

**Focus! A theory of entrepreneurial attention in emerging economies**

**ABSTRACT**

Where entrepreneurs focus their attention is consequential, particularly in emerging economies where resources are scarce. We examine contextual factors that shape entrepreneurial attention in emerging economies. Based on interviews and longitudinal data from entrepreneurs in Brazil, we show that business distress shifts the focus of attention towards sponsorship take-up. We find that this shift of attention depends on motivation, attention capacity and information access – mechanisms that are influenced by the social context of the entrepreneurs. Our study contributes to theory by exploring the antecedents of entrepreneurial attention and by introducing the concept of cognitive consequences of scarcity into the literature.

Keywords: Attention; Scarcity; Emerging Economies; Sponsorship; Gender; Business Distress

## **Introduction**

Entrepreneurial attention is limited (James, 1890). Where entrepreneurs focus their attention helps explain how they identify opportunities and why they engage in distinct courses of entrepreneurial action (Holcomb, Ireland, Jr, & Hitt, 2009; McMullen & Shepherd, 2006).

Understanding entrepreneurial attention is particularly important in emerging economies, where entrepreneurs must navigate competing demands on their attention arising from institutional voids and missing resources (Bruton, Filatotchev, Si, & Wright, 2013). However, within the existing literature, entrepreneurial attention is generally treated as a given; we know little about how entrepreneurial attention comes into focus. Thus, in this paper, we ask the theoretical question, ‘What shapes the focus of entrepreneurial attention in emerging markets?’

To examine this question, we draw on theories of attention (Kahneman, 1973; Simon, 1947), the cognitive consequences of scarcity (Mani, Mullainathan, Shafir, & Zhao, 2013; Mullainathan & Shafir, 2013), as well as literature regarding entrepreneurship in emerging markets (De Castro, Khavul, & Bruton, 2014). We explore particularly the role that the context in which entrepreneurs in emerging economies are operating plays for their attention allocation (Vissa, Greve, Chen, 2010). In developing our arguments, we integrate abductive reasoning along with a more traditional deductive approach to develop our hypotheses (Behfar & Okhuysen, 2018). Abductive reasoning involves iterating between general rules and local observations in search of novel explanations (Mantere & Ketokivi, 2013). Iterating between findings from qualitative interviews and existing literature, we develop specific hypotheses, which we test on a longitudinal dataset of entrepreneurs operating in favelas in Brazil.

We focus our theoretical development on a specific empirical phenomenon – organizational sponsorship services offered to entrepreneurs within Favelas in Brazil. (McKenzie & Woodruff, 2014). Organizational sponsors seek to help entrepreneurs overcome challenges in emerging markets by providing access to knowledge, resources, and market infrastructure, but are often underutilized by entrepreneurs (Etzkowitz, de Mello, & Almeida, 2005; Hsu, Wiklund, & Cotton, 2015; Valdivia, 2015). We explore why entrepreneurs sometimes shift their attention towards sponsorship services, while in other cases they do not.

Our analysis suggests that situations of distress may lead to a shift in attention. However, our interviews indicate three mechanisms that influence the extent to which entrepreneurs are likely to shift their focus of attention: motivation, capacity, and access. First, entrepreneurs vary in their motivation. Obligations towards others (such as dependent children) can create significant motivations for shifting the focus of attention towards the search for help. Second, not all entrepreneurs have equal capacity – some face more significant time demands than others. Those with less capacity are less likely to shift their attention. Finally, some entrepreneurs have better access to new information that might occupy their attention. This is especially likely among entrepreneurs that have greater social connections. Furthermore, our interviews suggest that venture maturity, the entrepreneur’s gender, and the entrepreneur’s age are related to motivation, capacity, and access and we hypothesize that these characteristics will relate to the take-up of sponsorship services. We test our arguments with a longitudinal data-set of 5,868 entrepreneurs in favelas in Brazil and find general support for our hypotheses.

Our study makes several contributions to theory regarding entrepreneurial attention in emerging economies. While prior studies have highlighted the importance of attention (e.g.

Shepherd & McMullen, 2006), the origin of the attention has been taken for granted. By drawing on a variety of theories regarding organizational attention, individual attention, and scarcity, we shed light on how entrepreneurial attention comes into focus within emerging markets and influences entrepreneurial action. We also contribute to the entrepreneurship literature by introducing the concept of cognitive consequences of scarcity (Mullainathan & Shafir, 2013), and its interaction with attention, to the literature. The concept of scarcity has led to enhancements in the understanding of decision-making under severe financial restrictions (Mani, Mullainathan & Shafir, 2013). We build on these findings and apply them to decision making of entrepreneurs in emerging economies under situations of business distress. By exploring the implications of cognitive capacity for attention focus, we extend prior work on attention allocation (Mullainathan & Shafir, 2013; Mani et al. 2013), as well as identify opportunities for future research. Finally, our study solves an empirical puzzle related to low take-up rates of sponsorship services and has practical implications for those seeking to promote entrepreneurial growth in emerging economies. Our study suggests that sponsors should consider the implications of structure and situation as they recruit for sponsorship programs.

### **Attention and Entrepreneurship in Emerging Economies**

Attention is a central construct in entrepreneurship. Entrepreneurs are boundedly rational (Cooper, Folta, & Woo, 1995; Minniti & Bygrave, 2001; Simon, 1997), and as such, they must selectively focus their attention, with important consequences for entrepreneurial action (Shepherd & Patzelt, 2018). Entrepreneurial attention is the first stage of opportunity evaluation (Shepherd & McMullen, 2006) and plays a critical role in entrepreneurial learning (Holcomb et al., 2009). Within emerging economies, the concept of attention may help scholars understand

how entrepreneurs navigate challenging and complex environments and why they engage in distinct actions (cf. De Castro, Khavul & Bruton, 2014). However, despite the central role of attention in entrepreneurship, attention is often treated as a given within theories of entrepreneurship and we know relatively little about how attention comes into focus. The psychological literature on attention provides a starting point for examining this question.

Attention is a behavioral and cognitive process characterized by the perception, interpretation and focusing of time and effort to a predetermined location or space (James, 1890; Kahneman, 1973). Given that attention requires time and effort, attention is limited by actors' capacity, or cognitive restrictions in processing information (Kahneman, 1973, 2003). The notion of limited capacity for attention is deeply integrated into existing theory, though it is often implicit. Bounded rationality is grounded in the idea that entrepreneurs have a limited capacity to attend to the world around them (Cooper et al., 1995). Because of their limited capacity to attend to the world around them, entrepreneurs must selectively focus their attention (Kahneman, 1973; Simon, 1947). Finally, the intensity with which entrepreneurs focus their attention may vary (Berlyne, 1960). The variation of attention intensity is both obvious and underexplored. As explained by Kahneman, "...any schoolboy [or schoolgirl] knows that applying oneself is a matter of degree. Lulled into a pleasant state of drowsiness by his teacher's voice, the schoolboy does not merely fail to pay attention to what the teacher says; he has less attention to pay" (1973:3). In other words, the full capacity of attention is not always sustained, but rather varies over time and is driven by both top-down and bottom-up attention processes. Environmental stimuli can direct attention towards or away from a specific particularly when information is new or most distinctive in a situation (Shepherd & Patzelt, 2018). Our interest in this study is in the

factors that shape the focus of attention of entrepreneurs in emerging economies. In other words, what determines how entrepreneurs handle their limited capacity and select objects of attention while varying the intensity of their effort given the social context of entrepreneurs in emerging economies and their business situation?

We use an abductive approach to examine this issue. Abduction involves iterating between local observations and general rules in order to generate novel explanations (Mantere & Ketokivi, 2013). Integrating abductive reasoning into more common hypothetico-deductive inquiry is useful for generating novel, creative leaps during theory building (Behfar & Okhuysen, 2018). Our abductive approach involved a significant amount of iteration between qualitative and quantitative data. We began with informal conversations and observations, collected quantitative data, conducted preliminary analysis, conducted more formal interviews, further analyzed the data, all while iterating back and forth between data and theory. Consistent with abductive studies, we encourage readers to treat our conclusions somewhat provisionally. However, we believe that the approach is justified as the tight integration and iteration between data and theory allows for rich theorizing (Behar & Okhuysen, 2018).

