



**UNIVERSIDADE DA BEIRA INTERIOR**

**Ciências Sociais e Humanas**

# **Competitiveness and Clusters in the Portuguese Tourism Sector**

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**Gestão**  
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**ORIENTAÇÃO: Professor Doutor João José Matos Ferreira**

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## **Dedicatória**

Aos meus filhos André e Beatriz

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## **Abstract**

Tourism has a truly strategic importance to any international, national or regional economy, together with the reasons that justify the immense interest in the area of clusters and their likely impact on the economic performance of companies, regional development and competitiveness of countries, seems to justify the fundamental need to investigate this issue. The discussion about clusters of tourism is still at an early stage, which explains the low number of investigations that address this problem. Moreover, taking into account the role that tourism and clusters have on the economic performance of companies for most countries, in general, and particularly in Portugal, we have identified, positioned and evaluated the economic performance of tourism clusters in Portugal. The competitiveness of tourist destinations is becoming increasingly important for countries seeking to control a large part of the growing tourism market, and this is particularly important for those who rely heavily on the situation in the sector of tourism and travel industry.

Given the present statement of the problem under study, the following four questions are raised: *What is the most appropriate methodology to identify clusters of tourism in Portugal? Where are the tourist clusters in Portugal? What is the positioning of the clusters against the economic performance of tourism in the region? And what are the factors that determine regional competitiveness?*

The present thesis aims to study the competitiveness and clusters of Tourism sector in Portugal. In this sense we explore the clusters of all Portuguese companies that make up the economic activities outside the satellite account of the World Organization of Tourism of the regional areas and tourism development poles in Portugal and make their respective mapping. It was empirically and consistently observed the identification and localization of 555 clusters spread over 10 activities related to housing, restaurant trade and animation. Therefore, we used a methodology based on the 2008 turnover of companies in Portugal, based on data from the National Statistics Institute (*Instituto Nacional de Estatística - INE*), distributed by regions and by economic activities, the results allowed to identify three distinct clusters - low, medium and high performance.

We have done an empirical application of a conceptual model of competitiveness based on the proposed collection of primary and secondary data. The primary data used as a research tool is the questionnaire. Secondary data were obtained from the database of the Directorate-General for Research, Statistics and Planning of the Portuguese Ministry of Labour and Social Solidarity, and the National Institute of Statistics for the year 2009, including employment, number of establishments, area and number of inhabitants of the areas of tourism and tourism development poles in Portugal. Through the methodology it was possible to measure the competitiveness of tourist destinations, contributing to reduce the gap

identified in the literature - the assessment of competitiveness of tourist destinations is still at a very early stage, and simultaneously contribute to understand the phenomenon of competitiveness in the context of tourist destinations.

Keywords: Cluster, Competitiveness, Performance, Tourism, Portugal.

## Resumo Alargado

O turismo com a importância verdadeiramente estratégica que tem para qualquer economia seja internacional, nacional ou regional, aliada com os motivos que justificam o vastíssimo interesse pela temática dos *clusters* e o seu presumível impacto no desempenho económico das empresas, no desenvolvimento regional e na competitividade dos países parece justificar a necessidade fundamental de investigar esta temática.

A discussão dos *clusters* do turismo ainda está numa fase embrionária, justificado o reduzido número de investigações que abordam essa problemática. Tal facto deve-se, por um lado à dificuldade em definir o próprio conceito de *cluster*, frequentemente criticado por ter uma definição vaga e não universal, e por outro lado todos os dias surgirem estudos sobre *clusters* carecendo de suporte metodológico, que permitam uma clara identificação dos *clusters* e uma validação científica da sua existência. Neste contexto e face à latente controvérsia na definição de um *cluster* e à lacuna existente na literatura relativa à ausência de fontes de informação e de critérios quantitativos sobre a composição e estrutura de um *cluster*, este estudo visa suprimir essa lacuna propondo e testando uma metodologia quantitativa de identificação de *clusters* regionais. Procura-se neste sentido explorar os *clusters* de todas as empresas portuguesas que compõem as actividades económicas pertencentes à conta satélite da *World Organization of Tourism* das áreas regionais e dos pólos de desenvolvimento turístico em Portugal e efectuar o seu respectivo mapeamento. Para calcular os *clusters* regionais utilizamos uma metodologia quantitativa baseada no Índice de *Cluster* sugerida por Sternberg e Litzberger (2004), onde foi possível evidenciar empiricamente e de forma robusta a identificação e localização de 555 *clusters* distribuídos por 10 actividades relacionados com o alojamento, a restauração e animação.

Por outro lado, tendo em conta ao papel que o turismo e os *clusters* exercem no desempenho económico das empresas para a maioria dos países em geral e para Portugal em concreto, identificamos, posicionamos e avaliamos o desempenho económico dos *clusters* turísticos em Portugal. Nesse sentido, utilizamos uma metodologia proposta por Sölvell (2008) com o objectivo de investigar novos modelos de *clusters*, tendo por base o volume de negócios de 2008 das empresas de Portugal Continental e Ilhas, com dados do Instituto Nacional de Estatística (INE), distribuído por regiões e pelas actividades económicas onde foram identificados 3 *clusters* distintos - baixa, média e alta *performance*.

O desenvolvimento dos destinos turísticos tem recebido grande atenção nos últimos anos, tanto na investigação em turismo como na gestão. Como tornar, manter, proteger ou fortalecer os destinos turísticos e as suas posições num mercado cada vez mais competitivo e global é um grande desafio, que tem aumentado com grande relevância na indústria do turismo o sucesso dos destinos turísticos nos mercados mundiais é influenciado pela sua

competitividade relativa. A competitividade dos destinos turísticos é cada vez mais importante para os países que pretendem controlar uma grande parte do crescente mercado do turismo, e isso é particularmente importante para os que dependem fortemente da situação do sector do turismo e da indústria de viagens. O conceito e a avaliação da competitividade de um destino têm recebido uma crescente atenção na literatura sobre a economia do turismo, sendo cada vez mais importante para os países que pretendem controlar uma grande parte do crescente mercado do turismo, e isso é particularmente importante para os que dependem fortemente da situação do sector do turismo.

Com base nestes pressupostos foi feita uma aplicação empírica através de um modelo conceptual de competitividade proposto baseada na recolha de dados primários e secundários. Nos dados primários utilizamos como instrumento de investigação o questionário. Os dados secundários foram obtidos através do banco de dados da Direcção-Geral de Estudos, Estatística e Planeamento do Ministério Português do Trabalho e da Solidariedade Social e do Instituto Nacional de Estatística referente ao ano de 2009, nomeadamente o emprego, o número de estabelecimentos, a área e o número de habitantes das áreas de turismo e dos pólos de desenvolvimento turístico de Portugal. Através da metodologia conseguimos fazer a medição da competitividade dos destinos turísticos, contribuindo para a diminuição do *gap* identificado na literatura - a avaliação da competitividade dos destinos turísticos é ainda muito incipiente, e simultaneamente contribuir para a compreensão do fenómeno da competitividade no contexto dos destinos turísticos. O estudo da competitividade e a sua mensuração é sem dúvida uma tarefa extremamente complexa e difícil de ser avaliada. Porém de acordo com o modelo proposto, foi possível concluir que a competitividade de um destino turístico depende da existência e combinação de vários factores com relações simultâneas directas e indirectas. Acreditamos que o modelo de análise proposto contribuiu para a criação de valor, de forma a determinar a competitividade de um destino turístico, isto porque ajudou a compreendermos quais as relações directas e indirectas do fenómeno da competitividade regional no contexto dos destinos turísticos. O principal contributo diz respeito à própria natureza do modelo e as suas implicações para a competitividade regional.

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## 1. Introduction

### 1.1 Statement of the Problem

Many investigations have been undertaken in order to verify, evaluate, and analyze clusters worldwide and it is no exaggeration to say that the cluster concept has become the subject of great attention on the theme of regional economic development. The major focus of the clusters is its importance in stimulating innovation capacity and competitiveness both regionally, nationally or internationally.

In recent years there has been a growing interest in the role of location in the global economy (Martin and Sunley, 2003). Some argue that globalization is actually increasing the importance of location, which is necessary to promote greater regional economic distinction, and that regional economies, rather than national economies, are the most important foci of wealth creation and world trade (Scott, 1989; Krugman, 1991; Ohmae, 1995; Coyle, 1997; Porter, 1998; Fujita *et al.*, 2000). But others take the opposite position and argue that globalization is making the importance of location increasingly irrelevant to economic activity (O'Brien, 1992; Cairncross, 1997; Gray, 1998). Open global markets, rapid transportation, and high-speed communications should allow any company to access anything anywhere, anytime. But in practice, the location remains central to competition (Porter, 1998). The economic map of the world today is characterized by what Porter (1998) calls clusters: critical masses in one place of linked industries and institutions - from suppliers to universities to government agencies - that enjoy unusual competitive success in a particular field.

But this problem is not unique in clusters, because according to Martin and Sunley (2003) and Asheim *et al.* (2006), the ambiguity of the clusters begins with its own definition. Martin and Sunley (2003) submit that the literature on clusters is a constellation of disparate ideas, some of which are clearly important to contemporary economic development, but others are banal or misleading. The same authors also criticize the statements made by Porter (1998) when he defines cluster as a set of geographically close companies, ensuring that they are so vague in terms of geographical scale as in terms of internal socio-economic dynamics, which allow that different analysts use this idea in an uneven manner to suit their own interests, and the result is a complete conceptual and empirical confusion.

Malmberg and Maskell (1997) reported that most research on identification of clusters, based on a simple analysis of the geographical concentration of industries, forgetting completely that the cluster concept also contains in its nature the concept of interconnection among agents. Malmberg and Maskell (2007) argues that the literature on clusters has become extremely confusing, with multiple and conflicting claims about the theoretical obliquity form

of identification and even about the meaning of clusters. Also Engelstof *et al.* (2006), when examining the different forms used in identifying clusters in a considerable number of studies, have concluded that the high number of identified clusters comes from the methodological weaknesses, almost anecdotal, that characterizes such studies.

There is another question that has arisen, which is the absence of a clear and robust scientific methodology to identify and locate clusters of simple geographic concentration of agents, which explains the misuse of the terminology cluster (Vom Hofe and Chen, 2006). In most investigations, which are intended to identify clusters, it is adopted a case study approach that often have a lack of accuracy, because clusters are not identified, nor quantitatively validated. And if on the one hand, the case study allows more easily the complementation of the quantitative data that is qualitative in nature, on the other hand the generalization of results is more critical (Engelstof *et al.*, 2006). However, it should be noted that, as Jimenez and Junquera (2010) refer, clusters are not always suitable for all types of environments and innovations and that an economic development strategy based on clusters is not the solution for all kind of activities.

