Revista Pensamento Contemporâneo em Administração

STARTUP FOUNDERS' ENTREPRENEURIAL PROFILE IN THE BRAZILIAN CONTEXT

PERFIL EMPREENDEDOR DOS FUNDADORES DE STARTUPS NO BRASIL

Recebido em 10.02.2022 Aprovado em 28.04.2022
Avaliado pelo sistema double blind review
DOI: https://doi.org/10.12712/rpca.v16i1.53103

Roberto Coda
robcoda@usp.br
Programa de Pós-Graduação em Administração/ Centro Universitário Campo Limpo Paulista – Campo Limpo Paulista/São Paulo, Brasil
https://orcid.org/0000-0002-8438-9599

Gustavo Hermínio Salati Marcondes de Moraes
salati@unicamp.br
Programa de Pós-Graduação em Administração/ Universidade Estadual de Campinas – Limeira/São Paulo, Brasil
https://orcid.org/0000-0001-5238-0314

Patrícia Viveiros de Castro Krakauer
pkrakauer@terra.com.br
Programa de Pós-Graduação em Administração/ Centro Universitário Campo Limpo Paulista – Campo Limpo Paulista/São Paulo, Brasil
https://orcid.org/0000-0003-4262-1297

José Marques Pereira Junior
josempj@sebraesp.com.br
Escola Superior de Empreendedorismo Sebrae (ESE) – São Paulo/São Paulo, Brasil
https://orcid.org/0000-0002-7739-6838

Abstract

This study investigates the behavioural profiles of Brazilian startups founders, considering that they may exhibit typical patterns, showing how they perform as entrepreneurs of innovative small businesses. A comparative analysis of 278 founders was performed with a national sample of 3,217 Brazilian managers, using the chi-square test and multiple paired comparisons. This study provides a unique perspective on a developing country, providing insights into behavioural challenges for improving startup performance and entrepreneurship in Brazil making it clear which behaviours are most preferred by founders, highlighting their practical focus on actions to identify opportunities, demonstrate resilience, communication, emotional intelligence, and perseverance.
Keywords: Founder. Startup. Behavioural Profile. Entrepreneurial Profile. Small Business Enterprises.

Resumo

O estudo investiga os perfis comportamentais dos fundadores de startups brasileiras, considerando que eles podem apresentar padrões típicos, mostrando como eles atuam como empreendedores. Foi realizada uma análise comparativa de 278 fundadores com uma amostra nacional de 3.217 gestores, utilizando o teste do qui-quadrado e comparações múltiplas pareadas. Este estudo traz uma perspectiva única sobre um país em desenvolvimento, trazendo insights sobre os desafios comportamentais para melhorar o desempenho de startups e empreendedorismo no Brasil deixando claro quais comportamentos são mais preferidos pelos fundadores, destacando seu foco prático em ações para identificar oportunidades, demonstrar resiliência, comunicação, inteligência emocional e perseverança.
Palavras-chave: Fundador. Startup. Perfil Comportamental. Perfil Empreendedor. Pequenas Empresas.

Introduction

Entrepreneurs who have founded micro or small businesses that became large, long-lived, and traditional are the object of fascination and curiosity, both in international contexts, as is the case of Jeff Bezos and Akio Morita, and in Brazil, as is the case of Luiza Trajano and Silvio Santos. Today, however, they also attract the interest of the general public, academics, and entrepreneurs since startups are recognized for adopting a non-traditional logic in their business and management models. These startup entrepreneurs, known as startup founders, are viewed in the corporate market as innovative individuals with a peculiar mindset.

In Brazil, despite developing later, founders have also managed to transform their startups into unicorn companies, even though they face a political and socioeconomic context adverse to the business environment, founders still appear to show an entrepreneurial and innovative attitude (SEBRAE – Brazilian Micro and Small Business Support Service, 2016), prompting us to investigate the behaviour of these business initiators.

Scientific articles and research work produced by institutions have sought to outline the behaviour and mindset of founders operating in contexts of uncertainty and fierce competition. The results have shown that 73% of founders dedicate their time entirely to their startups, and that 48% renounced the stability of a formal job and 28% were persistent, as they had already been involved in another startup (SEBRAE, 2015; 2016). Other works have also indicated that startup founders change their mindset based on their previous experience as entrepreneurs, adding that they are very optimistic individuals with innovator profile (Cacciolattia et al., 2020; Fitri & Pertiwi, 2019; Poole, 2012). In addition, supporting information has begun to emerge regarding the personality traits of startup leaders, defining them as presenting hubristic or charismatic (Judge, Piccolo, & Kosalka, 2009; Sundermeier & Kummer, 2019).

However, the pertinent literature on the behaviour of founders and possible behavioural profiles that lead them to implement their ideas enabled us to realize that this feature lacks more detailed scientific research that may converge into one or more unique profiles (Miller 2015; Sundermeier & Kummer, 2019). Thus, the present work focuses on investigating the behavioural profile of startup founders in an attempt to help to improve the theoretical background of the subject.

As a behavioural diagnostic to support this research work, the M.A.R.E. diagnostic was chosen, continuing the line of investigation of Coda, Krakauer and Berne (2018), which aimed to understand the behavioural styles of businesspersons from smaller companies.

Startups were chosen as research context, prioritizing those that participated in acceleration programs, since those that are or have been in such programs represent formalized startups that seek to generate innovative businesses. Startup acceleration programs originated in 2005 in the United States, and this mode quickly gained momentum in several entrepreneurial ecosystems (Fishback et al., 2007; Radojevich-Kelley & Hoffman, 2012; Hochberg et al., 2015). In Brazil, 57 accelerators were traced, which boosted over than 1,100 startups. Most of them, a total of 33, are located in the Southeast region, which is the most developed in the country (MCTI and ANPROTEC, 2019).

We understand that knowledge of possible dominant or absent profiles of startup founders that seek support in acceleration programs can shed light on likely behavioural reasons why the companies they manage may experience difficulties to survive in the market. This knowledge may also help to guide their development as managers, especially regarding managerial actions that need to be implemented to ensure the growth of their business. As commented by Sharma and Rautela (2021), small businesses are the growth drivers for developing economies, like Brazil.

Specifically, this study aims to:

i. trace the motivations and behavioural profiles of Brazilian startup founders;

ii. determine the existence of behavioural profiles and predominant motivations of startup founders in comparison with a large sample of Brazilian professionals, seeking to identify patterns that can indicate suited profiles for this type of business; and

iii. determine whether or not startup founders present behavioural characteristics associated with entrepreneurial orientation or entrepreneurial profile, as described in the relevant literature.

It is also expected that precise knowledge about the behavioural profile of startup founders can guide decision makers of business acceleration programs in their choices to accept or not potential participants, as they effectively present the possibility of putting into practice actions that can result in the success of the future enterprise. Mohammadi and Shafiee (2021) mention that accelerators have difficulties in establishing criteria for selecting startups, using the perception of the accelerator manager as one of the main criteria. Thus, knowing the behavioural profile of the startup founder can be a step towards the development of a model for this purpose.

Theoretical background

Startups and business accelerators

The literature defines startups as initiating companies, "established in an uncertain and volatile environment with the intention of bringing a new opportunity to the market" (Radojevich-Kelley & Hoffman, 2012, p. 54). This is a view referenced in other researches – with more than 150 citations in the literature, compatible with the view that considers them not only nascent technology-based companies, but also as "[...] a human institution designed to create new products and services under conditions of extreme uncertainty" (Ries, 2012, p. 24).

The business model's themes contribute to the conceptualization of startups, complementing the fact that they are temporary organisations that seek recurring, replicable, profitable, and scalable forms of operation (Blank & Dorf, 2014). A replicable business model and scalability have become common terms in business incubators and accelerators, with scalability power being a characteristic that distinguishes startups from traditional companies, also favouring the establishment of eventual strategic alliances between startups and larger companies (Cacciolatti et al., 2020).

Startups are also high-impact companies focused on innovation, regardless of their size or performance in the market (Rodriguez, 2015; Matos, 2017), operating in uncertain and volatile environments (Fitri & Pertiwi, 2019; Ghosh, Bhowmick, & Guin, 2014; Gelderen, Frese, & Thurik, 2000). Indeed, stating that startups operate in uncertain environments means there is no way to guarantee that the proposed idea (even if validated and prototyped) will actually be sustained in the market, which is common both for nascent companies and those for which innovation is an important cornerstone.

