

Micro and Small Enterprises¹ in Brazil: A Comparative Analysis

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Abstract : *In Brazil, micro and small enterprises (considering only the formal environment) face a relatively high drop rate of approximately 23.4%, according to the Brazilian Micro and Small Business Support Service (SEBRAE, 2014). In this context of high competitiveness and low survival rates, it is imperative to collect reliable information on microenterprises (ME) and small enterprises (SE) that are surviving. Although the large number of MSEs, Work on systemic monitoring of the same enterprises for predetermined periods is more infrequent and, although specific, can provide great data on the functioning of micro and small enterprises. Due to the low number of reliable studies on MSE, especially with the use of a robust theoretical tool, such as the Innovation Radar, the objective of this work was to compile and perform a comparative analysis of the data,(Size, economic position and location of enterprises; and also gender, age group and entrepreneurs' education)between the years 2012 and 2016, in the ME and SE accompanied by the ALI (Local Innovation Agents) Program of Sebrae / DF. In addition to its novelty, this study is justified considering a sample of more than six thousand enterprises, approximately 6% of the MSE population of the Distrito Federal², according to data from the Inter-union Department of Statistics and Socioeconomic Studies (DIEESE, 2012). Finally, in addition to the specific objectives of this work, it is expected that the results presented here will become the source for future research, from which specific analyzes can be improved.*

Keywords: Comparative Analysis; Micro-enterprises and Small Enterprises; Distrito Federal; Sebrae; Local Innovation Agents Program.

I. Introduction

According to the Brazilian Micro and Small Business Support Service (SEBRAE, 2014), in Brazil, MSEs have an average participation of 97.6% in total enterprises, 62.53% of employed persons, but the value added Represents only 27% of the national Gross Domestic Product (GDP). However, from the academic point of view, perhaps due to the high level of informality to which these enterprises are submitted, there are not many periodicals classified by the WebQualis system, the Coordination for the Improvement of Higher Education Personnel (Capes), dedicated exclusively to the theme. Prior to the submission of this manuscript, for example, in the hunting phase of a well-ranked journal in the WebQualis system, pre-selected keywords were used (micro and small companies, MSEs, micro-enterprises, MEs, small companies, SEs). To select journals with specific dedication to the theme, according to the title of each journal. However, considering the predetermined search criteria - which are: journals that given the minimum classification (stratum B), presented the search terms (keywords) in their title - only three national journals were found on the “Sucupira” Platform, which supports the Qualis classification system (CAPES, 2017). Still as an example of the low academic coverage for micro and

¹MSEs

²Proper name of a Brazilian District in which the capital Brasília is located. “DF” will be used for future references to the term.

small enterprises, carrying out the same search, with keywords related to the topics under discussion (administration, management and innovation), dozens of journals can be found in the same "Sucupira" Platform, Capes.

Pursuant to Dieese (2012), in Distrito Federal (DF) in the year 2011, on the group of micro and small enterprises were 44.343 establishments in commerce, 41.689 in the services sector, 6.585 in the construction sector and 5.670 in industry. The number of MSEs in DF that, after the first two years of activity, are able to remain active is higher than the national average in almost all sectors of the economy (ANUÁRIO DO DF, 2016). Based on this information on the difference between national and Distrito Federal survival rates, the collection and analysis of data on micro and small enterprises in the DF can provide essential clues to the reduction of bankruptcy rates nationwide. Based on this premise about the success of MSEs in Distrito Federal, with the data collected by the Local Innovation Agents, from the Brazilian Service to Support Micro and Small Businesses in the Distrito Federal, data will be comparatively analyzed (size, economic sector and location; and also gender, age group and schooling of entrepreneurs) raised between 2012 and 2016, in the ME and SE accompanied by the ALI Program.