The evolution of the cluster concept has been naturally shaped by the development of the literature on clusters (Cruz and Teixeira, 2010). There is not a single definition of cluster in the literature and to choose a definition will depend on the purpose of the study that is being developed (Verbeek, 1999; McRae-Williams, 2002). According to Cortright (2006), after two decades of study and debate, it seems unlikely to have a cluster definition that could be universally accepted. It must be noted that the development of a cluster is not automatic, but often arise spontaneously. The support structures and efforts to promote clusters can be the difference between success and failure; therefore, there is a lot to learn from clusters developed around the world and from the efforts to protect them. Simply there has to be some caution in how the concept is copied and the belief that it will be applicable anywhere (Nordin, 2003).

The literature shows that these clusters undergo a life cycle, so that the factors that favor its development have different roles over time (Navarro, 2001). Ketels (2003) warns that despite a cluster based on economic policy has a great potential, it is no panacea. In fact, the greatest danger to this approach may be its current use as a fad that comes from a "novelty" in economic development. The high hopes attached to the economic cluster based on development may prove fruitful; however, it will take a lot of research and practice to achieve this step against the most stringent demands of this new era.

Certainly, a critical analysis of the clusters is an extremely difficult task (Martin and Sunley, 2003) and the paradox around the concept may be in the way it was referred by Porter and other enthusiasts as a brand, rather than an intellectual product.

Clusters have been a subject of great research by academics, managers and/or policy makers (Martin and Sunley, 2003; Jackson and Murphy, 2006; Cruz and Teixeira, 2010). In the 1990s, and particularly at the beginning of 21<sup>st</sup> century, we have witnessed a remarkable increase in the writing of papers about clusters (mainly in manufacturing sectors). Examples are the numerous scientific publications that address this issue (Belleflamme *et al.*, 2000; Boari *et al.* 2003; Porter, 2003; Sher and Yang, 2004; Bengtsson and Sölvell, 2004; Immarino and McCann, 2006; Ketels and Memedovic, 2008; Chincarini and Asherie, 2008; Wennberg and Lindqvist, 2010; Martin *et al.*, 2011; Campaniaris *et al.*, 2011), publications from national and international organizations (OECD, 1996, 1999, 2001a, 2001b, Observatory of European SME, 2002; Sydow *et al.* 2006; Sölvell *et al.*, 2009) and various books (Weiss, 1988; Porter, 1990; Pyke and Sengenberger, 1992; Saxenian, 1994; Van Dijk and Rabellotti, 1997; Steiner, 1998; Crouch *et al.*, 2001; Sölvell *et al.*, 2003; Sölvell, 2008; Karlsson, 2008; Borrás and Tsagdis, 2008; Ganne and Lecler, 2009; Fornahl *et al.*, 2010).

Also case studies in specific regions have shaped some of the most evocative and insightful researches about clusters. Among these studies are surveys of known clusters - Silicon Valley (Saxenian, 1994), Minnesota Cluster from Snowmobile (Munnich *et al.*, 2002), the press and publication cluster in the UK (Readman, 1999; Whalley and Den Hertog, 2000), the automobile supply industry in Germany (Preiss, 2000), the biotechnology cluster in Sweden (Den Hertog and Whalley, 2000; Nilsson *et al.*, 2000), the multimedia cluster in the Netherlands (Den Hertog and Maltha, 1998), the Hollywood film industry (Scott, 2004), the wood processing cluster in Latvia (European Commission, 2005a), the bioscience cluster in Hungary (European Commission, 2005b), financial services in Cyprus (European Commission, 2005c), the packaging cluster in the Czech Republic (European Commission, 2005d), the aviation industry in Poland (European Commission, 2005e), the laser industry in Lithuania (European Commission, 2005f), the chemical industry in England (European Commission, 2008), the wine in Oenopolis (Larreina and Aguado, 2008), among others. Whalley and Den Hertog (2000) studied other clusters, namely: Telecommunications in Italy, information and communication in the Netherlands, food processing in Norway. In Japan, Yamawaki (2002) investigated 14 industrial clusters (silk, cotton, synthetic fibers, ceramics, garments, machinery, automobile parts, glasses, cutlery, tools and spectacle frames), with particular emphasis on its evolution, structure, clustering determinants and the benefits.

Huggins (2008) presents case studies of four clusters of knowledge in order to understand how the *modus operandi* of these clusters evolves and also studied the case of Silicon Valley Clusters (United States), Cambridge (United Kingdom), Ottawa (Canada) and Helsinki (Finland). Ganne and Lecler (2009) edited a series of studies using three models - industrial regions, industrial clusters, and poles of competitiveness - through an overview of the case of Japan, China, Vietnam and Thailand. Pinch *et al.* (2003) identified the shift from "industrial districts" to "knowledge clusters", and found a model based on the knowledge of competitive advantage as central alternative theories of clusters. Also Porter (2003) studied clusters in the United States (U.S.), where he noticed that US regions have a high proportion of its total workforce located in "strong" clusters and enjoy a high level of economic development, with average wages and employment growth, as well as a high degree of patents.

Europe is the "home" to a large number of clusters (Ketels, 2004) and the European Cluster Observatory has contributed to investigations designed to identify and map clusters across Europe. The aim of the observatory is to inform policymakers, cluster practitioners and researchers from around the world on policies and initiatives of the European clusters. The statistical mapping of regional poles - based on data analysis of employment - has already identified more than 2.000 regional centers in 27 European Union countries, Iceland, Israel, Norway, Switzerland and Turkey. The cluster mapping approach consists of measuring the effects that links and repercussions have in the choice of the location of a company. In addition to cluster mapping, the European Cluster Observatory provides information on policies and programs for clusters; also includes a comprehensive database and mapping of cluster organizations.

There are also controversial opinions regarding the performance of clusters, which are in contradiction with other studies that suggest that new firms are adversely affected by the location of a cluster. A detailed longitudinal study of Dumais *et al.* (2002) on the U.S. factories sampled at intervals of five years, from 1972 to 1992, found that new firms in clusters had higher probability of survival, but did not reinforced positively the job creation in a region. According to Gilbert *et al.* (2008), companies located in geographic clusters reach a better performance in terms of innovation, growth rates and survival than firms not located in geographic clusters. Gugler and Keller (2009) argue that there are substantial differences in economic performance among regions in nearly all countries. This suggests that the most important determinants of economic performance are found at the regional level.

Porter (1998) highlights the economic benefits of a cluster in three dimensions. First, the clusters allow for greater productivity. Companies may operate more efficiently, based on more specialized assets and suppliers with shorter reaction times than when working alone.

Secondly, companies and research institutions can build better connections to learn and innovate, (OECD, 2001a; Porter, 2000). Third, the formation of the business tends to be greater in groups. The start-ups are more dependent on external suppliers and partners - all to be found in a cluster. Clusters can spread the cost of a failure, as entrepreneurs can fall back on local employment opportunities in many other companies in the field (Wennberg and Lindqvist, 2008). These benefits are important to the participants of the cluster, as for public policy. For companies, because they create additional value that often exceed the higher costs of intense competition for real estate, technical and clients. For public policy, productivity and innovation in the cluster are the factors that in the long term define the level of sustainable prosperity in a region (Ketels, 2003). The author adds that the clusters are of interest to economic development professionals and corporate executives because the conceptual thinking strongly suggests that they affect performance.

The role of clusters in explaining regional economic performance was widely confirmed by other studies, although many are specific cases and those that are discussed in depth and in an empirical scale are extremely rare. Porter (2003) studied the clustering of the US regions where there is a high proportion of its total workforce located in “strong” clusters and enjoy a high level of economic development in the form of average wage and employment growth, as well as a high degree of patents. Some studies also found that clusters can improve the performance of new companies. Stough *et al.* (1998) investigated the economic development of Washington DC in the largest area of the US for several decades and concluded that the founding and growth of new companies may be associated with a high concentration of a qualified technical population with high levels of engineering and technology business. Rosenthal and Strange (2005) investigated in 2001 all new companies in the greater metropolitan area of New York and found that specialization, measured by ratios of employment in a local area, was positively related to job creation among new companies. Pe'er and Vertinsky (2006) investigated new company operators in the sectors of Canadian manufacturing (1984-1998) and found that the combined companies had higher survival rates than the non-combined companies. Ferreira *et al.* (2011), following the methodology of the European Observatory, found that the identified clusters contribute to the performance of the Portuguese centro region.

However, these results are in contradiction with other studies which suggest that new companies are adversely affected by the location of a cluster. According to Ontario's (2002), it is necessary to create a business environment with conditions for the formation of this prosperity, in a macro and micro economical context, where businesses can take advantage of these conditions and make the sophisticated consistent choices on innovation and modernization in order to acquire competitiveness. According to Porter (1990), the

emergence and development of clusters at national or regional level, are a fundamental unit of analysis to explain the competitiveness. Novelli *et al.* (2006) reinforce this idea by stating that the clusters are vital for regional development because it leads to increased productivity, performance, innovative capacity and the development of critical mass business.

Although clusters have been the target of numerous investigations, these have been applied mainly to manufacturing (Jackson and Murphy, 2006; Steinle and Schiele, 2002; Nordin, 2003, Cunha and Cunha, 2005; Ferreira *et al.*, 2011) and high-technology sectors ( Novelli *et al.*, 2006), verifying its applicability to the services sector in general, but not much in the tourism sector, in particular. Since tourism is of paramount importance both regionally and nationally, this sector presents itself as a driving force in economic growth and development, believed to be one of the weapons to prevent the depopulation and economic stagnation of the regions, including the interior (Opperman, 1993; Jackson, 2006). Several studies (Brown, 1998; Sinclair, 1998; Sharpley, 2002) have tourism as the most viable solution to promote regional development and enable the convergence of less developed regions. Some of the few investigations about clusters applied to the tourism sector used quantitative and/or qualitative methods and were made in countries like the UK (Nordin, 2003), Australia (Jackson and Murphy, 2006), the US and South Africa (Nordin, 2003), China (Jackson, 2006), Malta (European Commission, 2005g), Jordan (Fischer *et al.*, 2009) and Peru (Agung *et al.*, 2010).

In Portugal, the study of tourism clusters is still in a very early stage and that evidence of this is the reduced number of scientific studies that address this issue. The Monitor Company (1994), led by Porter, conducted a study on the Portuguese economy and identified several clusters, including in tourism, however in their study there was an absence of concrete methodologies for identifying clusters. We also point out other qualitative studies carried out by Gouveia and Duarte (2001) and Santos (2002) and quantitative studies by Santos (2007) and Estevão and Ferreira (2011).

