

## Regional Institutional Factors and Tourism Entrepreneurship: The Case of Two Portuguese Municipalities

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### Abstract

It is widely recognized the role of regional institutions in shaping the perception of potential business founders regarding the favourability of the environment to start a business. Entrepreneurship has been mostly associated with individual actions. However, policies are relevant because entrepreneurs do not operate in isolation from their contexts. Although the competitiveness of the destination largely influences the creation of tourism businesses, literature has demonstrated that institutional variables might also play a role. The goal of this study is to explore the relevance of institutional factors for the start-up decision in tourism. Based on the REDI - Regional Entrepreneurship and Development Index model, this study compares five regional institutional variables of two Portuguese municipalities, and its impact on start-up decision, measured by the number of new tourist businesses created. The study is longitudinal - data from seven years (2011-2017) is analysed for both regions. Results suggest the need to adapt generic entrepreneurship indexes to tourism entrepreneurship, with relevant implications for scholars, policy and tourist destination governance.

**Keywords:** Tourism, Entrepreneurship, REDI Index, Tourism Destination, Business Formation, Institutional Factors

### 1 Introduction

According to the UN World Tourism Organization (1999), the tourism industry has much to gain by operating in an environment that favours the market economy, private enterprise and free trade. From this perspective, various scholars have called for research related to entrepreneurship in the tourism sector (Cheng et al. 2011). Although entrepreneurship has been mostly associated with individual actions, policies are relevant because entrepreneurs do not operate in isolation from their contexts and the broader regional context regulates the quality and outcomes of this process (Acs, Audretsch, and Lehmann 2013). It is recognized that both individual entrepreneurial actions and contextual factors (Acs, Autio, and Szerb 2014) are essential (Mason and Brown 2012). The context exercises a decisive influence on who starts new firms, with what level of quality and ambition, and with what outcomes. Recently, entrepreneurship policy has been leaning towards developing what is called an 'entrepreneurship support ecosystem' that gives support over the entire lifecycle of business ventures. In the case of the European Union (EU), the Europe 2020 economic growth strategy emphasizes the role of regional policy in unlocking the growth potential of EU regions, which includes support for innovation, research and development, and entrepreneurship. This approach to entrepreneurship has become a new step in the European entrepreneurship policy (Acs, Autio, and Szerb 2014; Autio et al. 2014; Ghio et al. 2014), focusing on the role of the entrepreneurial ecosystem and the processes of how it is developed, adapted and sustained.

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An entrepreneurial culture, greater access to information, access to networks, financing, information, and infrastructure (Isenberg 2010; Rodriguez-Pose 2013) has been recognized by policymakers and scholars as essential to provide more systemic support towards entrepreneurship. This regional perspective of entrepreneurial ecosystems might be particularly relevant for business formation in tourism because of the fragmented nature of the tourism product. Numerous players, small and medium tourism enterprises and other service providers, at the destination (i.e., regional) level, benefit from collaborating and forming networks for the development and delivery of tourism products. Pulina and Biagi (2010) have suggested the relevance of regional policy for the development of tourism businesses. Notwithstanding, lack of cooperation between tourism agents is many times seen as hindering innovation and competitiveness (Morpeth and Yan 2015) in a destination. The specificities of tourism suggest that institutional variables at the regional level might be relevant to foster the formation of businesses, and its competitiveness, in tourism as it has been demonstrated for other industries. Moreover, previous scholars have argued that entrepreneurial activity needs to be studied at a local level, but research at that level is scarce (Acs and Szerb 2010; Szerb et al. 2013). This problematic led us to our research question 'how are institutional factors, namely those considered in the general entrepreneurship field, relevant to explain the formation of tourism businesses, at the local level?'. Therefore, the goal of this study is to explore the relevance of institutional factors for the formation of tourism businesses, based on the local-level institutional factors of the Regional Entrepreneurship and Development Index (REDI) developed by Szerb and colleagues (2013). REDI has become an efficient tool to explain entrepreneurship activity in regions, identifying the bottlenecks and policy implications (Szerb et al. 2013). As systems of entrepreneurship are geographically bounded (Szerb et al. 2015), and entrepreneurship at a city-level provides a relevant socioeconomic and institutional context (Audretsch and Belitski 2017), we developed this study regarding two municipalities (Cascais and Setúbal) of the region of Lisbon in Portugal, that will serve as case studies. This paper contributes to knowledge in at least three ways. Firstly, it focuses on an activity – tourism – that has been somehow neglected by scholars in the field of entrepreneurship (Solvoll, Alsos, and Bulanova 2015). Secondly, it discusses the advantages and shortcomings of the REDI index to assess a municipality in terms of the institutional factors that foster tourism entrepreneurship. Thirdly, results suggest relevant implications for destination governance.

