

DOES BUSINESS GEOGRAPHICAL ACTING AREAS IMPACT ON INTRAPRENEURSHIP AND SUSTAINABILITY STRATEGIES?

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Abstract

The present paper aims to analyze the positive or negative impact of local integrated firms on strategies of intrapreneurship and sustainability. The study was developed in the region of *Tâmega e Sousa*, located in the north of Portugal. For that 283 firms from manufacturing and construction industries were analyzed. By local integrated firm were considered those firms that are doing all their business activities within the region where they are established. Most of firms (83.2%) in this region present very good results in the adoption of sustainable strategies, while 80.9% present a weak adoption of intrapreneurship strategies. Crossing variables on local integration and sustainability it was found a light tendency in favor of local firms, i.e., local firms apparently are more concerned with the regional sustainable development, than those that are acting outside the region borders. On what regards the relation between local integration and the adoption of intrapreneurship strategies, those firms that are doing business beyond the region are adopting more intrapreneurship strategies.

Keywords: Local Business, Intrapreneurship, Sustainability

JEL classification: L2, O1, R1

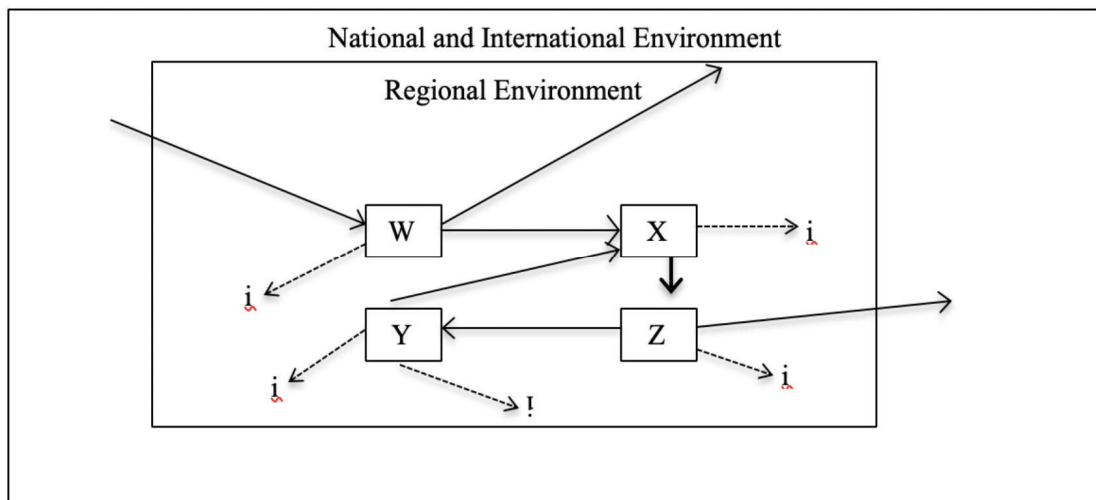
1. Introduction

The importance of entrepreneurship in economic and social development is emphasized both in literature, business practice and governmental policies. Example of that are policies such as the European Smart Specialization¹ or the Regional Innovation Strategies² that focus on the enhancement of innovative local dynamics bringing together several stakeholders to promote these dynamics. In general this is a development of the triple helix model (Etzkowitz and Leydesdorff 1995). Other factors such as the market knowledge and experience, academic ground and internationalization are also presented as the key elements of local development (Kisman and Tasar 2014). What seems to be consensual is that firms are a key element in economic and social development. In order to survive, firms need to develop their businesses. The basic development for any firm is about buying and selling. Within a region, a firm might do business with regional or non-regional stakeholders.

Considering () (below) we present some possible relations: W, X, Y and Z are firms that are doing business among them. W is buying from a supplier located outside the region and selling for a non-regional customer as well. Z is also selling for a non-regional customer. We must take into consideration that this is just a possible scenario. Many different ones could be presented. The main idea is to represent the differences that may occur when doing business at up and downstream levels. In the same figure the “i” aims to represent the individuals that are positively or negatively affected by the firms’ action (getting hired or fired, getting a sponsorship, suffering any type of environmental consequence, etc.).