Given the importance of these issues mentioned above, namely the clusters, competitiveness and tourism, it is appropriate to analyze them in order to contribute to the development of this area of research. Thus the basic model of this doctoral thesis is as follows (Figure 1):

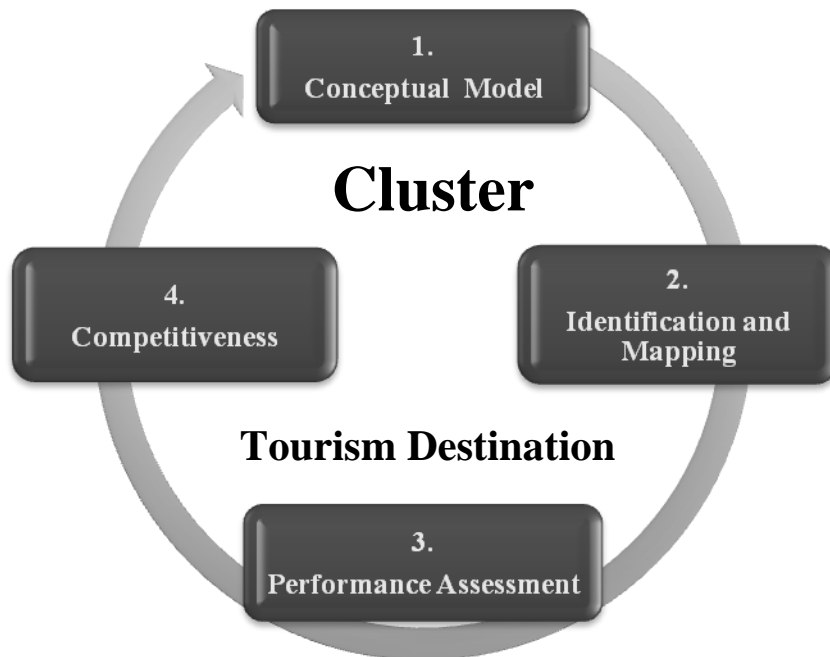


Figure 1 - Basic Model of Doctoral Thesis

Given the present statement of the problem under study, the following four questions are raised:

- I - What is the most appropriate methodology to identify clusters of tourism in Portugal?
- II - Where are the tourist clusters in Portugal?
- III - What is the positioning of the clusters against the economic performance of tourism in the region?
- IV - What are the factors that determine regional competitiveness?

Based on these research questions, we propose the elaboration of this thesis based on the following general objectives:

- 1. Develop a theoretical framework about the thematic of clusters in general and propose a conceptual model in order to analyze how a tourism cluster can stimulate their regional competitiveness.
- 2. Identify and locate the tourism clusters of in Portugal.
- 3. Identifying, mapping and assessing the economic performance of tourism clusters in Portugal.
- 4. Determine which factors contribute to competitiveness by applying a model of tourism competitiveness.

A link can be established between the research questions and objectives, as follows (Table 1):

Table 1 - Research Objectives

Objectives  Research Questions	Objective 1. <i>Develop a theoretical framework about clusters in general and propose a conceptual model in order to analyze how a tourism cluster can stimulate their regional competitiveness.</i>	Objective 2. <i>Identify and locate the tourism clusters in Portugal.</i>	Objective 3. <i>Identifying, mapping and assessing the economic performance of tourism clusters in Portugal.</i>	Objective 4. <i>Determine which factors contribute to competitiveness by applying a tourism competitiveness model.</i>
	I - What is the most appropriate methodology to identify tourism clusters in Portugal?  II - Where are the tourism clusters in Portugal?  III - What is the positioning of the clusters face to the tourism economic performance in the region?  IV - What are the factors that determine regional competitiveness of the clusters identified?	X    	X  X   	X   X   

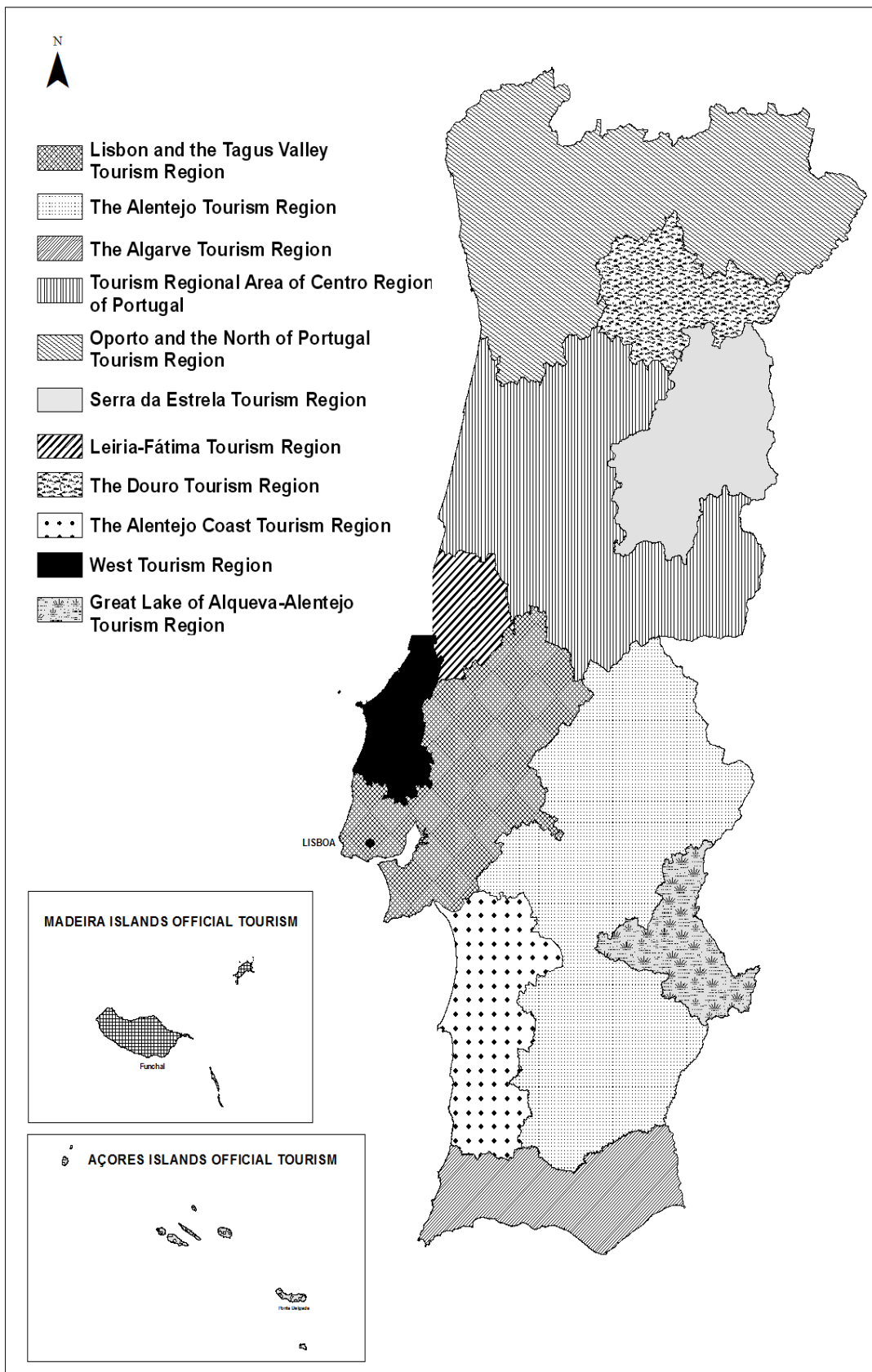
## 1.2 Unit of Analysis

The unit of analysis for the study included the research of economic activities (Table 2), which make up the tourism satellite account defined by WOT *et al.* (2001) of the 308 counties that constitute the regional areas of tourism and tourism development poles (Map 1) in accordance with Decree-Law No. 67/2008 of 10 April.



**Table 2 - Study Definition of Economic Activities**

49100 Inter-urban railway transport network .	56105 Restaurants with dance floors.
49310 Urban and suburban passenger overland transport .	56106 Residential food delivery services.
50300 Passenger transport by inland water course.	56107 Non-fixed restaurants, (for example, mobile facilities)
51100 Air passenger transport.	56210 Event catering.
55111 Hotels with restaurants.	56290 Other food and beverage activities.
55112 Pensions standard accommodation with restaurants.	56301 Cafés.
55113 Hostels with restaurants.	56302 Bars.
55114 Heritage hotels with restaurants.	56303 Pastry shops and tea houses.
55115 Motels with restaurants.	56304 Other clubs and pubs without stage facilities.
55116 Apartment hotels with restaurants.	56305 Clubs and pubs with event facilities.
55117 Tourism resorts with restaurants.	77110 Renting of passenger vehicles.
55118 Tourism apartments with restaurants.	77210 Renting of recreational and sporting venues.
55119 Other hotel establishments with restaurants.	77340 Renting of maritime and fluvial means of transport.
55121 Hotels without restaurants.	77350 Renting of means of air transport.
55122 Pensions standard accommodation without restaurants.	79110 Travel agencies.
55123 Tourism apartments without restaurants.	79120 Tourism operators.
55124 Other hotel establishments without restaurants.	79900 Other reservation services and related activities.
55201 Furnished tourism accommodation.	91020 Museums.
55202 Rural tourism facilities.	91030 Historical sites and monuments.
55203 Colonies and holiday camps.	91041 Zoos, botanical gardens and aquariums.
55204 Other short term accommodation facilities.	91042 Parks and nature reserves.
55300 Camping and caravan sites.	93210 Entertainment and theme parks.
55900 Other accommodation types.	93291 Tauromachy/bullfighting.
56101 Traditional restaurant types.	93292 Recreational port activities (marinas).
56102 Restaurants with counter service.	93293 Tourism event activity organisation.
56103 Restaurants without table service.	93294 Other non-fixed pleasure and recreation activities.
56104 Traditional restaurants.	



Map 1 - Regional Portuguese Tourism Areas

### 1.3 Design of the Thesis Model

When an investigator does a research many questions can be asked and often there is little information to answer them. In this situation, a work can be done oriented to a quantitative and/or qualitative methodology. This decision depends on several factors, like the aim of the study and the nature of the variables, among others (Perez *et al.*, 2006).

The design conception of the proposed research will develop along different methodological procedures, which are illustrated schematically in Figure 2.