### **Empirical Setting: The Lack of Organizational Sponsorship Uptake by Entrepreneurs in Favelas**

To better understand how entrepreneurs in emerging markets focus their attention, we examine take-up rates of organizational sponsorship within low-income communities known as favelas that surround large metropolitan areas in Brazil. Organizational sponsors provide training (Etzkowitz et al., 2005), build connections to new markets (Dutt et al., 2016), provide access to scarce resources (Amezcuca et al., 2013), and help entrepreneurs to overcome significant

institutional challenges and access larger markets (Mair, Martí, & Ventresca, 2012; Sutter, Webb, Kistruck, Ketchen, & Ireland, 2017). In low-income areas in Brazil, the Brazilian Micro and Small Business Support Service (henceforth, SEBRAE) is the primary organizational sponsor. SEBRAE offers for the entrepreneurs a diverse set of training programs, technical assistance via phone and internet, and direct assistance in their city and community offices, thus promoting entrepreneurship. However, despite the presence of significant challenges and the wide range of services provided, take-up rates for sponsorship services are surprisingly low. As a Business Development Consultant for SEBRAE noted:

*We perceive that there are still a lot of entrepreneurs who are not participating in our courses or taking up on our services offer. Possibly, because of missing information and understanding of what the benefits are.*

Our census data corroborates this perception<sup>1</sup>. It shows that only 12 percent of entrepreneurs from Favela Complex Maré and 28 percent of entrepreneurs from the East Zone of Rio de Janeiro knew or had previous contact with SEBRAE. Given the lack of awareness about SEBRAE despite their unique role of a service provider and their significant outreach efforts, we explore the role of attention in explaining take-up rates for sponsorship services. We are interested in how attention is focused, with a specific emphasis on how the social context shapes the focus of attention. To better understand this topic, we conducted 31 interviews with entrepreneurs who took up SEBRAE services, those who never came to SEBRAE and SEBRAE staff members, and other relevant actors. The primary themes that emerged from these interviews

---

<sup>1</sup> Our census data stems from two field experiments conducted by authors of this study that took place in Favela Complex Maré in 2016 and in the East Zone of Rio de Janeiro in 2018.

helped us to develop our specific hypotheses. For information on the themes emerging from our interviews, please see Appendix 1.

## **Theory Development and Hypothesis**

### *Situations of distress and the focus of attention*

We begin by examining how situations shape the focus of entrepreneurial attention in emerging markets. Recent studies have shown that scarcity – in form of insufficient resources to meet demands – focuses cognitive resources to solve the salient problem (Mani et al., 2013; Mullainathan & Shafir, 2013; Shah, Shafir, & Mullainathan, 2015). Similarly, other studies reveal that attention is more likely to shift as a result of negative situations (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Rozin & Royzman, 2001). For small entrepreneurs in emerging economies a situation of poor firm performance is likely to cause severe scarcity as financial resources might not only be missing to answer to firm liabilities but also to household needs. Thus, we would expect this scarcity to focus attention on solving the most immediate problem related to poor firm performance (Mullainathan & Shafir, 2013). Consistent with this idea, we found in our interviews that entrepreneurs will self-select into sponsorship services once they encounter themselves in a state of business distress, in which they are no longer able to deal with the situation by themselves. To illustrate, one entrepreneur at the SEBRAE office noted:

*There came a time that I delayed the DAS [tax payment], I was very late. Then the CNPJ [business identification number] was canceled. Then I went to figure out what to do and they informed me about Carol [the SEBRAE consultant]. I came, I looked over the issue with her, and I'm organizing everything.*

In contrast, in the absence of situational urgency, many entrepreneurs will not refocus their attention. This is because entrepreneurs exhibit bounded rationality, and instead of



systematically evaluating criteria and selecting an optimal course of action, they need to perceive a contextual demand to affect attention allocation towards take-up. We therefore argue that venture distress creates a situation of scarcity, thus shifting the focus of attention towards possible solutions, leading to the take-up of sponsorship:

*H1: Entrepreneurs are more likely to take-up sponsorship when they experience situations of venture distress.*

#### *Contextual drivers of the focus of attention*

Because entrepreneurs vary in terms of their position within the broader social structure, not all entrepreneurs will respond equally to situations of business distress. In exploring why entrepreneurs would or would not focus their attention on sponsorship services, our interviews suggested three themes – motivation, capacity, and access (see Appendix 1). Motivation relates to how devastating business failure might be for the entrepreneur. Capacity relates to the time and ability that the entrepreneur is able to devote to new topics of attention. Access relates to the channels through which the entrepreneur is able to receive information. Our interviews also suggest a relationship between these mechanisms and the maturity of the venture, the entrepreneur's age, and the entrepreneur's gender.

#### *Business maturity*

Less mature ventures differ from more mature ventures. Entrepreneurs in new ventures often invest all their resources in a new business, creating a strong need to generate income quickly to pay back debts. They often experience a series of these urgent demands as they seek to overcome the liability of newness (Singh, Tucker and House, 1986, Freeman, Carroll, & Hannan, 1983). These challenges take more time to solve in emerging economies, due to institutional voids that must be surpassed (Nichter & Goldmark, 2009). In addition, because new ventures

have fewer established business relationships, they may have less access to important market information. These characteristics have important implications for their focus of attention.

We expect the strong need to succeed to lead to a high motivation of new ventures, thus positively influencing attention intensity. As such, in the face of business distress, less mature ventures are likely very motivated to refocus their attention on opportunities to receive help. However, they face other constraints that can overwhelm the effects of motivation. The stress and time associated with starting a new venture, generating a quick return on investment, acquiring clients and so forth, generates many immediate demands on the entrepreneur's time and attention. We expect the multi-level tasks related to the set-up of a new venture together with experienced financial scarcity to occupy the mind of the entrepreneur and cause them to engage in tunneling, or 'focusing the single-mindedly on managing the scarcity at hand' (Mullainathan and Shafir 2013). Relevant information and cues from the environment might often not be perceived or attended to by an entrepreneur who is focused on putting his business idea into reality. As one entrepreneur at the SEBRAE office points out: "Here we see that people do not appear at the beginning, in which you are building things ... they appear later. One reason is time."

Finally, due to liability of newness ties with the environment and information about sponsorship services are likely to be missing (Freeman, Carroll, Hannan, 1983). One entrepreneur tells us that he has his shop for five years but only found out last week that sponsorship services are offered. In summary, new ventures may have high motivation to focus their attention on sponsorship during times of venture distress; however, they have limited available capacity to accomplish this, and have less access to relevant information. One SEBRAE Consultant explains:

*[First, entrepreneurs] need to understand how the company is functioning and how the processes work. Once they already know the whole process of the company, they allow themselves to seek new information such as consulting, training, information...[and] more content about their segment. And on the other hand, the person who is new to the sector, wants to have a quick return of the invested money, focuses on selling and is very excited about the dream. In this situation, the information that we [consultants from SEBRAE] can bring along is perceived as standing in their way.*

More mature ventures, in contrast, are more likely to focus their attention on sponsorship opportunities. They also perceive a high motivation when venture distress occurs, though they may not face the same urgency as less mature ventures. However, more mature ventures are more likely to have available capacity as their business routines are established and operational processes have become more automated and require less vigilance and intervention. The time and energy that arises out of these routine developments allow the range of attention to broaden, as attention can be turned to other tasks (Bargh & Chartrand, 1999) and thus leads to greater available attention capacity. In regard to a situation of a business crisis, the attention capacity is also enforced by the experience with the business, which will increase the ability of the entrepreneur to distinguish a situation of business distress from a situation of simple turmoil. More mature ventures are also likely to have a more business-related relationships set-up by clients, suppliers, and other entrepreneurs, given their longer time in the market. These relationships are likely to augment their access to information and knowledge about the existing eco-system, including sponsorship services. We therefore argue:

*H2: Entrepreneurs with more mature businesses are more likely to take-up sponsorship when they experience situations of venture distress.*

### *Gender*

We also expect differences among male and female entrepreneurs to create differences in motivation, available capacity, and information access, with important implications for the focus

of attention during times of venture distress. We found female entrepreneurs frequently had greater obligations as compared to men, particularly in terms of family responsibilities. They also discussed having more relationships and ways of learning about new opportunities. These characteristics had important implications for women's motivation, capacity, and access to information.

Our interviews indicated that women often had a greater motivation to find help during times of business distress. Within this context, many women are solely responsible for their children, increasing the need to make the business work. For example, asked if she ever thought about quitting the business when times are bad, a female entrepreneur responds: "Never. I can't, I have four kids there is no way of giving up." Second, this motivation is increased due to the higher perception of opportunity costs for women to close the business (Eddleston & Powell, 2012). Jobs in other parts of the city demand long commuting time, making it harder to balance time spend for work and family obligations. Being an entrepreneur allows many to be close to their children, even more so when the business is operated from home. As one female entrepreneur stresses:

*I worked in Copacabana and I'm so tired of getting traffic, buses. It stressed me a lot, for a long time. And since I was at home because of the baby ... I decided to work from home, to stay closer to her and earn my money too. Then I found this option better.*

Whereas demands on women increased motivation, they also created significant challenges in terms of available capacity. Additional obligations also create obligations both on time and cognition, thus reducing the available attention capacity for female entrepreneurs.

