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Assessing the impacts of the individual micro-entrepreneur act in Brazil: 10 years later*

Avaliando os impactos da lei do microempreendedor individual no Brasil: 10 anos depois

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Abstract

Entrepreneurship is widely acknowledged as a phenomenon of central importance in our society. Within the arena of entrepreneurship policy, a more specific trend has been an increase in recent years in informal entrepreneurship. Therefore, this article seeks to contribute to filling a knowledge gap in the entrepreneurship literature using empirical evidence to assess the impact of the implementation of the Individual Micro Entrepreneur Act on the formalization of small businesses in Brazil ten years after coming into force. Based on empirical data, our study provides evidence that this legislation is being used as a large-scale instrument for labor market deregulation. Additionally, we could also observe a strong increase in the number of Brazilian citizens officially registered as individual micro entrepreneurs, especially in urban areas and focusing on activities, such as hairdressers, manicures, pedicures, masonry works, and sales promotion.

Keywords: informal entrepreneurship; firm formalization; public policy; regional development; Brazil

Resumo

O empreendedorismo é amplamente reconhecido como um fenômeno de importância central em nossa sociedade. No âmbito de políticas públicas para o empreendedorismo, uma tendência muito específica tem sido o aumento, nos últimos anos, do empreendedorismo informal. Portanto, este artigo busca contribuir para preencher uma lacuna de conhecimento na literatura sobre empreendedorismo utilizando evidências empíricas para avaliar o impacto da implementação da Lei do Microempreendedor Individual (MEI) na formalização de pequenos negócios no Brasil, dez anos após sua entrada em vigor. Com base em dados empíricos, o nosso estudo fornece evidências indicando que esta legislação vem sendo utilizada como um instrumento para a desburocratização e redução da informalidade no mercado de trabalho. Adicionalmente, também pudemos observar um forte aumento no número de cidadãos brasileiros oficialmente registrados como microempreendedores individuais, especialmente em

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áreas urbanas e com foco em atividades como cabeleireiros, manicures, pedicures, trabalhos de alvenaria e promoção de vendas.

Palavras-chave: empreendedorismo informal; legalização de empresas; política pública; desenvolvimento regional; Brasil

1. Introduction

Over the past years, informal entrepreneurship has become an increasingly important topic in management and entrepreneurship literature (Ketchen et. al, 2014; Webb et al. 2013). In essence, informal entrepreneurship refers to activities carried out on a regular basis aiming at earning an income, while informal income can be described as a remuneration for occasional informal activities associated with the delivery of products or services without the existence of contractual obligations (Welter et al., 2008).

According to Welter et al. (2015), informal activities are generally strongly characterized by a short-term duration. Additionally, informal activities are usually executed to both provide a single income for a family, or to provide an additional and varying income. Such activities are performed in a wide variety of business segments by attending the demand of both formal and informal enterprises (Blanchflower et. al, 2007).

Fundamentally, the informal economy takes place outside existing legal boundaries, but, at the same time, within tolerated societal boundaries depending on the circumstances of different countries (Puente et al., 2019). Since informal entrepreneurs tend to operate partially or fully outside rules and regulations, employers, paid employees, and the self-employed also tend to attempt to increase to reduce their costs by evading taxation and social contributions, especially in the context of developing countries with less strict government controls (Webb et al., 2013).

Given the noted negative impact of informal entrepreneurship on taxation and social contribution, public policy makers are constantly looking for instruments for preventing such growth. As a matter of fact, entrepreneurship policy is confronted with the world´s most pressing challenges, which include creating jobs, strengthening communities, and generating social and economic value simultaneously (Mintrom & Maurya, 2020). In this way, most countries have implemented public policies aimed at reducing informal entrepreneurship by facilitating conditions for opening one-person companies. Therefore, the most simple and common form of business ownership type can be identified in many countries. For instance, well-established examples of such legal entity include the ´sole proprietorship´ in the United States and Canada, ´One Person Company (OPC)´ in India, ´eenmanszaak´ in the Netherlands, or ´einzelunternehmen'´in Germany. In this context, following this international debureaucratization trend led by developed countries, the Brazilian Federal Government has implemented the Individual Micro Entrepreneur Act in 2008, which became known as MEI's law 128/2008 and came into force in 2009 (Brasil, 2008).

Although a period of more than ten years has passed since the implementation of the Individual Micro Entrepreneur Act in Brazil, literature remains silent on the impact of this public policy on Brazilian citizens who opted to open one-person companies in conformance with the provisions of the law 128/2008. Thus, the objective of this study is to improve

understanding of the impacts of the implementation of the Individual Micro Entrepreneur Act on entrepreneurship activity and the labor market in Brazil.

The structure of this paper is as follows. First, the literature on topics central to this research such as Informal Entrepreneurship and Entrepreneurship POLICY are explained. Subsequently, the research method is discussed. The empirical setting of this case is then provided by examining entrepreneurship data of the Brazilian government. In the following section, the findings are then presented and related to the extant literature. We also propose a set of research propositions based on our primary findings. Finally, the conclusions drawn are put forward.

2. Literature Review

Prior to present and assess data related to the individual micro-entrepreneurs in Brazil, we provide an overview of mainstream literature on micro-entrepreneurship and entrepreneurship policy.

2.1 Micro-Entrepreneurship

As stated by Damayanthi (2016), micro-entrepreneurship holds a strong potential for generating inclusive growth in developing countries. In this regard, according to Verdugo (2018), the implementation of training or coaching programs can contribute to increase cognitive complexity in micro-entrepreneurs and improve their ability to incorporate new ideas and adopt innovations (Verdugo, 2018). However, the success of micro-enterprises is not only dependent of the ability of the micro-entrepreneur, but also on other factors, such as socio-demographic circumstances, cultural environment, and the age groups of the entrepreneurs (Vial, 2011). Besides, DasGupta (2018) points out that non-monetary factors that are also motivators for micro-entrepreneurs include recognition, self-esteem, and respect. In this way, Bhuiyan and Ivlevs (2019) argue that micro-entrepreneurs can experience an increase in satisfaction with financial security and achievement in life through micro-credit. Espitia and Cervilla (2019), in turn, identified three types of entrepreneurial motivation based on the analysis of the Global Entrepreneurship Monitor (GEM) data for Latin American countries. The motivations include: necessity, opportunity and transition. Additionally, Jarrodi et al. (2019) claim that the political vision of entrepreneurs, which includes anti-statists, reformist and neoliberal, contribute to shape their motivations. Furthermore, as claimed by Vial (2011), micro-entrepreneurship in developing countries is characterized by a combination of high level of informality and low degree of technology use.

