of growth goals, making statements such as “I had the skills to build a global company and still have to keep beating its goals” (Interviewee 11) and “I developed several skills and knowledge that allows me to grow every year, beating my goals” (Interviewee 14).

Resource creation

The last factor created for my study relates to skills and knowledge. Baum and Locke (2004) model analyzed the search for new resources to improve companies. In their experiment, this variable (and others) had significant direct and indirect impacts on venture growth. Other authors have supported these findings; for example, Unger et al. (2011) emphasized that the ability to define and incorporate new resources leads to company growth.

Baum and Locke (2004) included the skills and knowledge elements of Becker’s (1964) human capital theory within their skills category. Other latent variables in Baum and Locke’s model that relate to resource creation are goal orientation, self-efficacy, and communicated vision; other researchers have found support for these variables (Laske, 2014; Sullivan, 2000; Wood & Michalisin, 2010), highlighting how essential they are for an entrepreneur to successfully lead a company to grow.

The vast existing literature regarding entrepreneurs’ personality and learning (Baum & Locke, 2004; Crompton et al., 2012; Klotz & Neubaum, 2015; McClelland, 1961; Peel, 2004; Sexton et al., 1997) formed the starting point for the creation of this factor. Sullivan’s (2000) model of the mentoring characteristics needed by an entrepreneur, based on the work of Lewis and Churchill (1983) and Lussier’s (1995) success versus failure prediction model, underwent successful replication in different

countries (Lussier & Halabi, 2010; Lussier & Pfeifer, 2000). McClelland (1961) listed knowledge, skills, and behaviors an entrepreneur should possess to support high achievement and company growth.

Accelerator contribution

An accelerator can play an important role in a startup's growth process by providing support in different ways, including education, investment opportunities, networking experiences with peers (Mansoori et al., 2019), and acting as a coach and mentor. This coaching role of an accelerator tends to lead to better results than those obtained by investors of other types (Sahlman & Roberts, 2003). This support delivered by an accelerator through education and experiences enhances the ability of entrepreneurs to manage their companies to succeed (Bandura, 1997; Baum & Locke, 2004).

Although many scholars have consolidated and used the traits, skills, and motivation model of Baum and Locke (2004) in attempts to understand what an entrepreneur needs to deliver company growth, I needed to make one important addition to the model for my applied research study so that I could test it. The findings of Zheng et al. (2019) and Busch and Barkema (2020), along with my own findings during the qualitative phase of the study, suggested the need to include variables corresponding to support for company growth offered to entrepreneurs by accelerators: networking, mentoring, and education.

Support for these variables during the qualitative phase came from statements regarding perceptions of accelerator contributions, such as "More about the network that I have access to than me knowing." (Interviewee 1) and "I've gained new knowledge as well as several clients and partners from networking activities." (Interviewee 15) for the

networking activities, “The quality [of mentors] is absolutely amazing. Without their [mentors] help we would have taken ten times more to learn about it and have the right contacts” (Interviewee 4) and “Mentoring. Definitely the biggest one [contribution from the accelerator]” (Interviewee 8) for the mentoring activities, and “We partner with the best universities in the world to provide top education to our members” (Interviewee 12) and “I never thought I would have a diploma from [university] at my wall” (Interviewee 13) for education activities.

Growth

Researchers have suggested a variety of growth measures as ways to measure company performance. Endeavor Global (2020) presented a simplified model of measuring performance and impact based on two main variables: revenue and employees. Based on statements made during the qualitative phase of my study—such as “I measure my growth on revenue” (Interviewee 4), “revenue and profit dictate my growth” (Interviewee 8), and “Although we have a social impact drive, revenue is our final KPI” (Interviewee 6)—as well as on the work of others who measured company performance using different financial measures, such as profitability ratios (Laitinen, 2017) and return on equity (Sandberg & Hofer, 1987), I chose to use revenue growth as the measure of company growth.

The participants in this study represented a very select group of successfully scaled companies that had in common their membership in an accelerator but were otherwise very demographically diverse. Because of that commonality, in addition to the variables required to test the hypotheses presented in the next chapter, my model also included two control variables for analysis: company age and years of accelerator

membership. I selected these control variables based on accelerators' selection processes and investment criteria (Endeavor Global, 2020) and findings relating years of experience and failure to future success (Cope, 2011).

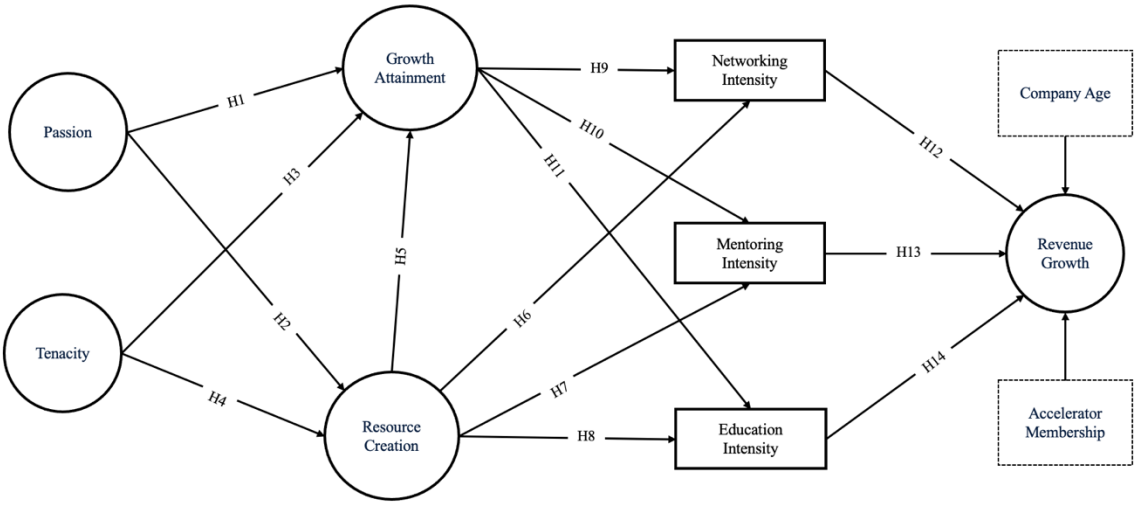
III. RESEARCH MODEL AND HYPOTHESIS DEVELOPMENT

This multi-method study included an initial qualitative phase conducted to design the final model. The qualitative phase involved questioning existing models by gathering in-depth qualitative data from a sample representing top performers, analyzing those data, and creating a final model for the quantitative phase based on the theories and models analyzed in existing literature and the insights from the qualitative interviews.

Research model

Figure 1

Research Model



The design of a new model—Figure 1 illustrates the final model—was justified because the focus of this applied research study was a specific question for a specific

sector for which a direct replication of Baum and Locke's (2004) model was unsuitable. My objective was not to test the existing model in a new industry or sector—that is, replicate an earlier study and test its generalizability—but to use the existing model as a guide for building a new model that included new variables based on the results of the qualitative phase—entrepreneurs' participation intensity in the activities offered by accelerators—so that I could address the study's particular research question.

I attempted to use as many concepts as possible from the validated model defined by Baum and Locke (2004). I also aimed to design a direct simple model based on essential factors that would measure entrepreneurs' traits, skills, and motivations in relation to the research question. This simplification process followed existing literature and insights gained during the qualitative interviews. For example, interviewees defined growth attainment as the capacity of entrepreneurs to grow faster than average, which corresponded approximately to three variables in Baum and Locke's model: goals (setting growth goals), communicated vision (the pursuit of a growth vision), and self-efficacy (confidence in achieving growth).

This final model does not hypothesize direct effects connecting entrepreneurs' traits, skills, and motivations to company growth. It does relate these characteristics of entrepreneurs to intensity of participation in activities provided by accelerators. I designed the model this way based on data analyzed during the qualitative phase, which suggested that participation in activities directly impacts company growth. Such supporting statements included "The more I participated [in networking activities], the more the company grew" (Interviewee 11), and "I can directly recon our growth to the amount of mentoring activities we've had" (Interviewee 9). Use of the partial least

squares structural equation modeling (PLS-SEM) technique for statistical analysis permitted checking for indirect and possible mediation effects, which I explore at the end of Chapter V.

Hypothesis development

Based on the explored literature, together with the concepts' creation for each factor contemplated in the research model, presented on Chapter II, the following hypotheses are conceptualized and summarized below.