¹ <http://s3platform.jrc.ec.europa.eu/>

² Europe: <https://ec.europa.eu/futurium/en/jobs-and-skills-local-economy/draft-action-4-regional-innovation-strategy-ris3-20>; USA: <https://www.eda.gov/oie/ris/>

Image 1. A possible relation among firms and individuals

Source: Own Elaboration

The main idea that we aim to present with the figure above is that firms are doing businesses with many different stakeholders, and their actions affect their own strategies as well as their stakeholders (in the figure we are focusing in the external individuals). This led us to this paper objective: To analyse if the type of business relations that firms are adopting in terms of buying and selling has impact in their internal strategies (intrapreneurship) and in their sustainable behaviour. Is there any impact for sustainable development from firms that act just locally (X and Y)? Are those firms more or less oriented to adopt intrapreneurship strategies?

In the present paper we aim to analyse this relation. For that, firms from the Region of *Tâmega e Sousa* (Portugal) will be classified in terms of business geographical acting areas. After that we will explore the existence of any relation between the business geographical classification (Local Integration) with the adoption of strategies of innovation, risk and proactivity (intrapreneurship) and sustainable development strategies.

The next chapter will present a brief literature review on the main concepts of this paper, followed by a region description. After that some considerations on the research methodology will be presented. To close this paper the results and the conclusion with the main achievements from this research.

2. Literature Review

2.1. Regional Business

The important role of businesses in regional economic growth and development is widely accepted as it is possible to find along the state of art, as for instance in the studies based in the triple and quadruple helix model [Leydesdorff, (2000); Gouvea, Kassiech, & Montoya, (2013)].

In economic terms the region is considered as a set of territorial units which, in terms of selected criteria, share many common features and have a number of distinctive characteristics as compared to the surrounding areas; the region is specialized and has a particular set of productive forces (Kuciński, 1990). Is not a aim for this paper to discuss the region concept, however it is important to mention it, since later on we will be discussing about the regional effects in business management. In other words, we are trying to explore the embeddedness effect. According to Lo Iacono (2018) the social density fosters higher levels of trust. In particular, people in denser communities are more likely to trust their unknown fellow citizens, encouraging isolated subjects to engage with strangers. This research was focusing individuals in general, but the entrepreneurial identity comes with individual own behavioral expectations that are defined, or imprinted, through various belief systems, that operate at an individual, interpersonal and group level, and entrepreneurial behavior will be a result of past experiences, observed behaviors, or conformity with a social group (Newbery, et al., 2018; Sluss & Ashforth, 2007).

Wu & Pullman (2015) argue that contrary to the belief that firms act solely for profit and growth, cultural contents such as values, social issues and political ideologies explain firms' motives and guide their economic activities. Along with this perspective Jack & Anderson (2002) found that embeddedness plays a key role in shaping and sustaining business. According to the authors being embedded in the social structure creates opportunity and improves performance.

Authors such as Rutten & Boekema (2007) argues that differences in economic development can be explained, among others, by factors such as regional social capital, that in turn originates from the embeddedness of firms in regional webs of social relations.

However, there are also some negative perspectives of embeddedness. According to Andersen (2013) over-embeddedness presents a negative impact on firm performance. Day et al. (2013) identified a negative curvilinear relationship between relational capital (comprising trust, respect and reciprocity) and performance. They also identified a sequencing of relational inertia and resource misallocation. Still the same authors "*further present a wider paradox when relationship quality is assessed between a buyer and supplier. At both focal companies, the behaviors that led suppliers to 1) value the buying firm as a partner, 2) seek deeper relational embeddedness, and 3) pursue a value co-creation strategy simultaneously sowed the seeds for relationship dissatisfaction*" (Day et al., 2013, pp. 161). Similar ideas and results are also suggested by authors such as Villena et al. (2011) or Halaszovich & Lundan (2016). Taking these different ideas into consideration it is possible to question if the region may have an impact in the firm's strategies. This brief overview allows us to conclude that there is not a clear perception on the effects of regional cooperation and regional integration. These impacts will be studied later on.