The informal economy can be currently considered a widespread phenomenon that is intensely present throughout the world, regardless of the level of economic prosperity of the country (Williams & Nadin, 2010). According to Webb et al (2013), the informal economy consists of business activities that occur outside of formal institutional boundaries but within the boundaries of informal institutions. Beyond this, Mahadea and Khumalo (2020) argue that the formalization of individual microenterprises remains a challenging task due to both the internal constrains of these enterprises as well as external growth constraints.

Moreover, informal entrepreneurship is a phenomenon that is not just restricted to developing countries, but is also present in the most developed economies in the world. For instance, Welter et al. (2015) claims that a prosperous economy, such as the UK, strongly depends on informal activities in order to promote job opportunities and income generation, especially when it comes to their immigrant communities. As stated by Kosta and Williams (2020), Italy is another example of a developed country, in which formal and informal enterprises collaborate intensively. As such, in developed countries, despite the existence of rigid labor market regulations, there are many economic activities, such as cleaning, that are dominated by informal activity (Blanchflower et. al, 2007).

Typically, informal entrepreneurship is motivated by economic necessity, rather than opportunity identification (Vial, 2011). However, Puente et al. (2019) claim that necessity-driven entrepreneurship does not necessarily indicate the absence of high growth aspirations. Recent research on informal entrepreneurship has continuously emphasized that the boundaries between formal and informal entrepreneurship is blurred (Welter et al., 2008). For instance, in developed economies, a large number of individuals are formally registered as individual entrepreneurs and pay all relevant taxes. However, at the same time, those individuals trade with products that are both illegal and non-certified (Welter et al. 2008).

2.2 Entrepreneurship Policies

Typically, entrepreneurship policy in confronted with the world's most pressing challenges, which include creating jobs, strengthening communities, and generating social and economic value simultaneously (Figueroa-Armijos & Johnson, 2016). As described by Mintrom and Maurya (2020) entrepreneurship policy should address the most significant political, social and economic factors. Since income inequality has a negative impact on economic growth (Aiyar & Ebeke, 2020), poverty eradication has been one of the primary objectives of entrepreneurship policy (Malerba, 2020).

According to Gilbert et al. (2004), traditional policy instruments were generally implemented at the federal level, while entrepreneurship policies are implemented at all levels of government. Accordingly, as argued by Mintrom and Maurya (2020), most studies of entrepreneurship policy have explored the pursuit of policy change at all levels of government, including national, state, and local, while only a few have explored the dynamics between these levels of government. In this way, Naldi et al. (2020) claims that initiatives of local governments to promote public or private investments to improve the economic conditions for a place or region have a very long history, as the efforts of a local government are important for the development of vulnerable small- and medium-sized towns (SMSTs). For instance, as described by Rogers et al (2020), local governments in China employ different strategies to promote employment, such as offering free training programmes, provision of employment guidance and the indication for community jobs such as security, gardening, and maintenance.

Gilbert et al. (2004) suggest that entrepreneurship public policies tend to focus increasingly on promoting entrepreneurial activity by supporting the creation of new start-ups and reducing bureaucratic requirements for entrepreneurial firms. Regulating self-employment is a critical challenge faced by public policymakers throughout the world. For instance, according to Fritsch and Kublina (2015), between 1991 and 2009, Germany experienced a

strong rise in the level of self-employment in the first two decades following unification. In this way, political motivations are commonly seen as the driving force behind the creation of policy instruments towards small business preservation (Gilbert et al., 2004).

2.3 Proposing an Individual Micro Entrepreneur Assessment Framework

In response to the pressing need for a model to assess the dynamics of individual micro-entrepreneurs on a country level, this section is dedicated to propose an integrative meta-model that builds upon accumulated knowledge regarding micro-entrepreneurship. This framework will be employed to guide the data collection and analysis of this research. As such, we propose a heuristic frame named Individual Micro-Entrepreneurship Assessment (IMEA) framework. The IMEA model has been developed based on our review of literature on micro-entrepreneurship and entrepreneurship policy. Table 1 lists the constructs that are employed in the IMEA framework.

Construct	Reference
Total number of business registrations per country	Gilbert et al., 2004; Malerba, 2020
Main sectors	Blanchflower et. al, 2007; Damayanthi, 2016
Age group of the entrepreneurs	Vial, 2011
General findings	Vial, 2011; Ivlevs, 2019
Total number of business registrations per state	Mintrom & Maurya, 2020; Naldi et al., 2020
Educational level	Bhuiyan & Ivlevs, 2019; Mintrom & Maurya, 2020
Gross economic product	Mahadea & Khumalo, 2020

Table 1: Individual Micro-Entrepreneur Assessment Constructs (Source: The Authors)

In essence, the IME model incorporates conceptual constructs, which were derived from our review of both micro-entrepreneurship and entrepreneurship policy literature. The process of reviewing existing constructs allowed us improving our understanding of the elements of the main figures representing the phenomenon of micro-entrepreneurship on both a country and local levels. By conducting a literature review, it became quite clear that the existing models

do not present a complete view of all relevant aspects of micro-entrepreneurship policy evaluation, especially in a developing country context.