Lei et al. (2020) proposed a strong link between the concept of entrepreneurial passion and entrepreneurs' actions (e.g., the search for knowledge and company growth); these authors defined passion as the driving force behind entrepreneurs' actions. Cardon et al. (2013) put it this way: "passion is at the heart of Entrepreneurship" (p. 374). Given that this study rested on Baum and Locke's (2004) model and took passion as one of the traits that guides entrepreneurs' skills and motivations, I defined the following hypotheses in relation to Passion:

H1: As the entrepreneur's passion for work increases, the growth attainment motivation as evidenced in the entrepreneur's confidence on exceeding his/her company's goals will also increase.

H2: As the entrepreneur's passion for work increases, the resource creation skill as evidenced in the entrepreneur's confidence on having the needed resources to lead his/her company will also increase.

Baum and Locke (2004) also defined tenacity as an essential trait for an entrepreneur to guide the company through the growth challenges it will face. One of the biggest challenges an entrepreneur faces is managing employees (Schraeder & Jordan,

2011)—being able to push and lead while being focused on performance to deliver better results (Brixiová et al., 2020). Previous studies showed that entrepreneurs who do not quit, who persisted after facing failure, displayed greater tenacity with new business endeavors (Van Scotter & Garg, 2019; Yamakawa, 2013). Moreover, Baum and Locke (2004) highlighted the essential role of tenacity's impact on a company's performance. Additionally, Lei et al. (2020) suggested that entrepreneurs with more perseverance tend to succeed more in their endeavors by possessing and developing the needed skills and knowledge.

The other set of hypotheses based on entrepreneurs' traits and their connection with their skills and motivation to grow a company were as follows:

H3: As the entrepreneur's tenacity increases, the growth attainment motivation as evidenced in the entrepreneur's confidence on exceeding his/her company's goals will also increase.

H4: As the entrepreneur's tenacity increases, the resource creation skill as evidenced in the entrepreneur's confidence on having the needed resources to lead his/her company will also increase.

The entrepreneur's characteristics of knowing how to find and assemble the right people, resources, and investments—the resource creation skill—is the topic of different studies (Bhide, 2003; Stevenson & Jarillo, 1990). Others have looked at how these skills make the entrepreneur more focused on achieving success (Smith et al., 2020). Also aligned to the skills variable validated and part of the model that Baum and Locke (2004) used to analyze these characteristics for this study. Studies focused on a company's growth have taken diverse paths, with Unger et al. (2011) relating it to the ability to

define and incorporate new resources. The entrepreneur's attitude towards the need for achievement and growth of the company is a topic that McClelland's model outlined (McLelland 1961, 1962, 1965), with resources, skills, and knowledge as the essential base for its definition. Because of these entrepreneurs' qualities with regards to resources and skills directly impact confidence and motivation to grow a company (Baum & Locke, 2004), I offer the following hypothesis:

H5: The higher the resource creation skill evidenced in the entrepreneur's confidence on having the needed resources to lead his/her company and employees, the higher the growth attainment motivation as evidenced in the entrepreneur's confidence on exceeding his/her company's goals.

Prior studies have analyzed the existing and developing entrepreneur's traits, skills, and knowledge in an attempt to understand their effects on a company's results (Lussier, 1995; Sullivan, 2000; Wright et al., 2007). Different authors have studied the relationship between these entrepreneurs' characteristics and the influence of accelerators programs (Mansoori et al., 2019; Porat, 2014; Sahlman & Roberts, 2003). Networking activities, mentoring sessions, and education programs are considered the three activities provided by the accelerators, based on their executives' interview responses, with the objective of improving the entrepreneur and the company. From these entrepreneurs' characteristics, from the confidence concerning the resources needed to grow their company, and from the accelerators activities offered, I defined the following block of hypotheses:

H6: As the entrepreneur's resource creation skill evidenced in the entrepreneur's confidence on having the needed resources to lead his/her company and employees

increases, participation intensity in networking activities offered by the accelerator will also increase.

H7: As the entrepreneur's resource creation skill evidenced in the entrepreneur's confidence on having the needed resources to lead his/her company and employees increases, participation intensity in mentoring activities offered by the accelerator will also increase.

H8: As the entrepreneur's resource creation skill evidenced in the entrepreneur's confidence on having the needed resources to lead his/her company and employees increases, participation intensity in education activities offered by the accelerator will also increase.

The entrepreneur's confidence in exceeding his/her company's goals is one of the characteristics that different authors have analyzed (Laitinen, 2017; Pellegrino & Savona, 2017; Soriano & Castrogiovanni, 2012). The findings indicated growth attainment characteristics in relation with high-growth behavior by the entrepreneur. Interview responses from my qualitative phase, for example, highlighted the accelerators activities as valued opportunities to grow: "My mindset of always exceed the defined goals boosts my motivation for different activities, such as the ones provided by the accelerator (Interviewee 15)." Knowledge of the three activities provided by the accelerator also indicated growth: networking activities, mentoring sessions, and education programs. Prior studies have related an entrepreneur's high-growth behavior to such activities as the ones provided by the accelerator (Crompton et al., 2012; Hall et al., 2009; Laske, 2014). From those studies, I developed the following hypotheses:

H9: As the entrepreneur's growth attainment motivation evidenced in the entrepreneur's confidence on exceeding his/her company's goals increases, participation intensity in networking activities offered by the accelerator will also increase.

H10: As the entrepreneur's growth attainment motivation evidenced in the entrepreneur's confidence on exceeding his/her company's goals increases, participation intensity in mentoring activities offered by the accelerator will also increase.

H11: As the entrepreneur's growth attainment motivation evidenced in the entrepreneur's confidence on exceeding his/her company's goals increases, participation intensity in education activities offered by the accelerator will also increase.

The major outcome of this study was to analyze the impact of the accelerator on the company's growth. The participation intensity in these activities is considered the primary way to measure its effectiveness, as well as its actual perceived gain by the entrepreneurs. Networking activities, as highlighted by Busch and Barkema (2020), are unique in developing and growing a company. During the qualitative phase of my study, I found additional support for the role of networking activities, such as with Interviewee 13: "Our biggest growth and eye-opening came from networking…"

Sullivan (2000) also presented a model for mentoring entrepreneurs. The data gathered during my interviews likewise highlights how important characteristics from mentoring sessions lead to a company's growth: "Above all things, mentoring with a specialist. It helped to accelerate the pace in a way I wouldn't be able to do it on my own (Interviewee 06)." The education programs offered by the accelerators were recognized by entrepreneurs as well, such as with Interviewee 14 who said "… education programs were excellent… super helpful [accelerator contribution to grow the business]." Previous

studies support my findings, such as the model presented by Lecuna et al. (2017) that related education to a company's growth. These three activities become part of the model. By measuring the entrepreneur's participation intensity in the activities offered by the accelerator, and their direct effect on growth, the following hypotheses arise:

H12: The entrepreneur's participation intensity in networking activities offered by the accelerator positively impacts the company's revenue growth.

H13: The entrepreneur's participation intensity in mentoring activities offered by the accelerator positively impacts the company's revenue growth.

H14: The entrepreneur's participation intensity in education activities offered by the accelerator positively impacts the company's revenue growth.

IV. METHODOLOGY

This study had a multi-method design that combined qualitative development of new ideas with quantitative verification of them, aiming to be more effective by using more than one approach to study the phenomena of interest (Babbie, 2016).

Phase 1: Qualitative study

The first phase of this research relied on qualitative analysis with the objective of identifying entrepreneurs' characteristics to understand what entrepreneurs perceive to be the most important personal traits, skills, and motivations (Baum & Locke, 2004) that have led to their success. The ultimate goal of this phase of the study was understanding of how accelerators contribute to the growth of entrepreneurs' companies.

Measurements

In this qualitative phase, I questioned existing models by gathering in-depth data from a sample representing top performers, analyzing it, and creating a final model for the quantitative phase based on theories and models in existing literature and insights from the qualitative data. Chapter II explored the base of knowledge used for this exploration phase, consisting of various business theories and models selected with a focus on outlining the contributions of entrepreneurs—knowledge, skills, and behaviors—and accelerators to company performance. This base of knowledge and the data from the qualitative phase guided the design of the model and hypotheses tested during the quantitative phase.

The script for the in-depth interviews conducted during this phase (Appendix A) derived from the base of knowledge explored in Chapter II. For this qualitative phase, existing and tested theories, models, and studies—such as the theory of planned behavior, human capital theory, McClelland's (1961) model, Sullivan's (2000) model, and Baum and Locke's (2004) model—formed the basis of the developed in-depth semistructured interview protocol. Several existing hypotheses guided development of the interview protocol and inductive qualitative investigation, such as the following:

- Independence and self-confidence lead to venture growth (McClelland, 1961).
- Relationship building is essential for a successful entrepreneur (Sullivan, 2000).
- Enhanced education leads to success (Lussier & Pfeifer, 2000).