2.2. Sustainable Development

Today, it is a widely accepted notion that the development of regions is the driving force behind the economic growth of countries, and the recognition of this fact is reflected in various European Union's policies (Antonescu 2014; Sirbu 2014). A major factor for this growth can be found in the entrepreneurial fabric, through its role played in generating added value, innovation and jobs (Muresan & Gogu, 2012).

Regional development embraces the processes of quantitative growth as well as qualitative progression. These processes are seen as changes occurring in many spheres, including the economy, technology, natural environment and in society (Duarte and Diniz 2011). These changes have both economic and societal dimensions and in the long term they should lead to improving the quality of life of inhabitants, the setting-up of new enterprises and the creation of new jobs, the upgrading of the regional economic infrastructure and therefore they contribute to an increase in gross domestic product per capita generated in the regional economy.

Not so recent, but still a concerning is the concept and practice of sustainable development [(Eversole, 2003; Schumpeter, 1934; Sinakou et al., 2018; Wiklund & Shepherd, 2005)]. According to Spangenberg (2004), sustainable development is based on the integration of four dimensions: economic, environmental, social and institutional, and is perhaps the biggest challenge ever in terms of policy concept. The Brundtland Commission³ presented three main objectives to achieve a sustainable development:

The environmental objective, taking into account the overall safeguard of the environment from a long-term perspective;

The social objective, strengthening cohesion through justice among peoples, countries, genders, social groups, among others; and,

The institutional objective, ensuring participation in political decisions as a prerequisite for the peaceful establishment of the official agreement.

None of them is an economic objective, however, economics is crucial: Its current way of working is a guiding force behind most problems, but it can also be a force for a better contribution to solve various problems by creating enough wealth. Although a vibrant

³ <http://www.un-documents.net/our-common-future.pdf>

economy is not an end in itself, it is considered essential for the long-term satisfaction of material needs by providing jobs, income, social security and consumer opportunities.

Economies are the driving force for development, and firms play a crucial role on it, so the next section we will present some concepts on firms' management and strategies, keeping an eye in regional/sustainable development.

2.3. Intrapreneurship

Nowadays it is widely accepted that Entrepreneurship can be measured by three factors: (1) Proactivity (2) Innovation and (3) Risk propensity (Miller 1983). If these factors are important at the firm creation, they are still relevant for firm development. What entrepreneurs must develop is, first of all, the entrepreneurial spirit, so that they can then bring that spirit into the company, thus fostering intrapreneurship, as Pinchot (1985) argued. The concept of entrepreneurship is often referred to as the strategic capacity of the company, the ability to bring new products into the market, or the process of identifying and exploiting opportunities.

When someone is able to innovate, take risks and be proactive in creating a new business, it is expected that this spirit will remain present in the daily management of the company. In other words, it is expected that the concepts of innovation, risk and pro-activity remain present enabling a constant entrepreneurial attitude on the entrepreneur. This attitude is more than strategic management that is asked of companies, since many times, in particular in small businesses, the management is almost limited to daily issues, leaving planning, or the exploitation of opportunities, to a non-priority level.

Through constant entrepreneurship, the company should practice a management, focusing the future, combining strategy and entrepreneurship. These concepts, although often studied separately cannot exist without the presence of the other, as argued by Venkataraman & Sarasvathy (2008). In addition to strategic management, when companies present themselves with an entrepreneurial management, they are at the same time contributing to the development of the region where they are.

When the region provides conditions (infrastructures, manpower, knowledge, positive discrimination, among others) that favor the birth and entrepreneurial development, these tend to respond in a positive way contributing in turn to a greater development of the region. As Venkataraman (2004) argues, the opposite also happens. If the region does not provide conditions, companies in turn do not meet expectations, thus falling, companies and region in a vicious cycle.