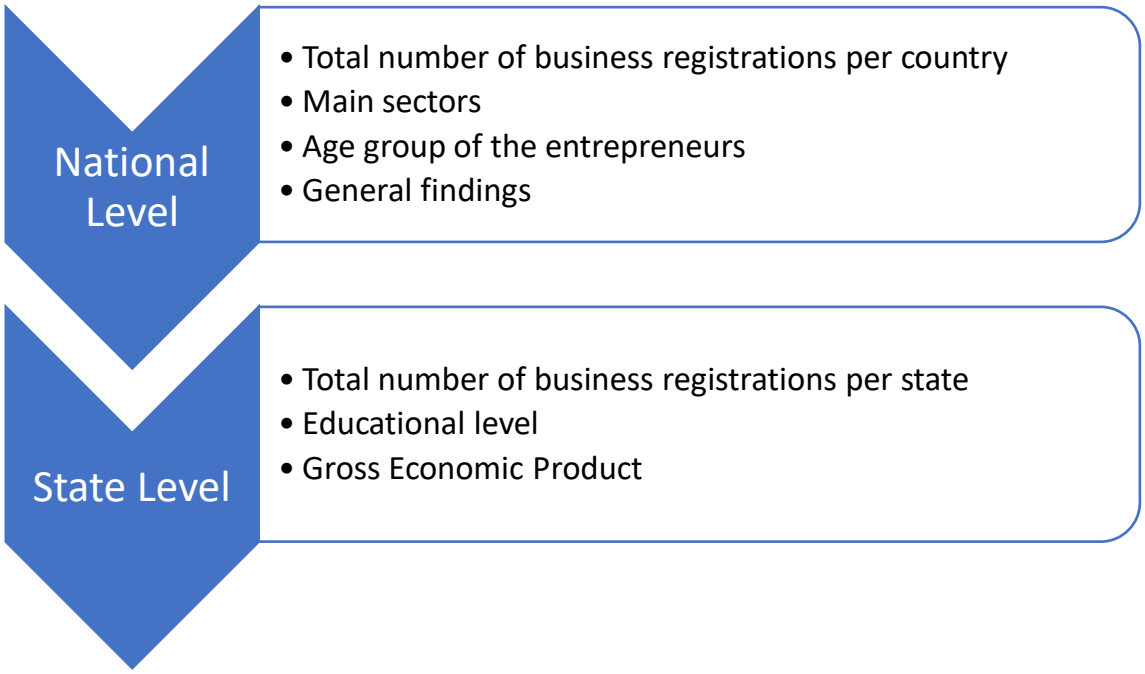

Figure 1: Individual Micro-Entrepreneur Assessment (IMEA) Framework (Source: The Authors)

3. Research Method

In essence, we adopt a qualitative/quantitative approach based on the collection of both secondary and primary data. As such, data was collected through the triangulation of different methods, which included Brazilian government data on individual micro-entrepreneurs, in-depth interviews, and document analysis. Triangulation has been generally considered a process of using multiple perceptions to clarify meanings by identifying different ways the phenomenon is being seen (Stake, 1988).

Given our objective to improve understanding of the impact the implementation of the Individual Micro Entrepreneur Act in Brazil, adopting a pure quantitative approach is not feasible, as the extant literature does not offer clear conventions for analyzing the Brazilian government data available concerning individual micro entrepreneurs (Lee, 1989).

A fundamental characteristic of a qualitative approach, in turn, is that researchers may have less a priori knowledge of what the variables of interest will be and how they will be measured (Benbasat et al., 1987). In this way, qualitative researchers are sometimes disposed toward causal determination of events, but more often tend to perceive events not simply and singly caused (Stake, 1988). Consequently, the combination of qualitative and quantitative approaches can be very synergistic (Eisenhardt, 1989).

Our data collection effort involved both secondary and primary data. We collected secondary data from the e-government portal of the Brazilian Federal government dedicated to

support interactions with individual micro entrepreneurs. This website is named ´Portal do Empreendedor´ (http://www.portaldoempreendedor.gov.br/estatisticas) and provides data from 2009 onwards. Our queries concerned total number of registered individual micro entrepreneurs, registrations per State, registrations per labor code, and gender.

Furthermore, to grasp the operational dynamics associated with the implementation of the Individual Micro Entrepreneur Act, primary data was collected by interviewing people experiencing this legislation from different perspectives. Therefore, we carried out a total of 12 interviews with individual micro-entrepreneurs, managers of larger companies, and Union Leaders. These interviews were staged between March 2019 and June 2020. The interviewees were:

- Micro Entrepreneur;

- Union Leader Beauty Salons;

- Deputy Union Leader Beauty Salons;

- Partner of Construction Company;

- Partner Variety Store;

- Accountant;

- Business consultant of Contabilizei;

- Head of Entrepreneurship Bureau of the municipality of Niterói;

- Head of Entrepreneurship Bureau of the municipality of Itaboraí.

4. Results

This section is aimed at collecting, presenting, and analyzing both primary and secondary data corresponding to Brazilian individual micro-entrepreneurs. To this end, we applied the proposed Individual Micro-Entrepreneur Assessment (IMEA) framework as the theoretical lens to guide this explorative analysis of the results of the implementation of the Individual Micro-Entrepreneur Act in Brazil, ten years after coming into force.

4.1 National Level

In order to understand the impact of Individual Micro-Entrepreneur Act on a national level, we examine fundamental figures, such as the total number of registered business entities, the main business sectors motivating the registration of business entities, as well as registration figures presented by age-group of the individual micro-entrepreneurs. Although statistics related to gender and educational level can be regarded as relevant, reliable records for those attributes could not be found in the Brazilian e-government portals.

4.1.1 Overview of the Individual Micro-entrepreneur Act in Brazil

The individual micro-entrepreneur is a business entity resulting from an adjustment of the Brazilian legislation regarding the regulation of business ownership. The Complementary Law No. 128/2008 that amended the General Law on Micro and Small Enterprises (Complementary Law No. 123/2006) created the figure of the individual micro-entrepreneur. As such, the first individual micro-entrepreneurs started to be registered in 2009. To this end, an e-government portal was created, which is named Portal do Empreendedor. This portal allows for the creation of a sole proprietorship enterprise without any costs or need for an account.