However, balancing multiple roles may also benefit women as they are more exposed to information from multiple sources. The broader variety of activities may increase access to information, thus making it more likely that they will discover SEBRAE in a moment of business distress. To illustrate, a 33-year old female entrepreneur from Favela Complex Maré asserts:

*I was taking my daughter to school and so did an acquaintance who always takes the kids to school. I said that I had to cancel the CNPJ [business identification number], so she said "Well, go there [to SEBRAE]` because I did not know it myself.*

In contrast, our interviews indicate that male entrepreneurs had a lower motivation as they reported being content, even in times of venture distress. One male-entrepreneur affirms: “If I speak for myself, I do not want to come and get information, I am very comfortable. Probably, a woman has more caprice for these things.” This accommodation of men is emphasized throughout the interviews and also linked to more resistance to change, as a female-entrepreneur stresses: “I think men are very stubborn, very hardheaded. A man does not seek information, as he does not want to...he does not seek to improve his life, for him it’s good the way it is.” And another male entrepreneur adds: “ I think men are more resistant...A man tries to be very strong and ends up not to be. I think it's the man's machismo...I speak for myself, I thought I do not need to reach out for these things [SEBRAE services].” We expect these informal norms to cause lower motivation in male-led ventures.

Due to less social expectations for men regarding family and household, men also have less diverse daily routines and a higher ability to focus on their business goals, which increases the relative available attention capacity in comparison to women. However, the fewer daily activities coupled with a higher resistance to change and little comfort in asking for help, supported by a machismo-culture will lead to lower access to information about sponsorship services (Addis and Mahalik, 2003).

In summary female-led ventures within the favelas have high motivation, less available capacity and greater access to information, whereas male-led ventures are characterized by lower motivation and greater available capacity, but less access to information. The difference in

motivation and information access are likely to increase the take-up of sponsorship services by female-led businesses in a situation of business distress. We therefore argue:

*H3: Female Entrepreneurs are more likely to take-up sponsorship when they experience situations of venture distress.*

#### *Entrepreneur's age*

Finally, entrepreneurs differed according to their age. As one younger entrepreneur stressed: “I still have to think of my family, of what I can leave my son, my daughter for the future. I still need to think about growing [with my business] due to a bigger picture – today I can sustain myself, but how is the situation going to be in the future?” The younger entrepreneurs we spoke with described larger ambitions and the desire to do business with more established and well-known companies. Older entrepreneurs, in contrast, were often more satisfied with the status quo. They also differed in terms of their relationships and means of communication. These differences had important implications for how attention was focused during times of business distress.

Younger entrepreneurs generally reported greater motivation than older entrepreneurs for several reasons. As mentioned above, younger entrepreneurs were often concerned with building a future, not only for themselves, but also for their dependents. In addition, younger entrepreneurs often expressed greater career aspirations. Thus, we argue that the motivation to seek for help in a moment of crisis will be higher for younger entrepreneurs.

Despite the increased motivation, younger entrepreneurs may deal with less available capacity given the greater diversity in the set of tasks they tackle in lives. The younger entrepreneurs we spoke with described being pulled in many different directions as they sought out educational opportunities, parenting, and other tasks. The cognitive demands of these

activities lead to a situation of time scarcity, limiting the cognitive capacity necessary to refocus attention (Mani et al., 2013).

Finally, the external social context also affect access to information. As one SEBRAE consultant notes: “The young people are more tuned ... they are more connected than the entrepreneurs of a certain age ... the young entrepreneurs learn about us through the communication channel that we create: WhatsApp, Instagram, Facebook.” This higher access to information is favored by a network of a young and heterogeneous group of people who are affiliated with universities, professional programs and geographic flexibility thus contributing to an exchange of ideas and exposure to new information. The cumulative effect of these differences is a higher access to information among younger entrepreneurs, as their surrounding and life routines consistently expose them to new ideas and information.

In contrast, older entrepreneurs adhere to cultural norms that make them less likely to seek out new ideas and experiences, leading to reduced motivation for their business. Although older entrepreneurs have more life experience, our interview data suggest their motivation to be lower overall. As one entrepreneur in his thirties illustrates: “I feel older people think they do not need it [sponsorship services] anymore. They've gotten that little bit to keep up and it is enough for them.” Our interview data indicates that older entrepreneurs enjoy more stability and are more satisfied with their current resources, but have also a higher distrust in others, and perceive a stronger rejection of the feeling of being told how to run the business. They also commonly viewed outside organizations as bureaucratic and ineffective, making them less likely to want to engage. As one entrepreneur points out: “I think older people have no information...the culture of trickery in Rio de Janeiro makes that people grow old thinking that everything they want to do is bureaucratic.”

While motivation of older entrepreneurs is lower, we expect attention capacity to be higher due to established life routines, which reduces their cognitive burden. However, the greater available capacity was not always utilized, given their lower motivation, as described above. Furthermore, our interview data also suggests that older entrepreneurs have less access to new information. Older entrepreneurs use fewer technology and have less access to social media (Pew Research Center, 2018). In addition, the more established social networks of older entrepreneurs are likely to trigger less exposure to new information. Finally, older entrepreneurs differed from younger entrepreneurs in their perception of outside organizations.

In summary, younger entrepreneur have high motivation, less available capacity, and greater access to information, whereas older entrepreneurs are characterized by lower motivation, higher capacity, and lower access to information. The difference in motivation and information access are likely to increase the ability of younger entrepreneurs to focus their attention on sponsorship when they face situations of venture distress. We therefore argue:

*H4: Younger entrepreneurs are more likely to take-up sponsorship when they experience situations of venture distress.*

In summary, we argue that the situation of venture distress will lead to the take-up of sponsorship services because it generates a focus dividend due to a situation of scarcity. We furthermore theorize that differences in motivation, available capacity and access to information differ along the lines of gender, entrepreneur age, and venture maturity. We argue that as the access to motivation, attention capacity and motivation increase, entrepreneurs will be more likely to refocus attention and the take-up of sponsorship services during times of business distress will also increase. We therefore expect a higher take-up by female entrepreneurs, younger entrepreneurs, and entrepreneurs with a more mature business. Our arguments are summarized in Figure 1.



-----  
Insert Figure 1 About Here  
-----

## **Methods**

### *Research setting and data-set*

We analyze data from entrepreneurs from low-income communities in Rio de Janeiro, Brazil. We assembled the dataset used in this paper from data provided by SEBRAE (the sponsorship organization) and Serasa-Experian (credit bureau), and from data we collected from official public records of tax and social security payments.

SEBRAE has a country-wide network of nearly 700 onsite service centers, 5,000 small business experts, and a large pool of external consultants. The work is directed toward guidance to help small businesses grow and generate more employment. The service portfolio focuses particularly on entrepreneurs eligible for the individual entrepreneur program (MEI), but not exclusively. Our analysis focuses on these small entrepreneurs with a maximum of one formal employee and annual sales of less than R\$60,000 (US\$18,000). In the SEBRAE offices, entrepreneurs can get training, technical help, and general orientation for all processes related to formalizing or maintaining their venture (SEBRAE, 2016).

The SEBRAE data consists of individual-level data of entrepreneurs formalized as MEIs who sought out SEBRAE offices in Rio de Janeiro's *Complexo do Alemão*, *Jacarezinho*, *Rocinha*, and *Complexo da Maré* districts from the time of office opening until August 2016. It includes detailed information about the services provided by SEBRAE to each entrepreneur, such as date of service, type of service, individual tax identification code (CPF), age, gender, business identification number (CNPJ), and address. Our main variable of interest from this dataset is the date of the take-up of the first service by the entrepreneur, as this reflects a shift in the focus of their attention.

Our second source of data is from Serasa-Experian. Serasa-Experian is one of the main credit bureaus in Brazil. Besides providing credit-related information, Serasa also provides for marketing purposes lists of individuals and companies with demographic information and addresses. We acquired from Serasa a list of all CNPJs of MEIs (active by July 2016) registered in the zip codes served by SEBRAE in our four districts of interest, along with the birthdate and gender of these entrepreneurs. From the same source, we could also obtain credit scores for a subsample of entrepreneurs.

The final source of data came from public records of the Brazilian government. The payment records for taxes and social security payments by MEIs can be publicly accessed through the *Ministerio de Fazenda* webpage if one has the company ID number. Since we have company ID numbers from both SEBRAE and Serasa-Experian datasets, we were able to download all MEIs' individual records containing the history of monthly payments from the opening date of each company through July 2016. Therefore, we have, in principle, the payment records of all formalized entrepreneurs in the four districts, regardless of whether they actually visited SEBRAE or not. This data also allows us to distinguish between entrepreneurs who work in services and those who work in commerce or industry.

### *Variables*

In order to identify venture distress, we consider other variables that reflect a state of distress and that can be tracked objectively over time. Considering that entrepreneurs in emerging economies usually have limited cash reserves and face credit constraints (Grimm, Knorringa, & Lay, 2012; Yunus, 1999), once business performance suffers, the entrepreneurs are likely to have cash flow problems and fall into arrears. We observe two different variables that can capture business financial distress: (1) compliance with tax payments and social security

contributions and (2) credit score. These measures are preferable to self-reported measures such as profitability, particularly given the lack of record keeping among small entrepreneurs in emerging markets (Bruhn & Zia, 2013; Honig, 1998; McKenzie & Woodruff, 2014).