In accordance with the definitions presented above, we understand that startups are nascent companies, with a high socioeconomic impact, operating in an uncertain environment and with innovative, replicable, and scalable business models. Thus, it is possible to perceive the influence that this business format has on its ecosystem, with companies that are leaders in their segment (such as AirBnB, Uber and Netflix) having eventually changed the perception of values and consumption behaviour of an entire society (Matos, 2017; Ries, 2012; Thiel, 2014).

Acceleration programs are prominent players in entrepreneurial ecosystems. They are common in the world of startups and represent a rite of passage for beginning entrepreneurs (Hochberg et al., 2015). Accelerators seek innovative projects that can gain market and scale and receive projects at different stages, some still incipient and others already structured (Ribeiro et al., 2015). In this case, notably in the Brazilian context, founders and their startups receive support from mentors who assist them in the development of projects through the exchange of experience, capacity-building, improvement of the

business model, development of their network of contacts, and the search for investment (Ribeiro et al., 2015; Sarmento et al., 2016). In this way, they establish a value-adding partnership for both entrepreneurs and the entrepreneurial ecosystem in which they operate.

For the entrepreneur, support consists of defining, structuring, and consolidating the business, enabling risk mitigation (Cohen, 2013; Cohen & Hochberg, 2014; Radojevich-Kelley & Hoffman, 2012; Rodríguez, 2015). As for the entrepreneurial ecosystem, which is composed of different players (government, fostering entities and investors), the success of an acceleration program is related to the business maturity aspects achieved by the solutions developed for the startup (Aleisa, 2013; Cohen, 2013).

Behavioural profile of the startup founder

The role and activity of the founder is relevant during the process of consolidating the idea and transforming it into a business, or even for its scalability. In addition to creativity and the perception of normally barely noticeable opportunity, founders share their passion for entrepreneurship (Ries, 2012; Thiel, 2014), innovation-focused thinking processes, and lack of interest in common aspects related to traditional management (Fitri & Pertiwi, 2019; You, Valkjärvi, & Ofosu, 2021).

A pioneering work on the theme of founders sought to understand the relationship between specific variables, such as educational background, age, attendance as business-oriented training, having entrepreneurial parents, previous business experience, and the performance of businesses they have started. In terms of behavioural characteristics, the results pointed to the categories of entrepreneurial orientation, propensity for innovation, proactivity, taking risks, and flexibility in problem solving (Sapienza & Grimm, 1997).

The behavioural profile construct encompasses variables capable of explaining success or failure during the exercise of a role or function (Coda et al., 2021; Eken, Özturgut, & Craven, 2014), since different roles are necessary for the effective performance of a given job or function. Thus, the behavioural profile represents the way a person prefers to act, that is, how individuals like to do what they need to do, communicate and relate with peers, superiors or subordinates, forming a set of recognizable, natural, similar and converging actions (Darling & Walker, 2001; Coda, 2016). It represents a pattern that exhibits a clear and significant tendency in actions taken in the exercise of activities in the organisational context, which is the definition considered in the present study.

Despite the scarcity of studies, it is observed that the predominant profile of founders has been characterised being as composed of individuals who are achievers even in the face of uncertainty, determined to do the right things and are persevering and resilient (Livingston, 2009). In the research conducted by SEBRAE (2015), the following behavioural characteristics and personality traits were also found: ambitious, passionate about entrepreneurship, without any sense of hierarchy, collaborative, accustomed to teamwork, creators of companies intended for sale (in lots of shares or the whole company), bold, fearless in a crisis, but also resilient. Resilience is also perceived by Sharma and Rautela (2021) as a characteristic that stands out in the behavior of small business owners.

Startup acceleration program managers usually value, in terms of the profile of founders who submit projects, those who, quite frequently, show mental flexibility, empathy, commitment, receptiveness, passion for the business, interpersonal intelligence, and capability to generate productive networks for the business and the ecosystem in general (Livingston, 2009; Barrehag et al., 2012; Rodríguez, 2015).

Startup founders also tend to show hubris and charisma (Sundermeier & Kummer, 2019), with hubris being a cognitive bias characterised by the conjunction of personality traits such as pride, overconfidence, always positive self-assessments, and arrogance. Originating in Greek mythology, the concept is common in entrepreneurship to describe the behaviour of leaders who hold a position of power, affecting the individual's ideas and business vision (Picone, Dagnino, & Minà, 2014). Charisma, in terms of the founder's profile, characterises their adoption of a leadership style based on sympathy or admiration to

inspire followers, facilitating the sharing or acceptance of ideas (Sundermeier & Kummer, 2019; Antonakis, Fenley, & Liechti, 2011). Such aspects were not considered in this research because they represent personality traits and not actions or behaviours.

Other complementary views on the founders' profile emphasize communication skills and empathy (Werven, Bouwmeester, & Cornelissen, 2019) to draw the attention of investors or other stakeholders, passion for entrepreneurship and self-efficacy (Dalborg & Wincent, 2015), creativity for problem-solving and persistence (Cardon et al., 2009) and finally focus on marketing opportunities, perseverance and innovation (Milleto & Bittencourt, 2020).

Table I summarizes the theoretical framework surveyed on the behavioural profile of startup founders. It is observed that the set of academic works aimed at understanding this profile is still incipient, and the present research should contribute to this respect.

Table I. Summary on the Startup Founder behavioural profile

Characteristic	Source
Passion for entrepreneurship	Ries (2012); Thiel (2014); SEBRAE (2015); Dalborg and Wincent, (2015)
Focus on innovation	Fitri & Pertiwi (2019); Sapienza e Grimm (1997)
Propensity to take risks	Sapienza and Grimm (1997)
Detachment from traditional management	Fitri & Pertiwi (2019)
Persevering and/or Resilient	Livingston (2009); SEBRAE (2015); Cardon *et al*., 2009
Ambitious/Fearless	SEBRAE (2015)
Collaborative, used to working in groups	SEBRAE (2015)
Proactive in solving problems	Sapienza and Grimm (1997)
Communication/empathy	Werven, Bouwmeester and Cornelisser, (2019)
Self-efficacy	Dalborg and Wincent, (2015)
Creativity	Cardon *et al*., (2009)

Since the specific behavioural profile of founders is a subject still under construction, in this present research we also decided to use considerations on the profile of entrepreneurs as a theoretical foundation, given the similarities between the two types of profiles.

Entrepreneurial profile

The entrepreneurial profile has been defined by a vast array of authors as attitudes and behaviours when it comes to facing risks associated with the business activity, implementation of innovations, and competition within a given market context (Coda, Krakauer and Berne, 2018). It consists generally of: (a) taking the initiative; (b) organizing and reorganizing social and economic mechanisms capable of transforming resources and situations into situations of gain; and (c) accepting and dealing with risks and failure.

Individuals with this profile have the ability to trace and evaluate business opportunities, being motivated to take action, having a high degree of need for achievement, and being concerned with generating or achieving results (McClelland, 1965; Spencer & Spencer, 1993). Another set of behavioural characteristics of an entrepreneur implies a predisposition to coordinate efforts (Mohammed, Ibrahim, & Mohammad Shah, 2017) and exhibit behaviours with regard to personnel management, such as leading and encouraging the team (Huarng, Mas-Tur, & Yu, 2012).

Behavioural characteristics of the entrepreneur are also related to what is known as strategic posture, which is defined as thinking about the business on a future basis and is more frequently displayed by male rather than female entrepreneurs (Mohammed, Ibrahim, & Mohammad Shah, 2017). Coda et al. (2018) presented a summary table (Table II) that categorizes, describes and relates the behavioural characteristics of entrepreneurs with the M.A.R.E. profile, a diagnostic tool that will also be used in the present research.