The Complementary Law No,128/2008 established that an individual micro-entrepreneur should have an annual revenue of less than 81 thousand Brazilian reais, which corresponds to approximately 15,000 USD during the time of this study. Additionally, the owner of the company can hire one employee. Although creating a one-person company is free, a monthly contribution is required amounting between 50.90 and 55.90 Brazilian reais depending upon the occupational area, which corresponds to approximately 10 USD. This contribution includes both local taxes as well as a public pension contribution.

4.1.2 Assessing Trends on Brazilian Individual Micro-entrepreneurs

After describing the context of the implementation of the Individual Micro Entrepreneur Act, we examine a set of main figures associated with the current situation of the individual micro-entrepreneur in Brazil. To this end, we have collected secondary data with respect to the total number of registrations, geographical distribution, occupation, and age. In order to enrich our analysis, we combine insights of interviews in order to interpret the current situation of individual entrepreneurs in Brazil.

Our first analysis regards the registration of new business entities in accordance with the noted Law No. 128/2008. As such, Figure 2 provides a longitudinal overview of the registrations and demonstrates a steady increase in the number of individual micro-entrepreneurs. In April 2020, the total number of registered business entities in that format exceeded ten million. According to the Brazilian institute for statistics, Brazil has a population of 210 million and an active working population of 110 million (IBGE, 2020). Therefore, it is possible to observe that a little bit less than ten percent of the Brazilian working population has created a one-person enterprise.

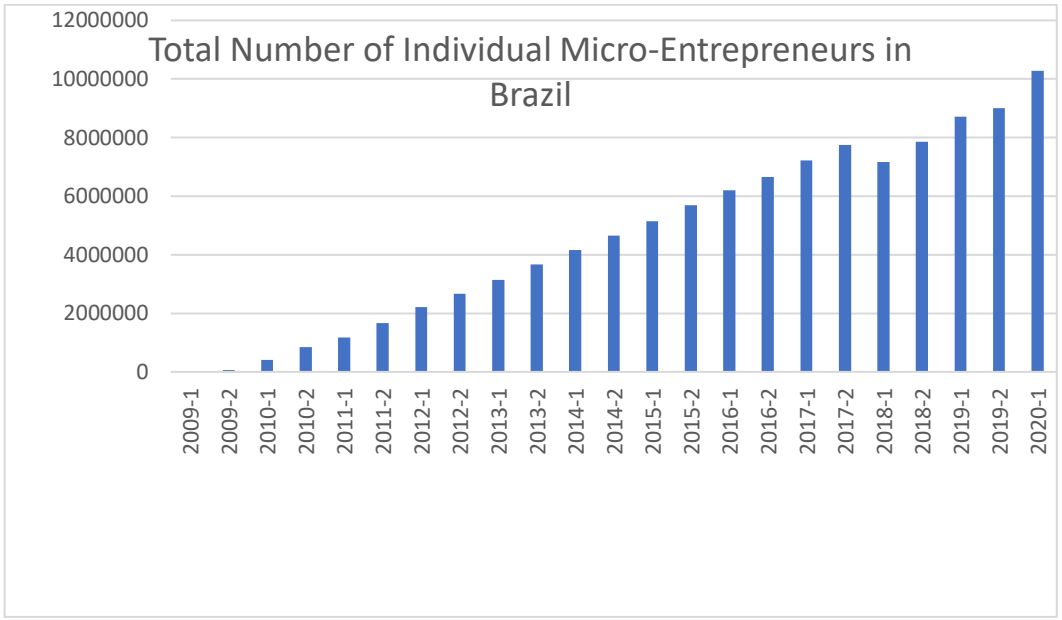

Figure 2: Longitudinal analysis of the number of registered Individual Micro-Entrepreneurs in Brazil (Source: The authors)

In addition, to the number of registrations, our interviews also revealed valuable insights concerning the growth of registered individual micro-entrepreneurs. For instance, as stated by a Union leader in the segment of beauty salons:

"**In the past, most people working for beauty salons were employees or informal workers. However, at present, everyone is only working with individual micro-entrepreneurs**"

In a similar vein, it is possible to observe a similar pattern in other sectors of the economy. As described by a business manager of a construction company:

"**The accountants are recommending us to substitute employees by individual micro-entrepreneurs. Therefore, most construction companies are currently only hiring individual micro-entrepreneurs**"

Additionally, the creation of a business entities, as an individual micro-entrepreneur, does not always follows the most logical path. For instance, a consultant of Contabilizei, which is the largest digital business accounting office in Brazil, describes:

"**The official migration procedure for turning a micro-entrepreneur into a small enterprise does not work via the official e-government portal. In practice, we recommend our clients to shut down an individual micro-entrepreneurship enterprise, before starting a small enterprise. This has been the most efficient way to gain scale**"

During the registration of an individual micro-entrepreneur, it is necessary to indicate the business sector in which the business venture will operate. This is accomplished by selecting a code representing the Brazilian national classification for economic activities, which is locally named ´Classificação Nacional de Atividades Econômicas' (CNAE). In total, there are 466 CNAE codes that can be selected by individual micro-entrepreneurs. Therefore, in order to understand the sectors attracting most individual micro-entrepreneurs, table 1 lists the frequencies of the 20 most adopted CNAEs. Clearly, the most frequently selected CNAE codes

refers to activities of contractors, rather than small business owners. Consequently, we can conclude that individual micro-entrepreneurs are being hired by larger business entities.