Entrepreneurs who are formalized as MEIs in Brazil must pay a subsidized fixed monthly contribution. This contribution's main component is a social security payment to guarantee their rights for social security and to assure that the company ID stays active in the long run.<sup>2</sup> Depending on the sector they work in, entrepreneurs must pay an additional R\$5 city tax (service sector) or R\$1 state tax (commerce and industry sector), which makes the contribution payment per month R\$45 to R\$50 (approximately US\$17). Entrepreneurs have until the 20th of each month to make their payments. Payments can be made early or late (subject to a late fee). As the monthly payment history from the date of business opening is public record, we were able to observe payments prior to the take-up of the first business service, and we have a thorough analysis of their longitudinal dynamics.

Additionally, we analyzed credit scores, which measure the credit risk of the entrepreneur and are mainly affected by late payments in loans or consumption bills (but not by late payments in taxes, which are not registered by the credit bureaus). Credit scores can be calculated by the credit bureau for any moment in the past, based on stored history of entrepreneurs' credit-related events. As one single model is used to predict the scores, these measures are comparable over time. While there is little information on the credit history of the firms, more than 95 percent of the MEIs have enough personal credit information so that scores can be calculated. The use of the personal credit score is an adequate proxy in this case, as for entrepreneurs with up to one

---

<sup>2</sup> It is up to Brazilian municipalities to cancel company IDs of those MEIs who do not comply with tax payment. For example, the municipality of Rio de Janeiro canceled company IDs of MEIs who did not comply with the contribution payment for the first time in February 2018.

employee, business and personal finances are closely entangled, so instabilities in the business would be very likely to quickly manifest themselves in arrears of the business owners. Thus, the credit score provides a second objective indicator of a possible business crisis before take-up of consulting or training services and takes into account a complementary set of information to the one obtained with tax and social security payments.

### *Identification strategy*

Our goal is to analyze the relationship between the take-up rate of SEBRAE's business support services and distress in the business before take-up. We hypothesize that a business in distress (proxied by arrears in tax and social security payments as well as by credit score) is more likely to take-up sponsorship services than similar, non-distressed businesses. We conduct three different, albeit related, analyses.

In a preliminary analysis, we restrict ourselves to a sample that includes only MEIs that took-up some type of sponsorship service and examine the existence of distress signs in the months preceding the first contact with SEBRAE. For this analysis, we keep all MEIs with opening dates that range from January 2010 to March 2016 and payments made from February 2010 to March 2016. We exclude those that took up SEBRAE services for the first time less than 12 months after formalization, so we can observe the payment trend for at least a whole year before take-up. This sample includes 1,310 MEIs who received SEBRAE services (29% from Rocinha, 26% from Complexo da Maré, 23% from Complexo Alemão, and 22% from Jacarezinho). As an additional indicator of business distress, we also obtained measures of credit scores. Due to the high costs of acquisition of each credit score registry from the credit bureau, we obtained them for a random subsample of 663 MEIs, and instead of monthly observations, we used measures for 12, six, and one month before take-up.

Although there is no control group in this sample as all MEIs did resort to SEBRAE, it is possible to estimate the differential trends before take-up due to the fact that these MEIs took-up SEBRAE services for the first time in different moments over time. The advantage of this strategy is that we deal with a set of entrepreneurs who are alike on a number of time-invariant unobservable characteristics related to take-up of business training. Conceptually, this model is like an event study (MacKinlay 1997, Binder 1998), but the outcomes of interest are changes that happen before the treatment, and not after it occurs, as it typically the case in previous applications of the technique. For this purpose, we estimate a linear probability model based on the following OLS specification:

$$Pay_{ij} = \sum_{t=1}^{t=11} \beta_t Time_{ij} + \alpha_i + \alpha\gamma_{ij} + \delta_{ij} + \omega_j + \varepsilon_{ij}$$

where  $Pay$  is a dummy variable that takes the value 1 for a calendar month in which taxes are paid and 0 otherwise;  $Time_t$  indicates a dummy variable that represents the calendar month  $t$  months before the take-up by entrepreneur  $j$ ;  $\alpha$  indicates the calendar month fixed effects;  $\alpha\gamma$  indicates the interaction of calendar month and community fixed effects;  $\delta$  indicates the business age (time from formalization, in months) fixed effects;  $\omega$  indicates entrepreneur fixed effects; and  $\varepsilon$  represents the random error term. As for the indexes,  $i$  indicates calendar month and  $j$  the entrepreneurs.

The fixed effects are designed to capture macroeconomic changes (calendar month) and community-specific time changes (calendar month interacted with community). Furthermore, as MEIs tend to reduce their payment rates over time, we also include fixed effects for business age (time since formalization).

Our parameters of interest are the coefficients on the time dummies prior to take-up. We use a set of dummy variables to represent each month from one to 11 before take-up. As the full dataset includes monthly observations of payment for up to three years before take-up, the coefficients on the dummy indicators for the months of interest can be interpreted as differences in each of these months relative to the average payment rate prior to 12 months or more before take-up.

We would expect to find significant and negative coefficients in the last few months before take-up, which would indicate that entrepreneurs tend to take-up services once they are in distress situations. Finding no significant coefficients for the dummy variables during the whole 11-month period of interest would indicate steady performance previous to take-up and no distress, rejecting our hypothesis. For credit score as a dependent variable, we use the same model, but instead of considering the monthly trends we evaluate the trend with the three longitudinal observations at 12, six, and one month before take-up.

Our second and main analysis seeks to account more precisely for varying payments rates in the areas covered by SEBRAE. We do this by including information from a “control group” of entrepreneurs who never took-up any SEBRAE services. As there is a large number of entrepreneurs in the areas that we consider in our analysis, the additional observations significantly increase the sample size. This allows us to estimate baseline trends in payment rates among entrepreneurs and also increase statistical power, thus making our overall results more robust. By employing data from Serasa, we were able to identify a pool of 18,063 potential “control” entrepreneurs in our communities of interest.

As the entrepreneurs who did not take-up SEBRAE services are likely to be different from those that used them at some point, we employ a matching procedure on time-invariant

observable variables to select a more comparable sample of controls. The large pool of control entrepreneurs allows us to use a very demanding matching procedure that included an exact match on gender, business sector (service, commerce, or both), community (Alemão, Jacarezinho, Rocinha, or Maré), and date (month/year) of business opening. This guarantees that each treated individual is only matched to control entrepreneurs that are identical on this crucial set of observed characteristics. For each entrepreneur that contacted SEBRAE we selected up to five individuals from the control pool with identical values in the above-mentioned variables. The selection of the five was done without replacement (i.e. each individual in the control group was used only once), and based on those that had the closest birthdate to the treated individual. After matching treated and control groups and excluding MEIs that did not have a suitable match, we were left with 1,310 treated entrepreneurs and 4,558 controls. We then estimate the same model with this sample.

Finally, our third analysis explores whether the effects we observe in the preliminary and main analyses vary across types of entrepreneurs. Specifically, we explore the existence of heterogeneous effects across gender, age of the entrepreneur, and business maturity. For simplicity, this is done by estimating the same model described earlier in subsamples of treated entrepreneurs and their matched controls. For business maturity level and entrepreneur age we split the sample on the median values of 20 months and 39 years, respectively.

One alternative approach would be to use interaction terms for each type of entrepreneur we are analyzing. This, however, would imply a very large number of product terms (one for each one of the eleven dummy variables representing time before take-up) which would make coefficients hard to interpret and introduce a high level of multicollinearity in the model. The consequence would be unreliable estimates with large standard errors. Our approach, in contrast,

allows us assess the significance of the effects in each subgroup which is a more direct way to test the hypotheses of interest (i.e. a significant effect of distress in take-up for more mature businesses but a non-significant effect for less mature ones would support H2).

## **Results**

We seek to understand whether entrepreneurs who take-up services are experiencing a critical business situation that changes the focus of their attention and leads to the take-up of sponsorship services. Figure 1 shows, informally, that MEIs who take-up services have better payment histories, with payment rates being nearly 10 percent higher on average than the matched controls one year before take-up. This suggests that MEIs who search for SEBRAE are better payers. However, the evolution in payment behavior before the first take-up is distinct between the treated and control groups. The payment rate of the treated falls from 37 percent six months before take-up to 30 percent one month before, while the payment rate of the control group remains mostly stable. This perceived drop leads to narrowing the gap in payment rate between treated and controls.

-----  
Insert Figure 2 About Here  
-----

This indicates a payment fall-off of the treated entrepreneurs prior to their first service take-up and may reflect short-term business problems faced by the MEI. It suggests that MEIs are more likely to acquire business improvement services when they suffer some distress. This directs us to assume that entrepreneurs face a critical decline in company income before they decide to acquire business support services.



-----  
Insert Table 1 About Here  
-----

*Preliminary and main analyses*

In order to test the significance of the difference in the payment trends before the first take-up of a SEBRAE service, we estimate the same basic model described earlier on different samples. Our preliminary analysis includes only individuals that eventually contacted SEBRAE, while the main analysis includes entrepreneurs that contacted SEBRAE and similar entrepreneurs that did not. The reference category in both models is defined as the period up to 12 months before take-up. Thus, the coefficients are interpreted as changes in the payment rate relative to this period. The estimates (Table 1, column 1) indicate that probability of an entrepreneur's payment falls shortly before taking-up services. According to the first analysis, treated entrepreneurs start to have a payment fall-off three months prior to training take-up (-0.7%), which becomes significant in the last month (-3.8%), compared to the payment pattern of more than 12 months before take-up. Results for the main analysis show that the inclusion of individuals that did not seek support for SEBRAE does not substantively affect the estimated coefficients, but reduces the standard errors, which leads to significant coefficients in the last two months before take-up (Table 1, column 2 and Figure 2).