Before presenting the region description it also interesting to present some results presented by Rodzinka & Skica (2017) that found evidences of a negative impact between the size of local administration (number and value of wages paid) and the level of entrepreneurship. This means that in order to promote intra or entrepreneurship the alignment among stakeholders as suggested by the concept of sustainable development is highly relevant.

3. The Region

The study was carried in the region of *Tâmega e Sousa*, in Portugal. This region is composed of 11 *Concelhos*⁴ composing the inter-municipal community of *Tâmega e Sousa*. This community is one of seven inter-municipal entities (groups of *Concelhos* organized as administrative regions) in the Northern Region of Portugal.

⁴ *Concelho*: Portuguese administrative unit divided into smaller units called *freguesias*.

Image 1: The Region of Tâmega e Sousa in Portugal

a) Portuguese map with the Region of Tâmega e Sousa (in black)

b) *Concelhos* that compose the region

The region presented above is composed of eleven *concelhos* (Amarante, Baião, Castelo de Paiva, Celorico de Basto, Cinfães, Felgueiras, Lousada, Marco de Canaveses, Paços de Ferreira, Penafiel, Resende). For statistical purposes this region is within a NUTE III. The region has an area of 1,830 km² and a population of 434,165 inhabitants, about 12% of the northern region. A characteristic element of the Tâmega and Sousa population is its predominantly rural integration: the people who live in towns with more than 2,000 inhabitants do not even reach one third of the population, when the regional and national average exceeds 60% (Castro et al. 2014).

On what regards the economic activity, focusing on the main relevant elements for this paper, in 2012 there was a total 25,500 firms. From those firms 4,399 were acting in the manufacturing sector, while 3,754 in the construction sector. These sectors were employing (in 2011) 53,783 workers in the manufacturing, and 32,685 in the construction. These figures represent 50% of total employment in this region.

According to Castro et al. (2014) the manufacturing industry is the main economic activity of the *Tâmega e Sousa*. The 4,700 industrial companies based in *Tâmega e Sousa*, including 2,582 companies have employed 53,745 people and generate a gross value added of 722 million euros for a turnover of 2,372 million euros in 2011. These figures corresponds to 40% of people employed in companies of *Tâmega e Sousa*, 41% of Gross Value Added (GVA) and 36% of turnover, substantially above those recorded in the North and in Portugal. The result is a weight of the *Tâmega e Sousa* industry in total North and upper country to the situation when considering the total economic activities, whatever the indicator used. However, the importance of the *Tâmega e Sousa* is higher in all businesses and persons employed in industry than in the GVA and the volume of industrial business, indicating a lower productivity of the *Tâmega e Sousa* industry regarding the north and Portugal. In 2011, apparent labor productivity in the *Tâmega e Sousa* industry was equal to 13,437 euros per person employed, which corresponds to two thirds of the total registered in North industry and 54% of the domestic industry.

In this region is also possible to find some industrial districts, such as Shoes making in *Felgueiras*; Textile in *Lousada*; Wood furniture in *Paços de Ferreira*, and in Metalworking in *Amarante*;

4. Methodology

The present paper results from a broader project that aimed to analyse among other elements the level of intrapreneurship and sustainability among firms from the manufacturing and construction sectors, located in the region presented above. Besides the questions focusing on the main concepts of that project (intrapreneurship and sustainability) among others were also questioned the location of firms' main suppliers and customers. These are the key variables for the present paper. Since the region presents a high number of firms the study was focused on a valid sample. In order to find the minimum sample size, according to Saunders et al. (2009) it is necessary to define:

- Confidence level;
- Error margin;
- Proportion of answers obtained in a particular section.