## 2 Entrepreneurship and regional institutional factors

In recent years, the 'systems of entrepreneurship' thinking emerged. This thinking seeks to re-integrate the entrepreneur into theories of knowledge-driven and innovation-driven economic development (Szerb et al. 2013) and recognises that individual actions are mostly based on the individual's perception of the feasibility and desirability of a given opportunity. A system of entrepreneurship is "the dynamic, institutionally embedded interaction between entrepreneurial attitudes, ability, and aspirations, by individuals, which drives the allocation of resources through the creation and operation of new ventures" (Acs, Autio, and Szerb 2014, p. 479). While individual actions drive the entrepreneurial process, the quality and outcomes of this process are influenced by the regional context where the start-up operates (Acs, Autio, and Szerb 2014). To pursue opportunities successfully, the entrepreneur needs to obtain access to capital, customers, distribution channels, human capital, specialised skills and support services. The variety of specialised resources that offer entrepreneurs support are sometimes collectively referred to as 'entrepreneurship ecosystems' (Isenberg 2010), and its strength depends on the comprehensiveness of services and support available to entrepreneurs. Framing entrepreneurship as a system where individual agency and structural institutional characteristics interact has significant implications for regional policy. From this perspective, the regional level is an appropriate level for decision making as it provides enough scale to capture the socio-economic and institutional variables. At the same time, it acknowledges that many of the characteristics of the entrepreneurial process are inherently local (Sternberg 2012). The work of Michael Porter has in part inspired the appreciation of the regional context for the success of new ventures. Porter argues that one needs to look beyond individual industries in order to fully explain regional economic dynamics and proposes the idea of clusters as "... geographic concentrations of interconnected companies, specialised suppliers, services providers, firms in related industries, and associated institutions (e.g., universities, standards agencies, or trade associations) in a particular field that compete but also cooperate." (Porter 2000, p. 15). This regional approach is particularly relevant for tourism entrepreneurship, and previous studies have demonstrated that entrepreneurial ecosystems in Tourism, as in the case of other industries, grow around a specific competency available in a region and are leveraged by the comparative advantage of that region (e.g., Bernardz and Mead 2009).

### 3 The REDI Index

To assess the entrepreneurial ecosystems at the region-level, Szerb and colleagues (2013) developed the Regional Entrepreneurship and Development Index. The authors of the REDI index propose a six-level index comprised of sub-indicators, indicators, variables, pillars, sub-indices, and, finally, the super-index. The sub-indices compose the pillars.

Each of the 14 pillars consists of an institutional and an individual variable, adding up to 28 variables (in figure 1, the institutional variables are the ones highlighted). Forty indicators constitute the building blocks of the variables. Some institutional indicators are complex, having multiple sub-indicators, adding up to 76 sub-indicators altogether. Szerb and colleagues (2013) applied the REDI model to 125 regions of 24 countries in Europe. The highest scores were achieved by the regions of Hovedstaden in Denmark (Rank #1), London in the UK (Rank #2) and Île de France in France (Rank #3) with results of 82.2, 79.9 and 79.2, respectively. The region of Kentriki Ellada in Greece and two regions from Romania (Macroregiuneaunu and Macroregiunea doi) had the lowest REDI results.

**Figure 1. The structure of the Regional Entrepreneurship and Development Index**

<b>ENTREPRENEURIAL ASPIRATIONS SUB-INDEX</b>	<b>PILLARS</b>	<b>Financing</b>	<b>VARIABLES</b>	<i>Informal Investment</i>
		<b>Globalization</b>		Financial Institutions
		<b>High Growth</b>		<i>Export</i>
		<b>Process Innovation</b>		Connectivity
		<b>Product Innovation</b>		<i>Gazelle</i>
				Clustering
<b>ENTREPRENEURIAL ABILITIES SUB-INDEX</b>	<b>PILLARS</b>	<b>Competition</b>	<b>VARIABLES</b>	<i>New Tech</i>
		<b>Human Capital</b>		Technology Development
		<b>Technology Adoption</b>		<i>New Product</i>
		<b>Opportunity Start-up</b>		Technology Transfer
<b>ENTREPRENEURIAL ATTITUDES SUB-INDEX</b>	<b>PILLARS</b>	<b>Cultural Support</b>	<b>VARIABLES</b>	<i>Competitors</i>
		<b>Networking</b>		Business Strategy
		<b>Risk Acceptance</b>		<i>Educational Level</i>
		<b>Start-up Skills</b>		Education and Training
		<b>Opportunity Perception</b>		<i>Technology Level</i>
				Absorption Capacity
	<i>Opportunity Motivation</i>			
	Business Environment			
	<i>Career Status</i>			
	Open Society			
	<i>Know Entrepreneurs</i>			
	Social Capital			
	<i>Risk Acceptance</i>			
	Business Risk			
	<i>Skill Perception</i>			
	Quality of Education			
	<i>Opportunity Recognition</i>			
	Market Agglomeration			

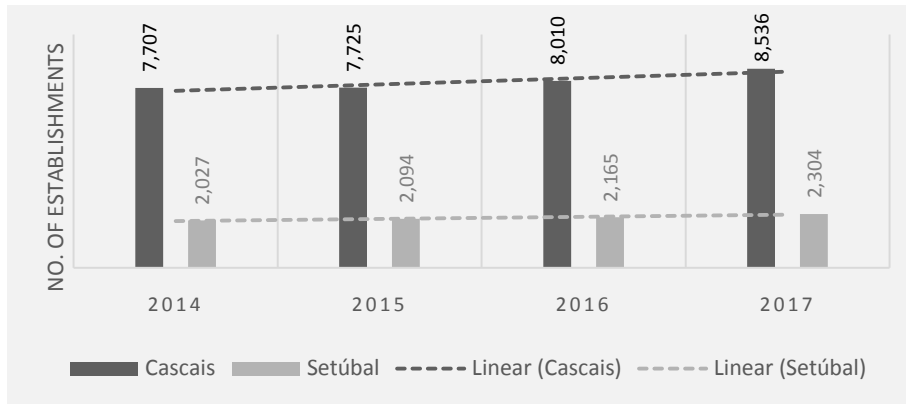
Source: Adapted from Szerb et al. (2013, p. 36)