In the credit score model, we estimate a model similar to Model 1, but with only three longitudinal data observations per entrepreneur. We observe that, compared to 12 months before take-up, the credit score falls six months before take-up ( $b = -18.6$ ,  $p = .069$ ) and is further reduced in the month before take-up ( $b = -27.22$ ,  $p = .10$ ). As the credit score ranges from 0 to 1,000 (mean = 330, SD = 229), this result indicates sizable changes and that entrepreneurs are more likely to take-up consulting and training services after financial distress.

-----  
Insert Figure 3 About here  
-----

In sum, the significant lower average number of monthly contributions and reduced credit score in the months prior to contacting SEBRAE indicate that the businesses experience distress in prior to reaching out to SEBRAE, which confirms H1.

### *Heterogenous Effects*

In order to test hypotheses 2 through 4, we simply split the sample by each of the hypothesized moderators (i.e. gender, firm age, entrepreneur age). We expect to observe a significant reduction in the probability of payment in the last months before take-up only in the subgroups hypothesized to be more likely to take-up sponsorship services as a response to a situation of venture distress. In support of H2, less mature firms do not show the reduction in the likelihood of payment that is observed in the last two months before take-up in more mature firms (Table 1). Furthermore, we observe that while there is a significant decrease in the likelihood of payment for female entrepreneurs in the last two months before take-up, the effect is not significant for male entrepreneurs, which goes in line with H3. Finally, while younger entrepreneurs are likely to present a decline in performance in the last two months before take-up ( $b=-.044, p<.05$  and  $b=-.054, p<.01$ ), this decline is not observed for older entrepreneurs, corroborating with H4 (Table 1).

### **Discussion**

The purpose of this study was to develop a theoretical model that helps to determine antecedents of entrepreneurial attention. For this purpose, we explore how specific situations and contexts shape entrepreneurial attention and ultimately influence the extent to which entrepreneurs engage with organizational sponsors. Our results show that situations of business distress shift the focus of attention towards sponsorship take-up, but that the intensity to which this shift of attention

occurs depends on motivation, attention capacity and information access - mechanisms that are influenced by the characteristics of the entrepreneurs and their ventures. Specifically, we argue and find support for the idea that women, more mature ventures, and younger founders are more likely to shift the focus of their attention towards sponsorship.

This study contributes to theory in several ways. First, our study takes a first step towards filling an important theoretical gap around how entrepreneurial attention comes into focus. Attention is important concept in entrepreneurship, though its role is often assumed or implicit. For example, entrepreneurs have been characterized as ‘alert’ (Kirzner, 1979). Given cognitive limitations, what stimuli trigger alertness, and what stimuli are pushed into the background? Similarly, McMullen and Shepherd (2006) describe attention as the first stage of entrepreneurial action. However, how such attention comes into focus is beyond the scope of their model. The literature in psychology suggests that stimuli that are unique, novel, or threatening are more likely to capture attention (Shepherd & Patzelt, 2018). Our study moves beyond the characteristics of the stimuli and explores how characteristics of the entrepreneur influence attention. The identification of motivation, capacity, and access to information, and their ties to entrepreneurial characteristics and the social context help strengthen our understanding of how attention comes into focus.

A second contribution of this study is to highlight the importance of cognitive capacity for entrepreneurship. The implications of cognitive capacity, particularly in the face of resource scarcity, is a well-developed topic of study in psychology and behavioral economics (Mullainathan & Shafir, 2013; Mani et al. 2013). However, the implications of limited cognitive capacity have not been fully integrated into entrepreneurship theory. This study takes an initial step in the direction by theorizing that societal demands facing some entrepreneurs will tie-up

limited cognitive bandwidth, with important implications for how entrepreneurial attention is focused. Cognitive capacity may be especially relevant for emerging economies, where entrepreneurs face extreme resource constraints as well as a multitude of competing demands on their time and attention (Valdivia, 2015). Integration of cognitive capacity into theories of entrepreneurship may help strengthen our understanding of how entrepreneurial processes unfold within these settings.

We also help to explore an important empirical phenomenon related to organizational sponsorship in emerging economies (Dutt et al., 2016; Etzkowitz et al., 2005; Goswami, Mitchell, & Bhagavatula, 2018). Prior research has indicated that despite the numerous challenges faced by entrepreneurs in emerging economies, the uptake of sponsorship services is often quite low (McKenzie & Woodruff, 2014). Within our research context of favelas in Brazil, we found similarly low take-up rates for sponsorship services. Given that the purpose of sponsorship is to help ventures survive and thrive (Amezcuca et al., 2013), this lack is surprising. Our study helps explain the demand for sponsorship services by using an attention perspective. Using a unique data-set of entrepreneurs in the favelas of Brazil, we find general support for our arguments – while business distress increases the likelihood of sponsorship take-up, this effect is most pronounced among women, younger entrepreneurs, and more mature ventures. Thus, our paper is among the first to examine the demand side of organizational sponsorship.

Our research also provides practical guidance for entrepreneurs, sponsors, and policy makers in emerging economies. Many governments have set up business trainings to stimulate the growth of micro and small firms, often in joint effort with international organizations. However, randomized field trials have shown that the take-up of these programs is often low, even if they are offered for free and the opportunity costs of time are reimbursed (Bruhn and Zia,

2013) and even if previous interest in participating in a training has been expressed (Valdivia, 2015). We show that the take-up of sponsorship services is more likely in situations of business distress. This result suggests that sponsorship providers should direct their effort to promote the take-up of sponsorship services around the topic of business distress, in order to be as an option more salient when entrepreneurs encounter themselves in a business crisis. Governments may also act to ‘nudge’ entrepreneurs into business support services in moments of business distress, such as when entrepreneurs miss tax payments. Our analysis of the influence of the social context on sponsorship suggests that entrepreneurs are triggered in different ways towards sponsorship take-up. Sponsors can leverage these differences to promote take-up, for example by using the social network of women to promote their support services. Likewise, it might be necessary to look for new ways to attract those subgroups whose attention is less directed towards sponsorship take-up.

There are some limitations to this paper that set the stage for future research. First, we used an abductive approach that integrated quantitative and qualitative methods and iterated between data theory (Behfar & Okhuysen, 2018) . While this approach helped us to approach the topic in a more flexible and creative fashion, we do caution that the results should be treated somewhat provisionally (Materne & Ketokivi, 2013). We encourage future research that seeks to further validate our insights. Second, while our data provided us with unique access to an important empirical phenomenon, we were not able to directly measure attention on an individual level. Instead, we relied on qualitative work to develop theory and then on broad proxies for attention structures. We encourage future research to develop and employ more direct measures of attention characteristics, in order to build a more robust understanding of the cognitive and social microfoundations of entrepreneurial behavior in emerging markets. Second,

we encourage researchers to exercise caution in generalizing our specific results regarding gender, entrepreneur age, and venture maturity to other emerging markets. Given that our theoretical arguments are based on how the local external social structure shape motivation, attention capacity and information access, we expect that variance in the socio-cultural context would also influence how these relationships played out. For example, in countries where women are more constrained in the networks that they build, we might expect that men would be more likely to seek out sponsorship opportunities. Thus, we encourage future research to explore how differences in the socio-cultural context influence attention range and intensity.

In summary, this paper explores how attention of entrepreneurs in emerging markets emerges. Hereby we explore situations (business distress) and context (external social structures) on its influence for sponsorship take-up. We contribute to theory by highlighting how different mechanisms of the external social context shape attention structures, thus influencing attention intensity. Our study helps build a deeper understanding of entrepreneurship in emerging economies and helps explain low take-up rates of organizational sponsorship in these contexts, with important theoretical and practical implications.