A pilot study with 33 observations was developed in order to analyse the proportion of answers regarding the levels of intrapreneurship and sustainability. From this initial sample it is possible to draw some inferences to the final sample, using the following formula:

$$n = p\% * q\% * (z/e\%)^2 \quad (1)$$

- where: n : minimum sample size required;
- $p\%$: proportion belonging to the specified category;
- $q\%$: proportion not belonging to the specified category;
- z : z value corresponding to the level of confidence required;
- e : margin of error required;

In order to calculate the sustainability levels, the three dimensions of sustainable development were first considered, as it can be seen in Table 1.

Table 1. Number of questions associated with each strategy

Test area	Economic Development	Social Development	Environmental Development
Number of questions	4 questions	5 questions	3 questions

Source: own elaboration

Each dimension was evaluated according to the identified questions. Each question was answered on a Likert-scale (1 to 5). For each dimension, the results of questions were summed up within that dimension and the average results were calculated.

In order to get the sustainability results, average results for the three dimensions were calculated. The output was organized into 5 categories that describe the approach: very weak; weak; moderate; good; very Good.

To calculate the minimum sample size it is necessary to have a yes or no approach. In other words, it is necessary to find a percentage for firms that take a sustainable *versus* non-sustainable behaviour. In order to do the sample size calculations it was assumed good and very good corresponded to a positive approach, and weak and moderate to a negative one.

The results that were obtained were as follows:

Table 2. Sustainability results of the pilot study

	Frequency	%	Total %
Weak	1	3	12.1
Moderate	3	9.1	
Good	19	57.6	87.9
Very Good	10	30.3	
Total	33	-	-

Source: own calculations

In terms of sample size results, those figures led to the following result:

$$n = 87.9\% * 12.1\% * (1.96/5\%)^2 = 163.44 \quad (2)$$

According to the sustainability results, in order to obtain a valid sample, it would be necessary to gather 164 answers.

On what regards the level of intrapreneurship the same pilot study was respected to calculate the minimum sample required. The results revealed a very low approach to the adoption of these strategies

Table 1. Intrapreneurship results of the pilot study

	Frequency	%	Total %
Very Weak	10	30.3	78.7
Weak	16	48.4	
Moderate	7	21.3	21.3
Total	33	-	-

Source: own calculations

In terms of sample size results, those figures led to the following result:

$$n = 78.7\% * 21.3\% * (1.96/5\%)^2 = 257.58 \quad (3)$$

Considering the results on intrapreneurship strategies, the minimum sample size should be 257 cases. The minimum was accomplished under both scenarios since we got a final sample of 283 cases.

As previously stated, the main purpose of the project, carried out, in the manufacturing and construction sectors in the *Tâmega e Sousa* region (Portugal) was the characterization of the firms in this region relatively to intrapreneurship and local sustainability. As well stated above the specific objectives for this paper was the relation between the business geographical acting areas and the behaviour that firms present towards local sustainability. For that purpose, the following working hypotheses have been put forward:

H₁: Firms that are just acting locally (doing business) are adopting more strategies aiming local sustainability

H₂: Firms that are just acting locally (doing business) are adopting more strategies aiming intrapreneurship (innovation, risk and proactivity).

In the next section we will present and discuss the results from the statistical analysis.

5. Results

In this section the first results to be presented are related to the individual variables (intrapreneurship, sustainability and local business integration).

Starting by the information regarding Intrapreneurship, the results were weak. To measure the intrapreneurship degree, according to Miller (1983) it were combined three other factors: Innovation, Risk and Proactivity. To do so, the questionnaire included some questions in order to identify the strategies adopted by those firms on innovation, risk and proactivity. Once gathered the results and grouped into one variable to get the intrapreneurship level, the results are as follows in Table 4.

Table 4. Intrapreneurship results

	Frequency	%
Very Weak	100	35.3
Weak	129	45.6
Moderate	54	19.1
Total	283	100

Source: own calculations

As seen in Table 4 the level of intrapreneurship is very low. The best results are for firms with a moderate approach, which means that there are no firms with a good approach to intrapreneurship. It might be important to mention that these results are related to the number of strategies adopted by each firm. From the table it is possible to verify that almost 81% of firms in this region present a weak (or very weak) approach to intrapreneurship.