### 4 Methodology

#### 4.1 The study cases

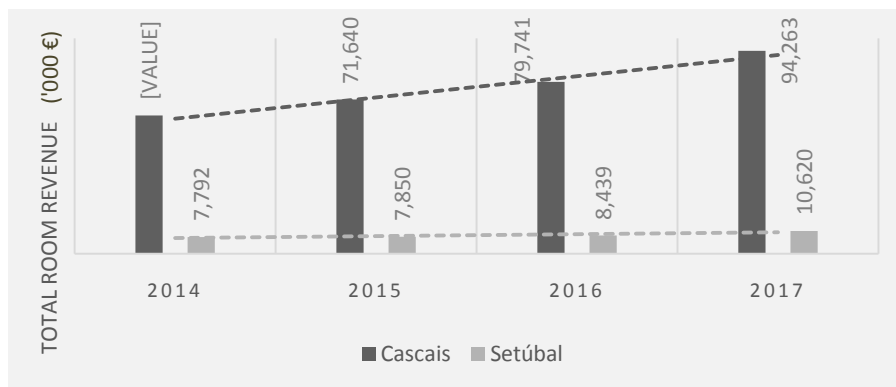
The Lisbon area has been evolving to become one of the most important destinations in Europe, registering significant growth in tourism activities which contribute with over 4% to the region's Gross Value Added (Turismo de Portugal & ERTRL, 2015). On their application of the REDI model, Szerb and colleagues (2013) arrived at a score of 44.6 for the region of Lisbon, which ranked 67 in 125 regions. However, there are significant asymmetries within the region, both in terms of institutional variables and tourism entrepreneurship.

Using REDI indicators and business formation data for the accommodation and food services sectors, the study compares two municipalities-Cascais and Setúbal – of the Lisbon metropolitan area. These municipalities were chosen as relevant case studies because they are in very different stages of development in what concerns tourism, thus rendering the study more comprehensive. Differences in terms of the tourism activity, in both municipalities, are illustrated by figures 2 to 4. These figures concern the changes in the lodging capacity, revenue and demand, over the period from 2014 to 2017.

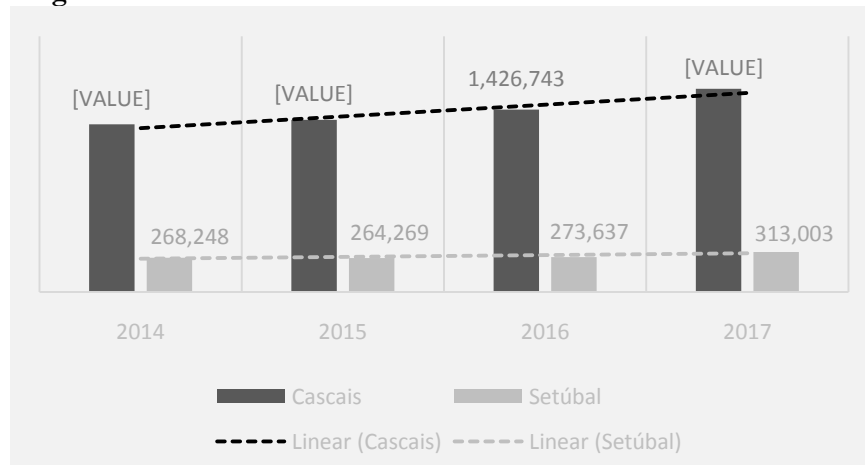


**Figure 2 – Lodging capacity in Cascais and Setúbal – 2014 to 2017**

As illustrated in figure 2, Cascais has more than three-fold the lodging capacity of Setúbal. In terms of revenue (figure 3) and demand (figure 4), Cascais has over nine and five-fold, respectively, that of Setúbal, from 2014 onwards. Although offer (number of establishments), revenue, and demand (overnight stays) are growing in both municipalities, in Cascais, these indicators grew at a higher rate, especially demand and revenue.



**Figure 3 – Total room revenue in Cascais and Setúbal – 2014 to 2017**



**Figure 4 – Demand (overnight stays) in Cascais and Setúbal – 2014 to 2017**

## 4.2 Variables

In terms of the REDI indicators, only institutional variables and indicators were used, considering the purpose of this study. Therefore, variables concerning entrepreneurs were not analysed. The calculations of Szerb and colleagues (2013) for the REDI score of the Lisbon region used NUTS0 and NUTS2-level data. Table 1 indicates the level of data available for each indicator in Portugal.

**Table 1. REDI Index, institutional component, available data for Portugal**

REDI pillars	Institutional variables	Institutional indicators	Level of data available (Portugal)
Opportunity perception	Market agglomeration	Population growth	NUTS2
		Urbanization	NUTS2
		Accessibility	NUTS2
Start-up skills	Quality of education	PISA	NUTS0
		Creative class	NUTS1
Risk acceptance	Business risk	Business disclosure	NUTS0
Networking	Social capital	Social capital	NUTS0
		Technological readiness	NUTS2
Cultural support	Open Society	Corruption	NUTS2
		Personal Freedom	NUTS0
Opportunity start-up	Business Environment	Business Freedom	NUTS0
		EU Quality of Government Index	NUTS2
Technology sector	Absorptive Capacity	Firm-level technology absorption	NUTS0
		Employment in knowledge-intensive and high-tech adoptions	NUTS2
Human Capital	Education and Training	Higher education/training/life-long learning	NUTS2
		Nature of competitive advantage	NUTS0
Competition	Business strategy	Business sophistication	NUTS0
Product innovation	Technology transfer	Patent applications	NUTS2
		Scientific publications	NUTS2
		High-Tech inventors	NUTS2
		ICT inventors	NUTS2
		Bio-Tech inventors	NUTS2
Process innovation	Technology Development	GERD	NUTS2
High growth	Clustering	Clusters	NUTS2
Globalization	Connectivity	Infrastructure	NUTS2
Financing	Financial institutions	Depth of Capital Markets	NUTS0
		Concentration of financial services	NUTS2

Source: Adapted from Szerbet al. (2013)