In-depth analysis based on interviews constantly changes throughout the processes of data collection and analysis because it depends on a researcher capturing as

much and as rich data as possible (Creswell & Poth, 2017). Although several aspects emerged during data collection, I identified three essential aspects for quantitative testing: (a) existing characteristics of an entrepreneur when they join an accelerator, (b) perception of an accelerator's contribution to an entrepreneur, and (c) importance of the accelerator's contribution for company performance.

Results from this phase appear throughout the dissertation in the form of quotations from the in-depth interviews, and Chapter V summarizes the results of this phase in a table listing the codes and associated Citations from the analysis performed with NVivo (Version 11).

Participants and data collection

Understanding that the credibility of a qualitative depends on the quality of in-depth information collected for analysis (Yin, 2014), and taking into account constraints due to geographical distance and interviewee availability, the qualitative phase was implemented through in-depth semistructured interviews held via online video conferencing and telephone calls with a total of 15 participants—11 entrepreneurs and four accelerator executives. Interviews ranged in duration from 10 to 60 min. The sample size and saturation analyzed by Mason (2010) cites Bertaux (1981) presenting a minimum of 15 interviewees for any type of qualitative study and Creswell and Poth (2017) for a minimum sample of 5 interviewees for a phenomenological qualitative study, laying on it to validate this study's qualitative sample.

An email containing all disclosure and consent information was sent out to 65 contacts. These were followed by other emails and direct phone calls, which resulted in the recruitment of these 15 participants. I conducted all interviews, and guided by

inductive reasoning, I aimed to gather as much data as possible—based on open ended questions and the reinforced explanation that there were no right or wrong answers. That approach would lead to findings that aligned with the available literature. As highlighted by Creswell and Poth (2017), the ability of the interviewer is essential for a good qualitative study; the interviewer should avoid bias on leading the interviewees, or based on a reflexive attitude, sharing their own point of view. In this case, my study minimized bias with little interference and a lack of exemplifying situations. Once the interviewees already experienced these situations and promptly spoke about them, there was no need for the interviewer to be reflexive, i.e., sharing personal examples to induce better answers.

All data gathered were transcribed and stored in an anonymous way to ensure the privacy of participants, which participants consented to, and data were analyzed using qualitative research guidelines and coded using NVivo (Version 11). Once imported, the data was analyzed using qualitative research guidelines and coded as described in the data analysis section below.

Data analysis

Qualitative analysis was performed using NVivo (Version 11) as a way to code responses to better organize and understand their importance through their frequencies. With all 15 interviews imported, 13 codes were created; the four top-level codes (with secondary codes in parentheses) were accelerator contribution (networking activities, mentoring sessions, and education programs), growth oriented (growth confidence and growth exceed), motivation (tenacity and passion), and skills and knowledge (existing resources and new resources). This coding process happens by selecting specific parts of

each interviewee's answers that reflect an existing code (Creswell and Poth, 2017). Therefore, themes can be analyzed to understand their frequency and significance by looking at (a) how many cases (interviews) they were mentioned in, and (b) how many references they had—the number of times they were mentioned in all interviews (Table 1). A more comprehensive table with example quotes from interviewees responses I present in Appendix F.

Table 1

Qualitative Results

Code	Cases	References
Accelerator contribution	13	19
Networking activities	12	28
Mentoring sessions	11	17
Education programs	9	16
Growth oriented	11	17
Growth confidence	10	16
Growth exceed	10	17
Motivation	9	18
Passion	9	12
Tenacity	10	15
Skills and knowledge	6	8
Existing resource	9	12
New resource	11	18

Note. Cases = 10 entrepreneurs and 4 accelerators' executives

With the main objective of informing the design of the model for the quantitative phase, the analysis of the in-depth semistructured interviews played an essential role. The results from this analysis provided great insight that guided the design of the model. For example, self-efficacy—part of Baum and Locke's (2004) model directly related to

growth—can be understood as confidence in delivering growth, which translated to my study's model as motivation for growth attainment, illustrated by Interviewee 13: "I know by now that I have what it takes to exceed my revenue goals." The qualitative analysis also defined some measures, such as the range for the activities scale. For example, Interviewee 8 said, "I receive from the accelerator a minimum of two mentoring offers per year." To better explore and outline the in-depth data collected, the rest of this section presents its analysis and the results of that analysis within the constructs and variables explored in Chapter II and included in the final model.

Personal traits of entrepreneurs—coded as motivation, tenacity, and passion—were clear from such statements as "I work with what I love, so I'm always super energized" (Interviewee 5), "I never give up on what I'm doing" (Interviewee 14), and "Have to say I have an extra boost of energy for my own business, more passion and dedication" (Interviewee 9). Although the scale items for these traits' constructs, passion and tenacity, derived from scales used by other researchers, the data collected during the interviews supported the use of those scale items.

Although scales already existed for the growth attainment construct, in search of greater accuracy, the scale for growth attainment in this study derived from data collected during the qualitative phase, such as "I'm focused on exceeding our goals every year" (Interviewee 8), "Every year we exceeded the past one, got more confident" (Interviewee 11), "We are focused on growth, on exceeding our revenue and profit every year" (Interviewee 15), "I knew I would succeed" (Interviewee 5), and "Same as it is today: total confident! Proof is the high growth of the company" (Interviewee 14). The

main objective was to ensure that this construct's scale items reflected entrepreneurs' confidence in delivering growth and actually exceeding delivery predictions.

As with tenacity and passion, the items for measuring the resource creation construct came from existing literature (Baum & Locke, 2004; Cardon et al., 2013). Nevertheless, analysis of the qualitative data provided even more support for use of these items, with statements such as "Access is better than ownership. More about the network that I have access to, than me knowing" (Interviewee 1), "Yes. I know I'm good in finding the right resources to deliver great projects" (Interviewee 14), and "Believe that is my biggest strength [resource creation/assembling]" (Interviewee 13).

The scales for intensity of participation in accelerator activities derived from statements such as "We offered at least one activity, of each, every couple month" (Interviewee 3), "I receive from the accelerator, a minimum of two mentoring offers per year which were unique to help us grow" (Interviewee 8), "The amount of activities offered was very intense, more than once a month sometimes" (Interviewee 9), and "[The accelerator] offered two to three educational programs per year" (Interviewee 15). Based on these data, a 5-point Likert scale was built with a range that could accommodate the responses of all participants. The same thing happened for the scale for revenue, the objective of which was to measure growth. A 5-point scale was built with minimum and maximum revenues that took into consideration statements from accelerator executives, such as "Some things are a must, e.g., revenue must be at least $2MM in the past couple years" (Interviewee 2).

Phase 2: Quantitative study

Measures and questionnaire

Based on the hypotheses presented in Chapter III, the measures presented below were designed as parts of an online survey that, after being approved by the institutional review board, was distributed to entrepreneurs in the form of a pilot survey sent out to 120 direct contacts who were members of one of the accelerators studied during at least part of the previous 3 years. This pilot survey produced 32 responses, which were used to check the survey validity and adjust the design the final survey (Appendix B). This final survey was sent out via an automated email using the Qualtrics survey tool. The email contained the consent information approved by the institutional review board and an anonymous link to participate in the study. The email was sent to each accelerator's managing director, who then distributed to their members.

The design of final quantitative survey, which took into consideration the qualitative phase results, survey pilot testing, and other concerns such as survey length and the ability of respondents to focus, included the measurements described as follow (detailed in Appendix E).

Passion: Four items measured passion based on 5-point scales ranging from 1 (*totally negative*) to 5 (*totally positive*) with composite reliability (CR) of .857. The questions built upon different models and concepts. For example, the item "I feel energized when I am at work" derived from Forest et al.'s (2011) binary item about work passion: "I feel energized" (p. 1021), supported by Cardon et al.'s (2009) report that intense positive feelings define passion for work.

Tenacity: Tenacity was measured using 5-point scales ranging from 1 (*totally negative*) to 5 (*totally positive*) with CR of .856. There were two items: "I can think of many times when I persisted with work when others quitted" (Baum and Locke, 2014, p. 593) and "I greatly enjoy pushing my employees and myself to make our company better," which derived from the work of Cardon et al. (2013) and Soininen et al. (2013).

Growth Attainment: Growth attainment was measured by two items with 5-point scales ranging from 1 (*totally negative*) to 5 (*totally positive*) with CR of .883., The first item was "I always exceed my company's revenue/customer goals," which derived from qualitative interview responses such as "I'm driven by hyper-growth, by exceeding the goals we set" (Interviewee 13). The second item was "Thinking about your skills, how sure you are that you can beat annual customer goal?" and derived from qualitative interview responses such as "I had the skills to build a global company and still have to keep beating its goals" (Interviewee 11).