This comparative research of the profile of the companies followed by the Local Agents of Innovation Program in the Distrito Federal was elaborated with the data available in the "SistemALI", which is the management and monitoring system of ALI Program, referring to the 3rd cycle, The period from 2012 to 2014, and the fourth cycle, which runs from 2015 to 2016. This study includes 5.609 MSE from the base of the ALI Program in the 3rd cycle and, in the 4th cycle, 6.105 micro-enterprises and small companies. The objective of this work is to evaluate the differences presented in the composition of the target audience of the ALI program in the Distrito Federal, presenting the comparisons in both cycles, 2012-2014 and 2015-2016, considering the segmentations by: business size of each MSE, sector Economic situation of the companies monitored, location of the enterprises, besides gender, age group and schooling of the entrepreneurs responsible for each MSE.

In the accomplishment of its objectives, the present study is divided in four topics, including this brief Introduction (item 1): in the second subtitle (item 2), will be presented a summary revision of the methodological references, besides a description of the methodology of research here adopted; The data collected during the ALI Program will be exposed and analyzed, starting from item 3 (Results and Analysis), comparing the two analysis moments: 3rd cycle (2012-2014) and 4th cycle (2015-2016) of the Local Agents Program Innovation (at this stage of the research, the data will be organized according to the distribution of MSEs by: business size, economic sector, entrepreneur gender, entrepreneur age group, entrepreneur education); And, finally, in item 4 (Final Consideration), a conclusive synthesis will be presented about the results and analyzes brought by this study.

II. Methodology

According to Almeida (2005), there are currently tendencies favorable to the growth of micro and small enterprises, and in the opinion of the author, MSEs should take advantage of such privileges, which could be briefly described as the following: public sector support for development Small innovative enterprises; Development of partnerships between companies, connection of production with research, development and innovation; Technological changes; and also changes in the demand for individuality, quality and diversification of consumer goods. In his study of the challenges of globalization for micro and small enterprises, Almeida (2005) affirms that globalization presents more opportunities for MSEs to become competitive in the market, because: they can be more flexible and agile, delivering the innovations more quickly ; Can specialize in small niches and lower-cost activities; To differentiate themselves from international competitors; Less bureaucracy, since MSEs are usually managed by their own entrepreneurs; In addition to being able to adopt local development strategies - such as partnerships, differentiated relationships with suppliers and cluster construction.

The Innovation Radar is a tool proposed by Sawhney Et Al (2006) in which 12 dimensions are analyzed in which a company could innovate. Bachmann and Destefani (2008) believed that the first approach, initially suggested by Sawhney Et Al. (2006), disregarded the internal environment of companies and then included an additional dimension, the innovative environment, whose proposal is to analyze if the organizational climate is or not, conducive to innovation. Thus, from Sawhney Et Al (2006) and Bachmann and Destefani (2008), Oliveira Et Al (2011) proposed a tool with 13 dimensions, namely: Supply; Processes; Customers;

Square; Platform; Brand; Solutions; Relationship; Adding value; Organization; Supply chain; Network; And Innovative Environment. After the phases of prospecting, entrepreneurship, and adhesion of the entrepreneurs, at the time T0, which is the initial phase of application of the Program, the Local Innovation Agent applies a questionnaire to the company manager, generating an Innovation Radar and Consequent measurement of the degree of innovation of each MSE accompanied by Sebrae. In sequence, with the help of the Local Innovation Agent, the implementation of the priority actions identified and defined in T0 is started. In phase T1, after completion of the actions defined in T0, the Agent performed a new application of the questionnaire to the MSE leader, generating a new Innovation Radar, with its respective measure of innovation degree. This flow is repeated during the monitoring period of the MSE by the Local Innovation Agent, which is a maximum of 30 months (CAVALCANTI FILHO, 2012).

According to Sebrae (2013), the ALI Program is a follow-up work for micro and small entrepreneurs with the aim of promoting innovation and technology of companies. Local Innovation Agents visit entrepreneurs and help them to identify innovation opportunities (in product, process or even in business management), present solutions and offer answers to demands of each MSE accompanied by the ALI, in which Refers to its economic-financial development, structure, products, services and production processes.