## References

- Addis, M. E., & Mahalik, J. R. 2003. Men, masculinity, and the contexts of help seeking. *American psychologist*, 58(1), 5-14.
- Amezcuca, A. S., Grimes, M. G., Bradley, S. W., & Wiklund, J. 2013. Organizational sponsorship and founding environments: A contingency view on the survival of business-incubated firms, 1994-2007. *Academy of Management Journal*, 56(6): 1628–1654.
- Bargh, J. A., & Chartrand, T. L. 1999. The unbearable automaticity of being. *American Psychologist*, 54(7), 462.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. 2001. Bad is stronger than good. *Review of General Psychology*, 5(4): 323.
- Behfar, K., & Okhuysen, G. A. 2018. Perspective—Discovery within validation logic: deliberately surfacing, complementing, and substituting abductive reasoning in hypothetico-deductive inquiry. *Organization Science*, 29(2): 323–340.
- Berge, L. I. O., Bjorvatn, K., & Tungodden, B. 2015. Human and financial capital for microenterprise development: short-term and long-term evidence from a field experiment in Tanzania. *Management Science*, 61(4): 707–722.
- Berlyne, D. E. 1960. *Conflict, arousal, and curiosity*. New York, NY: McGraw-Hill Book Company.
- Bruhn, M., & Zia, B. 2013. Stimulating managerial capital in emerging markets – the impact of business and financial literacy for young entrepreneurs. *Journal of Development Effectiveness*, 5(2): 232-266.
- Bruton, G. D., Filatotchev, I., Si, S., & Wright, M. 2013. Entrepreneurship and strategy in emerging economies. *Strategic Entrepreneurship Journal*, 7(3): 169–180.
- Calderdon, G., Cunha, J. M., & De Giorgi, G. 2013. Business literacy and development: evidence from a randomized controlled trial in rural Mexico. no. 19740.
- Cooper, A. C., Folta, T. B., & Woo, C. 1995. Entrepreneurial information search. *Journal of Business Venturing*, 10(2): 107–120.
- De Castro, J. O., Khavul, S., & Bruton, G. D. 2014. Shades of Grey: How do informal firms navigate between macro and meso institutional environments? *Strategic Entrepreneurship Journal*, 8(1): 75–94.
- Dutt, N., Hawn, O., Vidal, E., Chatterji, A., McGahan, A., et al. 2016. How open system intermediaries address institutional failures: The case of business incubators in emerging-market countries. *Academy of Management Journal*, 59(3): 818–840.

- Eddleston, K. A., & Powell, G. N. 2012. Nurturing entrepreneurs' work-family balance: a gendered perspective. *Entrepreneurship: Theory and Practice*, 36(3): 513-541.
- Etzkowitz, H., de Mello, J. M. C., & Almeida, M. 2005. Towards "meta-innovation" in Brazil: the evolution of the incubator and the emergence of a triple helix. *Research Policy*, 34(4): 411-424.
- Fernhaber, S. A., & Li, D. 2013. International exposure through network relationships: implications for new venture internationalization. *Journal of Business Venturing*, 28(2): 316-334.
- Field, B. E., Jayachandran, S., Pande, R., Mel, D., & McKenzie, D. 2010. Do traditional institutions constrain female entrepreneurship? A field experiment on business training in India. *American Economic Review*, 100(2): 125-129.
- Fiske, S. T., & Taylor, S. E. 2013. *Social cognition: from brains to culture*. Sage.
- Freeman, J., Carroll, G. R., & Hannan, M. T. 1983. The liability of newness: age dependence in organizational death rates. *American Sociological Review*, 692-710.
- Goswami, K., Mitchell, J. R., & Bhagavatula, S. 2018. Accelerator expertise: understanding the intermediary role of accelerators in the development of the Bangalore entrepreneurial ecosystem. *Strategic Entrepreneurship Journal*, 12(1): 117-150.
- Grimm, Michael & Knorringa, Peter & Lay, Jann, 2012. Constrained gazelles: high potentials in West Africa's informal economy. *World Development*, 40(7): 1352-1368.
- Holcomb, T. R., Ireland, R. D., Jr, R. M. H., & Hitt, M. A. 2009. Architecture of entrepreneurial learning: exploring the link among heuristics, knowledge, and action. *Entrepreneurship Theory and Practice*, 33(1): 167-192.
- Honig, B. 1998. What determines success? examining the human, financial, and social capital of jamaican microentrepreneurs. *Journal of Business Venturing*, 13(5): 371-394.
- Hsu, D. K., Wiklund, J., & Cotton, R. D. 2015. Success, failure, and entrepreneurial reentry: an experimental assessment of the veracity of self-efficacy and prospect theory. *Entrepreneurship: Theory and Practice*, 41(1): 19-47.
- James, W. 1890. *Principles of psychology*. New York: Holt.
- Kabanoff, B., & Brown, S. 2008. Knowledge structures of prospectors, analyzers, and defenders: content, structure, stability, and performance. *Strategic Management Journal*, 29(2): 149-171.
- Kahneman, D. 1973. *Attention and effort*. Englewood Cliffs, New Jersey: Prentice-Hall.



- Kahneman, D. 2003. Maps of bounded rationality: psychology for behavioral economics. *American Economic Review*, 93(5): 1449–1475.
- Kahneman, D., & Tversky, A. 2013. Prospect theory: An analysis of decision under risk. *Handbook of the fundamentals of financial decision making: Part I*: 99–127. World Scientific.
- Karlan, D., McConnell, M., Mullainathan, S., & Zinman, J. 2016. Getting to the top of mind: how reminders increase saving. *Management Science*, 53(9): 1689–1699.
- Kirzner, I.M., 1979. *Perception, opportunity, and profit*. University of Chicago Press, Chicago.
- Knockaert, M., Bjornali, E. S., & Erikson, T. 2015. Joining forces: Top management team and board chair characteristics as antecedents of board service involvement. *Journal of Business Venturing*, 30(3): 420–435.
- Mair, J., Martí, I., & Ventresca, M. J. 2012. Building inclusive markets in rural Bangladesh: How intermediaries work institutional voids. *Academy of Management Journal*, 55(4): 819–950.
- Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. 2013. Poverty impedes cognitive function. *Science (New York, N.Y.)*, 341(6149): 976–80.
- Mantere, S., & Ketokivi, M. 2013. Reasoning in organization science. *Academy of Management Review*, 38(1): 70–89.
- McKenzie, D., & Woodruff, C. 2014. What are we learning from business training and entrepreneurship evaluations around the developing world? *The World Bank Research Observer*, 29(1): 48–82.
- McMullen, J. S., & Shepherd, D. A. 2006. Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31(1): 132–152.
- Minniti, M., & Bygrave, W. 2001. A dynamic model of entrepreneurial learning. *Entrepreneurship: Theory & Practice*, 25(3): 116–131.
- Mullainathan, S., & Shafir, E. 2013. *Scarcity: Why having too little means so much*. New York: Times Books.
- Nadkarni, S., & Barr, P. S. 2008. Environmental context, managerial cognition, and strategic action: an integrated view. *Strategic Management Journal*, 29(13): 1395–1427.
- Nichter, S., & Goldmark, L. 2009. Small firm growth in developing countries. *World Development*, 37(9): 1453–1464.

- Ocasio, W. 1997. Towards an attention-based view of the firm. *Strategic Management Journal*, 18(S1): 187–206.
- Ocasio, W. 2011. Attention to attention. *Organization Science*, 22(5): 1286-1296.
- Ocasio, W., Laamanen, T., & Vaara, E. 2018. Communication and attention dynamics: an attention-based view of strategic change. *Strategic Management Journal*, 39(1): 155-167.
- Pew Research Center (2018). Social Media use in 2018.
- Pitelis, C. N. 2007. A behavioral resource-based view of the firm: the synergy of Cyert and March (1963) and Penrose (1959). *Organization Science*, 18(3): 478-490.
- Plambeck, N. 2012. The development of new products: the role of firm context and managerial cognition. *Journal of Business Venturing*, 27(6): 607–621.
- Puffer, S. M., McCarthy, D. J., & Boisot, M. 2010. Entrepreneurship in Russia and China: the impact of formal institutional voids. *Entrepreneurship Theory and Practice*, 34(3): 441–467.
- Rerup, C. 2009. Attentional Triangulation: learning from unexpected rare crises. *Organization Science*, 20(5): 876-893.
- Rozin, P., & Royzman, E. B. 2001. Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, 5(4): 296-320.
- SEBRAE. 2016. SEBRAE. Small Business Expert.  
[https://www.SEBRAE.com.br/sites/PortalSEBRAE/canais\\_adicionais/SEBRAE\\_english](https://www.SEBRAE.com.br/sites/PortalSEBRAE/canais_adicionais/SEBRAE_english).
- Shah, A. K., Shafir, E., & Mullainathan, S. 2015. Scarcity frames value. *Psychological Science*, 26(4): 402–412.
- Shepherd & Patzelt (2018). *Entrepreneurial cognition*. Switzerland: Springer International Publishing.
- Shimizu, K. 2007. Prospect theory, behavioral theory, and the threat-rigidity thesis: Combinative effects on organizational decisions to divest formerly acquired units. *Academy of Management Journal*, 50(6): 1495-1514.
- Simon, H. 1947. *Administrative Behavior* (4th ed.). Free Press. Kindle Edition.
- Simon, H. A. 1997. *Models of bounded rationality: Empirically grounded economic reason*, Vol. 3. MIT Press.
- Singh, J. V., Tucker, D. J., & House, R. J. (1986). Organizational legitimacy and the liability of newness. *Administrative Science Quarterly*, 171-193.