Taking our interest in comparing two municipalities within that region, on a first stage, we selected only the NUTS2-level REDI indicators, excluding NUTS0 indicators. NUTS0 are national-level data, therefore not relevant to study the specificities of municipalities. On a second stage, we searched for NUTS2-level REDI indicators and sub-indicators with data available for the sub-regions of Cascais and Setúbal. The two-stage process resulted in the selection of five variables and six indicators, for which data was available at the municipality level, for each year. The REDI variables used are market agglomeration (using two indicators), absorptive capacity, quality of education, business strategy, and financial institutions. *Market agglomeration*. According to Szerb and colleagues (2013), market agglomeration reflects the size of the market. It includes the growth of the population, the level of urbanization, and the accessibility of the region. In this study, it was not possible to use the indicator level of urbanization, because there is no data available at the municipality level. The population growth indicator captures the percentage of growth in the number of inhabitants at each municipality each year. Accessibility is an indicator based on a gravity model - a model

based on the economic sizes and distance between two units. In the REDI index, economic size is captured by the gross domestic product (GDP) of the region and distance by the total land area of the region (km<sup>2</sup>). In this study, because of data availability limitations, the economic size was captured by the total sales turnover of businesses in each municipality. *Absorptive capacity*. In the REDI model (Szerbet al. 2013), this indicator is calculated by the product of the employment in knowledge-intensive and high technology adoptions and firm-level technology absorption. Firm-level technology absorption is a country-level indicator in the REDI index and not all data concerned with knowledge-intensive and high technology adoptions is available at the municipality level.

Therefore, in this study, only data regarding the share of employment in high-tech industries, knowledge-intensive market services and high-tech knowledge-intensive services<sup>5</sup> was used. *Quality of education*. The quality of education indicator has two components in the REDI index - a country level indicator that serves to measure the value of secondary education by the PISA test results, and a variable reflecting the presence of the creative class in the region (Szerbet al. 2013). Again, considering the goals of this study, only the indicator concerning the relevance of creative classes was used. This indicator refers to the share of employment in creative classes (J, M, and R NACE sections) as a percentage of total employment. *Business strategy*. In the REDI index, this indicator comprises two sub indicators. One is measured at the country level (nature of competitive advantage), the other at the regional level, which corresponds to employment in sophisticated sectors – that is, the employment in the J and K activities (NACE classifications), as a percentage of total employment. This indicator was used in this study for the municipality level. *Financial institutions*. This variable comprises two indicators. One is the depth of capital market, which is a nation-level sophisticated measure of the size and liquidity of the stock market, level of initial public offerings, mergers and acquisitions, and debt and credit market activity. In our study we used only the second indicator that is a measure of the concentration of financial services based on the level of employment in the financial services sector as a percentage of total employment in the municipality. Data concerning the level of new tourist businesses formed, in what relates to new businesses in the accommodation and foodservices sectors, was collected as these are considered nuclear activities in tourism, especially at a local level. All data is secondary and was collected from INE<sup>6</sup> for the period from 2011 to 2017.

## 5 Findings

### 5.1 Regional Institutional Indicators and Business formation – Cascais

Table 2 presents the results for Cascais of the REDI indicators studied. From 2011 to 2017, the population in Cascais grew slightly, with the highest growth rate in 2015. Accessibility shows a tendency to grow, especially from 2014 onwards, with an average value for the period of approximately 49 million Euros per km<sup>2</sup>. In what concerns the share of employment in knowledge-intensive high-technology adoptions (KIHT), the average for the period is more than a quarter of total employment in the municipality. The share of employment in creative classes, for the period in analysis, is 15.4%. Regarding employment in sophisticated sectors, data show a tendency for employment in these sectors in Cascais to decrease, especially from 2013 onwards. Employment in financial services shows the same descendent trend.

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<sup>5</sup>The industries included followed the recommendation of Eurostat available at [https://ec.europa.eu/eurostat/cache/metadata/Annexes/htec\\_esms\\_an3.pdf](https://ec.europa.eu/eurostat/cache/metadata/Annexes/htec_esms_an3.pdf)

<sup>6</sup>Portuguese Institute for Statistics

**Table 2. Results for REDI indicators at municipal level – Cascais**

Year	Market agglomeration		Absorptive Capacity	Quality of Education	Business strategy	Financial institutions
	Population growth <sup>a</sup>	Accessibility ('000 €)	Share of employment in KIHT <sup>b</sup> adoptions	Share of employment in creative classes	Share of employment in sophisticated sectors	Share of employment in financial services
2011		52,583	26.6%	15.4%	3.16%	1.01%
2012	+0.19%	46,516	27.7%	15.7%	3.19%	1.04%
2013	+0.09%	45,421	27.8%	16.2%	3.26%	0.98%
2014	+0.41%	45,977	28.3%	16.4%	3.21%	0.86%
2015	+0.47%	49,731	28.1%	16.3%	3.14%	0.84%
2016	+0.25%	51,072	24.4%	12.6%	3.04%	0.75%
2017	+0.39%	57,203	28.3%	16.3%	3.07%	0.64%
Average 2011-17	+0.3%	49,786	27.3%	15.4%	3.15%	0.87%

Legend: <sup>a</sup>In comparison to the previous year; <sup>b</sup>Knowledge Intensive and High Technology

**Table 3. Business formation in Accommodation and Food Services – Municipality of Cascais (2011 to 2017)**

Year	Number of new establishments	Growth in no. of new establishments <sup>a</sup>
2011	184	
2012	205	+11.41%
2013	222	+8.29%
2014	262	+18.02%
2015	422	+61.07%
2016	441	+4.05%
2017	444	0.68%
Average 2011-17	331 / year	+17.33% / year

Legend: <sup>a</sup>In comparison to the previous year (Source: INE)

Table 3 presents the results concerning business formation in the accommodation and foodservices sectors in Cascais. Data reveals the dynamism of the sector in Cascais, with an average growth rate in the number of new establishments of over 17% per year in the period 2011-2017, and a significant number of new businesses formed from 2015 to 2017. Variables were standardized, and the Pearson correlation was calculated, to explore if the business formation variable follows the same trend as each of the REDI indicators studied (table 4). With two exceptions, results show no significant correlation between the values of each institutional indicator, over the seven years, and the number of new establishments. These results could be explained by a lag between the improvement in each institutional factor and the actual impact on business formation. Another explanation could be that a region needs not just the improvement in one factor, but the overall improvement of a set of factors to impact business formation. However, contrarily to what would be expected considering the REDI index (i.e., the higher the indicator, the higher the potential of the region for entrepreneurship) results show a significant negative correlation between the share of employment in sophisticated sectors and the number of new establishments in the accommodation and foodservices sectors in Cascais. The same for the correlation between the share of employment in financial services and the number of new establishments. These results suggest that the tourism entrepreneurial ecosystem in Cascais does not rely on these factors.