CNAE Code	Occupational Description	Nature of Activity	Total Registered Firms
9602501	Hairdressers, manicures and pedicures	Contractor	789,833
4781400	Retail trade in clothing items and accessories	Business owner	748,214
4399103	Masonry Works	Contractor	453,134
7319002	Sales promotion	Contractor	339,252
5611203	Snack bars, tea houses, juices and similar	Business owner	271,843
5620104	Providing food prepared mainly for household consumption	Business owner	267,745
4712100	Retail trade of goods in general, with a predominance of food products - mini-markets, grocery stores and warehouses	Business owner	237,013
9602502	Aesthetics activities and other beauty care services	Contractor	214,479
4321500	Electrical installation and maintenance	Contractor	192,861
5612100	Mobile food services	Business owner	191,394
4723700	Retail trade of drinks	Business owner	175,314
5611204	Bars and other establishments specializing in serving drinks	Business owner	166,197
5611201	Restaurants and similar	Business owner	162,145
4930201	Road freight transport, except dangerous products and changes, municipal	Contractor	158,910
4772500	Retail trade of cosmetics, perfumery and personal hygiene products	Business Owner	156,053
9700500	Domestic services	Contractor	152,815
4330404	Painting services in general	Contractor	140,825
8599699	Other activities not previously specified	Contractor/ Business Owner	139,319
8230001	Trade fair, conference, exhibition and party organization services	Contractor/Business Owner	138,656
5320202	Fast delivery services	Contractor	136,866

Table 1: Top 20 of most adopted CNAE codes (Source: The authors)

In order to complement our understanding of the characteristics of the individual micro-entrepreneur, we also examined the distribution of the population in age categories. Figure 3

represents the frequencies in the age categories used by the Brazilian e-government portal. It becomes evident that the majority of the individual micro-entrepreneurs are between 21 and 50, accounting for 77 percent of all registered citizens. In contrast, senior citizens about years old corresponds to just one percent of all registered enterprises.

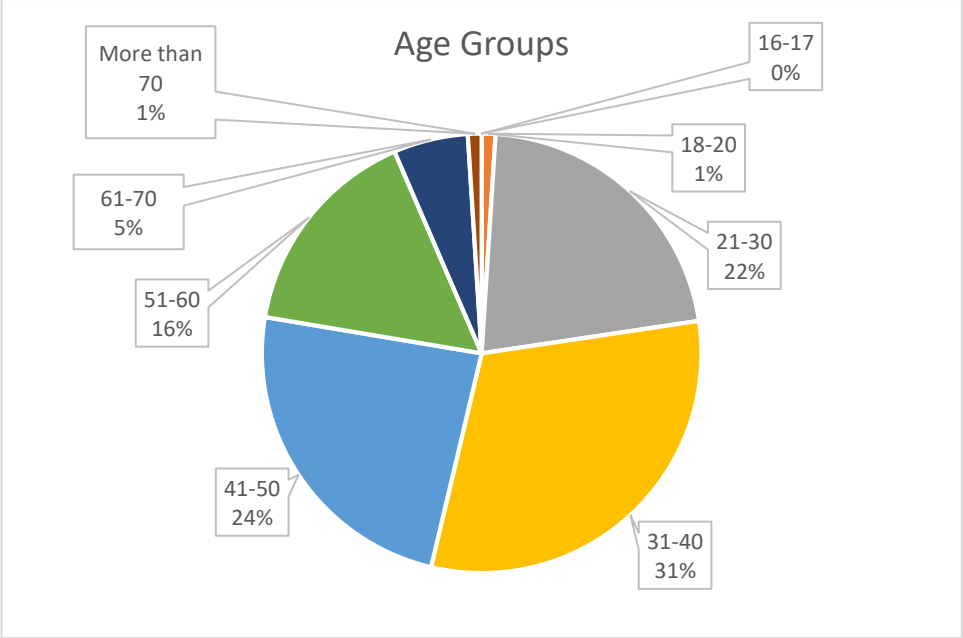

Figure 3: Age Groups of Individual Micro-Entrepreneurs in Brazil (Source: The authors)

4.2 Analyzing State Level Data

After analyzing individual micro-entrepreneurship data on a national level, we focus on a State level data as a means of trying to identify regional differences across Brazil. To this end, we combined data from Portal do Empreendedor with data from the Brazilian Bureau for Geography and Statistics (IBGE).

First, we assessed the geographical distribution of individual micro-entrepreneurs across Brazil. Consequently, we elaborated a tree map to represent the micro-enterprises registered per Brazilian state, as depicted in figure 4.

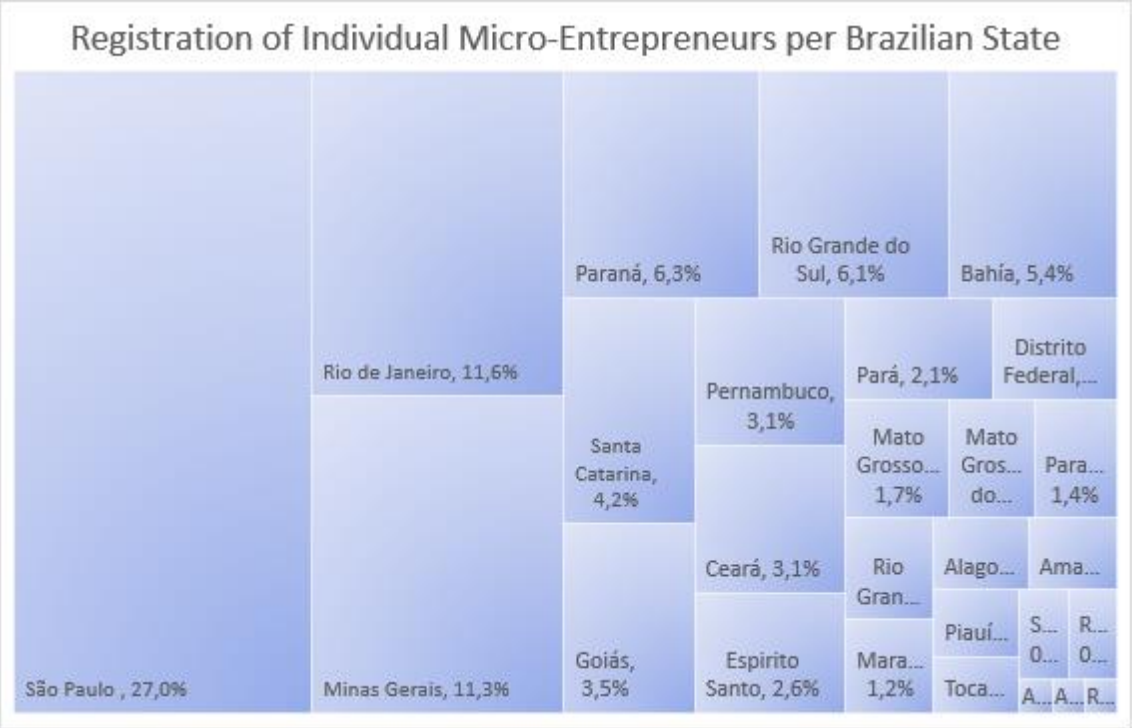

Figure 4: Geographical location of the registered individual micro-entrepreneurs in Brazil (Source: The authors)