Table II. Summary on the entrepreneurial characteristics listed in the literature

Category	Description	Authors	M.A.R.E. Profile
Risk Control	Moderately accepts risks and challenges, evaluating alternatives to reduce them and acting to control results.	Bula (2012); Filion (1999); McClelland (1965); Pino (1995)	Regulator
Planning & Organisation	Plans dividing tasks into subtasks with defined deadlines, mobilizing social, economic and internal mechanisms.	Gentile & Baltar (2013); Bula (2012); Hisrich *et al.* (2014); McClelland (1965); Pino (1995); Schumpeter (1955)	Coordinator
Focus on the Market	Develops and maintains commercial relationships, satisfying customers, showing awareness of the environment in which, they operate and implementing visions.	Filion (1999); Pino (1995)	Articulator
Search for Opportunities	Has a posture linked to competitiveness, seeking new businesses, opportunities and solutions.	Gentile & Baltar (2013); Cho & Moon (2013); Filion (1999); McClelland (1965); Pino (1995); Shane & Venkatamaram (2000); Halikias & Panayotopoulou (2003)	Competitor
Self confidence	Takes responsibility for decision-making, taking an interest in entrepreneurial occupations. Ability to face challenges.	Hisrich *et al.* (2014); Halikias & Panayotopoulou (2003); McClelland (1965); Pino (1995)	Competitor
Initiative	Assumes personal responsibility for performance, making efforts to accomplish tasks.	Hisrich *et al.* (2014); Pino (1995)	Achiever
Focus on Resources	Gathers financial resources in order to guarantee what is necessary to implement the tasks	McClelland (1965); Schumpeter (1955)	Coordinator
Concern about Quality & Efficiency	Seeks ways to do the job better, or more quickly and economically, acting to meet or exceed standards of excellence. Reviews plans and activities.	Pino (1995); Shane & Venkatamaram (2000)	Monitor
Dealing with People	Focuses on people's needs, collaborating with teams. Uses clear strategies to influence people.	Schumpeter (1955); Shane & Venkatamaram (2000), Pino (1995)	Facilitator
Propensity to Innovation	Has a creative and researching spirit, implementing changes and starting something new.	Bula (2012); Filion (1999); Hisrich *et al.* (2014); Mas-Tur *et al.* (2015); Shane & Venkatamaram (2000)	Innovator
Resilience	Maintains their point of view, acting repeatedly or changing strategies in case of need. Seeks to overcome obstacles to achieve objectives.	Blackburn *et al.*, 2013; Halikias & Panayotopoulou (2003); Pino, 1995	Regulator
Setting Goals & Objectives	Defines long-term, clear, measurable and specific goals and objectives, pursuing those with personal significance.	Filion (1999); McClelland (1965); Pino (1995)	Producer

Source: adapted from Coda *et al.* (2018)

M.A.R.E. diagnostic of motivational orientations

An individual's favoured and relatively stable behaviours shape the concept of motivational orientation. It is a tendency capable of forming a pattern when acting and that is often observed in an individual's attitude (Coda, 2016). Based on the contributions of Erich Fromm (1986), the M.A.R.E. Diagnostic is a tool developed to assess behaviourally anchored profiles using as a starting point a set of 4 (four) motivational orientations at work, based on the respondent's self-perceptions regarding the behaviours and actions they favour when working. These orientations were adapted and validated by Coda (2000) for the business context and renamed as Mediating, Analytical, Receptive, and Entrepreneurial motivational orientations, composing the acronym M.A.R.E.

The characteristics of motivational orientations with a comparison between the authors Fromm (1986) and Coda (2000) is presented in Table III. The approach considers that professionals use these 4 orientations when performing tasks, and the differences between individuals occur in relation to the intensity and order of preference for each of them.

Table III. Comparison between the nomenclatures of the motivational orientations

FROMM	CODA	Behavioural Characteristics
Market Orientation (M.)	Mediating Orientation (M.)	Focus on relationships. Seeks harmony and integration between conflicting views in work situations. Understanding people's needs. Ability to sell new ideas. Ease to act in groups; sociability, affection.
Accumulating Orientation (A.)	Analytical Orientation (A.)	Focus on strategies. Seeks continuity in actions and processes. High quality standards in tasks and procedures. Logic and rationality. Long-term vision. Impersonality, objectivity and sincerity. Shows risk aversion.
Receptive Orientation (R.)	Receptive Orientation (R.)	Focus on people. Team talent development. Development of own skills and competences. Recognition of the value of diversity. Concern as to enabling things instead of hindering them.
Explorer Orientation (E.)	Entrepreneuring Orientation (E.)	Focus on results. Seeks constant changes and challenges. Ability to act and achieve the expected. Focus on innovation and inventiveness. Exploration of new markets and business opportunities.

M.A.R.E. diagnostic behavioural profiles

Besides the four motivational orientations, the M.A.R.E Diagnostic is also composed by a set of 12 specific individual profiles resulted from a particular combination of them. These profiles were statistically validated and represent a professional's valued, intentional, and peculiar dynamics of behaving within a certain business environment or a job (Coda, 2016).

Table IV presents the main behavioural characteristics of the 12 profiles according to the M.A.R.E. Diagnostic.

Table IV. Summary of the behaviours of each profile of M.A.R.E. Diagnostic

PROFILE	BEHAVIOUR
INNOVATOR	Facilitates adaptation and change, considering environmental demands. Traces significant trends, conceptualizing and implementing necessary adjustments. Tolerates uncertainties and risks. Uses intuition to generate alternatives for solving problems. Uses creativity to design new procedures or products, keeping the focus on long-term prospects.
MOTIVATOR	Encourages teams to surpass current performance standards. Encourages reports and direct feedback to foster the use of people's creativity. Ensures technical advice on subjects within their expertise. Communicates in a calm and productive way, making it clear to everyone their engagement with the work to be done.
ARTICULATOR	Anticipates and determines customer and consumer needs. Supports the organisation's external legitimacy. Implements new ideas and executes agreements that add value for the parties involved. Shares best practices while executing jobs. Convinces others by using flexibility and making adjustments that suit the parties involved. Shows ability for networking, as well as for creating effective personal and professional relationships.
COORDINATOR	Promotes project management, ensuring systematic control of activities. Implements agile and efficient structures that enable information sharing and problem resolution. Employs resources that guarantee the execution of the work, such as schedules, organisation and maximization of the team's efforts.
REGULATOR	Clarifies organisational policies, rules and procedures, ensuring proper understanding to everyone involved. Seeks to maintain the status quo of the area in which they currently operate or of the organisation, making planned changes. Focuses on the efficient flow of work and information, as well as on the continuation of processes and work and of the organisation itself.
MONITOR	Helps people to know the procedures for correct execution of the work. Acts as a specialist in what they do. Seeks recognition in their area of specialization. Has complete knowledge of facts and data, being attentive to details and proving to be an excellent analyst. Monitors what happens in their work or functional area, ensuring the achievement of constant results.
MENTOR	Considers people as resources to be developed and oriented, contributing to the improvement of the team's competences through the formulation of individual improvement plans. Acts so as to provide advice and gain people's trust. Encourages the acceptance of new challenges, making people engaged with the company from strategic to operating aspects.
CONSIDERATOR	Acts so as to promote mutual help and trust between people. Organizes work meetings as a way to provide guidance to teams. Encourages people to balance work and personal life demands. Makes clear their interest and openness to new experiences, learning and knowledge acquisition.
FACILITATOR	Oriented towards objectives and work processes, seeking their correct performance and maintaining a working climate open to discussions. Legitimate contributions received and ideas. Promotes problem solution through group decisions, in addition to ensuring the progress of people's activities.
COMPETITOR	Focuses on conquering markets, maintaining their concern as to guaranteeing the competitiveness of the organisation in which they work. Creates policies aimed at accomplishing the business vision, emphasizing the activities of planning, setting objectives, and providing guidelines. Takes responsibility for deciding what needs to be done so the expected results are achieved.
ACHIEVER	Expresses their desire to achieve objectives, defining specific goals and communicating their concern to the team. Provides quick answers to emergency questions or situations. Prefers constant changes, convincing others of their points of view. Values situations where it is necessary to undertake or take action. Ensures the continuation of activities.
PRODUCER	Shows intense efforts and persistence to carry out the work. Task-oriented, seeks high levels of personal productivity. Motivated to accept new responsibilities, as well as attainable challenges, accomplishing the objectives set. Accumulates achievements steadily, finding situations that result in self progress.

Hypotheses

In summary, the literature review allows us to conclude that it is desirable that startup founders have or demonstrate an entrepreneurial orientation, explaining why they made the decision to seek specialized help to start their business. In terms of personal characteristics, the founders profile reveals creative, inspiring, charismatic, persevering, daring, fearless and resilient individuals.

With regard to behavioural characteristics, they demonstrate skills to deal and collaborate with people, focus on carrying out activities, show flexibility in their actions, easily identify opportunities and control risks, although they show an overall contempt for management.

Founded on the theoretical framework presented, the following research hypotheses (H) were defined to meet the objectives of the present work:

- H1: Startup founders have predominantly the entrepreneurial motivational orientation.
- H2. Startup founders have typical behavioural profiles, mainly those derived from the M.A.R.E Diagnostic entrepreneurial motivational orientation.