Resource Creation: Three items measured resource creation with 5-point scales ranging from 1 (*totally negative*) to 5 (*totally positive*) with CR of .863. These items built on Baum and Locke's (2004) measures, such as "I know how to find the resources that we need to run the company" (p. 593), and Cardon et al.'s (2013) measures.

Networking Intensity: A single item measured network intensity with a 5-point scale ranging from 1 (*none*) to 5 (*more than 50 times*). The range of the scale derived from qualitative phase responses such as "There are, at least, one networking event each couple month, promoted by the accelerator" (Interviewee 9) combined with the possible range of the length of accelerator membership (1–20 years).

Mentoring Intensity: A single item measured mentoring intensity with a 5-point scale ranging from 1 (*none*) to 5 (*more than 50 times*). The range of the scale derived from qualitative phase responses such as "I receive from the accelerator, a minimum of two mentoring offers per year" (Interviewee 8) combined with the possible range of the length of accelerator membership (1–20 years).

Education Intensity: A single item measured education intensity with a 5-point scale ranging from 1 (*none*) to 5 (*more than 50 times*). The range of the scale derived from qualitative phase responses such as "The accelerator offers two to three educational programs per year" (Interviewee 15) combined with the possible range of the length of accelerator membership (1–20 years).

Revenue Growth: Revenue growth was measured by the difference between the responses to two items: "What is your company's current revenue?" and "What was your company's revenue when you joined the Accelerator?" Revenue was measured with 5-point scales ranging from 1 (*USD 0-$5M*) to 5 (*above USD $51M*). The range of these scales derived from qualitative phase responses such as "Our members have an average revenue of USD $2 million per year" (Interviewee 12).

Participants and data collection

For the quantitative phase, 20 accelerators were contacted, 12 agreed to participate, and nine ended up having members participate in the survey. These nine accelerators had total membership of 2,500 entrepreneurs. Of these, 115 entrepreneurs answered the online survey between January and March of 2021. After cleaning the data—deleting incomplete surveys those accessed using a different link—a total of 102

valid responses remained, representing 4% of the total potential sample. These 102 entrepreneurs were from four countries: the United States, Brazil, Colombia, and Chile.

To test the sample size validity, I followed the accepted table from Marcoulides and Saunders (2006), which suggests a minimum number of participants depending on the number of variables involved. For 10 variables, the recommended minimum number of participants is 91, and for eight variables—which is the case for this study's model—the recommended minimum number of participants is 84. With 102 respondents, the sample size fit the necessary validation criteria for PLS-SEM analysis.

Data analysis

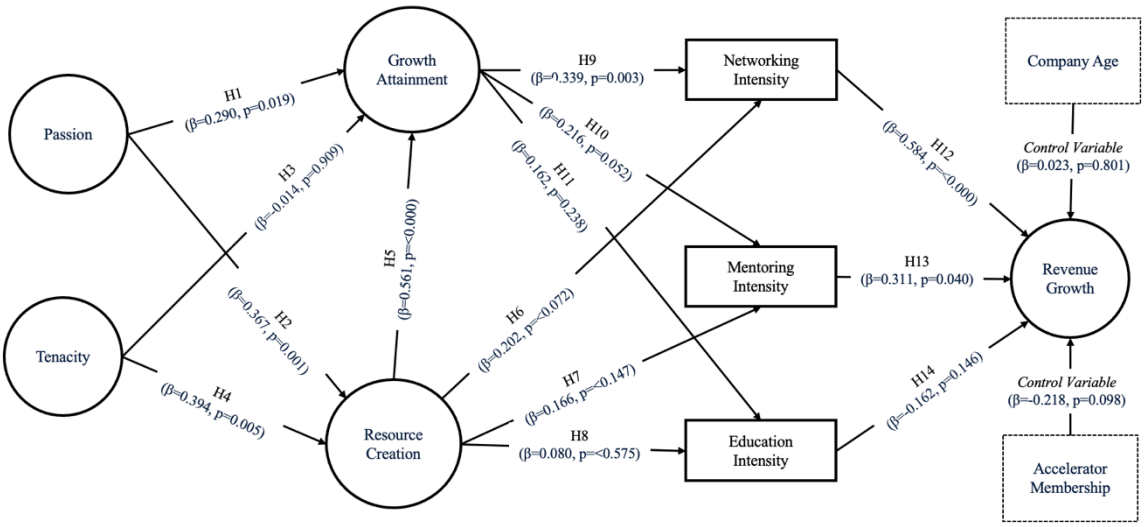
Quantitative analysis was performed using the PLS-SEM technique. SmartPLS (Version 3.2) was used as a software tool to compute the statistics. The decision to use PLS-SEM relied on the main characteristics of this study as applied research focused on studying a specific problem in a specific sector with a very targeted sample that was unsuitable for analysis using more common statistical methods, such as linear regression, because the problem demanded better causal analysis for complex interactions than more common methods could provide (Hair et al., 2014; Rahi, 2012; Ringle et al., 2014; Wong, 2019). Beebe and Kowalski (1987) defended the use of PLS-SEM in analytical studies—in fields such as chemistry, their focus area—based on its capacity to analyze factors with calibration mechanisms working on nonnormally distributed data; they also presented minimum requirements for sample size and distribution and measurement scales (Hair et al., 2014). To test the model, a factor weighing scheme was used with a maximum of 300 iterations and 5,000 bootstrap samples.

V. RESULTS

Fulfilling the goal of this study to deliver results contributing to the entrepreneurial ecosystem, this chapter presents measurement and structural model results detailing support found for seven of the hypotheses and highlighting two accelerator activities that directly impacted company growth. The supported and unsupported hypotheses serve as basis for discussion in Chapter VI.

Figure 2

Research Model with Results



Results concerning the measurement model

As shown in Table 2, all item loadings were well above the threshold level of .7.

To test the model's validity and reliability, statistical analysis of Cronbach's alpha, CR, and average variance extracted (AVE) were performed, and the results appear in Table 2. Although Cronbach's alpha indicated confirmation for most constructs—only tenacity was below the minimum desired value of .7—CR was used to measure internal

consistency because it takes into account unequal weighting of factors, which Cronbach's alpha does not (Rahi, 2012). With acceptable values being greater than .7, the model evaluates as reliable, with a CR of .856 for tenacity. Convergent validity, that is, assessment of whether individual items converge on the intended construct rather than another construct, was also satisfactory, as the AVE values indicate. Satisfactory convergent validity corresponds to an AVE greater than .5, and passion had the lowest AVE, .601, well above the threshold.

Table 2

Measurement Model and Psychometric Properties of the Scales.

Constructs and Measurement Items	β	t	ρ	AVE
Passion (α = .779)			.857	.601
Passion 1	.742	9.567		
Passion 2	.741	6.631		
Passion 3	.786	9.996		
Passion 4	.829	12.404		
Tenacity (α = .678)			.856	.750
Tenacity 1	.921	22.379		
Tenacity 2	.807	9.032		
Resource creation (α = .761)			.863	.678
Resource creation 1	.865	22.387		
Resource creation 2	.829	17.529		
Resource creation 3	.773	9.042		
Growth attainment (α = .736)			.883	.791
Growth attainment 1	.880	24.813		
Growth attainment 2	.898	33.133		

Note. ß - standardized factor loadings; t - t-statistics; ρ - Composite reliability; AVE – Average variance extracted.

I checked for convergent validity from the outer model to analyze whether all factors were significant, as presented in Table 2.

To confirm the discriminant validity, the Fornell-Larcker criterion was used, in which the confirmation is presented when the square root of each construct's AVE defines that it exceeds the correlation between constructs. Table 3 presents these correlation results, AVE's square root of the construct (in italic on the diagonal), and the mean and standard deviation.

Table 3

Descriptive Statistics and Correlations Using Fornell-Larcker Criterion

	1 Passion	2 Tenacity	3 Resource Creation	4 Growth Attain	5 Network Intensity	6 Mentor Intensity	7 Edu Intensity	8 Revenue Growth	9 Company Age	10 Accelerat Member
1	*0.775*									
2	0.601	*0.866*								
3	0.604	0.727	*0.823*							
4	0.620	0.505	0.823	*0.889*						
5	0.328	0.267	0.448	0.486	*1.000*					
6	0.256	0.292	0.323	0.337	0.788	*1.000*				
7	0.158	0138	0.198	0.220	0.581	0.708	*1.000*			
8	0.292	0.328	0.482	0.501	0.685	0.627	0.378	*1.000*		
9	0.022	0.011	0.028	0.111	0.339	0.153	0.137	0.145	*1.000*	
10	-0.159	-0.207	-0.135	-0.069	0.267	0.150	0.103	-0.021	0.465	*1.000*
Mean	4.662	4.779	4.539	4.422	3.441	3.225	2.500	1.402	3.637	3.824
S.D.	0.623	0.524	0.771	0.749	1.151	1.047	0.813	1.131	1.363	2.805

Note. Square root AVE is in italics on the diagonal; Correlations are below diagonal; S.D. = Standard Deviation.