**Table 4. Table of correlations between institutional variables and business formation variable – Municipality of Cascais (2011 to 2017)**

		Number of new establishments
Population growth	Pearson Correlation	,586
	Sig. (2-tailed)	,222
	N	6
Accessibility	Pearson Correlation	,565
	Sig. (2-tailed)	,186
	N	7
Share of employment in KIHT adoptions	Pearson Correlation	-,201
	Sig. (2-tailed)	,665
	N	7
Share of employment in creative classes	Pearson Correlation	-,308
	Sig. (2-tailed)	,502
	N	7
Share of employment in sophisticated sectors	Pearson Correlation	-,803*
	Sig. (2-tailed)	,030
	N	7
Share of employment in financial services	Pearson Correlation	-,907**
	Sig. (2-tailed)	,005
	N	7

## 5.2. Regional Institutional Indicators and Business formation - Setúbal

Table 5 presents the results for Setúbal of the REDI indicators studied. The population in Setúbal continuously decreased from 2011 to 2017, with the highest decrease rate in 2013. Accessibility shows a tendency to grow, namely from 2015 onwards, with an average value for the period of approximately 21,7 million euros per km<sup>2</sup>. In what concerns the share of employment in knowledge-intensive high-technology adoptions (KIHT), the average for the period is 26.8% of total employment but with a tendency to decrease from 2014 onwards. The average share of employment in creative classes, for the period in analysis, is 8.6% revealing a tendency to grow.

Regarding employment in sophisticated sectors, data show a decrease in employment in these sectors in Setúbal in 2014. However, employment in these sectors partially recuperated from 2015 to 2017. Employment in financial services shows a downward trend from 2013 onwards.

**Table 5. Results for REDI indicators at the municipal level –Setúbal**

Year	Market agglomeration		Absorptive Capacity	Quality of Education	Business Strategy	Financial institutions
	Population growth <sup>a</sup>	Accessibility ('000 €)	Share of employment in KIHT <sup>b</sup> adoptions	Share of employment in creative classes	Share of employment in sophisticated sectors	Share of employment in financial services
2011		20,495	27.0%	8.1%	2.20%	1.16%
2012	-0.88%	21,534	26.6%	8.1%	2.39%	1.34%
2013	-0.93%	21,245	26.1%	8.3%	2.45%	1.25%
2014	-0.44%	21,102	27.8%	8.2%	2.05%	0.95%
2015	-0.33%	21,815	27.6%	8.9%	2.08%	0.93%
2016	-0.68%	22,126	27.0%	9.4%	2.17%	0.77%
2017	-0.55%	23,926	25.7%	9.4%	2.17%	0.66%
Average 2011-17	-0.64%	21,749	26.8%	8,6%	2.22%	1.01%

Legend: <sup>a</sup> Knowledge Intensive and High Technology; <sup>b</sup> Knowledge Intensive and High Technology



In table 6, we present the results concerning the growth of business in the accommodation and foodservices sectors in Setúbal. Data reveal that in this municipality there was an average growth rate in the number of new establishments of over 10% per year on the period 2011-2017, and significant growth in the formation of new businesses each year until 2014, and then again in 2017.

**Table 6. Business formation in Accommodation and Food Service – Setúbal (2011 to 2017)**

Year	Number new of establishments	Growth in no. of new establishments <sup>a</sup>
2011	130	
2012	152	+16.92%
2013	172	+13.16%
2014	191	+11.05%
2015	193	+1.05%
2016	202	+4.66%
2017	236	+16.83%
Average 2011-17	182 / year	+10.61% / year

Legend: <sup>a</sup>In comparison to the previous year

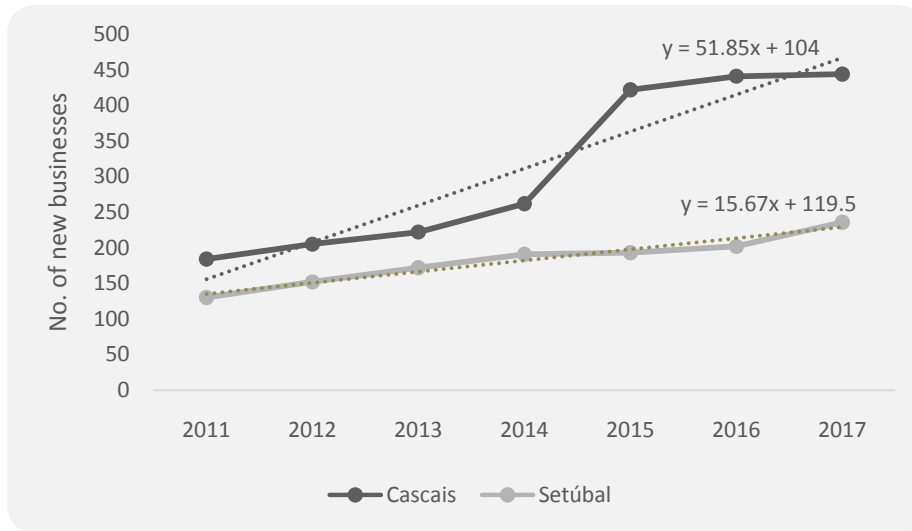
The results for the correlations between the business formation variable and each of the REDI indicators studied for Setúbal are presented in table 7. Results for Setúbal show significant correlations between the number of new establishments and three institutional variables: accessibility (strong positive correlation), the share of employment in creative classes (strong positive correlation), and the share of employment in financial services (strong negative correlation). These results suggest that the tourism entrepreneurial ecosystem in Setúbal might not rely on financial services, and it might rely on accessibility and creative classes.