Still according to the Brazilian Micro and Small Business Support Service (SEBRAE, 2013), the work of the ALI in the first year of the project is divided into six stages: prospecting; accession; Business diagnosis, through the application of the Innovation Radar; SWOT analysis (Strengths, Weaknesses, Opportunities and Threats); Devolutive, with action plan; and follow-up. From the second year onwards, the steps are repeated, except for adhesion, to compare the data collected in each MSE monitored by Sebrae. Briefly, the stages of the first year of the project can be described as follows: i) prospecting - in this stage, the awareness of the micro and small companies is made, through the presence of the Local Agent of Innovation; ii) membership - at this stage, the data of MSEs interested in participating in the program are collected and then inserted into the "SistemALI"; iii) diagnosis - stage in which the business diagnosis and the Radar of Innovation tool are applied in each one of the studied companies, being collected data of all dimensions to be analyzed; iv) SWOT analysis - at this stage of the analysis, the data collected are used to create a SWOT matrix, in which the Forces, Opportunities, Weaknesses and Threats of the enterprise are identified; v) Devolutive, with action plan - step that are made "devolutives" for the presentation of the Innovation Radar chart, with the respective measurement of the degree of innovation of each MSE accompanied by Sebrae, in the dimensions analyzed and action plan as detailing and proposition of corrective actions; And vi) monitoring - at this stage, microenterprises and small businesses are monitored, according to the availability of the entrepreneur, and in these follow-up visits, the development of the proposed actions is monitored by the Local Innovation Agent.

For the accomplishment of this study, information available in the "SistemALI" related to the Radar tool of Innovation was used. Considering a population of approximately 100.000,00 microenterprises and small businesses in Distrito Federal (DIEESE, 2012), the sample used in the present research was initially constituted by 5.609 enterprises, in the 3rd cycle of the Local Innovation Agents Program (2012-2014) and , Later, in the 4th (2015-2016) the sample was 6.105 enterprises accompanied by the Sebrae / DF. From these samples and considering the predetermined periods for the comparative analysis, the data were separated into spreadsheets by business size of each MSE, by economic sector of the micro and small companies monitored, by location of the enterprises, besides gender, age group and schooling of the entrepreneurs responsible for each MSE accompanied by the Local Innovation Agents. According to the initially proposed distributions, the results were described, and after the graphical representation of these, the comparative analyzes were performed, considering, in all six evaluations, the differences between the 3rd cycle (2012-2014) and the 4th Cycle (2015-2016) of the Sebrae / DF Local Innovation Agents Program.

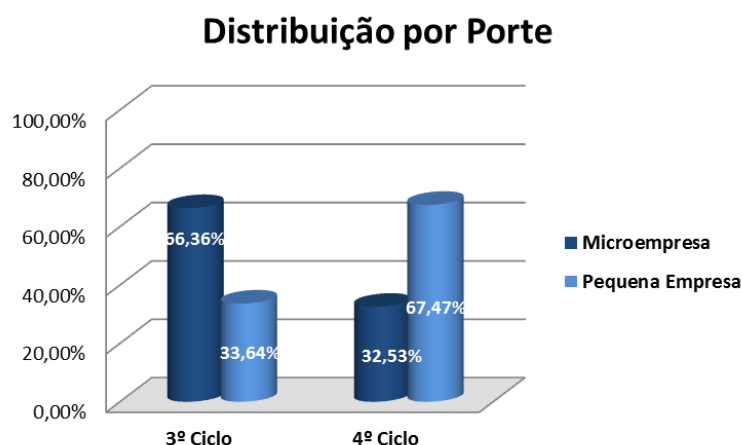
III. Results and Analysis

3.1 Distribution of MPEs by Business Portfolio

Although there is available data on the previous cycles of the Local Innovation Agents Program, initiated in 2008, this research is focused on the data collected in the last two cycles of the Program, 3rd (2012-2014) and 4th (2015-2016), due to the Alteration of the ALI guideline, which, from then on, became available only to small companies. In view of the change in focus in relation to the target audience of the Program, it is possible to observe that, between the 3rd and 4th cycles of the ALI Program in Distrito Federal, regarding the

distribution by business, the participation of small companies increased from 33,64%, in the 3rd cycle (2012-2014), to 67,47%, in the 4th cycle (2015-2016).