Clearly, it is possible to observe a very strong geographical concentration of the micro-entrepreneurs. Since the States of São Paulo, Rio de Janeiro and Minas Gerais are all located in the South East region of the country and account for nearly half of all registered individual micro-entrepreneurs, it is possible to observe a strong concentration. In fact, the geographical concentration becomes clearer when we observe the Brazilian map. In contrast, the states located in the Amazon area, which is the North of the country and occupies more than half of the territory, accounts for just 2,5 % of all registrations. This concentration is clearly illustrated by figure 5.

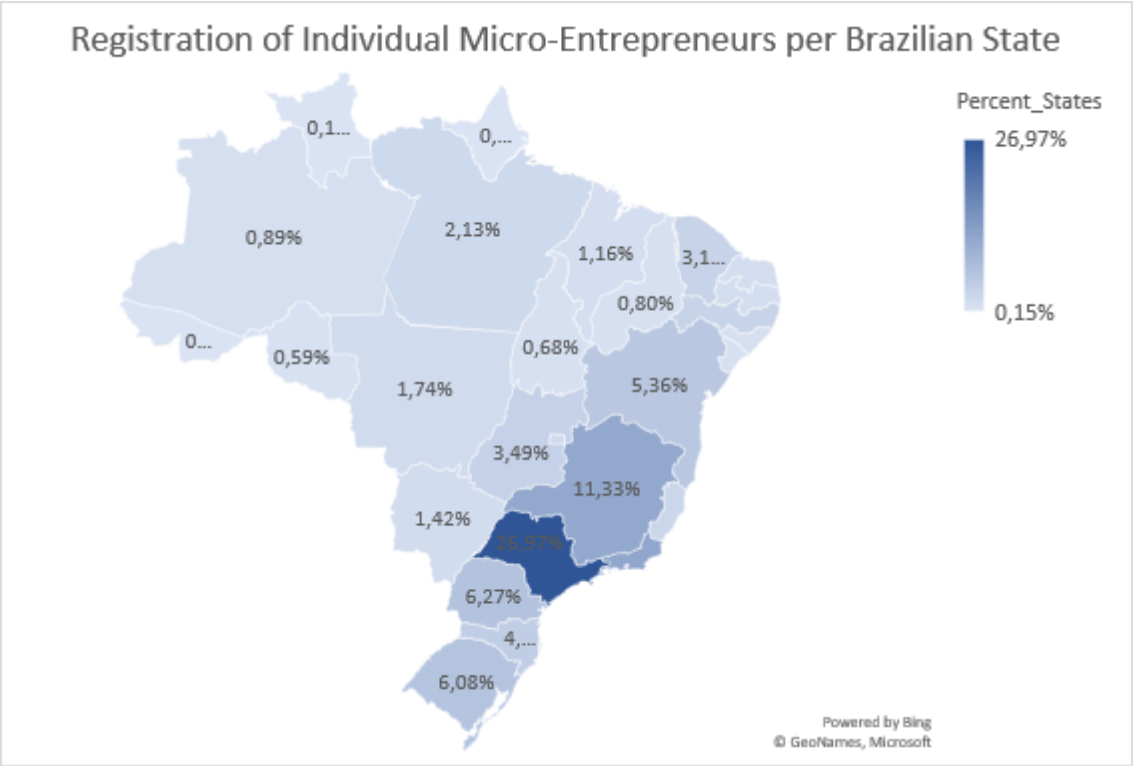

Figure 4: Percentage of registrations of individual micro-entrepreneurs across all Brazilian States (Source: The Authors)

F**igure 5:** Geographical location of the registered individual micro-entrepreneurs represented in the Brazilian map (Source: The authors)

In order to further explore the relationship between the number of registered individual micro-entrepreneurs with state-level social economic data, we collected data from the Brazilian Bureau for Geography and Statistics, which locally known as IBGE. Table 2 displays the set of variables that were compared.

Variable Name	Description	Source
[1] Tot_Micro_Entrep	Total number of registered individual micro-entrepreneurs.	Portal do Empreendedor
[2] Gross_Product	Gross development product.	IBGE
[3] Population	Estimated number of citizens.	IBGE
[4] Elementary	Estimated number of children enrolled in Elementary School.	IBGE
[5] High	Estimated number of children enrolled in High School.	IBGE
[6] Avg_Income	Average monthly income in Brazilian reals.	IBGE
[7] Tot_Emp_Formal	Estimated number people formally employed.	IBGE
[8] State_Buget	Total budget of the State.	IBGE

Table 2: Variable description of State level data (Source: The authors)

Given the data extracted for the variables above, we examined the descriptive statistics associated with state level data. In this way, table 3 presents the descriptive statistics.