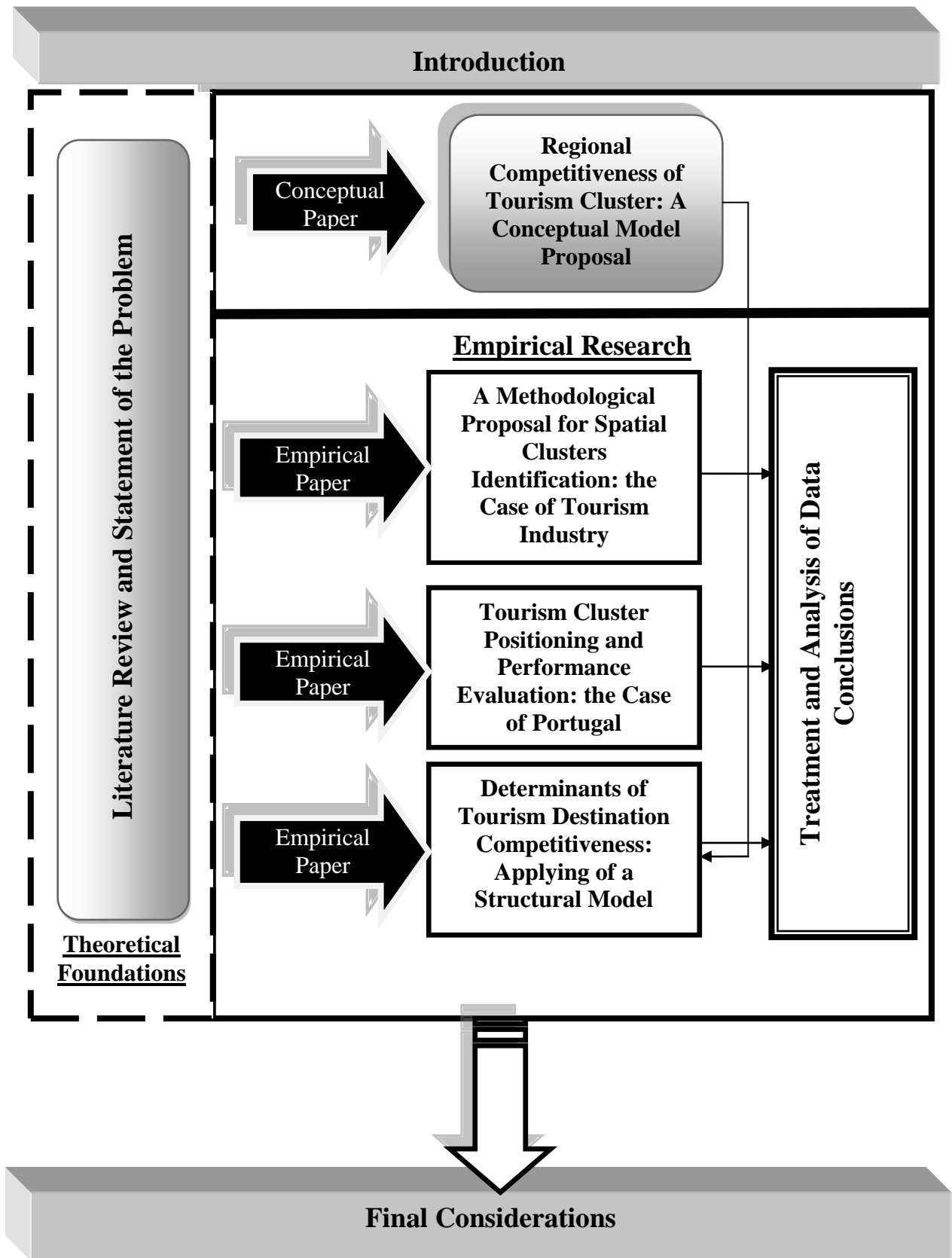


Figure 2 - Thesis Design

This research is systematized into 3 essential parts. The first part is an introduction, making a brief statement of the problem. The second part consists of the analysis of separate studies where each corresponds to the objectives of the thesis; two studies have already been published in two international journals. The second part includes the analysis and discussion of results and final considerations of the research. Thus, the questions raised are answered in the four proposed studies (table 3):

**Table 3 - List of Thesis Studies**

<b>Studies</b>	<b>Research Questions</b>	<b>Objectives</b>	<b>Publications (References)</b>
<i>Regional Competitiveness of Tourism Cluster: A Conceptual Model Proposal</i>	I	1/2/3	Ferreira, J. and Estevão, C. (2009) Regional competitiveness of a Tourism Cluster: A Conceptual Model Proposal, <i>Tourism &amp; management Studies</i> , 5: 37-51 (ISSN:1646-2408). [Indexed in EBSCO, Latindex, SciELO].
<i>A Methodological Proposal for Spatial Clusters Identification: the Case of Tourism Industry</i>	II	2	Regional Studies (In Review Process)
<i>Tourism Cluster Positioning and Performance Evaluation: the Case of Portugal</i>	III	3	Estevão, C. and Ferreira, J. (2011), "Tourism Cluster Positioning and Performance Evaluation: The Case of Portugal", <i>Tourism Economics</i> (forthcoming: February or April 2012 issue). [Indexed in Social Sciences Citation Index; SCOPUS].
<i>Determinants of Tourism Destination Competitiveness: Applying of a Structural Model</i>	IV	4	Tourism Management (In Review Process)

# **Chapter 1 - Regional Competitiveness of Tourism Cluster: A Conceptual Model Proposal**

## REGIONAL COMPETITIVENESS OF TOURISM CLUSTER: A CONCEPTUAL MODEL PROPOSAL

### ABSTRACT

Tourism is characterized for being a sector that has been highlighted as one of the activities with greatest potential for expansion on a global scale. For its growth potential and for being a product that can only be consumed *in loco*, tourism accepts the prominence role of being a strategy for local development. In this context the search for competitiveness is one of the key concerns of companies around the world. As clusters being a competent tool in companies' performance, in regional development and in countries' competitiveness, it is important to analyze its potential in tourism. This research aims to propose a conceptual model to analyze how a tourism cluster encourages its regional competitiveness.

**Keywords:** Cluster, Tourism, Regional Development and Competitiveness.

### RESUMO

O turismo caracteriza-se por ser um sector que se tem destacado, como uma das actividades com maior potencial de expansão em escala mundial. Pelo seu potencial de crescimento e por ser um produto que só pode ser consumido *in loco*, o turismo assume um papel de destaque como estratégia de desenvolvimento local. Neste contexto a procura pela competitividade é uma das preocupações centrais das empresas de todo o mundo. Sendo os clusters uma ferramenta competente no desempenho das empresas, no desenvolvimento regional e na competitividade dos países é importante analisar-se o seu potencial no sector do turismo. O objectivo deste artigo é o de apresentar um modelo conceptual teórico no sentido de verificar de que forma um cluster do turismo estimula a sua competitividade regional.

**Palavras-Chave:** Cluster, Turismo, Desenvolvimento Regional, Competitividade.

### 1. Introduction

The literature on clusters establishes that clustering generates externalities in terms of cheapest access to production factors (static externalities) as well as enhancing learning and innovation (dynamic externalities) through interactive learning. The success of clusters in the developed world diffused quickly to developing countries starting the interest of scholars, practitioners and policy makers. It is a basic observation that economic activity is concentrated in space and, following this, there is growing attention being paid to the forces of agglomeration and the role of location in economic development (Titze et al., 2008). Theoretical basics of the analysis of local industry concentrations are given by the concept of agglomerations economies (Marshall, 1920), external location economies (Capello, 2007) and the dominant cluster theory developed by Porter (1990).

While scholars have tried to clarify the specific dynamics of clusters in regions such as Asia or Latin America (Albu, 1997, Bair and Gereffi, 2001; Bell and Albu, 1999, Humphrey, 1995, Rabelotti, 1999), international organizations such as UNIDO and the OECD adopted the cluster as a policy and development tool (OECD, 1999; 2001; UNIDO, 2004).

Regional clusters have fascinated growing interest among both academics and policy-makers during the last decades; and this regional approach is increasingly recognized as a valuable tool to promote economic development. However, there is a need for a more accurate conceptualization of what constitutes a cluster, in general, and what forms a tourism cluster, in particular, in order to perform a theoretical framework and draw policy implications.

Tourism is an economic growth engine with particular focus at regional level, but its national impact is also significant (Sharpley, 2002; Jackson *et al.*, 2005). But, if tourism importance is significant at a national level, at a regional level this sector is presented as an essential tool in regional development and economic growth, believing to be one of the weapons to avoid desertification and regions economic stagnation, namely in the inner regions (Opperman, 1993).

Given the great unanimity that clusters increase the competitiveness of a regional industry (Porter, 2002; Rocha, 2004) and given that tourism is a powerful instrument for regional development (Engelstoft *et al.*, 2006) is relevant and crucial to discuss the role of clusters in tourism. The discussion of tourism clusters is still in an embryonic phase (Rosenfeld, 1997; Nordin, 2003; Capone, 2004), explaining the low number of researches that approach this problem. That is why this research aims to propose a conceptual model to analyze how a tourism cluster encourages its regional competitiveness.

This research is structured as follows: it is carrying out a literature review that allows clarifying a number of concepts related to the clusters, in particular of tourism, according to several researchers' vision. Then it presents some evidences about regional development, and approaches tourism as a factor of regional development. After that, it does develop the competitiveness concept in general, and tourism competitiveness in particular. It is also propose a conceptual model of regional competitiveness of a tourism cluster, aiming to help filling the existent gap within this field and to provide as a tool for future researches in the tourism management field. In the end, the final considerations, and future lines of research are addressed.

## **2. Literature Review**

In the last decades, academics and policy-makers have been increasingly involved in studying clusters with particular allusion to their regional atmosphere. In order to recognize the characteristics of regional competitiveness, a diversity of conceptual models have been developed (Ferreira *et al.*, 2009). For example, Begg (1999) suggests a *maze*, Gardiner *et al.* (2004) a *pyramid*, and CE and Martin and Sunley (2003) a *hat*. Other researches refer to national or industrial cluster *a la Porter* that is, considering them as an economic - not territorial - concept. Another typology of analysis concerns general mapping exercises of specific industries which among others identify regional clusters across a number of countries.

One of the reasons that justify the huge interest in the clusters theme is its presumed impact on companies' performance, regional development and countries competitiveness (Rocha, 2004). Objectively, Porter (2002) states that the clusters are synonymous of competitiveness given that they contribute positively to innovative processes, they facilitate relations with other institutions, better enabling the consumer needs, canalizing knowledge and information need for technology development. The purpose of this section is to clarify in general, a number of concepts related to clusters and clusters of the tourism sector in particular.