- Stevens, R., Moray, N., Bruneel, J., & Clarysse, B. 2015. Attention allocation to multiple goals: The case of for-profit social enterprises. *Strategic Management Journal*, 36(7): 1006-1016.
- Sullivan, B. N. 2010. Competition and beyond: problems and attention allocation in the organizational rulemaking process. *Organization Science*, 21(2): 432–450.
- Sutter, C., Webb, J., Kistruck, G., Ketchen, D. J., & Ireland, R. D. 2017. Transitioning entrepreneurs from informal to formal markets. *Journal of Business Venturing*, 32(4): 420–442.
- Taylor, S. E. 1991. Asymmetrical effects of positive and negative events: the mobilization-minimization hypothesis. *Psychological Bulletin*, 110(1): 65.
- Titus, V. K., & Anderson, B. S. 2016. Firm structure and environment as contingencies to the corporate venture capital-parent firm value relationship. *Entrepreneurship: Theory and Practice*, 42(3): 498–522.
- Tuggle, C. S., Schnatterly, K., & Johnson, R. A. 2010. Attention patterns in the boardroom: How board composition and processes affect discussion of entrepreneurial issues. *Academy of Management Journal*, 53(3): 550-571.
- Valdivia, M. 2015. Business training plus for female entrepreneurship? Short and medium-term experimental evidence from Peru. *Journal of Development Economics*, 113: 33–51.
- Vissa, B., Greve, H.R., Chen, W.R. 2010. Business group affiliation and firm search behavior in India: responsiveness and focus of attention. *Organizational Science*, 21(3): 696-712.
- Yunus, M. 1999. *Banker to the Poor: micro-lending and the battle against world poverty* (First Edit). Public Affairs.

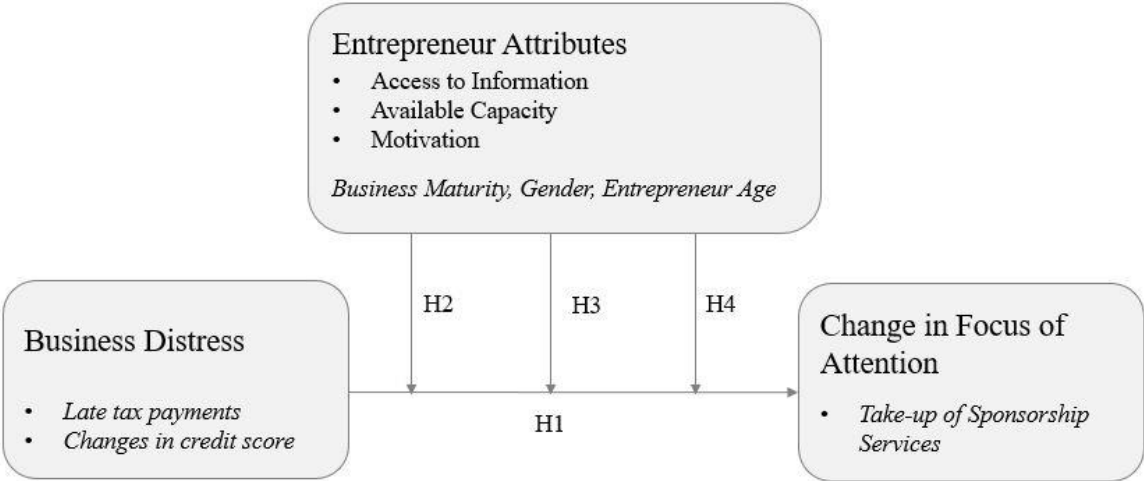
Table 1: Estimates of linear probability models

	Whole sample					Subsamples				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Time</i> (before take-up, months)	Prelimin. Analysis (Only treated)	Main Analysis (Treated and controls)	Gender feminine	Gender masculine	Low age person	High age person	Low maturity firm	High maturity firm	High age firm, low age person and female	Any other group than (8)
11	-0.0116 [0.0119]	-0.0148 [0.0115]	-0.0181 [0.0132]	0.0065 [0.0198]	-0.0004 [0.0172]	-0.0212 [0.0161]	-0.0133 [0.0279]	-0.0114 [0.0125]	-0.0164 [0.0215]	-0.0127 [0.0134]
10	0.0066 [0.0125]	0.0030 [0.0113]	0.0145 [0.0126]	-0.0123 [0.0206]	0.0021 [0.0168]	0.0079 [0.0160]	0.0397 [0.0254]	-0.0071 [0.0129]	0.0002 [0.0216]	0.0056 [0.0133]
9	-0.0025 [0.0132]	-0.0051 [0.0117]	-0.0035 [0.0133]	-0.0056 [0.0209]	-0.0075 [0.0177]	-0.0027 [0.0160]	-0.0061 [0.0266]	0.0017 [0.0130]	0.0167 [0.0225]	-0.0129 [0.0137]
8	-0.0128 [0.0139]	-0.0171 [0.0116]	-0.0083 [0.0127]	-0.0242 [0.0220]	-0.0255 [0.0177]	-0.0085 [0.0160]	-0.0004 [0.0261]	-0.0169 [0.0130]	0.0076 [0.0220]	-0.0197 [0.0135]
7	-0.0017 [0.0143]	-0.0094 [0.0118]	-0.0153 [0.0134]	0.0020 [0.0212]	-0.0115 [0.0172]	-0.0088 [0.0165]	0.0047 [0.0276]	-0.0064 [0.0129]	-0.0064 [0.0204]	-0.0111 [0.0140]
6	-0.0064 [0.0153]	-0.0134 [0.0123]	-0.0119 [0.0138]	-0.0169 [0.0219]	-0.0217 [0.0182]	-0.0122 [0.0172]	0.0026 [0.0278]	-0.0129 [0.0137]	-0.0088 [0.0216]	-0.0160 [0.0143]
5	0.0174 [0.0157]	0.0098 [0.0118]	0.0261** [0.0129]	-0.0236 [0.0219]	0.0194 [0.0168]	0.0040 [0.0174]	0.0371 [0.0266]	0.0038 [0.0137]	0.0260 [0.0211]	0.0057 [0.0140]
4	0.0092 [0.0166]	-0.0024 [0.0124]	0.0084 [0.0137]	-0.0223 [0.0228]	-0.0092 [0.0185]	0.0045 [0.0173]	0.0303 [0.0284]	-0.0086 [0.0141]	0.0144 [0.0223]	-0.0034 [0.0147]
3	-0.0032 [0.0172]	-0.0151 [0.0124]	-0.0171 [0.0139]	-0.0045 [0.0224]	-0.0079 [0.0178]	-0.0205 [0.0181]	0.0104 [0.0285]	-0.0186 [0.0142]	-0.0090 [0.0214]	-0.0147 [0.0147]
2	-0.0233 [0.0186]	-0.0344*** [0.0130]	-0.0424*** [0.0144]	-0.0056 [0.0242]	-0.0445** [0.0181]	-0.0238 [0.0189]	-0.0051 [0.0283]	-0.0380** [0.0156]	-0.0420* [0.0231]	-0.0313** [0.0153]
1	-0.0345* [0.0199]	-0.0432*** [0.0133]	-0.0465*** [0.0146]	-0.0089 [0.0259]	-0.0538*** [0.0190]	-0.0290 [0.0193]	-0.0094 [0.0296]	-0.0467*** [0.0157]	-0.0835*** [0.0246]	-0.0344** [0.0157]
N. entrep.	1310	5868	3861	2007	2842	2854	2826	3041	1258	4610
Adj. R2	0.059	0.044	0.041	0.062	0.037	0.050	0.051	0.036	0.045	0.043

Standard errors in brackets

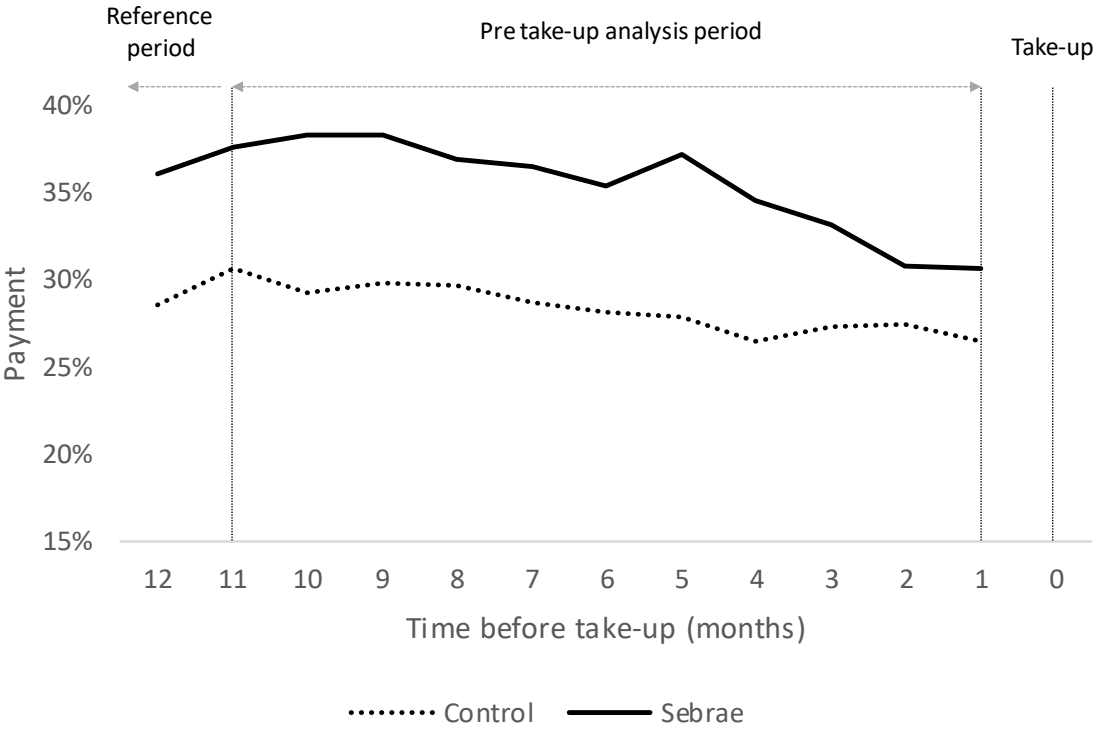
\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Figure 1: Theoretical model