	Tot_Micro_Entrep	Gross_ Product	Population	Elementary_School	High_school	Avg_Income	Tot_Employed_Formal	State_Buget
count	2.700000e+01	2.700000e+01	2.700000e+01	2.700000e+01	2.700000e+01	27.000000	2.700000e+01	2.700000e+01
mean	3.803688e+05	2.290450e+08	7.783227e+06	1.006814e+06	4.271203e+05	1238.703704	3.496148e+06	8.894092e+08
std	5.703404e+05	3.979829e+08	9.251328e+06	1.079327e+06	8.323990e+05	476.693968	4.322531e+06	4.475316e+09
min	1.570000e+04	3.483985e+06	6.057610e+05	9.658200e+04	2.219100e+04	636.000000	2.230000e+05	4.777523e+06
25%	8.660700e+04	4.043000e+07	2.897127e+06	3.908680e+05	1.060305e+05	901.500000	1.235000e+06	1.203733e+07
50%	1.790760e+05	1.092300e+08	4.018650e+06	5.562480e+05	1.412970e+05	1056.000000	1.744000e+06	1.968562e+07
75%	3.928695e+05	2.460700e+08	9.344574e+06	1.300333e+06	3.496200e+05	1495.500000	3.678000e+06	3.681568e+07
max	2.769902e+06	2.038000e+09	4.591905e+07	5.367614e+06	4.247218e+06	2686.000000	2.126800e+07	2.328225e+10

Table 3: Descriptive Statistics Associated with Micro-Entrepreneurship (Source: The authors)

Given the data extracted for the variables above, we created a correlation table, as shown in table 4. We conducted a correlation analysis, which is presented in table 3. By assessing the correlation value, it is possible to observe that the independent variable Total_Micro_Entrep is strongly correlated with Gross_Product, Population, Tot_Empl_Formal, presenting correlation factor higher than 0,98. In addition, Tot_Micro_Entrep is also strongly corrected with State_Budget, but with a smaller correlation factor of 0,84. There variables representing educational level, namely Elementary and High, present very different correlation levels. While enrollments in Elementary School is highly correlated, presenting a correlation higher than 0,95, enrollments in High School present a correlation of less than 0,5, which suggests that a minimum level of education is an important condition for registering as an individual micro-entrepreneur, but more advanced education tends not to lead to more registrations in the same intensity.

	[1]	**[2]**	**[3]**	**[4]**	**[5]**	**[6]**	**[7]**	**[8]**
[1] Tot_Micro_Entrep	1							
[2] Gross_Product	0,9825717	1						
[3] Population	0,9802030	0,9582287	1					
[4] Elementary	0,9573757	0,9346240	0,99474181	1				
[4] High	0,4671052	0,4524239	0,4679145	0,4674955	1			
[6] Avg_Income	0,4768422	0,5054476	0,3647819	0,3077040	0,2691646	1		

[7] Tot_Emp_Formal	0,9831103	0,9615716	0,9975973	0,9886726	0,4793303	0,3915261	1	
[8] State_Buget	0,8401040	0,9104906	0,8266514	0,8102282	0,293617	0,2987248	0,8245785	1

Table 4: Correlation Matrix Factors Associated with Micro-Entrepreneurship (Source: The authors)

5. Discussion and Research Propositions

We have provided a rich description of the Brazilian arena for individual micro-entrepreneurs, ten years after the implementation of the government Act that created this important legal business legal type. Therefore, in order to better illustrate the evidence in answering our research question (What is the impact of the implementation of the Individual Micro Entrepreneur Act on entrepreneurship activity in Brazil?), we combined secondary data from the e-government portal dedicated to individual micro-entrepreneurs and State level data from the Brazilian Bureau for Geography and Statistics with interviews with individuals that are experiencing the implementation of law 128/2008 from different roles. We have used the Individual Micro-Entrepreneurship Assessment (IMEA) framework as a theoretical lens to guide our research efforts that consisted primarily of collecting incomplete government data on individual micro-entrepreneurs in Brazil. Therefore, it is possible to propose a set of research proposition based on the findings derived from our analysis of both primary and secondary data. In practice, the secondary data on individual micro-entrepreneurs made available by the Brazilian government provides a limited number of attributes to be explored and, therefore, we used interviews to help us interpreting the retrieved secondary data.

Although the law 128/2008 does not make a distinction among different occupational areas, we could observe a concentration of registrations of new business entities in a small set of occupational codes, as well as in urban areas in Brazil. Moreover, our interviews also revealed that specific legislations, such as ‘Salão Parceiro’, are providing specific administrative requirements for certain occupational codes.

Proposition 1: Brazilian individual-microentrepreneurs are experiencing different administrative requirements depending on the selected occupational codes (CNAES).

Our interviews and examination of secondary e-government data also revealed that the majority of micro-entrepreneurs seem to be working rather as contractors than exploring entrepreneurial opportunities as business owners. Additionally, our interviews with employers provided evidence that the implementation of the Brazilian Individual Micro Entrepreneur Act contributed to reduce the number of informal workers in many sectors, such as beauty salons, retail, and construction companies.

Proposition 2: The implementation of the Individual Micro-Entrepreneur Act is contributing to reduce informal entrepreneurship.

Typically, operating partially or fully outside rules and regulations can provide opportunistic competitive advantages to employers, paid employees, and the self-employed to

increase their take-home earnings by reducing their costs though tax evasion. However, given rapid and simple procedure to create a single-owner enterprise in Brazil in combination with the preference of employers for reducing costs of hiring new employees, we could observe a strong and steady increase in registrations of individual micro-entrepreneurs, which exceeded 10 million registrations in the first semester of 2020.

Proposition 3: Brazilian retailers and service providers are increasingly focusing their offers on the individual micro-entrepreneur.

This study has also limitations that must be recognized and addressed in future work. We are limited to the secondary data provided by the Brazilian e-government portals. In this way, we could not identify any data available indicating whether the ten million registrations are regularly paying the required taxes on a monthly basis or how many individual micro-entrepreneurs are not active anymore. In addition, no data is provided regarding the number of individual micro-entrepreneurs that reached the revenue limit of 81 thousand Brazilian reais and converted their individual enterprise into a larger company.