What is a (regional) Cluster? According to Martin and Sunley (2003), there is a great controversy surrounding the clusters concept. For these authors, it is simple to identify the clusters in space; however, the same does not happen with respect to its definition, which is very ambiguous. As discussed in Malmberg (2003), Malmberg and Power (2006), and Waxell and Malmberg (2007) it is problematic that the cluster concept as such has gradually taken on a number of distinctly different meanings, such that it is not always clear which of these should be included in the definition of the concept. This ambiguity is mainly because the definition of cluster fluctuates between its industrial and geographical definitions (Waxell and Malmberg, 2007; Fernandes, 2008).

The rush of interest in industry clustering during the past decade coincides with an increasingly rancorous debate over what the term means. The term or at least the concept has been used by so many academics in so many different ways, and has been attached to so many economic development efforts around the world, that one scholar has plaintively asked whether it is one of those atypical terms that has gone from obscurity to insignificance without any intervening period of coherence (Maskell and Kebir, 2005). Porter (1998a), one of the leading advocates of cluster policy, defines a cluster as a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities. Clusters are so made up of different parties, arraying from specialized suppliers, service providers and companies in related industries, to universities, standards agencies and trade associations, as their geographical concentration is said to ease the association of ideas and people between them, in the process endorsing and promoting innovative behavior (Hospers et al., 2009).

Bergamn and Feser (1999) defining clusters as a group of companies, business organizations or not, for whom membership within the group is an important element of each member of the company's competitiveness. According to Martin and Sunley (2003), the definition of cluster is obscure and not accepted unanimously, which leads to an identification of clusters in an anecdotal way and less accurate. Swanw and Prevezer (1996) defined it in a simple way, that clusters were groups of companies within an industry in a given geographical area.

Clusters are used to represent concentrations of companies, so that they can produce synergy, through their geographical proximity and their interdependence (Rosenfeld, 1997). Feser (1998) points out those economic clusters do not refer only to industries and institutions, but to the highly competitive industries and institutions. This competitiveness is due to the relations between them. Porter (1994, 1998) states that clusters (groups, groupings or agglomerations), are geographic concentrations of companies and institutions in a particular activity sector, whose inter-relationships reinforce the competitive advantage. According to Porter (1998), the solid competitive advantages in a global economy increasingly depend on local factors - knowledge, relationships, motivation, etc. - with which the geographically distant competitors cannot compete. Porter (2000, 2003) reinforces his description, defining a cluster as a geographically close group of interconnected companies, suppliers, service providers and associated institutions, in a particular field, linked by analogy and complementarity. In this context, a regional cluster may be defined as a geographically delimited concentration of interdependent companies. Rosenfeld (1997) emphasizes that cluster should have dynamic channels for business transactions, dialogue and communication. This definition reveals two main criteria for demarcating regional clusters. Firstly, regional clusters are limited geographical districts with a relatively large number of

firms and employees within a small number of related sectors. Thus, the clusters are specialized in a small number of industries. Secondly, even though companies in regional clusters may co-operate with firms, R&D institutes, and other institutions in many places, the companies are part of local networks, frequently in the form of production structures. These structures tend to integrate subcontractors, but could also engage horizontal co-operation between companies at the same production phase.

However, also Porter (1998) argues that clusters foment both competition and cooperation. Competitors compete intensely to win and retain their customers, and without that no cluster could be successful. But the cooperation is also present, most of it vertical, involving companies of related sectors and local institutions. The competition lives together with cooperation, because both occur in different dimensions and between different participants. The same author also mentions that the clusters cover a range of associated industries, as well as important entities to competition. Include, for example, the provision of specialized inputs, such as components, machinery and services, as well as specialized infrastructures. It should be noted that, many clusters include the government and public institutions such as universities, which are specialized in education, information, research and technological support.

By definition, a cluster is an interconnected system of companies and institutions whose value as a whole is greater than the sum of its parts (Flowers and Easterling, 2006). An innovative cluster is defined as a large number of inter-related industries with a high degree of collaboration, and that operates in the same market with the same characteristics (Simmie and Sennett, 1999). For Crouch and Farrell (2001) clusters are a tendency for companies in likewise types of business to be located near each other. Although they do not have a particularly important presence in the location area, despite the variety of cluster's definitions, and although there is no clear definition of cluster, the authors agree with some of the characteristics that a cluster must have to be recognized as such. According to Simmie (2004) these features are agglomeration and interconnection. The agglomeration reflects the geographic concentration of an industry or related activities (Gordon and McCann, 2000). For interconnection, Simmie (2004) considers it as the competitive/cooperative relationship which is established between the local actors.

In sum, clusters are important for competition since they increase productivity, they direct the path of innovation and stimulate the formation of new businesses, in addition, the geographical concentration allow companies to operate with greater productivity in the search for inputs such as specialized labor and specialized machinery and components suppliers, aside from facilitate access to information and technology.

### **3. Clusters in Tourism Sector**

Since Beccattini's (1979) seminal work advocated the use of industrial districts as a crucial unit of analysis, numerous researchers have considered industrial clusters, or industrial districts, as an entity in itself (Rocha, et al., 2009). Case studies of specific regions have shaped some of the most reminiscent and insightful work on industry clusters. Among these studies are researches of well-known clusters - Silicon Valley (Saxenian, 1994), the Hollywood film industry (Scott, 2004), Kentucky houseboat cluster (Rosenfeld et al., 2000), Minnesota snowmobile industry cluster (Munnich et al., 2002) among others. For example, Huggins (2008) presents case studies of four knowledge clusters as a means of understanding how the modus operandi of such clusters is evolving. The case study clusters are Silicon Valley (United States),

Cambridge (United Kingdom), Ottawa (Canada), and Helsinki (Finland). Ganne and Lecler (2009) edited a collection of researches using three models – industrial districts, industrial clusters, and poles of competitiveness - through an overview of the case of Japan, China, Vietnam, Thailand and Malaysia.

Tourism is an engine of economic development with particular focus at the regional level, but which national impact is also significant (Jackson *et al.*, 2005). However, theories and concept of clusters have been generally applied to manufacturing, but its applicability to the services sector has been reduced, particularly in tourism, however in the recent years it has been observed an exponential growth (Jackson and Murphy, 2002; Breda *et al.*, 2004; Flowers and Easterling, 2006).

For instance, Jackson and Murphy (2002) provided an analytical framework within which to improve understanding of successful tourism destinations; and Flowers and Easterling (2006) applied Porter's cluster theory and competitiveness strategies to the travel and tourism industry in the South Carolina Low country and Resort Islands region, this paper examines how grow the tourism cluster.

Jackson and Murphy (2002) even argue that the application of the cluster concept to the tourism industry is extremely appropriate given that the product interacts with the local bases, promoting joint actions of inter-related companies, leading to the formation of agglomerates. Although Porter (1998) develop studies particularly in the context of more traditional industries, this author mentions the importance of the elements belonging to the tourism cluster, saying that the satisfaction of tourists do not only depend on the appeal of the place's primary attraction, but also on the quality and efficiency of related business - hotels, restaurants, malls and transportation.

Tourism cluster is a geographic concentration of companies and institutions interconnected in tourism activities. This includes suppliers, services, governments, institutions, universities and competitors (Capone, 2004). Beni (2003) defines tourism cluster as a set of attractions with touristic differential, concentrated in a limited geographical area with facilities and services of quality, collective efficiency, social and policy cohesion, with coordination of the production chain and of the cultural associations, and with excellent management of companies' networks that generate comparative and competitive advantages. For Novel *et al.* (2006), the objective of a tourism cluster is to bring companies, which generally work alone, to build a successful tourism product in a region. According to Ferreira (2003), a touristic destination is the comprehensive conjunction of several strategies that cross the tourism cluster. In other words, a tourism cluster is associated with a touristic product and a touristic destination. Costa (2005) adds that to the cluster's development in the tourism field should be included, the accommodation services, restaurant and beverages services that represents the static elements of the sector, transport services for passengers, the agencies travel services and tour operators, and rent-a-car services, which are called as mobility elements. The author adds that leisure and cultural services and recreational services represents the sector's dynamic elements which are one of the major responsible for the moderate increase of permanence and for the increase of spending by visitors, since they are as the 'animation' subsectors of the sector.

According to Ferreira (2003) tourism cluster includes, in addition to the activities considered in the tourism sector, namely accommodation, catering, entertainment and various attractions, operators and travel agencies, guides, crafts, car rentals and touristic transport, other services and related and support activities, like organizations and support services, transport infrastructure, education and training, consultancy and other

business services. It is needed the participation of other actors than just suppliers to develop a tourism cluster (Brown and Geddes, 2007). For these authors the government should encourage and fund programs to attract private investment, invest in infrastructure, as well as promote the region tourism since a tourism cluster can overcome crises.

So we can verify that there are no substantial differences between the cluster's definition in a general scope, and the cluster's concept when applied to the tourism industry. The tourism cluster, as clusters in general, is defined as a geographical concentration in a region of companies and institutions inter-related.

#### **4. Tourism as a Regional Development Factor**

The regional development results from the integration of the space variable in development subject matter, thus, it appears related to a specific spatial reference - the region (Albert, 2008). Clusters have become one of the most popular concepts of local and regional development for research and practice (Bergman and Feser, 1999). For many years, the tourism sector regretted that the government and population in general, systematically ignored its economic and social importance. However, in recent years, these "complaints" have been corrected and governments have increasingly recognized the economic importance of tourism (Crouch and Ritchie, 1999). Today, tourism has proven to be a prodigious source of value creation and employment (Botti *et al.*, 2008).

Tourism is an extremely important economic activity, which may play a decisive role in certain development areas, where sometimes there are no other alternatives to achieve this goal, and may even boost the natural and historical-cultural potential of most depressed regions (Cabugueira, 2005). The tourism sector is also an activity that is characterized by the enormous possibilities that have to produce direct, indirect and induced effects in an economy, whether through employment, or through the dynamics of other companies already established (Carvalho and Vaz, 2005). Campos *et al.* (2006) adds that tourism is an activity sector with increased expression and value to national and regional economies and primarily its developed through services provision that are linked whether to the needs, expectations, demands and wishes of tourists customers, or to the activities that they develop at destination.

According to Jackson and Murphy (2002), the very governments are who identify tourism as a possible way to achieve economic development given the employment scarcity in the traditional sectors of economy. The same authors also argue that developing tourism is to be able to produce an integrated destination area (scenario, environment), able to attract and support the load that the same attraction can pull in the future. In other words, it means to develop human and relational capabilities, that combined with the capabilities of the very natural resources and buildings, are able to create an environment to host the visitors, so they feel comfortable when they enjoy a different scenario than the usual.