On what regards sustainability the results are not so disappointing, since the firms' behaviour is more sustainable (Table 5):

Table 5. Sustainability results

	Frequency	Valid %
Weak	8	2.9
Moderate	38	13.9
Good	177	64.6
Very Good	51	18.6
<i>missing</i>	9	
Total	274	100

Source: own calculations

From the results it is possible to verify that most firms (83.2%) present a proactive attitude to sustainable development. This might mean that in general firms are adopting strategies that at least respect the three dimensions of sustainable development: Economic, Social and Environmental - (Giddings, Hopwood, & O'Brien, 2002).

Since the main objective for the present paper is related to Local Business Integration (or the business geographical acting area) and its relation with intrapreneurship and local sustainability it is important to present some general results on local business integration focusing on upstream and downstream integration.

On what regards upstream and downstream relations, in the questionnaire was asked to identify the location of firms' three main suppliers and customers, according to the locations presented in Table 6 and Table 7.

Table 6. Location of the 3 main suppliers (%)

	Sup. 1	Sup. 2	Sup. 3
No answer	-	2.8	4.2
In the same municipality	46.3	21.9	26.5
In a neighbour municipality in the region	15.9	30.0	13.4
In other municipality in the region	16.6	32.5	30.4

Source: own calculations

Table 7. Location of the 3 main Customers (%)

	Cust. 1	Cust. 2	Cust. 3
No answer	-	3.5	5.7
In the same municipality	35.0	17.7	14.5
In a neighbour municipality in the region	15.2	14.8	16.3
In other municipality in the region	11.0	31.8	30.4
In other municipality in the country	18.0	12.7	15.2
European Union	17.0	12.7	11.0
Somewhere else	3.9	6.7	7.1
Total	100	100	100

Source: own calculations

From the previous Tables it is clear that most of the businesses are done in the region. However, in order to get a clearer vision of these relations it was built the table below that presents the average results by location considering the 3 main stakeholders.

Table 8. Degree of local integration (%)

		Upstream	Downstream		
Ultra-local	In the same municipality	31.6		22.4	
Local	In a neighbour municipality in the region	19.8		15.4	
Regional	In other municipality in the region	26.5	77.9	24.4	62.2
National	In other municipality in the country	12.8		15.3	
International	European Union and Rest of the World	7.0		19.5	

Source: own calculations

Comparing up and downstream businesses it was possible to verify that firms are doing most of their purchases in the same municipality and in municipalities from the same region. This situation may occur due to the existence of industrial districts as mentioned on chapter 3. The figures from Table 8 also show that on what regards international business, the region presents (in terms of percentages) a surplus at the Balance of Trade, since it is exporting more than importing. Anyway, the figures presented might indicate a high level of dependence on the internal (mainly local) market. Considering the region as a local market it means that the local market represents 77.9% of all purchases and 62.2% of total sales. These figures allow us to conclude that a relevant part of the businesses are done within a local area.

Taking into consideration the results presented above on intrapreneurship, sustainability and local integration we will now try to identify the existence of relations between the variables of local integration with intrapreneurship and local integration.

In order to analyse a relation (variable association) some cross tabulations tests were performed based on the following hypothesis:

H_0 : The variables are independent (do not exist variable association) vs.

H_1 : The variables are dependent (exists association)

As stated in the literature, in order to analyse these hypothesis one must run a χ^2 test. The decision will be taken according to the p value obtained with the χ^2 test.

In first place were created new variables to classify firms according to the geographic business area on both upstream and downstream businesses:

International acting firms: those that are buying or selling from/to abroad

National acting firms: those that are buying or selling in the country but outside their location region.

Local acting firms: those firms that were either buying or selling just for stakeholders (three main suppliers and customers) located in the same municipality, in a neighbour municipality or, at most, in the region (ultra local, local and regional)

According to the results from Table 8 a large percentage of businesses is done within the municipality, in a neighbour municipality or within the region. So, for statistical analysis it was considered two classes:

Local acting firms, and

Non-local (national and international).