Results of the structural model

After evaluating the measurement model, I evaluated the structural model. Table 4 presents the path coefficients along with results of *t* tests. The R^2 values were accepted because they exceeded .10 (Falk & Miller, 1992) for the following variables: growth attainment (.581), resource creation (.463), networking intensity (.255),

mentoring intensity (.126), and revenue growth (.541). For education intensity, R^2 was .052, below .10 and therefore not satisfactory. The Stone-Geisser Q^2 values for exogenous variables varied from .06 to .38, indicating acceptable levels of predictive relevance (Chin & Newsted, 1999). Further, the R^2 for goodness of fit (Tenenhaus et al., 2005, p. 173) for the complete structural model was .49, which confirmed that the model performed well.

Table 4

Structural Model Results

Path	Hypothesis	β	*t*	*p*
Direct relationships				
Passion → growth attainment	*H1*	0.290	2.342	.019
Passion → resource creation	*H2*	0.367	3.410	.001
Tenacity → growth attainment	*H3*	−0.014	0.115	.909
Tenacity → resource creation	*H4*	0.394	2.790	.005
Resource creation → growth attainment	*H5*	0.561	4.990	.000
Resource creation → networking intensity	*H6*	0.202	1.797	.072
Resource creation → mentoring intensity	*H7*	0.166	1.451	.147
Resource creation → education intensity	*H8*	0.080	0.561	.575
Growth attainment → networking intensity	*H9*	0.339	3.024	.003
Growth attainment → mentoring intensity	*H10*	0.216	1.942	.052
Growth attainment → education intensity	*H11*	0.162	1.180	.238
Networking intensity → revenue growth	*H*12	0.584	4.947	.000
Mentoring intensity → revenue growth	*H*13	0.311	2.054	.040
Education intensity → revenue growth	*H*14	−0.162	1.454	.146
Control relationships				
Accelerator membership → revenue growth		−0.218	1.653	.098
Company age → revenue growth		0.023	0.252	.801

The structural model results in Table 4 show which of the hypotheses received support. As *H1* and *H2* predicted, passion had a positive and significant direct impact on growth attainment (β = .290, p = .019) and resource creation (β = .367, p = .001). *H3* was not supported because tenacity showed a negative and nonsignificant impact on growth attainment (β = −.014, p = .909). *H4*, however, was supported, with tenacity having the expected positive, significant, and direct impact on resource creation (β = .394, p = .005). Resource creation skill was measured by its impact on the activities provided by the accelerator and its direct impact on growth attainment. *H5* was supported with a strong positive impact of resource creation on growth attainment (β = .561, p < .001). On the other hand, hypotheses *H6*, *H7*, and *H8*, which predicted the impact of resource creation on activities, were not supported. Growth attainment had a very positive and significant impact on intensity of participation in networking activities, supporting *H9* (β = .339, p = .003), and a positive and borderline significant impact on intensity of participation in mentoring activities, thus not supporting *H10* (β = .216, p = .052). Although positive, the relationship between growth attainment and intensity of participation in education activities was not significant (β = .162, p = .238), thus *H11* was not supported.

Hypothesis *H12* was supported (β = .584, p < .001), indicating that intensity of participation in networking activities provided by the accelerator had a strong positive impact on revenue growth. The belief that networking is a major influencer of a company's performance also received support from work conducted by Zheng et al. (2019) and Busch and Barkema (2020). The results also indicated large impact of intensity of participation in mentoring activities on revenue growth (β = .311, p = .040), thus supporting *H13*, which agreed with qualitative results based on statements such as

"being mentored by an expert, from the market … that is priceless" (Interviewee 9). Hypothesis *H14*, on the other hand, was not supported, because there was a nonsignificant negative effect of intensity of participation in education activities on revenue growth ($\beta = -.162$, $p = .146$).

Neither control variable had significant relationships with other variables. Company age had a positive but nonsignificant impact on revenue growth ($\beta = .023$, $p = .801$), for which a plausible cause is that the older a company becomes, the slower it grows. Length of accelerator membership also had a nonsignificant, negative impact on revenue growth ($\beta = -.218$, $p = .098$).

Although in this study I focused on direct effects between variables, indirect results from the PLS-SEM analysis suggest the existence of a mediation effect between growth attainment and revenue growth via networking intensity. This can be seen in the support for *H9* through a positive and significant relationship between growth attainment and intensity of participation in networking activities ($\beta = .339$, $p = .003$) stronger than that between growth attainment and revenue growth ($\beta = .239$, $p = .004$), thus leading to a strengthening (via networking intensity as a mediator) of an already significant relationship.

VI. LIMITATIONS AND CONCLUSIONS

This study is no different to any other in that it has limitations and reflects bias. In an attempt to avoid as much bias as possible during the qualitative phase data collection, I used a semistructured protocol that allowed interviewees to answer as openly as possible. For the quantitative phase, I designed the survey so that scale wordings avoided common

answering patterns. The invitation to participate in the survey also emphasized the anonymity of respondents and that there were no right or wrong answers.

With an immense number of organizations focusing on helping entrepreneurs to succeed, a hard limitation of this study was the lack of a definition of an accelerator. Some incubators define themselves as accelerators, as do some venture capital firms and even some coworking organizations. They may well be. To avoid definitional problems, I contacted a targeted group of organizations widely recognized as accelerators. This limited the number of organizations sampled and thus the number of participants in the study.

Entrepreneurs work in mysterious ways! What some might interpret as a decision based on logic (e.g., growth motivation will lead to engagement in education, which will lead to learning and further growth) is often as far from logic as it can be. This may seem like a derogatory statement about entrepreneurs, but all it means is that a passionate and tenacious entrepreneur may trust their gut feeling more than what numbers are showing (which could be labeled logic in business).

The hypotheses that received no support deserve discussion. Tenacity's nonsignificant relationship with growth attainment may reflect the greater affinity between growth attainment and self-efficacy or confidence than between growth attainment and persistence or tenacity. Furthermore, comparing both tenacity hypotheses (*H3* and *H4*) suggests that the most tenacious entrepreneurs look to create more resources, which they believe they need to grow. Growth attainment's relationship with intensity of participation in education activities was not significant, which left *H11* without support and raised questions about the education programs provided by

accelerators. This result suggests that entrepreneurs believe they can exceed growth goals without formal education but place importance on networking activities and mentoring as ways to improve outcomes. Combined with the observation that resource creation had a strong positive impact on growth attainment, supporting *H5*, these findings could indicate that entrepreneurs do not see these activities as sources of resource creation, suggesting that they believe they already have all it takes to grow their companies, especially if they are already confident they can attain growth.

Entrepreneurs' traits, skills and motivation

The model presented by Baum and Locke (2004) as an improvement of Baum et al.'s (2001) initial model highlights an essential issue for consideration: Variables produce different types of direct and indirect effects (not fully considered in the first model and yet open to exploration). Belief in these different impacts and correlations led me to base the statistical analysis for this study on PLS-SEM—as most applied research projects should—to look for disregarded correlations.

My attempt to conduct a multi-method study, using both qualitative and quantitative methods, with the goal of uncovering hidden correlations now seems presumptuous in the sense that entrepreneurs are individuals with a variety of traits, skills, and motivations relevant to starting and running a business.

Maybe the value and attitude of learning by doing is the reason why successful entrepreneurs do not attend education programs provided by accelerators in order to grow, instead relating growth to resource creation. Do entrepreneurs believe they can exceed growth goals without formal education ad believe that networking (sharing real-world ideas, contacts that can become new clients, etc.) and mentoring (specialized

coaches with market experience and access) are authentic? If so, does this belief arise from an entrepreneur's ego or from their prior experience—and is there a difference between serial entrepreneurs and first-time entrepreneurs?

Relevant to this discussion is the fact that all relationships between resource creation and accelerator activities were nonsignificant, but the relationship between resource creation and growth attainment was significant. It is clear that entrepreneurs do not see in those activities sources of resource creation, which leads them to believe that they already have all it takes to grow their companies and need no outside help.