According to Cabugueira (2005) most of the activities and services that constitute the touristic product are usually linked to a natural or cultural attraction. This set of activities enables the realization of the touristic product through the services' productive activity. Thus, the natural and cultural goods become directly productive, participating in the general process of the economy expansion.

Rodrigues (2003) states that, while in other economic activities is the product that goes to the market, in tourism succeeds precisely the opposite. To have an effective consumption of the touristic product the tourist will go up to the structure that supports

it: the touristic destination. The author also states that it is not possible to separate a touristic product approach of a touristic destination, being the second a central element of tourism. Tourism also generates multiplier effects on economic activity, reflected not only by the generation of significant added value, but also by the ability to motivate the development of other economic activities through extension (Silva and Silva, 1998; Cabugueira, 2005). According to Botti *et al.* (2008), geographical proximity plays an important role in the perception of the performance of tourism organizations, in order to maintain the survival of tourism businesses and contribute to the competitiveness of the tourism sector.

### **5. Touristic Competitiveness**

Speaking of competitiveness has become frequent nowadays, because it is one of the central concerns of governments and industries of all countries. In a world increasingly global and competitive it is essential that companies develop a strategic management in order to follow the complexity of the environment, the trends and competitiveness of the market to gain competitive advantages (Estevão, 2008).

The concept of competitiveness may seem easy to understand, however the complexity of the concept is clear when we want to define and analyze, from various sources of literature (Porter, 1994a; Cooke and Morgan, 1998; Desrochers and Suatet, 2004). Porter (1990) argues that its ambiguity arises from the huge variety of definitions and perspectives on competitiveness, which makes it difficult to give an exhaustive and indisputable definition.

Ferreira and Alberto (2008) assume that the location is a source of business competitiveness meaning that the company cannot be dissociate of the region where it belongs. Thus, it should be understood what are the attractiveness factors that a region can offer so that businesses can be located there, and how these factors can (or not) be pronounced by the joint activity of all regional actors. The competitiveness concept and assessment of a touristic destination has received an increasing attention in the literature about the tourism economy. The reason for this interest arises from the increase of the economic importance of the tourism sector, as well as from the increasingly competition in tourism market, as a consequence of the transition process from mass tourism to a new era of tourism, which calls for a tailor-made approach to the attitudes and needs of tourists (Cracolici *et al.*, 2006).

For Crouch and Ritchie (1999) the competitiveness of a given industry is a crucial determinant for its performance in the world market. Develop the touristic potential of any country or region depends substantially on its ability to maintain a competitive advantage in supplying goods and services to visitors. Competitiveness in tourism sector is defined as the capacity of tourism businesses to attract visitors - foreign and domestic - who spend on touristic destination serving to offset the costs of business development, and reward the capital invested, in an equal or above manner of the opportunity cost (Dominguez, 2001).

Trinidad (1999) concludes that the tourism competitiveness is - more than any other sector - a framework of strategic partnerships, involving all who directly or indirectly contribute to the construction of the global product. This author also adds that this partnership represents, ultimately, a culture, an attitude, focusing on tourism; an attitude of businesses serving the tourism, of the state, and citizens. Without this attitude there is no competitive tourism. For Dwyer and Kim (2003), tourism competitiveness is a very complex concept that combines several elements that may be observable or not, and that

in many cases are not easy to measure. Furthermore, it is a relative concept whose extent may vary depending on the time period and the country that is taken as reference. To compete in the tourism field, a destination not only must have comparative advantages but also competitive advantages, in other words, is required not only to have a more or less broad variety of products and tourism resources, but also they must be managed efficiently to medium and long term.

According to Carvalho and Vaz (2005), touristic destinations, taken as a product, face increasingly competitive and differentiation situations that matters to know how to valorize and promote.

## **6. Competitiveness Models of tourism destinations**

The application of analyzing models of competitiveness in tourism destinations, at the national and regional level, contributes for the development of the topic of tourism clusters. The models presented by Porter (1990), Crouch and Ritchie (1999) and Dwyer and Kim (2003), are examples used in the analysis of the competitiveness of tourism destinations.

### ***(i) Porter's Diamond***

Porter (1990) considers that it is the company and not the country that compete in the international market; however the success of the company can be explained by the economic environment, institutions and the governmental policies. It means that the competitiveness of a nation or region builds itself - on the success that the companies reach in the international market. According to Porter (1990) the analysis must happen on specific industries or segments of industry and not in the economy as a whole, so that it is inconceivable that all the companies of all the sectors have competitive advantage.

The main indicator of competitiveness, according to Porter, is the productivity so that the productivity is the main determinant, at long term, of the living standard of a country; therefore it is the basic cause of the per capita national income. The competitive performance of a country, in a certain industry, results, according to Porter (1990), in the articulated share of four determinants that shape the environment in which the companies compete, stimulating or hindering the creation of competitive advantages. These determinants are: (i) factor conditions: endowment of a country in production factors, such as specialized work or infrastructures, necessary to the competitive activity of a certain industry; (ii) firm strategy, structure and rivalry: conditions that, in the country, regulate the creation, organization and companies management and the nature of the internal competition; (iii) demand conditions: characteristics of the internal demand for a certain good or service, namely the presence of sophisticated and demanding customers; (iv) related supporting industries: existence or not of supplying and/or related industries that is competitive in international markets. This determinative incorporates the question of agglomeration economies and their effect on the competitiveness. To these attributes, Porter (1990) connected to more dimensions: government and change (events out of control of the companies).

According to Silva (2004) the tourism competitiveness is reached in the scope of the local destination, through one renewed innovation capacity and constant improvement, rising, growing and remaining themselves inside the tourist sets, considered as the basic units of competitiveness, that participate directly in the scene of the national or international competition, competing with other tourist sets. That is, also in tourism, in accordance with Porter's theoretical model, competition does not occur between

countries, but between clusters and the tourist businesses. In this context, this author still affirms, that the public and the private sector must be integrated and cooperate mutually to conform an institutional and enterprising lost favourable to the accomplishment of the competitive activities in an efficient way and with a raised level of productivity in the use of the resources.

***(ii) Crouch and Ritchie's Model of Competitiveness***

Crouch and Ritchie (1999) had developed a conceptual model of constructed tourism competitiveness from the Porter's (1990) diamond of national competitiveness. In the development of this model, Crouch and Ritchie (1999) recognize that tourism is constantly influenced by a bound of global forces.

When it deals about analyzing competitiveness of the service sector and, more concretely, of the tourism destinations, Crouch and Ritchie (1999) introduce the theory of the comparative and competitive advantage. According to these authors, the comparative advantage refers to the factors related to tourist destination, including in such a way the factors that occur in a natural way as those that have been created. On this hand the competitive advantage make reference to the capacity of the tourist destination to use its resources in an efficient way at medium and long term. Thus a tourist destination can count on a great variety of resources and, however, not to be so much competitive as another destination, that counts on few tourist resources, but that employs them in a more efficient way. Therefore, a tourism destination that convinces its inhabitants the possibility to explore its resources economically, that understand its strong and weak points in such a way that develops a policy of suitable marketing and uses it correctly could be more competitive than another destination that has not conceived the role that the tourism plays in its economic and social development. The concepts of comparative and competitive advantage provide the theoretical base necessary to develop a model of competitiveness of tourist destinations.

Crouch and Ritchie's (1999) model identified two distinct and linked environments: micro and macro, respectively. The macro competitive environment consists of a vast set of phenomena with impact in the totality of the activities human beings and, therefore, it is not specific of the tourism activity. To compare the micro competitive environment is part of the tourist system, so that it is related to the shares of entities and organizations of the tourist system that affect, direct or indirectly, the reach of the aims of any member of the system, which can be companies or a group of organizations that constitute the destination. The environment macro is global in its extension, the events in any part of the world has consequences in the varied tourism destinations, in any region. The global forces can modify the attractiveness of a destination for tourists; changes in wealth standards can create new emergent markets to suit the relative costs of trip for different destinations. These forces existing in a certain destination, with specific concerns and problems, must impel to suit it to new realities, to continue to be competitive. In relation to the micro competitive environment this is constituted for the organizations, influences and forces that if locate in the field of the tourist activities and competition. However the environment micro, given the felt proximity and of the immediate one, many times concentrates the managers' attention in terms of the capacity to satisfy the visitors and to continue competitive.

While the central resources of a destination constitute the primary motivations for the receiving tourism, the factors and the support resources, as the name shows, provide the foundations on which a tourist activity of success can be established. A destination with

wealth of resources of central offices and attractions, but fragile in terms of factors and resources of support, will have many difficulties in developing the tourist industry. A strategic framework, in terms of politics, for the planning and development of the destination results, as the model, of the factors related with the politics of the destination, planning and development. These factors, with social economic aims and others, enable an orientation for the management, shape and structure of the tourist development. This framework could help to guarantee that the tourist development occurs in a competitive and sustainable way, while it meets the aspirations of the resident populations in terms of improvement of the quality of life.

The component management of the destination focuses in the activities implemented for politics, planning and development of the destination, and develops the attractiveness of the resources central offices and attractions, strengthen the quality and the efficiency of the factors and resources of support and suits in the best way to the constraints and chances imposed or presented by the component of the qualitative determinants. This final group of factors, called qualitative determinants, represents factors that affect the competitiveness of the tourist destination in its scale, limits or potential. These qualifiers moderate or develop the competitiveness of the destination filtering the influence of the others three groups of factors. They can be so much important as conditioning the tourism demand, or the potential demand, but they are beyond the control and influence of the tourist sector.

### ***(iii) Dwyer e Kim's Model of Competitiveness***

Dwyer and Kim (2003) consider an integrated model that basically follows the previous model, introducing some important aspects. First, the endowed resources (inherited and the natural resources) have, each one of them, its proper identity, as the resources created and of support. These three factors are grouped in a superior structure, since they provide the characteristics that make with that a tourist destination is attractive for the visitors and the reasons on which will combine a prosperous tourist industry. These three factors configure therefore the basis of the competitiveness of the tourist destination.

On the other hand, besides the management of the destination already considered by the previous model, the integrated model considers one another special part for the demand conditions that include three elements essential of the tourist demand: the tourist conscience, the perception and the preferences. According to Dwyer and Kim (2003) the management of destination, the local conditions of the demand, can exert a positive or negative influence on the competitiveness. The destination competitiveness is influenced by the competitiveness determinants described, influences the prosperity social and economic in the direction where the destination competitiveness is, in itself, an intermediate aim face to another much more important aim: social and economic well-being of the residents. For Dwyer and Kim (2003) the indicators of destination competitiveness include as many subjective attributes (the “enchantment” of the destination or the “scenic beauty”) as attributes determined objectively (tourist market share, tourism incomes, etc.), whereas the indicators of social and economic prosperity make reference the macroeconomic, employment levels, tax of economic growth, etc.