Method

Data collection procedure

The fieldwork for mapping behavioural profiles was carried out through research with a database composed of around 2,300 founders belonging to accelerators and public socioeconomic development agents. The data were collected using an electronic form forwarded by e-mail and to specific groups on social networks where the target public that is the object of study is concentrated, characterizing a process of voluntary adherence. The respondents received an individual and non-transferable password to access the M.A.R.E. diagnostic on a website developed especially for this purpose.

Sample

The data were collected between late 2018 and mid-2019. The number of respondents was 278, which corresponds to 12.09% of the total sample of 2,300 founders. As an incentive to participate in the study, all the participants received a report containing a description of their behavioural profile free of charge.

For the selection of respondents, an internet survey focusing acceleration and corporate venture programs, as well as in an ecosystem of existing startups in Brazil was carried out, resulting in the identification of 75 different initiatives. The prospection of such programs generated a data basis of 2300 startups. Then, an invitation to participate in the study was sent; 309 founders agreed to join the research but only 278 valid responses were obtained.

The survey consisted of sociodemographic questions as well as questions evaluating M.AR.E. motivational orientations. The questionnaire was composed of 16 items with a set of 4 alternatives each. Respondents were asked to state their behavioural preferences, ranking the alternatives from the most closely related to them (Grade 4) to the least preferred one (Grade 1).

Analytic approach

To investigate the typical differences in motivational orientations and behavioural profiles, two different samples were used: Founders and National. These independent variables of the study can only be assessed by applying the M.A.R.E. Diagnostic. A recommendation for addressing this potential methodological bias is to investigate whether the study of these variables can also be applied to other contexts (Podsakoff et al., 2003). We also suggest that one way of dealing with this bias is to observe the M.A.R.E questionnaire reliability measures (Cronbach's alpha), as follows: Mediating orientation .80; Analytical orientation .82; Receptive orientation: .83 and Entrepreneuring orientation .80.

The chi-square test was used to compare independent samples. The technique is suitable when the dependent variable is nominal and the objective is to analyze group differences (Greenwood & Nikulin, 1996; Sirkin, 2006). To operationalize the chi-square test, the expected frequency cannot be less than five in more than 20% of the cells, and no cell must have an expected frequency less than one (Greenwood & Nikulin, 1996; Sirkin, 2006).

Multiple paired comparisons with Bonferroni correction were used to assess differences between samples in relation to motivational orientation and behavioral profile (Abdi, 2007). Additionally, Tukey's honestly significant difference (HSD) test was used (Abdi & Williams, 2010).

The behavioural profiles of the M.A.R.E. diagnostic were created through the multivariate statistical technique of discriminant analysis (DA), applied to a large sample of Brazilian managers, and composed of 3,217 cases (Coda, 2016). This national sample was obtained through constant applications in several training and development managerial in company programs, focused on people management and conducted throughout the Brazilian territory over the last 5 years.

The Competing Values Framework (CVF) model (Cameron et al., 2014) served as a guideline for the identification of a satisfactory congruence between the M.A.R.E. Diagnostic database and the 12 theoretical behavioural profiles predicted in the CVF model as being effective for the performance of any managerial function. Wilks' Lambda test values in all cases had p-values of less than 0.001, and the cross-loadings of the classifications generated by the DA equations indicated that 95.2% of the cases were well grouped and separated into the 12 profiles of the CVF model, thus validating the construction of the M.A.R.E. diagnostic profiles.

The Brazilian sample and founders sample database had each observation labelled into three different categorical variables: Sample, with two levels (the labels being 0 for National and 1 for Founders); M.A.R.E., with four levels (1 for Mediating, 2 for Analytical, 3 for Receptive, and 4 for Entrepreneuring orientation); Profile, with 12 levels (1 for Articulator, 2 for Innovator, 3 for Motivator, 4 for Regulator, 5 for Monitor, 6 for Coordinator, 7 for Facilitator, 8 for Mentor, 9 for Considerator, 10 for Competitor, 11 for Producer, and 12 for Achiever). This database enables the comparison between observations (i.e., proportions) at each level of each variable.

The second database was created to enable a comparison between the rankings of each orientation and profile, having one line for each orientation and profile (total = 16 lines), with 2 variables: ranking (from the most prevalent to the least prevalent) in the National and Startup Founder samples. Each orientation could have one and only one ranking from 1 to 4 (in each sample) and each behavioural profile could have one and only one ranking from 1 to 12 (in each sample). The data were analysed using IBM SPSS Statistics software 25.

Results

Sociodemographic profile of founders

The majority of the research sample consisted of male individuals (80%). The most representative age corresponded to 31–40 years, accounting for 39% of the founders, followed by 20–30 years, at 28%, constituting a young age profile.

In terms of education, the predominant backgrounds were Engineering, accounting for 27% of the sample, with Information Technology and Computing at 18% and immediately followed by Business Administration, representing 16% of the total. The educational level of the founders in the sample proved to be high, given that only 5% had completed only secondary education, with 41% having completed higher education, 32% with postgraduate education, 18% having a master's and doctoral degree, and 4% a postdoctoral degree. Both men and women had a high education level, as 75% of the male founders and 65% of the female founders had completed higher education.

The male founders began their entrepreneurial activities significantly earlier than the female founders. While men started their businesses aged 20–30 years, women waited a little longer, with most concentrated in the 30–40-year age group.

Regarding years of professional experience, for both male and female founders, 10 years was the most frequently mentioned number. First, the average time the founders spent to construct and consolidate their businesses is noteworthy, as it appears to be relatively short. The most frequently mentioned interval was 1–2.5 years, with only 20% of the founders spending more than three years to consolidate their startup.

Second, the number of initiatives mentioned by the founders with regard to participation in acceleration and pre-acceleration programs should be noted. In total, 75 initiatives were found, which were categorized into the designated classes. It should also be noted that 77% of Founders had prior experience in at least one acceleration program, 18% in at least two programs, and 5% in three or more initiatives of this nature.

Results of the M.A.R.E. Diagnostic

Table V presents the results obtained for the distributions of Motivational Orientations and Behavioural Profiles considering the national sample (taken as a reference for comparison) and the startup founders sample obtained in the study.

Table V. Distribution of the motivational orientations and M.A.R.E. behavioural profiles in the national sample and in the startup founders' sample

Behavioural Profile	National Sample			Startup Founders sample		
	Orientation	Quantity	%	Orientation	Quantity	%
Articulator		1055	32.8		52	18.71
Innovator	M. (48%)	198	6.2	M. (31%)	24	8.63
Motivator		297	9.2		10	3.60
Regulator		119	3.7		11	3.96
Monitor	A. (10%)	52	1.6	A. (12%)	18	6.47
Coordinator		165	5.1		05	1.80
Facilitator		125	3.9		23	8.27
Mentor	R. (29%)	132	4.1	R. (24%)	05	1.80
Considerator		662	20.6		38	13.67
Competitor		145	4.5		37	13.31
Producer	E. (13%)	155	4.8	E. (33%)	27	9.71
Achiever		112	3.5		28	10.07
Total	100%	3.217	100%	100%	278	100%

According to Lijphart (1971), comparison is a fundamental feature in analysis, as in addition to playing a refined central role in the definition of concepts and in describing facts, it makes it possible to emphasize suggestive similarities and contrasts between the cases under study.

The prevalence of motivational orientations and behavioural profiles was ordered between the two samples (based on the number of respondents). Tables VI and VII present the rankings according to the greater presence of orientations and profiles.

Table VI. Ranking of the M.A.R.E. motivational orientations between the national sample and startup founders sample

Motivational Orientation		Ranking (in number of observations)	
		National Sample	Founders sample
Mediating	(M.)	1	2
Analytical	(A.)	4	4
Receptive	(R.)	2	3
Entrepreneuring	(E)	3	1

Table VII. Ranking of the M.A.R.E. behavioural profiles between the National sample and the startup Founders sample

Behavioural Profile	Ranking (in number of observations)	
	National Sample	Founders sample
Articulator	1	1
Innovator	4	6
Motivator	3	10
Regulator	10	9
Monitor	12	8
Coordinator	5	11
Facilitator	9	7
Mentor	8	12
Considerator	2	2
Competitor	7	3
Producer	6	5
Achiever	11	4

Comparative analysis of the national sample and startup founders sample – M.A.R.E. motivational orientations

The chi-square test was performed through cross tabulation of M.A.R.E. orientations qualitative variables between the national sample and the startup founders sample. We obtained chi-square statistics of 92.172 (df=3; p<0.000), which indicate statistically significant differences between the samples.