**Table 7. Table of correlations between institutional variables and business formation variable – Municipality of Setúbal (2011 to 2017)**

		Number of new establishments
Population growth	Pearson Correlation	,561
	Sig. (2-tailed)	,247
	N	6
Accessibility	Pearson Correlation	,864*
	Sig. (2-tailed)	,012
	N	7
Share of employment in KIHT adoptions	Pearson Correlation	-,222
	Sig. (2-tailed)	,632
	N	7
Share of employment in creative classes	Pearson Correlation	,832*
	Sig. (2-tailed)	,020
	N	7
Share of employment in sophisticated sectors	Pearson Correlation	-,419
	Sig. (2-tailed)	,349
	N	7
Share of employment in financial services	Pearson Correlation	-,864*
	Sig. (2-tailed)	,012
	N	7

### 5.3. Regional Institutional Indicators and Business formation - Cross-case analysis of trends

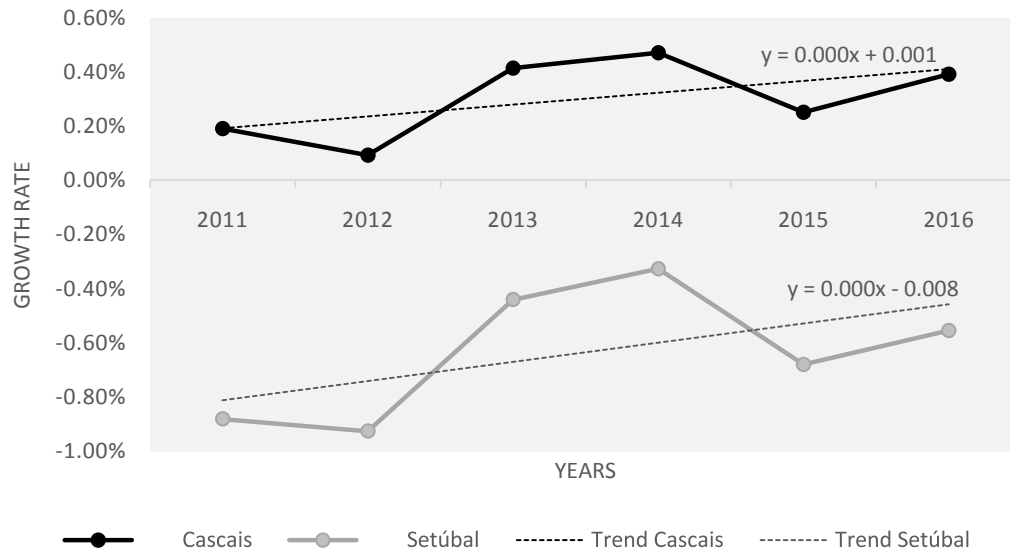
It is noticeable that Cascais, on average for the seven years, presents better results for all REDI indicators studied than Setúbal, except for the one related to financial institutions. Figure 5 demonstrates that the trend of business formation in the accommodation and foodservice industry is positive for both municipalities but with a higher slope for Cascais. Therefore, if we consider the data relative to business formation which also presents higher averages for Cascais when comparing to Setúbal, results seem to confirm the relevance of the studied institutional indicators to an overall comparison between regions.



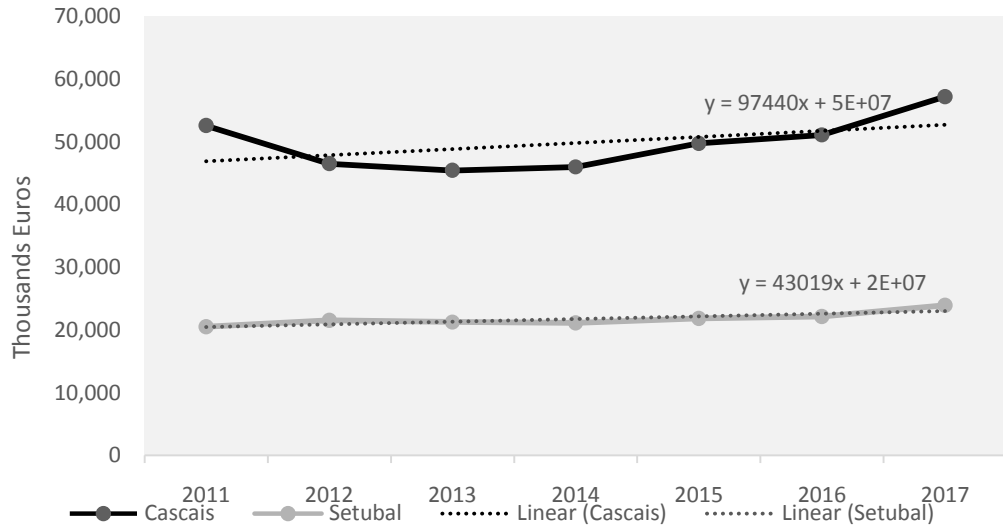
**Figure 5 – Business formation in the accommodation and food service industries – comparing trends for Cascais to Setúbal**

However, when delving into the data, some interesting results emerge. Firstly, when comparing the results for Cascais and Setúbal of the correlations between the institutional factors and the number of new businesses, it is clear the institutional factors that follow the same trend as the formation of new establishments in the accommodation and foodservices sectors are not the same in the two municipalities. Secondly, although the number of new businesses shows a positive trend in both municipalities, most institutional variables behave differently in each municipality.