The analysis will be done within a population of almost 100 thousand micro and small businesses of Distrito Federal (DIEESE, 2012), between the 3rd cycle, with 5.609 MSE, and the 4th, with 6.105 micro and small companies, setting up 8,84% increase of the sample between the analyzed periods. In addition to the change in Sebrae's service guidelines, the increase in the sample available for this study indicates that, between the periods under review, there was a strengthening of the ALI Program, which, from the 3rd to the 4th cycle, could be extended to 496 new enterprises.

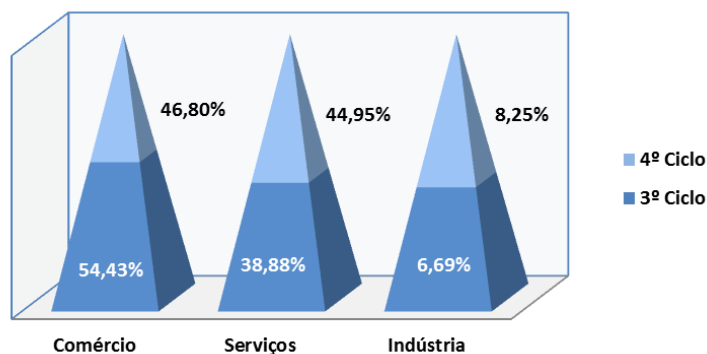


In a quick view of the graphic on distribution of MSEs by business size, it is possible to verify that, between the 3rd cycle (2012-2014) and the 4th (2015-2016), there was an exchange of positions: the percentage of microenterprises of the sample change from the total number of projects analyzed in the third cycle, to approximately 1/3 of the business organizations evaluated between 2015 and 2016. This change in positions is probably the result of a directive of Sebrae itself, which, In relation to the ALI Program, concentrates the focus on SE, although this Program is not an exclusivity of Small Enterprises. After all, during the monitoring carried out by Sebrae, even if, henceforth, new micro-enterprises are not registered, it is quite natural that, due to the change in the billing of each enterprise, there is a migration, from SE to medium-sized company, from ME to Small business etc. It would be counterproductive, therefore, to disregard the work already carried out in micro-enterprises by removing them from the database available on "SistemALI".

3.2 Distribution of MSEs by Economic Position/Sector

In the distribution of MSEs by economic sector, it is possible to verify that, in the third cycle (2012-2014) of the program, 54,43% of the enterprises monitored worked in the commerce sector, 38,88% operated in the service sector and only 6,69% in the industrial sector. Already in the 4th cycle of the ALI Program (2015-2016), there is a greater balance in the distribution among the sectors of the economy, as compared to the distribution of companies in the commerce and services sectors, with 46,80% and 44,95% Respectively, and a 1,56% increase in the total number of enterprises in the industrial sector, whose participation increased from 69% in the 3rd cycle (2012-2014) to 8,25% in the 4th (2015-2016).