Accelerators' contribution

The qualitative results already suggested that entrepreneurs valued networking with peers and mentoring sessions much more highly than formal education programs. The quantitative results demonstrated this conclusively. Despite the extremely positive testimonials received by accelerators' education programs, the results of this study indicate that leaders of accelerators need to rethink how much efforts to allocate to these education programs and how entrepreneurs perceive the contributions of these programs. Entrepreneurs engaged in formal education programs might participate in networking events and perceive the outcomes of those networking events very positively because of (in part) the education programs but attribute it all to the networking. Interviewee 6 offered an extremely positive testimonial: "I would have never been able to be here in [university name], interacting with these people if it wasn't for [the accelerator]." Is this issue more about perception or about the actual curricula of offered programs?

Other researchers have offered insights that executives of accelerators may want to consider:

> Our argument, after all, rests on the assumption that entrepreneurs learn from successes as well as from failures, and that their ability to succeed depends, indeed, on their capacity to process the information they acquired from experience and learn from it. (Minniti & Bygrave, 2001, p. 12)

And Brixiová et al. (2020) highlight training does not improve performance when entrepreneurs lack complementary skills.

Contribution

My goal in conducting this study was to contribute to the entrepreneurial ecosystem with applied research into the relationship between accelerators and entrepreneurs that would provide insights for both accelerators (e.g., rethink curricula or perceptions of educational programs) and entrepreneurs (e.g., identify best-practice cases from successful entrepreneurs). More specifically, my study offers the following direct managerial contributions:

- The insight that accelerators should review their educational programs and assess whether this might be a case of lack of quality or of positive perception by the member entrepreneur, i.e., the entrepreneur can clearly attribute a networking event organized by the accelerator to the accelerator but might not have the same perception from an education program once he/she is inside a university campus.
- A best-practice guide based on successful entrepreneurs, with special attention to building networks with peers and engaging in technical and specific mentoring opportunities.
- The realization that other startup supporting organizations such as Venture Capital, Venture Builders, and Private Equity, can utilize the successful

activities offered by the accelerators (Networking and Mentoring) as benchmark to increase their value and success rates on investments.

- An opportunity for education institutions to re-think and tailor specific programs for CEOs that are the founding entrepreneurs, once they seem to present a different set of skills, traits, and motivation than a top-executive that does not have the ownership and since-the-beginning trajectory.

From a theoretical perspective, this study contributes to the existing base of knowledge by questioning established models, simplifying them, and narrowing their focus to specific issues such as how important mentoring is for an entrepreneur's success. With a possible theoretical contribution on the study of entrepreneur self-efficacy, my study opens the possibility of looking at narcissism psychological personality in a new way and of measure of ESE, instead of the rewarding attitude measure currently used. This was identified during qualitative phase insights.

Recommendations

This study had several limitations. Some were predefined, such as the highly targeted sample and lack of geographic constraints. Others were uncontrolled, such as collecting data during a pandemic.

Future researchers can further the goals of this study by (a) focusing on a specific geographic area (country or state), (b) attempting a cross-country analysis comparing a couple of countries and accelerators, and (c) collecting responses for longer to obtain more data for analysis.

Based on the results of the hypothesis testing, some suggested further analyses are to (a) explore the relationship between entrepreneurs' ego or pride (not self-efficacy or

tenacity, a different construct) and growth and (b) explore differences between serial entrepreneurs and first-time entrepreneurs with respect to existing skills and knowledge.

This study involved only nine accelerators and a limited number of respondents. Maybe other accelerators already have programs that offer activities different from the ones studied, such as direct funding. Several accelerators have already ventured into the funding and investing business with subsidiaries focused on those roles. Nevertheless, some accelerators may have funding and investment as part of their basic offering. This opens up the possibility of broader research that compares accelerators that offer funding to those that do not.

Accelerators have very well-established programs based on global benchmarks, and the participants in this study were from countries in a variety of economic phases. This suggests that in-depth analysis of particular countries or cross-country analysis could present insightful results.

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APPENDICES

Appendix A

Interview Protocol

RESEARCH STUDY – INTERVIEW PROTOCOL
Perceived Entrepreneur Quality and Company Performance: A Study of Accelerator's Impact on Startups

Below it is structured an interview protocol for a semi-structure in-depth interview to be followed by the interviewer, i.e., the researcher with the *Entrepreneur*.

Objective: ***Understand the perception of the entrepreneur's quality and company's performance as satisfactory or if could have performed better.***

Interviewer:
Interviewee / Company / Job Position:
Location:
Date and Time:
Duration:
Recording location:

Interview Script

Project brief description and objectives, and confidentiality

This research is my dissertation proposal for the Doctor in Business Administration program at FIU and its main goal is to have your perception about your company's performance and its relation to you, the entrepreneur. There is no right or wrong answer: the objective is to collect the most honest and quality of information that might help lead to interesting insights for all of us.

Suggested Questions

Understanding that a growth performance result for a company is the impact you can make by employing more people and generate more wealth, being able to continue growth and/or innovate.

1. How would you rate your motivation and dedication to your business?
    a. Example given: do you believe you work harder than others?
    b. You don't quit before you achieve what you aim to?
2. Do you see any difference at being the owner of a business in regards to how much you dedicate yourself and how much you love going to work?
    a. Any example to share?
3. Looking back to when you founded the company, how do you see your skill set and knowledge needed to guide your company to growth?
4. From the founding moment until today, what differences from yourself would you highlight?
    a. How did you acquire these skills and knowledge (e.g., formal education, interaction with peers, mentoring/coaching, etc)
    b. Do you believe they were important for you as an entrepreneur?
    c. Do you believe they influenced the company's performance? How?
5. Do you agree that you know how to find the necessary resources to run your company successfully?
    a. Do you believe you personally have the needed skills and that makes great difference?

    b. Do you believe you manage to have a few right people that without them you wouldn't truly succeed?

6. Is it essential to you to have a clear and stated vision for your company?
    a. Do you have it on written and shared with all?
    b. What are the main factors inside your vision (e.g., improve the world, wealth, etc)
7. Have you changed that Vision since company's establishment?
    a. By any particular influence?
8. How was your self-confidence when you started?
    a. Did it changed during the years?
    b. What influenced the most, for this change?
9. Do you believe you can manage your company without defined goals?
10. Do you set goals for the company?
    a. How realistic are these goals?
    b. How do you set them (who participates in the decision: e.g., only top management, board, all team, outside guidance/benchmark)?
11. How important you think networking is, for your business success?
12. Do you engage in networking activities?
    a. Which one(s) you found most effective to grow your business directly (e.g., new client) and indirectly (e.g., new skill learned which will lead to growth)?
13. Do you feel the accelerator helped you growing your business?
    a. In which ways? What would you highlight as most important?

14. Do you believe you would have been able to reach the growth you have without joining the accelerator?
15. Participating in the accelerator helped you personally as an individual/entrepreneur OR the contributed directly to the company OR didn't contributed at all?
    a. IF it contributed, what is the most important way it did?
16. Do you consider yourself a successful entrepreneur? Why?
    a. To what/who would you recon this?
    b. Do you believe you could have been better?
        i. If YES: In what ways?
        ii. If YES: Do you believe this would change the company's outcome?
17. About your company's performance, is it satisfactory to you?
    a. If NOT: What you feel like missing?
        i. How do you think this/these could have been achieved?
18. Anything you believe could have made your company different and more successful?
    a. If YES: Would depend on you or some other factor?

Closing statements

I want to thank you very much for your time and attention dedicated. As stated in the Consent and Authorization form you've signed as first thing, all this info is recorded and will be analyzed for the sole objective of this research. Reinforcing that you and your company may opt to maintain anonymous. Thank you.

Appendix B

Online Survey Questionnaire

Qualtrics Survey Software 4/5

FIU Business
FLORIDA INTERNATIONAL UNIVERSITY

Cover Page

Thank you!
This will only make sense with your participation.

Few minutes of your time will help us understand the traits of successful entrepreneurs like you, and guide new entrepreneurs.

This survey is completely anonymous and will take 5-7 minutes to answer multiple-choice questions.