Results of each REDI indicator, for both Cascais and Setubal, are presented in Figures 6 to 11. Figure 6 compares the population growth rate of Cascais to that of Setúbal. Although the population is decreasing over the seven years in Setúbal, the trend line reveals a slightly higher slope for Setúbal, when comparing to Cascais'. On the other hand, in figure 7, one observes that accessibility for Cascais is growing at a faster rate than Setúbal's.

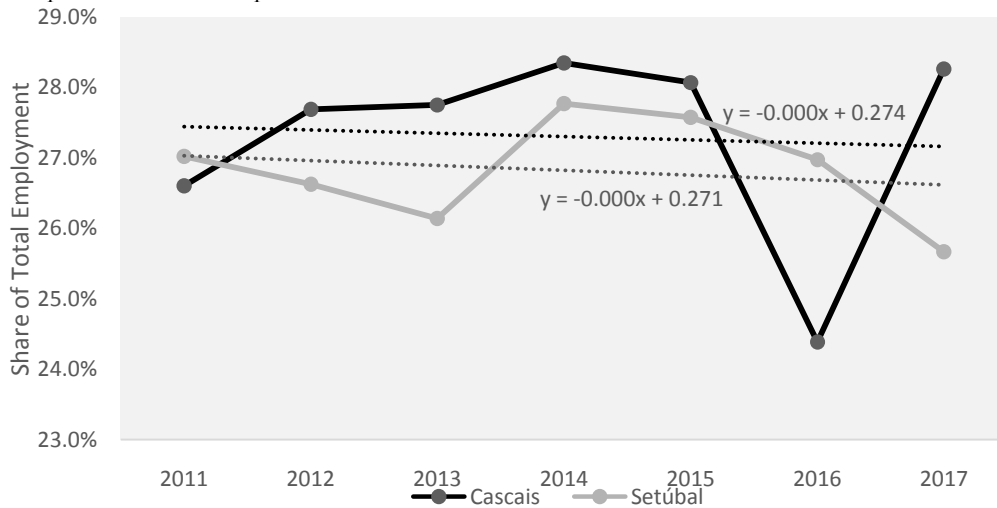


**Figure 6 – Population growth rate – comparing trends for Cascais to Setúbal**

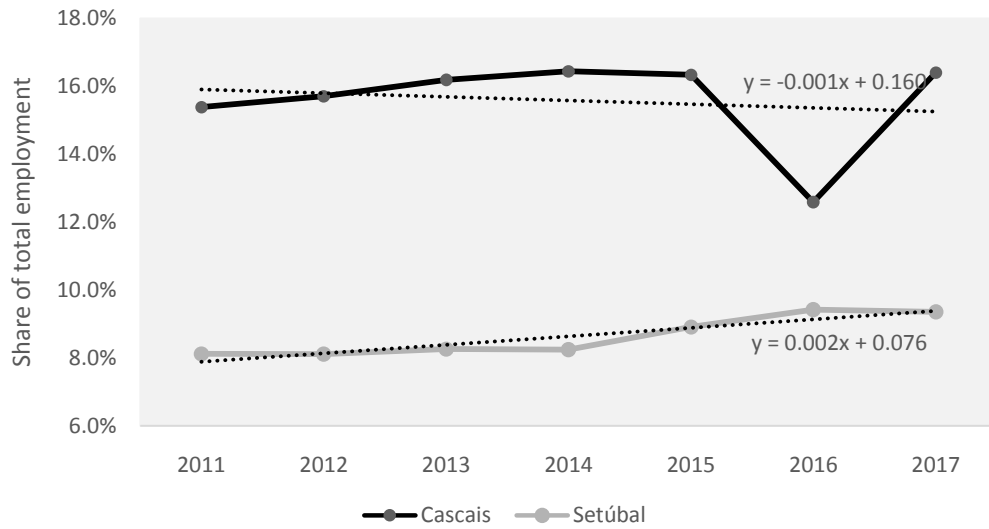


**Figure 7 – Accessibility – comparing trends for Cascais to Setúbal**

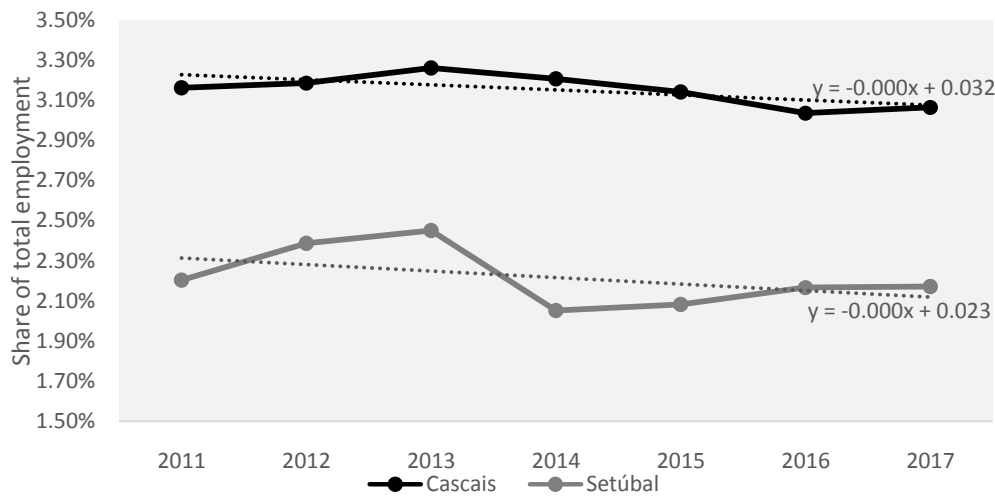
In figure 8, it is possible to compare the share of employment in knowledge-intensive and high technology adoptions for both municipalities, in both cases showing a decreasing trend, although slightly more negative for Setúbal. The share of employment in creative classes also reveals a decreasing trend for Cascais (Figure 9). In the case of Setúbal, the slope of this trend is positive.