Distribuição por Setor



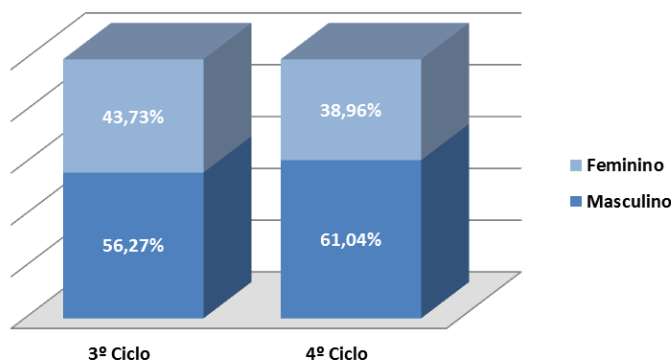
Regarding the sectorial analysis of MSEs, the relatively low representation of micro and small enterprises in the industrial sector (less than 10% of total MSEs) is not new. However, in terms of percentages, the increase of almost two percentage points from the 3rd cycle (2012-2014) to the 4th (2015-2016) is a new phenomenon, which, in future research, through information collected in the next cycles in the Program ALI, needs to be better analyzed. Based on the data presented so far, especially considering the difference between the participation of micro and small enterprises (item 3.1), it could be stated that, in relation to the industry sector, the increase in the distribution of MSEs is due to the greater presence of SE between the 3rd and 4th cycle, since, due to its greater dependence on capital, the industrial sector tends to grow in the percentage share of the sample as the size of the enterprise, measured here by MSE.

Comparing the trade and services sectors, from one cycle (2012-2014) to the other (2015-2016), the distribution of MSEs in this sample went through equalization, jumping from a difference of almost 20 percentage points, in the 3rd Cycle, to less than two points, in the 4th cycle. The hypothesis proposed here is that this balance, as a result of a significant growth in the number of enterprises dedicated to the service sector, although it can be partially explained by the changes in size, as occurred with the increase of MSEs dedicated to industry, Also lacks data (collected in the next cycles of the ALI Program) and, with that, lacks also new studies for a more accurate analysis.

3.3 Distribution of MSEs by Entrepreneur Gender

In the distribution of MSE by gender of the entrepreneur, there was approximately a 4,77% decrease in the number of women monitored by the ALI Program, from 43,73% in the 3rd cycle (2012-2014) to 38,96% in the (2015-2016), while male entrepreneurs consequently rose from 56,27% in the third cycle to 61,04% in the next cycle.

Sexo

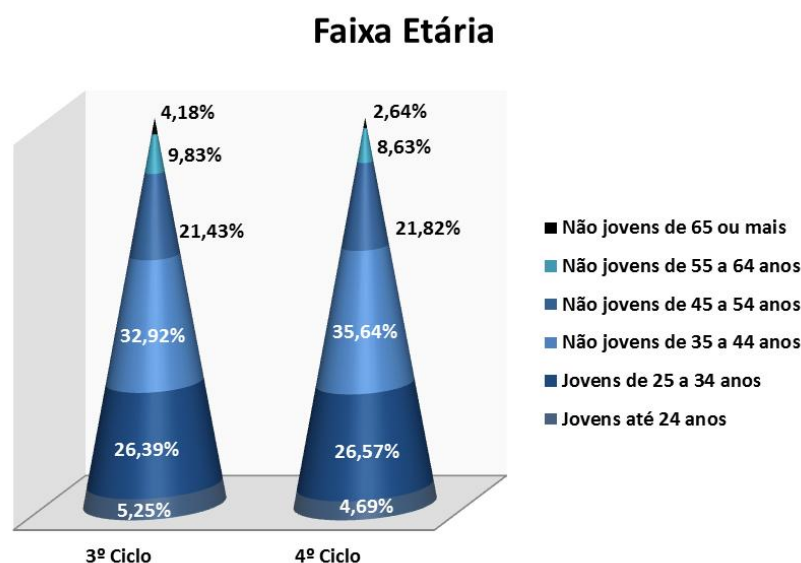


Regarding the entrepreneurs gender distribution of MSEs, the decrease of almost five percentage points in relation to female participation of the sample is a given that, due to the natural tendency of balance between

male and female entrepreneurs, is strange, of an unexpected reduction, which also merits further study. After all, although it still does not represent the majority among Brazilian entrepreneurs, the participation of entrepreneurs in the national economy has been growing year after year, unlike the data found in the present sample.

3.4 Distribution of MPEs by Entrepreneur's Age Group

In the distribution of MSE by age group of the entrepreneur, a relative balance was observed, highlighting, in this analysis, the bands comprising "non-young people aged 35-44 years", in which there was an increase of 2,72%, from 32,92% in the 3rd cycle (2012-2014), to 35,64% in the subsequent cycle (2015-2016). In addition to this finding, it is also possible to verify that, in the cycles analyzed in this study, the "non-youngsters aged 55 years to 64 years" and "above 65 years" suffered reductions of 1,2% and 1,54% respectively.