6. Conclusion

Public entrepreneurship policies should contribute to prepare entrepreneurs to maximize the creation of economic and social value everywhere. Our research also revealed a number of patterns that generate practical implications to execution of government programs to provide entrepreneurship to individual micro-entrepreneurs. First of all, we provided evidence of the strong and steady growth of registrations of individual micro-entrepreneur registrations in Brazil in the past ten years, since implementation of Law 128/2008 and its implementation in 2009. Another finding with implications consists of the most frequent use of occupation codes related to activities that can be characterized as formal employment, rather than business ownership. Moreover, our analysis of State level data provided strong evidence of a regional concentration of individual micro-entrepreneurs in Brazil. We also observed that the number of registrations is strongly correlated with population size and the gross domestic product. Lastly, our interviews contributed to complement the secondary data from the Brazilian e-government portal by suggesting that the Law 128/2018 served to circumvent the expensive and bureaucratic requirements that has been traditionally posed by Brazilian labor law. As such, most individual micro-entrepreneurs in Brazil seem to be operating rather as short-term contractors, rather than business owners, especially in the context of large Brazilian urban centers. These findings have practical implications for research on entrepreneurship and for regional development. Thus, for policy makers, our study can also contribute to the development of action plans to help turning contractors into business owners prepared to apply entrepreneurial thought and action.

Finally, more work is needed into how the registration of individual micro-entrepreneurs is influencing their earnings and career prospects. In this way, future research could explore the relationship between occupation codes and income. Additionally, our work can be extended through a cross-national comparative quantitative study that identifies commonalities and differences regarding individual micro-entrepreneurs in other developing countries.

References

Aiyar, S., Ebeke, C. (2020). Inequality of opportunity, inequality of income and economic growth. World Development, 136, 105115.

Bhuiyan, M.F., Ivlevs, A. (2019). Micro-entrepreneurship and subjective well-being: evidence from rural Bangladesh. Journal of Business Venturing, 34(4), 625-645.

Blanchflower, D.G., Saleheen, J., Shadforth, C. (2007). The impact of the recent migration from Eastern Europe on the UK Economy. IZA Discussion Paper No. 2615.

Damayanthi, B.W.R. (2016). Analyzing the determinants of entrepreneurial activity level in urban micro enterprises in Sri Lanka. Proceedings of the 13th International Conference on Business Management (ICBM), University of Sri Jayewardenepura, Sri Lanka.

DasGupta, M. (2018). Literature review on micro entrepreneurship development and quality of life improvement. International Journal of Multidisciplinary, 3(3), 54-60.

Espitia, C.G.G., Cervilla, M.A. (2019). Necessity entrepreneurship in Latin America: it´s not that simple. Entrepreneurship & Regional Development, 31(9-10),

Figueroa-Armijos, M., Johnson, T.G. (2016). Entrepreneurship policy and economic growth, solution or delusion? Evidence from a state initiative. Small Business Economics, 47(4), 1033-47.

Fritsch, M., Kublina, S. (2015). Entrepreneurship, growth, regional growth regimes. Jena Economic Research Papers 2015-002, Friedrich-Schiller-University Jena.

Gilbert, B.A., Audretsch, D.B., McDougall-Covin, P.P. (2004). The emergence of entrepreneurship policy. Small Business Economics, 22(3/4), 313-323.

IBGE (2020). Projeção da população do Brasil e das unidades da federação.

Jarrodi, H., Byrne, S., Bureau, S. (2019). A political ideology lens on social entrepreneurship motivations. Entrepreneurship and Regional Development.

Ketchen, D.J., Ireland, R.D., Webb, J.W. (2014). Toward a research agenda for the informal economy: a survey of the strategic entrepreneurship journal´s editorial board. Strategic Entrepreneurship Journal, 8(1), 95-100.

Kosta, B., Williams, C.C. (2020). Evaluating the effects of the informal sector on the growth of formal sector enterprises: lessons from Italy. Journal of Developmental Entrepreneurship, 25(3), 2050019.

Mahadea, D., Khumalo, S. (2020). Entry and exit from informal microenterprise entrepreneurship in a South African municipality: a tale of resilience. Journal of Developmental Entrepreneurship, 25(3), 2050020.

Malerba, D. (2020). Poverty alleviation and local environmental degradation: An empirical analysis in Colombia. World Development, 127, 104776.

Mintrom, M., Maurya, D., A.J. (2020). Policy entrepreneurship in Asia: the emerging research agenda. Journal of Asian Public Policy, 13:1, 1-17.

Naldi, L., Larsson, J.P., Westlund, H. (2020). Policy entrepreneurship and entrepreneurial orientation in vulnerable Swedish municipalities. Entrepreneurship & Regional Development, 1-19.

Puente, R., Espitia, C.G.G.; Cervilla, M.A. (2019). Necessity entrepreneurship in Latin America: it´s not that simple. Entrepreneurship & Regional Development, 31(9-10), 953-983.

Rogers, S., Li, J., Guo, H. Li, C. (2020). China´s rapidly evolving practice of poverty resettlement: moving millions to eliminate poverty. Development Policy Review, 38(5), 541-554.

Verdugo, G.A.B. (2018). Innovative self-concept of micro-entrepreneurs: perception of barriers and intention to invest. Brazilian Administration Review, 15(2), 1-23.

Vial, V. (2011). Micro-entrepreneurship in a hostile environment: evidence from Indonesia. Bulletin of Indonesian Economic Studies, 47, 233-262.

Webb, J.W., Bruton, G.D., Tihanyi, L., Ireland, R.D. (2013). Research on entrepreneurship in the informal economy: framing a research agenda. Journal of Business Venturing, 28(5), 598-614.

Welter, F., Smallbone, D., Pobol, A. (2015). Entrepreneurial activity in the informal economy: a missing piece of the entrepreneurship jigsam puzzle. Entrepreneurship & Regional Development, 27(5-6), 292-306.

Welter, F., Trenttin, L., Neumann, U. (2008). Fostering entrepreneurship in distressed urban neighbourhoods. International Entrepreneurship and Management Journal, 4 (2), 109-28.

Williams, C., Nadin, S. (2010). Entrepreneurship and the informal economy: an overview. Journal of Developmental Entrepreneurship, 15(4), 361-378.