## **7. A Conceptual Model Proposal**

The tourism theoretical developments and conceptual models about the regional competitiveness reveal gaps, which have only recently been met by universities and



researchers. The submission of a proposal for an alternative model is to contribute to the development of this issue in any kind of tourism cluster typology and can be used for regional and temporal comparisons.

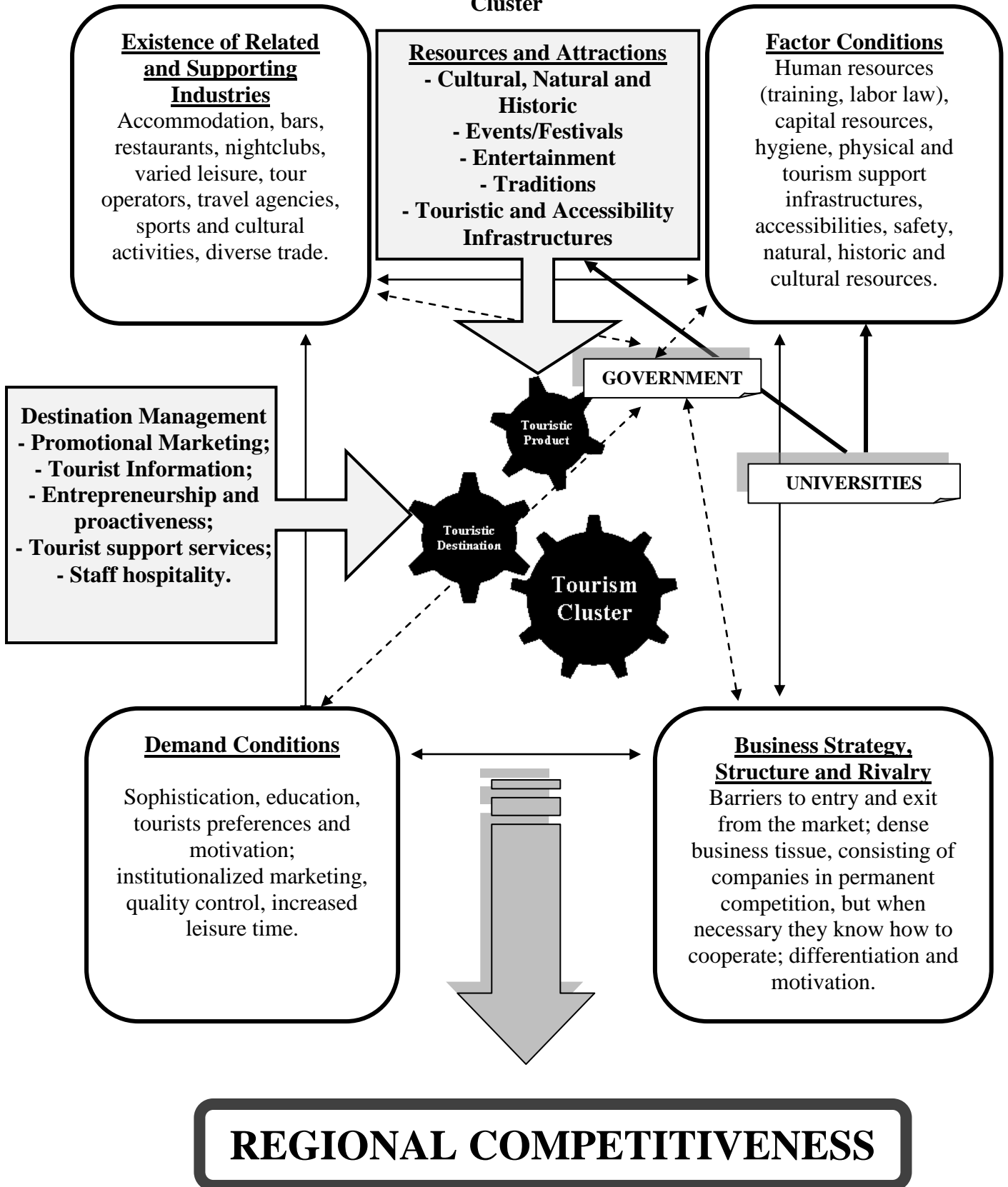
The proposed model results from the combination of the several elements constituting the competitiveness models previously presented. The model represents an interactive system for tourism, which moves if there is a consonance of three main components: the tourism product (consisting of the resources and attractions), the touristic destination and the tourism cluster. If the first two components interconnection is efficient, the tourism cluster will work in a productive way. The model presents determinants and factors that tourism clusters must have attention, in case of aspiring to have a competitive attitude and to have a sustainable position in a touristic market each more global. These determinants were based on Porter's diamond (1990) and the factors were based on Crouch and Ritchie's (1999), and Dwyer and Kim's (2003) models.

The main characteristic of the model is that it emphasis the combination between determinants in order to achieve competitiveness. Each determinant also presents a set of agents that promote pressures on attributes of others determinants elements, so that the interaction degree defines the regional competitive advantage. In this model the competitiveness is the key element for the success of a cluster. However, is not enough to be competitive, is also necessary to have competition capability. Cabugueira (2005) argues that it is not tourism that fosters the development of a given country or region, but its own level of development, which converts tourism in an activity favorable to this process. The increasing competition among touristic destinations raises the question of reinforcement of the construction factors and of the conditions for the quality of touristic products and destinations in order to be attractive, identifying the strengths and weaknesses. Well, only this way is possible to reach the development of the touristic region. These factors pass for the efficiency in the management of the destination and for the resources and essential attractiveness of the tourist destination.

This model recognizes the role of government in policies' definition that affects the competitiveness of the tourism cluster and highlights the role of universities as a key strategic variable in research to develop innovations and differentiations in offering tourism products and services, as well as in training and education of human resources. The relations and the variables presented are fundamental to the competitiveness of a tourism cluster, and thus for regional development.

The following figure presents the conceptual model of regional competitiveness of a tourism cluster:

Figure 1 – The Conceptual Model of Regional Competitiveness of a Tourism Cluster



The conceptual model proposed above allows state the following research propositions:

- P1) The competitiveness of a tourism cluster is determined by:
- P1a) The related and supporting industries;
  - P1b) The factor conditions;
  - P1c) The demand conditions;
  - P1d) The firm strategy, structure and rivalry;
  - P1e) The combination of all determinants.
- P2) The competition strategies within and outside of the tourism cluster are based on:
- P2a) Cooperation;
  - P2b) Creation of barriers at the entry;
  - P2c) Creation of barriers at the exit;
  - P2d) Differentiation and innovation of the offered products.
- P3) The tourism products play an important role for the growth of regional development, through:
- P3a) The attractiveness of natural, historical and cultural resources;
  - P3b) The entertainment activities;
  - P3c) The holding of events and festivals;
  - P3d) The quality of tourism support infrastructures.
- P4) The touristic destination can efficiently manage the available tourism products that contribute to the attractiveness of the tourism cluster, through:
- P4a) The tourism marketing;
  - P4b) The elucidative touristic information;
  - P4c) The entrepreneurship and proactiveness;
  - P4d) The creation of tourism support services (touristic guides);
  - P4e) The hospitality of the staff working directly with the client.
- P5) The Government plays a vital role in improving the competitiveness of the cluster, through:
- P5a) The creation of physical infrastructure and support for tourism;
  - P5b) The creation of accessibilities;
  - P5c) The financial support in investment projects for tourism;
  - P5d) The security against terrorism in the touristic destination;
  - P5e) The conservation of natural, historical and cultural resources of the tourism cluster.
- P6) The universities play an important role:
- P6a) In the development of innovation and differentiation strategies for tourism products and services to make them attractive;
  - P6b) In education and training of human resources.
- P7) The regional development is determined by the attractiveness of touristic products, the touristic destination management and the competitive potential of the determinants of the tourism cluster.

## **8. Final Considerations**

Tourism reveals itself as one of the activities with the greatest potential in the world. For its growth potential and as a product that can be only consumed on local, this sector has a prominence role as a local development strategy. This research aimed to propose a conceptual model of competitiveness of a tourism cluster for regional development. The model demonstrates the advantage of being supported on variables and objective indicators that, in the majority, rely on secondary data that can be easily obtained. Its application as a model of competitiveness of tourism clusters for regional development may help to identify gaps and potential for competitive development, which will assist the competent entities in its management.

Observing the development that the tourism sector plays in competitiveness and regional, national and global development, is urgent to study it and develop models that are adapted to its peculiarities. If tourism clusters want to ensure their survival in the medium and long term, they need to promote competitive practices in a systematic way. The model presented in this research can be seen as a small step for the study of clusters in tourism.

The limitations of this study are related to the fact of the proposed model not to have been tested empirically, as well as to the shortage of specific studies about clusters phenomenon in the tourism. There is several theoretical research, but very little applied to the reality and therefore it must be reason of inquiry in future studies. In this sense, it is suggested the identification study through a suitable methodology that allows identifying and operationalizing the tourism clusters. Adopt the proposed model in a study of tourism clusters of several regions making comparisons between them, find out which factors lead to different or the same results, would also be a way to contribute to this issue. We hope this research encourages other researchers to join us in addressing unsolved questions regarding the implications of regional competitiveness of tourism cluster. From a policy standpoint, regional competitiveness of cluster tourism is attractive instrument for development of the regions and it could promote an environment with high levels of competitiveness, and knowledge spillover effects.

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## **Chapter 2 - A Methodological Proposal for Spatial Clusters Identification: The Case of Tourism Industry**

**A Methodological Proposal for Spatial Clusters Identification: the Case of  
Tourism Industry**

**ABSTRACT**

Many studies have gone about identifying clusters in diverse contexts, nevertheless fundamentally based upon qualitative and/or quantitative analytical approaches tending to overlook fundamental methodological aspects inherent to the identification and operational functioning of clusters. Furthermore, very few have focused on the tourism sector with recourse to regional specialisation measurements. This research aims to contribute towards narrowing the empirical research methodological shortcomings through the proposal and application of a quantitative methodology capable of robustly identifying and locating tourism industry clusters in Portugal. As a result, the paper identified several regional clusters spatially distributed across ten activity sectors related to accommodation, restaurants, entertainment and events.