*Italics represent empirical operationalization*

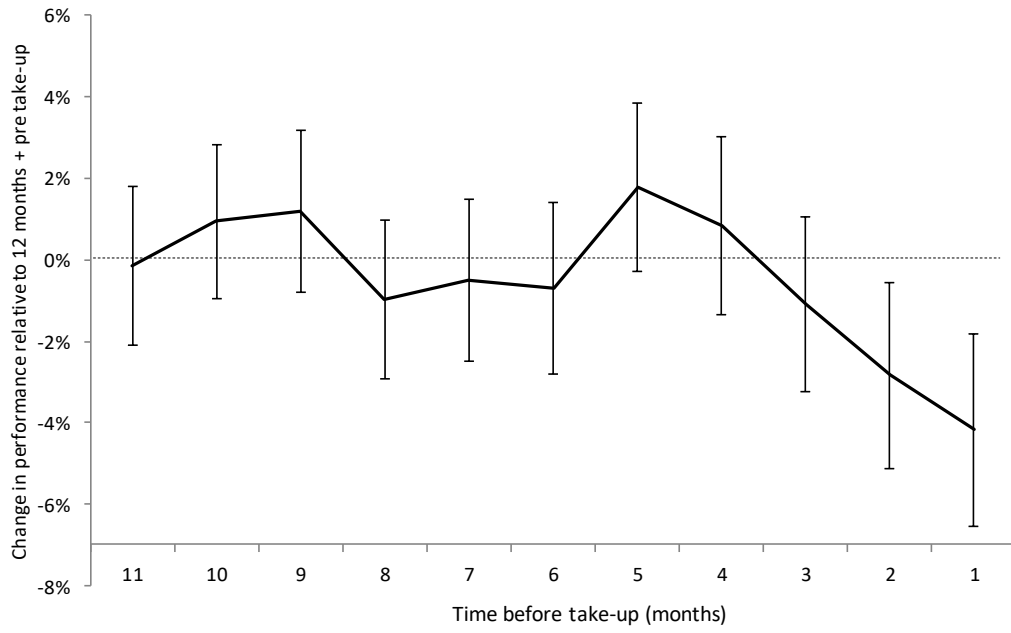
Figure 2: Payment rates for treated and control groups (with placebo treatment)



The time before take-up for controls were calculated based on placebo take-up dates that were assigned to each control as identical to the take-up dates of their respective treated units.

Figure 3: Tax and social security payment trend previous to take-up estimates

---



---

Error bars represent 90% confidence intervals.

Appendix: Qualitative Data Structure

<b>First order Concepts<sup>3</sup></b>	<b>Second order themes</b>	<b>Aggregate Dimensions</b>
<p>Attention shift due to business crisis <i>In moments of crisis, entrepreneurs seek out help.</i></p> <p>Example quote: “So we had ups and downs now, as much that we are very late and trying to reposition. Paying late and current bills. Exactly because of it, of this support we didn't have. As I said, about a month ago we started here because we found out. Then we are starting to pay. And every time we have doubts, I search here”</p>	Business Distress	Business Distress
<p>Entrepreneur has dependents <i>The presence of children influences their need to work.</i></p> <p>Example quote: “I decided to work at home to be closer to my daughter. And to earn my money as well. I found this to be the better option.”</p>	Need to be present for children	Motivation
<p>Need to avoid commute <i>More formal job options required significant commutes that entrepreneurs needed to avoid.</i></p> <p>Example quote: “I worked in Copacabana and I was tired of the traffic, the busses. It stressed me a lot, for a long time.”</p>		
<p>Inability to quit <i>Family responsibilities limited the entrepreneurs ability to quit.</i></p> <p>Example quote: “I never thought about quitting. Never. I can't. I have four kids, I can't just quit. ”</p>	Need for consistent income	
<p>Wish for independence <i>Entrepreneurship provides independence that is highly valued by the entrepreneur.</i></p> <p>Example quote: “I think women, particularly, are tired of working for others. Even when it comes to their husband, to be dependent of the husband, they want their financial independence.”</p>		

<sup>3</sup> Each first-order concept is supported by quotes from a minimum of two respondents

<p>Resistance to advice <i>Men are more resistant to seeking or accepting advice.</i></p> <p>Example quote: “I think men are much more resistant, much more stubborn. I think it is the machismo of men, they think they don’t need help. I speak for myself, I thought I didn’t need to search for these types of things.”</p>	Disposition	
<p>Endurance <i>Some entrepreneurs have more endurance than others.</i></p> <p>Example quote: “The behavior of new firms is very different, because they get very easily scared if something doesn’t go as planned. And already think about closing. They don’t want to react and change" [...]. "[The business] will work if people have a strong will and energy. Because I get up every day at 6 in the morning e and I go home at midnight, every day. From Monday to Monday".</p>		
<p>Change in prioritization of tasks <i>Early on in the business, entrepreneurs must focus on the day-to-day realities, but with more venture maturity, they are able to change their priorities and focus on other issues.</i></p> <p>Example quote: “At the time, people would tell me "Go and reach out to Sebrae". And I would say "I will check on that later". I thought it was not important. I thought I had to prioritize my daily routine. But I had to have some help. There had to be someone to tell me: Jonny, you have to walk in this direction".</p>	Competing Tasks	Capacity
<p>Time Availability <i>Entrepreneurs had to complete a wide variety of tasks that consumed the time they had for additional obligations.</i></p> <p>Example quote: “Here we see that people do not show up at the beginning, when you are building the things... they appear later. One reason is time - I ended up in Rocinha by chance, I was formalizing my business and I was having trouble registering my address to open the MEI. Then talking to one person and another, someone indicated Kelly [the Sebrae consultant] to me".</p>		



<p>Mastery of technical skills <i>Mastery of technical skills makes it possible to focus on other issues.</i></p> <p>Example quote: “I have been working in my occupation for many years, but I would do something and then stop. But today I can say that my [current] business is new, but I have been for many years in the job market. But today I came to search for this help because I know that I do not understand a lot about these bureaucratic issues. I am a professional and I know how to work with scissors, with hair trimming machines. But about the administrative part, I am trying to read, to get information, to learn more and more. Then I have tried this that I know is trendy and I have to search for this feedback”.</p>	<p>Development of technical capacity</p>	
<p>Cynicism and burnout <i>Older entrepreneurs feel that the effort involved in some courses of actions simply aren't worth the cost</i></p> <p>Example quote: “I think it is because of the information. Older people think they don't have to pay anything, that they don't need to be a MEI, that they don't need anything. Our culture, the culture of Rio de Janeiro makes us grow up thinking that everything we want to do right is very bureaucratic”</p>	<p>Engagement with the environment</p>	<p>Access</p>
<p>Interest <i>Women are more likely to express interest and curiosity regarding new opportunities.</i></p> <p>Example quote: “Women are more attentive and approach more the organizations and people that try to solve things. Men don't, men have this barrier and many other barriers to approach these sources of support”.</p>		
<p>Use of Social Media <i>The youth have more experience with and exposure to information through social media.</i></p> <p>Example quote: “I think that young people - as they are more connected to Whatsapp, Facebook, Radio - they are more connected than older entrepreneurs. Because today, in modern times, with Instagram, it is not everybody that goes into this path. Then I perceive that many entrepreneurs that are older, receive information just because they come to the</p>	<p>Technological Capacity</p>	

<p>unit [of Sebrae]. And the younger entrepreneurs find out about us in the communication channels we are building - Whatsapp, Instagram, Facebook, you see?"</p>		
<p>Use of Personal Networks  <i>Networks are accessed and used more frequently by women.</i></p> <p>Example quote: "I was taking my daughter to school and I met an acquaintance that always takes her children to school. I said that I had to close my firm and she told me "Hey, go to Sebrae, they will help you!". Then she told me because I didn't know about it.</p>	<p>Environmental Disposure</p>	
<p>Network Range  <i>Women have more extensive networks than men</i></p> <p>Example quote: "[Women] search more, one talks to another, chats with another, I think they are more connected."</p>		