To assess which orientations differed between the samples, we analysed the Chi-square contribution for each sample and factor. The results indicated that the proportions between the two samples were significantly different for the following orientations: Mediating (pNational = 48% vs. pFounder = 31%), which is more prevalent in the national sample; Entrepreneuring (pNational = 13% vs. pFounder = 33%), which is more prevalent in the founders sample; and Receptive (pNational = 29% vs. pFounder = 24%), which is more prevalent in the national sample. There were no statistically significant differences between the two samples when considering Analytical orientation (pNational = 10% vs. pFounder = 12%). Table VIII presents the results of the comparison.

Table VIII. Comparison between the M.A.R.E. motivational orientations in the national sample and in the startup founders sample

Orientation	Indicators	National sample	Founders sample	Total	Significant Difference
Mediating	Frequency	1550.0	86.0	1636.0	Yes
	Expected frequency	1506.0	130.0	1636.0	
	Chi-square contribution	1.3	14.9	16.2	
Analytical	Frequency	336.0	34.0	370.0	No
	Expected frequency	340.6	29.4	370.0	
	Chi-square contribution	0.1	0.7	0.8	
Receptive	Frequency	919.0	66.0	985.0	Yes

	Expected frequency	906.7	78.3	985.0	
	Chi-square contribution	0.2	1.9	2.1	
Entrepreneurial	Frequency	412.0	92.0	504.0	Yes
	Expected frequency	463.9	40.1	504.0	
	Chi-square contribution	5.8	67.2	73.0	
Total frequency		3217.0	278.0	3495.0	

To compare whether there were differences in orderings (i.e., rankings), based on prevalence, we calculated non-parametric ordinal correlation measures between the two samples. As expected, Kendall's τb (0.115) and Spearman's ϱ (0.123) correlation coefficients, although significant, showed low values, indicating that the rankings by prevalence of M.A.R.E. orientation are not equal in the national sample and in the founders sample.

When analysing the observed proportions statistically, it is evident that the founders sample has, in relation to the national sample, a significantly higher proportion of individuals with Entrepreneuring orientation and a lower proportion of respondents with Mediating orientation. It should also be noted that Entrepreneuring orientation, in turn, is much more clearly present in the founders sample than in the national sample. These results allow us to confirm H1 of the present study.

Comparative analysis of the national sample and the startup founders sample – M.A.R.E. behavioural profiles

The chi-square test using cross-tabulation for the Behavioural Profiles qualitative variables between the national sample and the startup founders sample obtained a value of 162.586 (df=11; p<0.000), indicating statistically significant differences between the samples. Thus, similar to the analysis of the M.A.R.E. orientations, we analysed the Chi-square contribution for each sample and profile in order to determine the differences in the proportions between the Behavioural Profiles.

The results indicated that the proportions between the two samples were significantly different for the following profiles: Achiever (pNational = 3.5% vs. pFounder = 10.1%), Articulator (pNational = 32.8% vs. pFounder = 18.7%), Competitor (pNational = 4.5% vs. pFounder = 13.3%), Considerator (pNational = 20.6% vs. pFounder = 13.7%), Coordinator (pNational = 5.1% vs. pFounder = 1.8), Facilitator (pNational = 3.9% vs. pFounder = 8.3%), Innovator (pNational = 6.2% vs. pFounder = 8.30%, p<5%), Mentor (pNational = 4.1% vs. pFounder = 1.8), Monitor (pNational = 1.6% vs. pFounder = 3.6%), Motivator (pNational = 9.2% vs. pFounder = 3.6%), and Producer (pNational = 4.0% vs. pFounder = 9.7%).

There were no statistically significant differences between the two samples in the Regulator profile (pNational = 3.7% vs. pFounder = 4.0%). Table IX presents the results of the comparison between the Behavioural Profiles and the samples.

Table IX. Comparison between the behavioural profiles in the national sample and in the startup founders sample

Behavioural Profile	Indicators	National sample	Founders sample	Total	Significant Difference
Achiever	Frequency	112.00	28.00	140.0	Yes
	Expected frequency	128.86	11.14	140.0	
	Chi-square contribution	2.21	25.54	27.7	
Articulator	Frequency	1055.00	52.00	1107.0	Yes
	Expected frequency	1018.95	88.05	1107.0	

	Chi-square contribution	1.28	14.76	16.0	
	Frequency	145.00	37.00	182.0	
Competitor	Expected frequency	167.52	14.48	182.0	Yes
	Chi-square contribution	3.03	35.04	38.1	
	Frequency	662.00	38.00	700.0	
Considerator	Expected frequency	644.32	55.68	700.0	Yes
	Chi-square contribution	0.49	5.61	6.1	
	Frequency	165.00	5.00	170.0	
Coordinator	Expected frequency	156.48	13.52	170.0	Yes
	Chi-square contribution	0.46	5.37	5.8	
	Frequency	125.00	23.00	148.0	
Facilitator	Expected frequency	136.23	11.77	148.0	Yes
	Chi-square contribution	0.93	10.71	11.6	
	Frequency	198.00	24.00	222.0	
Innovator	Expected frequency	204.34	17.66	222.0	Yes
	Chi-square contribution	0.20	2.28	2.5	
	Frequency	132.00	5.00	137.0	
Mentor	Expected frequency	126.10	10.90	137.0	Yes
	Chi-square contribution	0.28	3.19	3.5	
	Frequency	52.00	18.00	70.0	
Monitor	Expected frequency	64.43	5.57	70.0	Yes
	Chi-square contribution	2.40	27.76	30.2	
	Frequency	297.00	10.00	307.0	
Motivator	Expected frequency	282.58	24.42	307.0	Yes
	Chi-square contribution	0.74	8.51	9.3	
	Frequency	155.00	27.00	182.0	
Producer	Expected frequency	167.52	14.48	182.0	Yes
	Chi-square contribution	0.94	10.83	11.8	
	Frequency	119.00	11.00	130.0	
Regulator	Expected frequency	119.66	10.34	130.0	No
	Chi-square contribution	0.00	0.04	0.0	
Total frequency		3217.0	278.0	3495.0	

To compare whether there were differences in orderings (i.e., rankings), based on prevalence, we calculated the non-parametric ordinal correlation measures between the two samples. The correlations were significant, with Kendall's τb and Spearman's ϱ correlation coefficient values of 0.099 and 0.113, respectively. These results indicate that, although there is a significant tendency for the orders to remain the same or close, some profiles are in quite different positions in each of the samples.

The Articulator profile and the Considerator profile, for example, occupied positions 1 and 2, respectively, in the two samples. The Motivator profile ranked 3 in the national sample and 10 in the founders sample; the Coordinator profile, position 5 in the national sample and 11 in the founders sample; Achiever, position 11 in the national sample and 4 in the founders sample; and Competitor, 7 in the national sample and 3 in the founders sample. Table X presents a comparison between the rankings

of the profiles by sample, enabling us to confirm the H2 of the study, since there are both more present and more absent profiles in the founders sample.

Table X. Dominant and absent behavioural profiles in the startup founders sample

Behavioural Profile	Ranking (in number of observations)		Conclusion
	National Sample	Founders sample	
Articulator	1	1	Same ranking; less present in the Founders sample.
Innovator	4	5	Similar ranking; more present in the Founders sample.
Motivator	3	9	Different ranking; less present in the Founders sample.
Regulator	10	8	Similar ranking; proportions without statistical difference between the samples.
Monitor	12	10	Similar ranking, more present in the Founders sample.
Coordinator	5	11	Different ranking; less present in the Founders sample.
Facilitator	9	7	Similar ranking; more present in the Founders sample.
Mentor	8	12	Different ranking; less present in the Founders sample.
Considerator	2	2	Same ranking; less present in the Founders sample.
Competitor	7	2	Different ranking; more present in the Founders sample.
Producer	6	4	Similar ranking; more present in the Founders sample.
Achiever	11	5	Different ranking; more present in the Founders sample.

According to the data analysis, some M.A.R.E. behavioural profiles stood out in the sample of startup founders as a result of a comparison with the national sample (Table XI), since they presented at least one of the criteria adopted for analysis classified as Larger Proportion, namely: Monitor, Facilitator, Competitor, Producer, Achiever, and Innovator. The other profiles of the startup founders sample (Coordinator, Regulator, Articulator, Motivator, Considerator, and Mentor) have analysis criteria lower than or equal to the national sample and are therefore not characteristic of the research sample.