**Figure 8 – Share of employment in Knowledge Intensive and High Technology – comparing trends for Cascais and Setúbal**

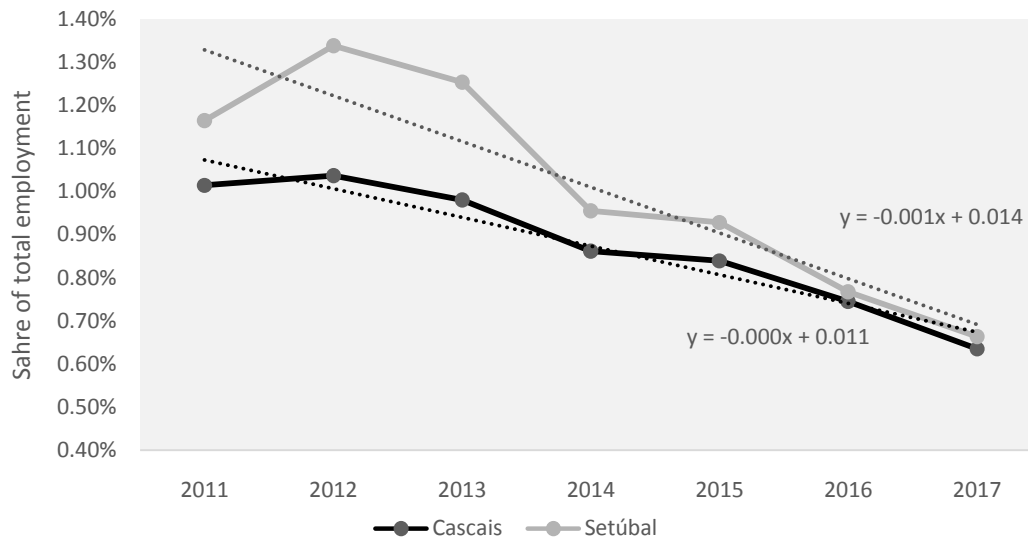


**Figure 9 – Share of employment in Creative classes – comparing trends for Cascais and Setúbal**



**Figure 10 – Share of employment in Sophisticated sectors – comparing trends for Cascais and Setúbal**

Figure 10 shows the trend concerning the share of employment in sophisticated sectors, where one can observe the same negative trend slope for both municipalities. In the case of the share of employment in financial services (figure 11), it is also decreasing in both municipalities, although the trend for Setúbal has an even more negative slope than Cascais’.



**Figure 11 – Share of employment in financial services – comparing trends for Cascais and Setúbal**

Table 8 summarizes these results. Although business formation is growing in both municipalities, many of the REDI indicators are revealing a decreasing trending, contrarily to what would be expected. In the case of population growth and share of employment in creative classes, it reveals inverse trends in each municipality.

**Table 8. Summary of trends in business formation and REDI indicators (2011-2017) – Cascais and Setúbal**

	Trend in Cascais (slope)	Trend in Setúbal
Business Formation	++	+
Population growth	+	-
Accessibility	+	+
Share of employment in KIHT	-	-
Share of employment in creative classes	-	+
Share of employment in sophisticated sectors	-	-
Share of employment in financial services	-	-

**Limitations, Future Research and Concluding Remarks**

As discussed previously, the regional level is an appropriate level for decision making in what regards the development of an entrepreneurship ecosystem. However, policymakers must make decisions based on the right information and with appropriate tools. The goal of this study is to explore the relevance of general institutional factors for the formation of tourism businesses, based on the Regional Entrepreneurship and Development Index. Two municipalities (Cascais and Setubal) of the metropolitan area of Lisbon, in Portugal, served as case studies. Therefore, the study focuses on an activity that has been neglected by most scholars in the entrepreneurship literature - entrepreneurship in tourism. Our results are consistent with other empirical papers that demonstrated significant differences in terms of start-ups and business growth, not only between European regions across countries but also within the same country (Belitski and Korosteleva 2010; Bosma et al. 2009; Fritsch and Storey 2014). Considering that the average growth in most institutional indicators and that the number of new businesses in the accommodation and foodservices sectors is higher for Cascais when comparing to Setúbal, results seem to confirm the relevance of the studied institutional indicators to the overall comparison between regions. However, when considering the trend of each institutional factors, results suggest that not all institutional variables in the REDI index might be equally valuable to explain business creation in Tourism as they might be in the case of other industries, nor equally valuable in all regions.

This study has limitations that must be considered when interpreting results. Firstly, results only apply to the two municipalities, and tourism industries studied, and cannot be generalised. Secondly, the partial use of the REDI index and the lack of some data at the local level limits the types of comparisons that can be made. Further research should include other municipalities and tourism industries, from other tourism destinations.

Moreover, our results suggest that there is a gap in the literature that must be addressed by scholars, concerning the need for a regional entrepreneurship index adapted for assessing regions in terms of tourism businesses formation as generic entrepreneurship indexes might not be able to capture the specificities of tourism entrepreneurship. In conclusion, although it is a very comprehensive and useful tool to identify the general entrepreneurial potential of a region when comparing to another, REDI has some limitations regarding tourism entrepreneurship, as not all indicators seem to be equally relevant to explain the formation of tourism businesses. Tourism demand variables and other competitiveness indicators specific of tourism destinations should be considered in an index adapted to tourism entrepreneurship. Meanwhile, decision-makers should take into consideration the potential pitfalls of the currently available generic indexes, in the case of tourism entrepreneurship.

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