After getting these new variables each one of them were crossed with the sustainability variable, in order to analyse their (in)dependence.

The first variable dependence test was related to Local Integration and Sustainable Development.

In order to get statistically valid results the classes within each variable were reduced. On sustainability were used three classes (Weak, Moderate, Good), and on local integration were used two classes (Local and Non-local – the latter are the firms that are either buying or selling at national or international level).

On the cross tabulation result (sustainability vs. local integration) it was verified that some observed results differ from the expected ones, which leads to the possibility of variables association. Apparently local firms are adopting more strategies aiming sustainable development than those that are also acting outside the region borders. By requiring the χ^2 test we got a p-value of 0.661. Since this result is higher than 0.05 it means that H_0 may not be rejected. So, the results seem to identify a tendency but we are not able to validate it statistically.

When analysing the relation Local Integration – Intrapreneurship it were used the same classes for local integration (Local vs Non-local) and three classes for intrapreneurship

(Weak, Moderate, Good) as presented in Table 4. The first analysis, show some evidences that those firms that are doing business beyond the region are the ones more concerned, thus adopting more intrapreneurship strategies. Requiring the χ^2 test we got a p-value of 0.000...7. Since this result is lower than 0.05 we may reject H_0 , which means that it might be variable association. This result lead us to conclude that in fact firms that are acting (buying or selling or both) outside the region borders are in fact adopting more strategies of innovation, risk and proactivity. This might occur due to the natural proactivity that those firms demonstrate when going for other markets than those from the region.

Summing up, firms in this region present a sustainable behaviour, but in general do not present behaviour of entrepreneurship. Most of the businesses are done in a local geographic area. On what regards local development, even without statistical evidence, it seems that firms that are doing business just in the region present a more sustainable approach (might be the result of the so called embeddedness effect. Those firms that are acting in other geographies than the region present a higher level of innovation, risk and proactivity (combined in the level of intrapreneurship).

6. Conclusion

The present paper aimed to study the existence of any relation between the business geographical acting areas of firms located in the region of *Tâmega e Sousa*, Portugal with the strategies of entrepreneurship adopted and the sustainability strategies. From the literature review it was possible to find that the embeddedness concept that is quite frequent in a region due to personal relations, might have both negative and positive impacts.

The study took into consideration 283 firms operating in the manufacturing and construction businesses in a Portuguese region, where some clusters or industrial districts are identified. This agglomeration of firms specialized in a region is a positive effect for regional embeddedness.

In a previous analysis it was found a very low level on intrapreneurship. Firms are not following strategies of innovation, risk and proactivity. In a 5 level scale, the highest score was 3, which mean a moderate approach to intrapreneurship. On what regards sustainability strategies firms are more proactive, since they are adopting strategies that aim not only the economic area, but the social and the environmental as well.

Considering upstream and downstream integration, it was possible to realize that most of the businesses in this region are done in the region (in the same *concelho* or in a *concelho* that composes this administrative region). Less than 20% of firms are buying from outside the region (national or international level). However almost 35% of those firms are selling abroad (the region).

As mentioned, the goal for this paper was to find out if firms that are just acting locally present a different behaviour on the strategies followed, to those that are acting in broader markets. On what regards local development, even without statistical evidence, regional firms present a more sustainable approach. Those firms that are acting in other geographies than the region present a higher level of innovation, risk and proactivity, i.e., firms that are buying or selling outside the region border are those that present a higher level of intrapreneurship.

The results here presented lead us to plan about future researches in order to verify whether these results are valid just for this region or if they are valid in other regions. It would also be interesting to enlarge the number of analysed cases in order to get statistical validity for all the results. In order to find different patterns, it could also be analysed the impact of each strategy (Innovation, Risk and Proactivity) and each sustainable development ring (Economic, Social and Environmental) in regional vs. non-regional firms.

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