My very best,

Henry Canfield

Demographics and other info

DEM_Intro. **As stated before, this survey is completely anonymous. The following block attempts to identify patterns amongst successful entrepreneurs like you.**

DEM_Acc. **What Accelerator are you part of?**

Endeavor; ImpactHub; Semente Negócios; Base Miami; GAA; CapTable / StartSe; Founder Institute; Rede+; Other

DEM_Age. **What age were you when you joined the Accelerator?**

under 20 years old; 21-30 years old; 31-40 years old; 41-50 years old; over 51 years old

DEM_Cty. **In which country was your company founded?**

USA; Brazil; Colombia; Chile; Other

DEM_CyAge. **How old is your company?**

0 - 1 year; 1 - 2 years; 2 - 5 years; 5 - 10 years; more than 10 years

DEM_CySec. **What industry sector best describes your company?**

Agriculture; Education; Enterprise Software & Services; Financial; Food & Beverage; Healthcare; Retail & Consume; Other

DEM_AccJoin. **Which year did you join the Accelerator?**

Dropdown list: 2000; 2001; 2002; … ; 2020

DEM_RevPast. **What was your company's revenue when you joined the Accelerator?**

USD $0-$5M; USD $6M-$10M; USD $11M-$25M; USD $26M-$50; above USD $51M

DEM_RevAct. **What is your company's current revenue?**

USD $0-$5M; USD $6M-$10M; USD $11M-$25M; USD $26M-$50; above USD $51M

DEM_EmpPast. **What was your company's size when you joined the Accelerator?**

0-25 employees; 26-50 employees; 51-100 employees; 101-250 employees; above 251 employees

DEM_EmpAct. **What is your company's current size?**

0-25 employees; 26-50 employees; 51-100 employees; 101-250 employees; above 251 employees

above 251 employees

Networking

N_Intro. **The following questions deal with Business Networking. Please select the best answer.**

N1. **Building business relationships is essential for the company's growth**

Strongly agree Somewhat Neither agree Somewhat Strongly agree nor disagree disagree disagree

N2. **Business networking improves my skills and knowledge**

Definitely yes; Probably yes; Might or might not; Probably not; Definitely not

N3. **I dedicate strong efforts in networking activities to build business relationships**

Definitely true; Probably true; Neither true nor false; Probably false; Definitely false

Accelerator's contribution

ACC_Intro. **This block of questions deals with the Accelerator's contribution. Please select your best answer.**

ACC_Val1. **Being a member of the Accelerator has enhanced my business skills and knowledge**

Definitely yes; Probably yes; Might or might not; Probably not; Definitely not

ACC_Val2. **This program helped me scale my business in a way I couldn't do it on my own**

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

ACC_Val3. **Becoming part of the accelerator has enhanced my confidence in delivering results**

Definitely true; Probably true; Neither true nor false; Probably false; Definitely false

ACC_Net1. **Networking with other peers was essential for my business growth**

Definitely not; Probably not; Might or might not; Probably yes; Definitely yes

ACC_Men1. **Being mentored was essential for my business growth**

Definitely true; Probably true; Neither true nor false; Probably false; Definitely false

ACC_Edu1. **Engaging in educational programs offered by the accelerator was essential for my business growth**

Extremely unlikely; Somewhat unlikely; Neither likely nor unlikely; Somewhat likely; Extremely likely

ACC_Val4. **Being a member of the Accelerator enhanced my passion and dedication as an entrepreneur**

Strongly agree; Somewhat agree; Neither agree nor disagree; Somewhat disagree; Strongly disagree

ACC_Net2. **How do you evaluate the timing for the Networking activities provided by the accelerator?**

Fast, excellent timing; At a good moment; Neither in advance or late; Could have started before; Took too long to start

ACC_Net3. **In how many Networking activities, provided by the Accelerator, have you participated?**

None; 1-10 times; 11-25 times; 26-50 times; more than 50 times

ACC_Men2. **How do you evaluate the timing for the Mentoring programs provided by the accelerator?**

Fast, excellent timing; At a good moment; Neither in advance or late; Could have started before; Took too long to start

late

ACC_Men3. **In how many Mentoring sessions, provided by the Accelerator, have you participated?**

None; 1-10 times; 11-25 times; 26-50 times; more than 50 times

ACC_Edu2. **How do you evaluate the timing for the Education opportunities provided by the accelerator?**

Fast, excellent timing; At a good moment; Neither in advance or late; Could have started before; Took too long to start

ACC_Edu3. **In how many Education programs, provided by the Accelerator, have you participated?**

None; 1-10 times; 11-25 times; 26-50 times; more than 50 times

Motivation and Dedication

MD_Intro. **The following questions deal with Motivation and Dedication. Please select the best answer.**

MD_P1. **I look forward to returning to work when I am away from work**

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

MD_P2. **I greatly enjoy talking about my work with others**
Definitely true; Probably true; Neither true nor false; Probably false; Definitely false

MD_P3. **I feel energized when I am at work**
Definitely not; Probably not; Might or might not; Probably yes; Definitely yes

MD_P4. **Being the founder of a business is an important part of who I am**

Describes me extremely well; Describes me very well; Describes me moderately well; Describes me slightly well; Does not describe me

MD_T1. **I can think of many times when I persisted with work when others quitted**

Definitely false; Probably false; Neither true nor false; Probably true; Definitely true

MD_T2. **I really enjoy convincing a new customer**
Definitely false; Probably false; Neither true nor false; Probably true; Definitely true

MD_T3. **I greatly enjoy pushing my employees and myself to make our company better**

Definitely yes; Probably yes; Might or might not; Probably not; Definitely not

Resources and Skills

RS_Intro. **The following questions deal with Resources of the Firm and Skill set of Management. Please select the best answer.**

RS_Val1. **I know how to find the resources that we need to run the company**

Definitely true; Probably true; Neither true nor false; Probably false; Definitely false

RS_Val2. **I am good at finding money and people to start a new company or program**

Strongly agree; Somewhat agree; Neither agree nor disagree; Somewhat disagree; Strongly disagree

RS_Val3. **Assembling the right people to work for my business is exciting**

Definitely yes; Probably yes; Might or might not; Probably not; Definitely not

RS_Val4. **I feel necessary to build new skills and knowledge to grow**

Not at all important; Slightly important; Moderately important; Very important; Extremely important

RS_Val5. **I engage in formal education to gain new skills and knowledge**

Extremely useful; Very useful; Moderately useful; Slightly useful; Not at all useful

Vision

V_Intro. **Please answer the following 3 questions related to your company's vision**

V_Val1. **Does your company have a written vision?**

Yes; No

V_Val2. **My company's vision is focused on growth**
Definitely true; Probably true; Neither true nor false; Probably false; Definitely false

V_Val3. **When was the last time you discussed your firm's vision with your employees?**

Current Quarter; Last Quarter; Last 12 months; More than a year ago; Never

Self-confidence

SE_Intro. **The following questions deal with Self-confidence. Please select the best answer.**

SE_Val1. **Thinking about your skills, how sure you are that you can beat annual Revenue / Customer goal?**

Definitely yes; Probably yes; Might or might not; Probably not; Definitely not

SE_Val2. **Thinking about your skills, how sure you are that you can beat your Employment goal?**

No confidence at all; Little confident; Neither confident or non-confident; Very confident; Complete confidence

Goals
G_Intro. **This last block of questions deal with your company's goals. Please select**

the best answer.
G_Val1. **I've always set revenue / customer GROWTH goals**

Definitely true Probably true Neither true nor Probably false Definitely false false

G_Val2. **I always exceed my company's revenue / customer goals**

Far below average; Somewhat below average; Average; Somewhat above average; Far above average

G_Val3. **I've always set EMPLOYMENT GROWTH goals** Definitely yes Probably yes Might or might not; Probably not; Definitely not

G_Val4. **I always exceed my company's employment growth goals**

Far below average; Somewhat below Average; Average; Somewhat above average; Far above average

Powered by Qualtrics

Appendix C

Interview Invitation E-mail

RESEARCH STUDY – QUALITATIVE INTERVIEW EMAIL INVITATION
Perceived Entrepreneur Quality and Company Performance: A Study of Accelerator's Impact on Startups

The following is the email template to be sent to the Entrepreneurs and Executives from the Accelerator that will be part of the qualitative in-depth interview.

Objective: ***Each recipient accepting to be a participant in the study.***

From: Henry Canfield – hcanf001@fiu.edu

To: [recipient email]

Subject: [Accelerator name] entrepreneur success characteristics

Dear [name],

[Accelerator Name]'s global office agreed to share and reach out to explain this project and kindly ask for your participation.

My name is Henry Canfield. I've been partnering with [Accelerator Name] for some years through volunteering organizations I use to lead. I am, now, in the final phase of the Doctor in Business Administration program at Florida International University, collecting essential information that allows me to deliver an outstanding research study.

This study aims to provide a guide based on the experience that successful entrepreneurs went through. You, as part of [Accelerator Name], represents the most successful entrepreneur, in my opinion, and the target sample for this study.