Table XI. Comparison of behavioural profile between samples

M.A.R.E. Behavioural Profile	Startup Founders sample vs. National Sample	
	Proportion	Ranking
Articulator	Smaller	Similar
Innovator	Larger	Similar
Motivator	Smaller	Different
Coordinator	Smaller	Different
Regulator	No Difference	Similar
Monitor	Larger	Similar
Considerator	Smaller	Similar
Facilitator	Larger	Similar
Mentor	Smaller	Different
Competitor	Larger	Different
Producer	Larger	Similar
Achiever	Larger	Different

Furthermore, the profiles considered in the research and their corresponding behavioural characteristics also served as a basis for a comparison with those listed in the relevant literature, as presented in Table II and representative of the entrepreneurial profile. The result of this comparison can be analysed in Table XII.

Table XII. Comparison between the entrepreneurial characteristics listed in the literature on entrepreneurial profile and results for the startup founder behavioural profile.

Category	Description	M.A.R.E. Profile	Significant in the research?
Risk Control	Moderately accepts risks and challenges, evaluating alternatives to reduce them and acting to control results.	Regulator	NO
Planning & Organisation	Plans dividing tasks into subtasks with defined deadlines, mobilizing social, economic and internal mechanisms.	Coordinator	YES (-)
Focus on the Market	Develops and maintains commercial relationships, satisfying customers, showing awareness of the environment in which they operate and implementing visions.	Articulator	YES (-)
Search for Opportunities	Has a posture linked to competitiveness, seeking new businesses, opportunities and solutions.	Competitor	YES (+)
Self confidence	Takes responsibility for decision-making, taking an interest in entrepreneurial occupations. Ability to face challenges.	Competitor	YES (+)
Initiative	Assumes personal responsibility for performance, making efforts to accomplish tasks.	Achiever	YES (+)
Focus on Resources	Gathers financial resources in order to guarantee what is necessary to implement the tasks	Coordinator	YES (-)
Concern about Quality & Efficiency	Seeks ways to do the job better, or more quickly and economically, acting to meet or exceed standards of excellence. Reviews plans and activities.	Monitor	YES (+)
Dealing with People	Focuses on people's needs, collaborating with teams. Uses clear strategies to influence people.	Facilitator	YES (+)
Propensity to Innovation	Has a creative and researching spirit, implementing changes and starting something new.	Innovator	YES (+)
Resilience	Maintains their point of view, acting repeatedly or changing strategies in case of need. Seeks to overcome obstacles to achieve objectives.	Coordinator	YES (-)
Setting Goals & Objectives	Defines long-term, clear, measurable and specific goals and objectives, pursuing those with personal significance.	Producer	YES (+)

Although this list of characteristics is not extensive, it provides a framework for determining whether some individuals present entrepreneurial behaviours, reinforcing the desire to make the entrepreneurial spirit real.

Discussion

This study examined the composition of behavioural profiles of founders performing their duties in startups. Results confirm H1 related to the startup founder's predominantly entrepreneurial motivational orientation, and H2 related to typical behavioural profiles, mainly those derived from the M.A.R.E Diagnostic entrepreneurial motivational orientation.

Some research contributions can be highlighted. First, it contributes to the literature on entrepreneurship from the perspective of a Latin American developing country. Second, it affords insights on the impact of behavioural profiles of startup founders on entrepreneurial activity, highlighting favoured actions in the exercise of their functions in their ventures. Third, this study advances the analysis of the competences that must be learned to help these professionals adopt useful behaviours to face current or new challenges in work situations. In short, founders should focus their self-development when acquiring analytical, mediating, and managerial skills. Also, it can contribute to accelerators programs that can use the founder profile as one of the criteria for selecting projects.

The research shows that, in practice, although some entrepreneurial behaviours of startup founders are naturally favoured as they are associated with dominant profiles, such as a search for opportunities, self-confidence, initiative, concern with efficiency and quality, dealing with people, propensity to innovation and setting goals and targets, other behaviours need to be the target of intense development in order to improve these founders' skills and performance effectiveness, that is, the skills associated with the profiles that were less strongly present in the research.

Concerning the development of the entrepreneurial capability of startup founders focus should be directed to learning and practicing behaviours associated to risk control, resilience, planning and organisation. It should also be aimed at a managerial posture guided by focusing on the market, as a way to pay greater attention and put into practice measures for the real fulfilment of needs expressed by customers, instead of those of their own. There should also be a focus on resources management, guaranteeing the financial assets for the maintenance and continuation of the business. Startup founders could benefit from trying to acquire skills, competences and behaviours linked to the Articulator (focus on negotiation), Motivator (focus on team leadership), Mentor (focus on employee development), Considerator (focus on cooperation), and Coordinator (focus on resources) profiles, which were significant in the surveyed sample for having a weaker presence.

Surprisingly within the Brazilian context, the results indicated that, unlike those obtained for managers or owners of micro and small companies (Coda et al., 2018), with startup founders, the Innovator profile is significantly stronger. Therefore, the study shows innovation as a category for the entrepreneurial profile and for the activity of starting a business with the intention of operationalizing a new product, technology, or service by opening a startup.

On the other hand, they do not show dominance in relation to resilience and collaboration, skills positively associated with the behavioural profile of the founder, as presented in Table I. The other characteristics mentioned in Table I (passion for entrepreneurship, focus on innovation, propensity to taking risks, disinterest in traditional management, and proactivity in solving problems) were present in the dominant profiles of the study.

Our findings enable us to conclude that the M.A.R.E. behavioural profiles which were most strongly detected among the startup founders meet 58% of the categories of the entrepreneurial profile. It is worth noting that the comparison with the categories arising from the literature on the subject shows aspects not only linked to profiles related to Entrepreneuring motivational orientation, but also to profiles related to Mediating, Analytical and Receptive orientations.

According to the typology of the M.A.R.E. behavioural profiles, the associated profiles are Articulator (not significant in the study), Achiever, Producer and Competitor, which are representative of the study's founders sample. These dominant profiles positively influence not only entrepreneurial intent, but also the likelihood of this type of company coming to show high levels of productivity and growth. However, they do not necessarily guarantee continuation or long-term survival, as these challenges depend more on profiles associated with Analytical orientation and that tended to be absent in the researched sample.

Although the prevalence of the Entrepreneuring orientation in the sample might have been expected, it was greatly highlighted in the founders sample when compared with the national sample. On the other hand, the mediating orientation, dominant in the national sample, proved to be less present in the sample of startup founders examined in the present study.

Analysing the theoretical contribution to the field of entrepreneurial behaviour improvement, our research work confirms two relevant aspects. First, it reinforces the predominance of entrepreneurial orientation among startup founders who chose to seek support from established business acceleration programs. Second, it makes clear which behaviours are most preferred by this type of entrepreneur, highlighting their effective focus on actions to identify opportunities, resilience, communication, emotional intelligence and conducting job activities with perseverance.

Our findings are supported, for example, by the work of Caputo and Pellegrini (2020), aimed at unveiling the cognitive and emotional aspects of entrepreneurship, providing insights on how behaviours and decisions permeate the success of entrepreneurial ventures throughout their life cycle, bridging the gaps in current research on entrepreneurship and innovative behaviours with decision making and negotiation.

Regarding the context of startups acceleration programs another important point that emerges from our study is that the behavioural development effort should be represented by supplementary activities to be applied in conjunction with the content and regular activities already provided by current acceleration programs in Brazil. However, we suggest that the implementation of these extra activities should be evaluated and put into practice depending on the discretion of the acceleration program manager, and they can be introduced gradually and structurally with groups of specific founders who need a behavioural reinforcement to leverage their business expertise.

Conclusion

At the beginning of the research, a theoretical gap was noted regarding the profile of startup founders, especially in terms of their more typical behaviours. The two research hypotheses were confirmed.

Our study indicates that the startup founder's behavioural development effort is linked to a greater focus on the market and the guarantee of resources, improvement of work coordination standards, in addition to the team's professional development, motivation and training.

We consider that understanding and leveraging the founder's dominant behavioural profiles, as well as their relation with their current moment in life (whether in relation to their personal path or the stage of their startup) can provide competitive advantages over other startups that operate in the same market and even for a higher rate of completion of acceleration programs (Radojevich-Kelley; Hoffman, 2012; Hochberg et al., 2015).