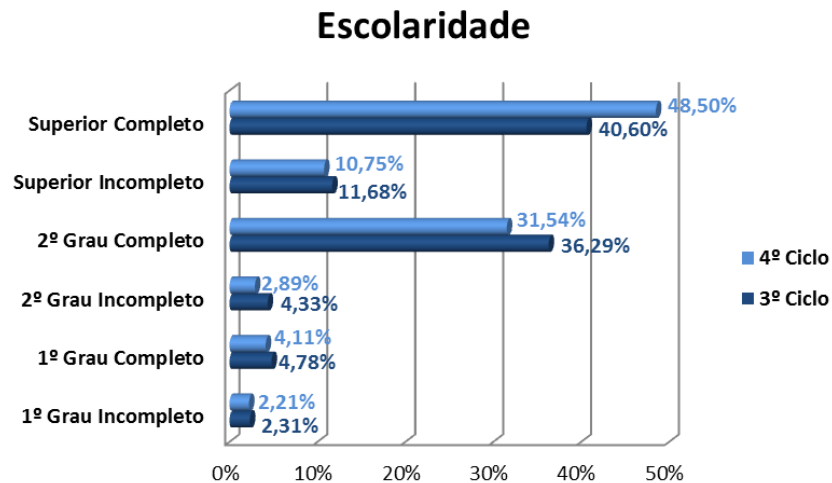
The low participation of "youths up to 24 years old", observed in both the 3rd and 4th cycles, is information whose analysis needs to be combined with the distribution of MSEs by the entrepreneur's schooling (item 3.5), since approximately half of the enterprises is already commanded by entrepreneurs with complete higher education, it is natural that these MSEs have people over the age of 24 in charge of the enterprises, at which time, for most of the higher courses offered, the student finishes this stage of formal education. Therefore, it is natural that, as has been the case in the salaried labor market, people begin to undertake later, usually after completion of higher education.

Regarding the MSE distribution by age of the entrepreneur, strangely, the total number of "non-young people over 54 years old" decreased approximately four percentage points between the 3rd cycle (2012-2014) and the 4th (2015-2016). While data from the Brazilian Institute of Geography and Statistics (IBGE) indicate that, in percentage and comparative terms, the elderly population increases year after year, data from the sample evaluated here indicate a decrease in the participation of these people in the micro and small entrepreneurship market. Thus, in line with the data on the evolution of the Brazilian age pyramid presented by the IBGE itself, the expected increase would be an increase in the participation of ladies and gentlemen over 54 years of age in Brazilian MSE, but this research did not occur. As seen in the entrepreneurs' gender-based distribution of entrepreneurship, the low participation of older people in the control of MSE is also an unexpected finding, requiring future evaluations, through the collection of new information.

3.5 Distribution of MPEs by Entrepreneur Education

In the chart below, there is a change in the profile of entrepreneurs' education, notably in the increase of entrepreneurs with a complete higher level, in which there was an increase of 7,9%, from 40,60% in the 3rd cycle (2012 -2014) to 48,50% in the next cycle (2015-2016). On the other hand, considering the same period,

there is a reduction of almost five percentage points (4,75%) in the number of entrepreneurs with full secondary education, in addition to a considerable drop in the number of MSEs headed by people with incomplete secondary level.