For that reason, I would like to ask for some time on your agenda – 30 to 60 minutes – so we can connect through web and talk about your experience and insights on scaling up your company.
Although the interview will be recorded – for the purpose of transcribing the data –, neither your name and your company's, nor Endeavor's will be disclosed. This is a qualitative data collection with the objective to collect the most relevant information from the most important people for this project's goals.

Hope we can arrange a time that suits you and we can have this interview as soon as it fits you best.

Looking forward to your replying.
Sincerely,
Henry Canfield

Appendix D

Consent Form

Added on the auto-generated email sent via Qualtrics, together with the link to fill in the survey.

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ADULT CONSENT TO PARTICIPATE IN A RESEARCH STUDY
Perceived Entrepreneur Quality and Company Performance: A Study of Accelerator's Impact on Startups

To be placed as first page on web survey instrument or sent via email before answering.

SUMMARY INFORMATION

This is a dissertation research project for the Doctor of Business Administration program at FIU, conducted by candidate Henry Canfield. Its objective is to study the contribution an Accelerator delivers to its member Entrepreneurs and their Companies, trusting this can lead to insights and conclusions that can serve as beneficial for all the entrepreneurial and startup ecosystem.

Things you should know about this study:

- **Purpose:** The purpose of the study is to examine the entrepreneur's characteristics when joined the accelerator and if/how they were enhanced by the accelerator's contribution.
- **Procedures**: This survey is directed exclusively to accelerator's member entrepreneurs, with the goal of reaching all +1,200 entrepreneurs around the globe. If you choose to participate, you will be asked to answer this survey, with closed and open questions. There is no right or wrong answers. We are interested in your opinions. Your identity will not be disclosed once there is no field to input any personal identification information.
- **Duration:** This will take about 15 minutes for selecting answers and its final completion.
- **Risks**: The main risk or discomfort from this research is talking about issues that might bring you to think about your behavior as professional and personal attitudes.
- **Benefits:** The main benefit to you from this research is that you might gain some insights about yourself and your company, during this process.

- **Alternatives:** There are no known alternatives available to you other than not taking part in this study.
- **Participation:** Taking part in this research project is voluntary. By clicking the *Start* button, you accept to participate on this survey.

If you have any questions about the purpose, procedures, or any other issues relating to this research study you may contact Henry Canfield at FIU College of Business, (954) 706-3724, hcanf001@fiu.edu.

If you would like to talk with someone about your rights of being a subject in this research study or about ethical issues with this research study, you may contact the FIU Office of Research Integrity by phone at 305-348-2494 or by email at ori@fiu.edu.

Appendix E

Variables, measurements and its references

Variable	Items	Format	Research Reference
Passion	I look forward to returning to work when I am away from work	5-point scales: ranging from 1 (strongly disagree) to 5 (strongly agree)	Baum & Locke (2004) model, based on Locke (1993)
	I greatly enjoy talking about my work with others	5-point scales: ranging from 1 (definitely false) to 5 (definitely true)	Baum & Locke (2004); Soininen et al. (2013); Cardon et al. (2013);
	I feel energized when I am at work	5-point scales: ranging from 1 (definitely not) to 5 (definitely yes)	Forest et al. (2011); Cardon et al. (2009)
	Being the founder of a business is an important part of who I am	5-point scales: ranging from 1 (does not describe me) to 5 (describe me extremely well)	Cardon et al. (2013)
Tenacity	I can think of many times when I persisted with work when other quitted	5-point scales: ranging from 1 (definitely false) to 5 (definitely true)	Baum & Locke (2004) model, based on Gartner et al. (1991)

	I greatly enjoy pushing my employees and myself to make our company better	5-point scales: ranging from 1 (definitely not) to 5 (definitely yes)	Cardon et al. (2013); Soininen et al. (2013)
Growth Attainment	I always exceed my company's revenue / customer goals	5-point scales: ranging from 1 (far below average) to 5 (far above average)	Qualitative phase
	Thinking about your skills, how sure you are that you can beat annual revenue / customer goal?	5-point scales: ranging from 1 (definitely not) to 5 (definitely yes)	Qualitative phase
Resource Creation	I know how to find the resources that we need to run the company	5-point scales: ranging from 1 (definitely false) to 5 (definitely true)	Baum & Locke (2004) model, based on Stevenson (1985)
	I am good at finding money and people to start a new company or program	5-point scales: ranging from 1 (strongly disagree) to 5 (strongly agree)	Baum & Locke (2004) model, based on Stevenson (1985)
	Assembling the right people to work for my business is exciting.	5-point scales: ranging from 1 (definitely not) to 5 (definitely yes)	Cardon et al. (2013)

Networking Intensity	In how many Networking activities, provided by the Accelerator, have you participated?	5-point ratio scale: None; 1-10 times; 11-25 times; 26-50 times; more than 50 times	Qualitative phase
Mentoring Intensity	In how many Mentoring sessions, provided by the Accelerator, have you participated?	5-point ratio scale: None; 1-10 times; 11-25 times; 26-50 times; more than 50 times	Qualitative phase
Education Intensity	In how many Education programs, provided by the Accelerator, have you participated?	5-point ratio scale: None; 1-10 times; 11-25 times; 26-50 times; more than 50 times	Qualitative phase
Revenue Growth	What was your company's revenue when you joined the Accelerator?	5-point ratio scale: USD 0-$5M; USD $6M-10M; USD $11M-25M; USD $26M-50M; above USD $51M	Qualitative phase
	What is your company's current revenue?	5-point ratio scale: USD 0-$5M; USD $6M-10M; USD	Qualitative phase

		$11M-25M; USD $26M-50M; above USD $51M	
Company Age	How old is your company?	5-point ratio scale: 0-1 year; 1-2 years; 2-5 years; 5-10 years; more than 10 years	Qualitative phase
Accelerator Membership	Which year did you join the Accelerator?	ratio scale from 1 (2020) to 22 (before 2000)	Qualitative phase

Appendix F

Qualitative results table

Code	Cases	References	Examples
Accelerator contribution	13	19	"Essential to our growth and scale. Would not have done without [Accelerator name]"
			"The amount of activities offered was very intense."
Networking activities	12	28	"Networking with other entrepreneurs opened my eyes to things I didn't see before."
			Networking activities. The more I participated, the more the company grew."
Mentoring sessions	11	17	"I can directly recon our growth to the amount of mentoring activities we've had."
			"Mentoring with amazing coaches was unique."
Education programs	9	16	"Different sources of education. Best ones offered by [Accelerator name]"
			"Education! I never thought I would have a diploma from [University name] at my wall"
Growth oriented	11	17	"I measure my growth on revenue."
			"I'm driven by hyper growth, by exceeding the goals we set."
Growth confidence	10	16	"I'm sure I have what it takes to reach those goals, to exceed them."
			"Total confidence we would succeed… and we did it."
Growth exceed	10	17	"Entrepreneur's growth is visible. They exceed their goals every year."
			"… we exceed our growth every year without sacrificing anything on quality."
Motivation	9	18	"I'm more motivated and dedicated to my own business than in previous experiences."
			"Being the owner is something important to me."
Passion	9	12	"I really love what I do, I'm very passionate about my job, about what the company delivers…"
			"Work gives me energy. I love what I do."
Tenacity	10	15	"I have this feeling that I've chosen not to fail."
			"I don't stop before I have it all done."
Skills & Knowledge	6	8	"Believe we need to be constantly improving."
			"I had the experience, the skills and knowledge. But they would not take me to where I am."
Existing resource	9	12	"I can lead the team to exceed the goals and generate wellbeing to their families."
			"Yes, I'm good in putting teams and resources together."
New resource	11	18	"Me and the company evolved together."
			"I've improved in many ways, developed new skills and find ways to manage better."

Cases - 10 entrepreneurs and 4 accelerators' executives

VITA

HENRY CANFIELD

Born in Tallahassee, FL, USA

EDUCATION AND PROFESSIONAL EXPERIENCES

1999-2002	B.S. Business Administration Unifra University, Santa Maria, RS, Brazil
2002-2004	MBA Moura Lacerda University, Ribeirao Preto, SP, Brazil
2005-2012	4SC Marketing and Advertising (Brazil) Founder and Managing Director
2012-2014	Vasco da Gama Sports Club (Brazil) Chief Marketing Officer
2016-2017	SIKUR (USA) Chief Marketing and Sales Officer
2017-2019	Hogarth Worldwide / WPP (USA) Head of Business LATAM
2018-2021	DBA Candidate FIU, Miami, FL, USA
2019-2020	Digital Business Group (USA) Head of North America
2016-PRESENT	Pecan Consulting President / Consultant
2020-PRESENT	Nidus Foods Co-founder / Investor