As with all scientific research, limitations were noted. The first concerns the selection of the collection locus represented by participation in acceleration programs, chosen due to its easy access, and which does not allow a wide generalization to the population of Brazilian founders, despite the adequacy of the sample number. The second limitation is that the sample was not probabilistic, having been obtained through voluntary participation. A third limitation is that the study did not examine the likely effect of sociodemographic parameters such as age, sex, educational level, and startup size on the prevalence of the profiles under consideration. So, we suggest conducting other studies related to these variables.

We recommend future research in Brazil seeking to establish a correlation between behaviours and profiles of startup founders and the growth or performance of the company they lead. This could corroborate the results of other works that confirm the hypothesis that certain leadership behaviours of founders positively affect the result and performance of their businesses (Zaech and Baldegger, 2017). However, for this limitation to be properly addressed, it is necessary to have an instrument to evaluate

the results of a startup as a small organisation that is reliable and valid for this purpose. This type of tool is not yet available in the Brazilian entrepreneurial ecosystem.

Finally, it is worth noting that each of the behavioural profiles that were assessed can be adopted by any professional, although this represents a major challenge. One possibility is for the founders to lean increasingly on their strengths, thereby improving what they are naturally good at further still. Another possibility is to meet the behavioural complexity linked to the managerial function and role. This sets up a challenging imperative that needs to be faced in the name of the success of startups, both in Brazil and in other cultures that foster the development of entrepreneurship itself.

References

Abdi, H. (2007). *The Bonferroni and Sidak corrections for multiple comparisons*, N. J. Salkind (Ed), *Encyclopaedia of measurement and statistics*, Thousand Oaks, CA: SAGE.

Abdi, H. & Williams, L. (2010). *Honestly significant difference (hsd) test*, N. J. Salkind (Ed.), *Encyclopaedia of research design,* Thousand Oaks, CA: SAGE.

Aleisa, E. (2013). *Startup Ecosystems. Study of the ecosystems around the world*, Available at: http://www.janrecker.com/wp-content/uploads/2013/02/20130213_FinalReport_Startup-Ecosystems.pdf Access: 05/08/2021.

Antonakis, J., Fenley, M., & Liechti, S. (2011). *Can charisma be taught? Tests of two interventions*. *Academy of Management Learning & Education*, Vol.10 No. 3, pp. 374–396. https://doi.org/10.5465/amle.2010.0012

Barrehag, L., Fornell, A., Larsson, G., Mardstrom, V., Westergard, V., & Wrackefeldt, S. (2012). *Accelerating success: A study of seed accelerators and their defining characteristics*, Bachelor Thesis TEKX04-12-10 Chalmers University, Sweden, 2012. Available at: https://www.acceleratorstudy.com/Accelerating-Success.pdf Acess: 03/18/2021.

Blackburn, R. A., Hart, M., & Wainwright, T. (2013). Small business performance: business, strategy and owner-manager characteristics, *Journal of Small Business and Enterprise Development*, Vol.20 No. 1, pp. 8-27. https://doi.org/10.1108/14626001311298394

Blank, S. & Dorf, B. (2014). *Startup: Entrepreneur's manual - step-by-step guide to building a great company*, Rio de Janeiro: Alta Books (*in portuguese*).

Bula, H. O. (2012). Evolution and theories of entrepreneurship: a critical review on the Kenyan perspective, *International Journal of Business and Commerce*, Vol. l No. 11, pp. 81-96.

Cacciolattia, L., Rosli, A., Ruiz-Alba, J. L., & Chang, J. (2020). Strategic alliances and firm performance in startups with a social mission, *Journal of Business Research*, Vol. 106, pp. 106-117. https://doi.org/10.1016/j.jbusres.2019.08.047

Cameron, K. S., Quinn, R. E., Degraff, J., & Thakor, A. V. (2014). *Competing values leadership,* Edward Elgar, Cheltenham (UK): New Horizons in Management.

Caputo, A. & Pellegrini, M. M. (2020). Introduction to "*The entrepreneurial behaviour: unveiling the cognitive and emotional aspect of entrepreneurship*", Caputo, A. and Pellegrini, M.M. (Ed.), The Entrepreneurial Behaviour: Unveiling the cognitive and emotional aspect of entrepreneurship (Entrepreneurial Behaviour Series), Emerald Publishing Limited, Bingley, pp. 1-5. https://doi.org/10.1108/978-1-78973-507-920201003

Cardon, M. S., Wincent, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion, *Academy of Management Review*, Vol. 34 No. 3, pp. 511-532. https://doi.org/10.5465/AMR.2009.40633190

Cho, D. S. & Moon, H. C. (2013). *From Adam Smith to Michael Porter: Evolution of competitiveness theory*, Singapore: World Scientific Publishing Company.

Coda, R. (2000). *Understanding intrinsic motivation: a research among Brazilian professionals*, in: Annual Research Conference, North Carolina, Proceedings..., Academy of Human Resource Development: Bowling Green.

Coda, R. (2016). *Behavioural Competences: How to map and develop personal competences at work*, São Paulo: Atlas-Gen. (in portuguese).

Coda, R., Berne, D. F., Krakauer, P. V. C., & Moraes, G. H. S. M. (2021). Entrepreneurship and gender: what do behavioural profiles have to do with it. *International Journal of Entrepreneurship and Small Business*, v. 43, p. 116-141, 2021.

Coda, R., Krakauer, P. V. C., & Berne, D. F. (2018). Are small business owners' entrepreneurs? Exploring small business manager behavioural profiles in the São Paulo Metropolitan region, *RAUSP Management* Journal, Vol. 53 No. 2, pp. 152-163. https://doi.org/10.1016/j.rausp.2017.05.011

Cohen, S. (2013),. What do Accelerators do? Insights from incubators and angels, *Innovations: Technology, Governance, Globalization*, Vol. 8 No. 3-4, pp. 19–25. https://doi.org/10.1162/inov_a_00184

Cohen, S. & Hochberg, Y. V. (2014), *Accelerating Startups: The Seed Accelerator Phenomenon*, available at: SSRN: https://ssrn.com/abstract=2418000 or http://dx.doi.org/10.2139/ssrn.2418000.

Dalborg, C. & Wincent, J. (2015). The idea is not enough: The role of self-efficacy in mediating the relationship between pull entrepreneurship and founder passion – a research note, *International Small Business Journal*, Vol. 33 No. 8, pp. 974-984. https://doi.org/10.1177/0266242614543336

Darling, J. R. & Walker, W. E. (2001). Effective conflict management: use of the behavioral style model, *Leadership & Organization Development Journal*, Vol. 22, No. 5, pp. 230-242. https://doi.org/10.1108/01437730110396375

Eken, I., Özturgut, O., & Craven, A. (2014). Leadership Styles and Cultural Intelligence, *Journal of Leadership, Accountability and* Ethics, Vol. 11 No. 3, pp. 154-165.

Filion, L. J. (1999). Entrepreneurship: Entrepreneurs and small business owners-managers, *RAUSP Management Journal,* Vol. 34 No. 2, pp. 5-28 (*in portuguese).*

Fishback, B., Gulbranson, C. A., Litan, R. E., Mitchell, L., & Porsig, M. (2007). *Finding Business 'Idols': A New Model to Accelerate Start-Ups*, Kauffman Foundation, available at: https://ssrn.com/abstract=1001926 or http://dx.doi.org/10.2139/ssrn.1001926. Access: 03/17/2021.

Fitri, S. & Pertiwi, A. (2019). Innovation mindset model at the early-stage startup with Berkeley innovation index approached, *Journal of Information System and Technology Management*, Vol. 4 No. 13, pp. 57-70. https://dx.doi.org/10.35631/JISTM.413006

Fromm, E. (1986). Man for Himself: An Inquiry into the Psychology of Ethics, Rio de Janeiro: Zahar (in portuguese).

Gelderen, M., Frese, M., & Thurik, R. (2000). Strategies, Uncertainty and Performance of Small Business Startups, *Small Business Economics*, Vol. 15 No. 3, pp. 165-181. https://doi.org/10.1023/A:1008113613597

Gentile, N. & Baltar, F. (2013). *SME businessmen through their narratives: own styles and specificities*, Global Conference on Business and Finance, Proceedings …Vol. 8 No. 1 (*in spanish*).

Greenwood, P. E. & Nikulin, M. S. (1996). *A guide to chi-squared testing*, New York: Wiley.