Among all the presented variations in the present study, the increase in the participation of entrepreneurs with higher education completes the less unexpected data set of the analysis. However, the increase of eight percentage points is greater than, considering a time span so small, between the 3rd cycle (2012-2014) and 4th (2015-2016), could be expected. This increase in the entrepreneurs' educational level is also, according to IBGE data, a mirror of the evolution of the number of years of study per Brazilian, but it may also be a reflection of the difference between the number of micro and small enterprises analysis (item 3.1). After all, just as the increase in the number of small businesses may have affected the distribution of MSEs in the industrial sector, it is reasonable that this increase is related to the increase in the number of years of formal study of the entrepreneurs. Although, for the time being, it is only a superficial analysis, it is probable that an important clue about the difference between the bankruptcy rate of the Brazilian MSEs and the index of breakdown of the micro and small ventures of the DF is here: in the increase of the qualification of the entrepreneurs of Distrito Federal. However, it is necessary to carry out new research and, evaluating the evolution of the time of the MSE, to verify if, over several cycles, this perfunctory analysis may or may not be confirmed.

3.6 Geographic distribution of MSEs in DF Administrative Regions

In the table below, regarding the distribution of MSEs by administrative districts of Distrito Federal, there was a positive percentage change in the participation of the total number of companies followed in 13 Administrative Regions, negative variation in 15 Regions and stability in one. As already mentioned in previous analyzes, in absolute numbers, there was, in general, an increase of 8,84% in the number of MSEs monitored, considering the 3rd and 4th cycles of the ALI Program. Therefore, the increase in the number of enterprises accompanied by Sebrae deserves a small table, indicating the administrative regions benefited by the increase in the number of MSEs accompanied and also the regions that, at the other end, suffered reductions in participation in the Local Innovation Agents Program.

REGIÃO ADMINISTRATIVA			
	3º Ciclo	4º Ciclo	Var
Águas Claras	7,02%	7,79%	↑
Brasília	27,12%	20,40%	↓
Brazlândia	0,86%	1,24%	↑
Candangolândia	0,29%	0,07%	↓
Ceilândia	5,22%	8,74%	↑
Cruzeiro	1,44%	1,26%	↓
Estrutural	0,37%	0,36%	↔
Gama	1,46%	3,24%	↑
Guará	7,52%	8,84%	↑
Itapoã	0,36%	0,82%	↑
Jardim Botânico	1,91%	1,57%	↓
Lago Norte	1,77%	1,11%	↓
Lago Sul	3,90%	2,37%	↓
Núcleo Bandeirante	2,05%	1,77%	↓
Octogonal	0,46%	0,56%	↑
Paranoá	1,18%	1,87%	↑
Park Way	0,30%	0,11%	↓
Planaltina	2,44%	4,06%	↑
Recanto das Emas	2,28%	2,59%	↑
Riacho Fundo	1,68%	1,13%	↓
Samambaia	4,39%	2,91%	↓
Santa Maria	1,85%	2,16%	↑
São Sebastião	2,67%	1,88%	↓
Sobradinho	2,44%	6,50%	↑
Sudoeste	3,90%	2,60%	↓
Taguatinga	13,32%	11,07%	↓
Varjão	0,20%	0,05%	↓
Vicente Pires	1,25%	2,62%	↑

Brasília, perhaps due to the concentration of the country's capital, also keeps a concentration of enterprises in administrative regions of Brasília, or central. Considering that, according to the cycles evaluated, there was a deconcentration of the MSEs in this administrative regions, it is difficult to perceive benefits in the increase of the business activity in peripheral administrative regions, as, for example, occurred in the regions of Gama, Guará and , Especially, Sobradinho.

IV. Final Considerations

The analysis of the data presented in this comparative study allows us to conclude that the focus on the follow-up of SE, as well as the balanced distribution in the follow-up of these enterprises in the economic sectors, can be correlated with the data related to the level of education of entrepreneurs, To be explored, notably regarding the impact of entrepreneurship level of education on the business performance of Distrito Federal. It is demonstrated, therefore, that the focus adopted in the activities with small companies has proved to be correct, in order to contemplate more structured companies with greater possibility to implement innovative processes in their organizational routines, product development, processes and strategies of marketing. For the next ALI program (2016-2017), it is proposed that this strategy related to the target audience to be served, small businesses, be maintained and, to the greater effectiveness of the objectives proposed by the ALI Program, be improved.

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