Halikias, G. & Panayotopoulou, L. (2003). Chief executive personality and export involvement, *Management Decision*, Vol. 41 No. 4, pp. 340-349. https://doi.org/10.1108/00251740310468072

Hisrich, R. D., Peters, P. P., & Shepherd, D. A. (2014). *Entrepreneurship*, Porto Alegre: AMGH. *(in portuguese).*

Hochberg, Y., Cohen, S., & Fehder, D. (2015). The Top 20 Start-Up Accelerators in the U.S, *Harvard Business Review*, 2-5, Mar. 31. https://doi.org/10.1515/ijek-2017-0005

Huarng, K-H., Mas-Tur, A., & Yu, TH-K. (2012). Factors affecting the success of women entrepreneurs, *International Entrepreneurship Management Journal*, Vol. 8 No. 4, pp.

487–497. https://doi.org/10.1007/s11365-012-0233-4

Judge, A. T., Piccolo, R. F., & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigma. *The Leadership Quarterly*, Vol. 20 No. 6, pp. 855–875. https://doi.org/10.1016/j.leaqua.2009.09.004

Lijphart, A. (1971). *Comparative politics and the comparative method. American political science review*, Vol. 65 No. 3, pp. 682-693. https://doi.org/10.2307/1955513

Livingston, J. (2009). *Startup: founders of Apple, Yahoo, Hotmail, Firefox and Lycos tell how their million-dollar companies were born*, Rio de Janeiro: AGIR. (*in portuguese*).

Mas-Tur, A., Pinazo, P., Tur-Porcar, A. M., & Sánchez-Masferrer, M. (2015). What to avoid to succeed as an entrepreneur, *Journal of Business Research*, Vol. 68 No 11, pp. 2279-2284. https://doi.org/10.1016/j.jbusres.2015.06.011

Matos, F. (2017). *10,000 startups: a practical guide to start and grow a new technology-based business in Brazil*, São Paulo: Mariposa. (*in portuguese*).

McClelland, D. (1965). N achievement and entrepreneurship: a longitudinal study, *Journal of Personality and Social Psychology*, Vol. 1 No. 4, pp. 389-392. https://doi.org/10.1037/h0021956

MCTIC and ANPROTEC. (2019). *Mapping the Generation Mechanisms of Innovative Enterprises in Brazil*, available at: https://informativo.anprotec.org.br/mapeamento-dos-mecanismos-de-geracao-de-empreendimentos-inovadores. Access: 03/17/2021 *(in portuguese)*

Miller, D. (2015). A downside to the entrepreneurial personality?, *Entrepreneurship Theory and Practice*, Vol. 39 No. 1, pp. 1–8. https://doi.org/10.1111/etap.12130

Milleto, B. L. & Bittencourt, B. A. (2020). Garra e orientação empreendedora individual: seriam a paixão e a perseverança a base para o desempenho empreendedor?, in XLIV ENCONTRO DA ANPAD, Proceedings... EnANPAD 2020. *(in portuguese).*

Mohammed, K., Ibrahim, H. I., & Mohammad Shah, K. A. (2017). Empirical Evidence of Entrepreneurial Competencies and Firm Performance: a Study of Women Entrepreneurs of Nigeria, *International Journal of Entrepreneurial Knowledge*, Vol. 5 No. 1, pp. 49-61. https://doi.org/10.37335/ijek.v5i1.53

Mohammadi, N. & Shafiee, M. (2021). How design thinking help us to select startups for the acceleration period?, Journal of Entrepreneurship in Emerging Economies, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JEEE-07-2021-0274

Picone, P. M., Dagnino, G. B., & Minà, A. (2014). The origin of failure: a multidisciplinary appraisal of the hubris hypothesis and proposed research agenda, *The Academy of Management Perspectives*, Vol. 28 No 4, pp. 447–468. https://doi.org/10.5465/amp.2012.0177

Pino, L. J. (1995). *Finding your niche,* São Paulo: Best Seller. *(in portuguese).*

Poole, R. (2012). Global Mindset: An Entrepreneur's Perspective on the Born-Global Approach, *Technology Innovation Management Review*, available at: https://timreview.ca/sites/default/files/article_PDF/Poole_TIMReview_October2012.pdf Acess: 04/01/2021

Radojevich-Kelley, N. & Hoffman, D. L. (2012). *Analysis of accelerator companies: An exploratory case study of their programs, processes, and early results*, Vol. 8 No 2, pp. 54-70.

Ribeiro, A. T. V. B., Plonsky, G. A., & Ortega, L. M. (2015). *One End, Two Means: Accelerators and Incubators In Brazil*, in XVI Congresso Latino-Iberoamericano de Gestão da Tecnologia, Proceedings…ALTEC. (*in portuguese*).

Ries, E. (2012). *The Lean Startup: how today's entrepreneurs use continuous innovation to create extremely successful businesses*, São Paulo: Lua de Papel (*in portuguese*).

Rodríguez, J. A. H. (2015). *Start-up development in Latin America: the role of venture accelerators*, submitted to MIT Sloan School of Management on May 8, 2015 in Partial Fulfillment of the Requirements for the Degree of Master of Science in Management of Technology, Sloan School of Management, Massachusetts Institute of Technology, available at: https://dspace.mit.edu/handle/1721.1/99034. Access: 04/01/2021

Sapienza, H. G. & Grimm, C. M. (1997). *Founder* Characteristics, Start-Up Process, and Strategy/Structure Variables as Predictors of Shortline Railroad Performance, *Entrepreneurship Theory and Practice*, Vol. 22 No. 1, pp. 5-24. https://doi.org/10.1177/104225879702200101

Sarmento, C. F. B., Carvalho, C. A. S., & Dib, L. A. R. (2016). Effectuation and the influence of social networks on the internationalization of accelerated startups, *Review of International Business*, Vol. 11 No. 1, pp. 63-73. https://doi.org/10.18568/1980-4865.11163-76

Schumpeter, J. A. (1955). *Theory of economic development: an inquiry into profits, capital, credit, and the business cycle*, Cambridge, Mass: Harvard University Press.

SEBRAE. (2015). *B-side search of Startups 2015*, available at: http://m.sebrae.com.br/Sebrae/Portal%20Sebrae/UFs/SP/Pesquisas/lado_A_B_startups.pdf Acess: julho 2017. (*in portuguese*).

SEBRAE. (2016). *Survival of Brazilian Companies*, available at: https://m.sebrae.com.br/Sebrae/Portal%20Sebrae/Anexos/sobrevivencia-das-empresas-no-brasil-relatorio-apresentacao-2016.pdf. Acessed 03 April 2020. *(in portuguese).*

Shane, S. and Venkataraman, S. (2000). The promise of entrepreneurship as a field of research, *Academy of Management Review*, Vol. 25 No 1, pp. 217-226. https://doi.org/10.2307/259271

Sharma, S. & Rautela, S. (2021). Entrepreneurial resilience and self-efficacy during global crisis: study of small businesses in a developing economy, Journal of Entrepreneurship in Emerging Economies, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JEEE-03-2021-0123.

Sirkin, R. M. (2006). *Statistics for the social sciences*, Thousand Oaks, CA: SAGE.

Spencer, L. M. & Spencer, S. M. (1993). *Competence at Work: Models for Superior Performance*, John Wiley & Sons, New York.

Sundermeier, J. & Kummer, T. (2019). *Startup Founders' Personality Attributes in Crowdfunding Campaigns: The Relevance of Hubris and Charisma in Raising Seed Funding Online*, in proceedings of the 52nd Hawaii International Conference on System Sciences, p. 4476-4482.

Thiel, P. (2014). *From Zero to One: What to Learn About Entrepreneurship from Silicon Valley*, Rio de Janeiro: Objetiva. (*in portuguese*).

Werven, R., Bouwmeester, O., & Cornelissen, J. P. (2019). Pitching a business idea to investors: How new venture founders use micro-level rhetoric to achieve narrative plausibility and resonance, *International Small Business* Journal, Vol. 37 No 3, pp. 193-214. https://doi.org/10.1177/0266242618818249

You, W., Valkjärvi, M., &Ofosu, G. (2021). What it takes to make it: profile and characteristics of DIY bio laboratory founders, *Technology Analysis & Strategic Management*, Vol. 33 No. 10, pp. 1198-1121. https://doi.org/10.1080/09537325.2021.1937978

Zaech, S. & Baldegger, U. (2017). Leadership in start-ups, *International Small Business Journal*, Vol. 35 No. 2, pp. 157-177. https://doi.org/10.1177/0266242616676883