**Keywords:** clusters, concentration, locational coefficient, cluster index, tourism clusters, regional studies.

**INTRODUCTION**

The concept of clusters, contrary to what might first be thought, is not new. Interest first emerged at the beginning of the 19th century through pioneering studies and especially the works by RICARDO (1817), VON THÜNEN (1826) and LAUNHARDT (1882). The question of specialised industrial location took on particular significance with the seminal study by MARSHALL (1890), in which the author identifies three reasons which ensure business is more productive when companies are concentrated together rather than dispersed over distances: a shared specialist labour market, specialisation in supply and spillovers in knowledge. Many subsequent studies have traced their roots to the writings of MARSHALL (HOOVER, 1937; 1948; BECATTINI, 1979; BRUSCO, 1982; DORE, 1983; PIORE and SABEL, 1984; SOLINAS, 1988; and ARTHUR, 1994).

The cluster concept is itself problematic and as such has gradually taken on a series of rather different meanings (MALMBERG, 2003; MALMBERG and POWER, 2006; WAXELL and MALMBERG, 2007), and to such an extent that it is not always clear just which meanings should be included in any definition of the concept. This ambiguity primarily derives from the cluster definition oscillating between industrial and geographic definitions (WAXELL and MALMBERG, 2007). Clusters have been defined (implicitly and explicitly) by some as a set of companies located within close geographic proximity of each other (SWANN and PREVEZER, 1996; ROSENFELD, 1997; PORTER, 1998; COOKE and MORGAN, 1998; CROUCH and FARRELL, 2001; COOKE, 2001), or located in a specific area (SWANN and PREVEZER, 1996; CORTRIGHT, 2006), or producing a similar product or service (ROSENFELD, 1997), by others, as a groups of interrelated industries (SIMMIE and SENNET, 1999; PORTER, 2000, 2003), without overlooking the importance of industries (PORTER, 1998), the synergies established between companies located in clusters (ROSENFELD, 1997) and possible mutual competition (FESER, 1998; BERGAMN and FESER, 1999; KETELS and MEMEDOVIC, 2008), as well as catalysers for competitiveness policies (SHAKYA, 2009).

And while some maintain that clusters are a synonym for competitiveness (Porter, 1990; PORTER, 2002; ROCHA, 2004; SHAKYA, 2009), innovation (BAPTISTA and SWANN, 1998; NORDIN, 2003; SÖLVELL *et al.*, 2003; HOSPERS *et al.*, 2009; BUSINESS EUROPE, 2009) economic performance (PORTER, 2003; Folta *et al.*, 2006; PE'ER and VERTINSKY, 2006; GILBERT *et al.*, 2007; PORTER *et al.*, 2007; WENBERG and LINDQVIST, 2008; COM, 2008; GUGLER and KELLER, 2009; DELGADO *et al.*, 2011) and entrepreneurship (GLAESER *et al.*, 2009; Delgado *et al.*, 2010), other hold that clusters display various drawbacks especially in terms of productive over-specialisation, technological apathy, institutional and industrial lock-ins, environmental influences, local congestion, pressures resulting in rising labour and property costs (MARTIN and SUNLEY, 2002) and as well as the fact that new companies are adversely impacted when locating in an economic cluster (WENBERG and LINDQVIST, 2008).

Independently of the meaning attributed to clusters, in fact, there has been a vast range of studies on their identification (HELMSTÄDTER, 1996; GLASSMANN and

VOELZKOW, 2001; BRENNER, 2003), but very few have focused on the tourism sector with recourse to regional specialisation measurements. Furthermore, many of those studies identifying tourism clusters are based upon simplistic observations or conceptions overlooking factors fundamental to the existence of clusters.

Hence, taking into consideration the two research failings identified – the lack of quantitative and objective methodologies for cluster identification and the overall lack of studies on tourism sector clusters in the majority of countries and in Portugal in particular – this research hereby strives to contribute with a methodological proposal able to identify tourism spatial clusters in Portugal. The different tourism activities and regions in Portugal serve as the framework for the application of this study.

We shall firstly provide a review of state of the art in clusters research before moving onto describe our methodology alongside a description of the data and variables incorporated into the study. We then proceed to discuss the results and close with conclusions.

### **CLUSTERS: STATE OF THE ART**

The interest in agglomeration and geographic distribution of economic activities dates back to the 19th century and the early part of the 20th century (RICARDO, 1817; VON THÜNNEN, 1826; LAUNHARDT, 1882; MARSHALL, 1890; WEBER, 1909). In the last two decades, research has led to important developments in the field of industrial location and distribution driving the emergence of new concepts such as new industrial spaces (Scott, 1988), innovative structures (AYDALOT, 1986; MAILLAT, 1991), Neo-Marshallian nodes (AMIN and THRIFT, 1994), intelligent regions (ASHEIM, 1995), local production systems (CROUCH et al., 2001), not to mention innovative systems (LUNDVALL, 1992; COOKE et al., 1997; COOKE and HEIDENREICH, 1998). This growing interest in agglomerations and the geographic distribution of economic activities led to the founding of a new geographic economics, which has also proposed new models of location (KRUGMAN, 1991; KRUGMAN and FUJITA, 2004).

According to MARTIN and SUNLEY (2002), there remains great controversy around the concept of clusters. They maintain that while it is simple to identify clusters in space, however, this is no longer the case as regards their actual definition proving far more ambiguous and obscure and failing to gain any form of unanimity and sometimes

resulting in a more anecdotal and less academically robust identification of clusters. Meanwhile, MASKELL and KEBIR (2005) hold that the lack of rigour in cluster definition leads to the concept getting applied to a broad spectrum of situations and by a broad range of actors, ranging from academics, consultants and politicians.

PORTER (1994) stated that clusters are the geographic concentrations of companies and institutions involved in a specific sector of activity and where interrelationships reinforce competitive advantages. From the perspective of DOERINGER and TERKLA (1995), a cluster consists of geographic proximity between its component members that generate an agglomeration of economies of scales and scopes through specialisation and the internal division of labour. Meanwhile SWANN and PREVEZER (1996) define clusters more simply as groups of companies within a particular industry in a given geographic space. ROSENFELD (1997) points to clusters being used to represent concentrations of companies so that they may thus produce synergies out of their geographic proximity and their interdependence. FESER (1998) highlights how economic clusters do not refer only to industries and institutions but rather to highly competitive industries and institutions and how this competitiveness should be reflected in the ongoing relationships.

PORTER (1998) emphasises how clusters are able to nurture both competition and cooperation and with competitors intensely engaged in struggles to win and retain clients and without this factor, no cluster is able to attain success. However, cooperation is also very much present and to a large extent vertically structured involving companies from similar or related sectors and local institutions. Competition coexists with cooperation as the two occur across different dimensions and between distinct participants. BERGAMN and FESER (1999) reinforce this interpretation and define the concept as a group of entities, business companies or otherwise, for which membership of the group proves an important factor both for each individual member and for company competitiveness. Finally, an innovative cluster displays a large number of interrelated industries with a high degree of cooperation and which operate in the same market with the same characteristics (SIMMIE and SENNETT, 1999).

PORTER (2000) subsequently strengthened his description, defining a cluster as geographically proximate and interconnected companies, suppliers, service providers and institutions associated with a particular field and bound up through analogy and

complementariness. COOKE (2001) portrayed the definition of clusters as based upon three fundamental pillars: the first is *geography*, that is, the clusters are driven by their proximity and frequently concentrated within a region in a major country, and sometimes in a city. The second pillar is the *creation of value*, hence, clusters include companies from different sectors that are mutually related with others in terms of the production of goods and services valued by clients. The third pillar is the *business environment*, with clusters impacted by others with specific conditions in terms of the business environment resulting from each of their actions as well as cooperation between companies, government agencies, universities and other institutions participating in national and regional innovation systems.

According to CROUCH and FARRELL (2001), the clusters are a trend where companies in the same sector of activity tend to locate in close proximity even while they do not hold any particularly important presence in the surrounding area. The clusters are furthermore considered synonymous with competitiveness given they make a positive contribution towards innovation processes in facilitating relationships with other institutions and enabling a better understanding of consumers, concentrating the knowledge and information necessary to technological development (PORTER, 2002).

A cluster, by definition, is a system interconnecting companies and institutions whose overall value thereby becomes greater than the sum of its individual parts (FLOWERS and EASTERLING, 2006). CORTRIGHT (2006) reaffirms that a cluster is a group of companies and the respective economic actors and institutions located nearby each other and able to leverage mutually productive advantages based upon their proximity and interconnections. The clusters are, additionally, a natural manifestation of specialist knowledge, competences, infrastructures and support to industries in raising productivity as the main determinant in maintaining high levels of prosperity in a location. A combination of relationships with suppliers, shared labour markets, rivalries, spread of knowledge and learning effects all shape the economic environment faced by companies in clusters (KETELES and MEMEDOVIC, 2008).

SHAKYA (2009) points to another dimension to clusters as interconnected systems involving both the public and private sectors and adds that approaches to clusters should be deployed beyond the scope of economies of scale and the common or garden analysis by sector with the objective of encouraging the involvement of a



diversified group of interested parties through which they may develop an underlying shared comprehension as to public policy questions and be able to act in conjunction with them. The development of such shared platforms with strong stakeholder participation from both the public and private sectors is very often crucial and represent the departure point for a broader reaching process of economic reform in developing countries. The cluster initiatives may thus serve as catalysers for competitive policies.

According to PORTER (1998), clusters cover a range of industries associated with other entities playing key roles in competition. They, for example, include the supply of specialist inputs, such as components, machinery and services, such as specialist infrastructures. We should also hereby stress that many clusters include the government and public institutions, for example, such as universities, specialised in education, information, research and technological support. Porter proposes that competitiveness in modern economies depends on productivity and not on access to inputs or companies on an individual scale. This productivity stems from the way companies compete and not how they behave individually. Clusters impact on this competition across three aspects: (i) boosting the productivity of companies in a specific region, (ii) pointing the companies in the direction of the innovation that will bring productivity gains in the future, and (iii) fostering the founding of new businesses, which in turn expand and reinforce the clusters in themselves.

PORTER (1990) proposes an instrument for the analysis of national competitive advantages, entitled the Porter diamond which features the existence of interconnected companies and activities, hence, clusters. For this author, the cluster formation process rises in intensity the greater the extent of geographic concentration of companies involved in this process. Furthermore, for countries hosting these processes (cluster formation), the more rapidly they occur, the more rapidly they attain success.

According to COOKE (2002), national competitiveness and economic development are profoundly bound up with issues relating to information and economies of knowledge. A brief look at the “new economy” soon verifies that it is clearly dominated by information, communication and biotechnology. However, the emphasis is very much placed on these innovative industries emerging and growing within the contexts of specific geographic locations. The author points to four key issues for their formation: financing for scientific research, investment by risk capital

companies in new businesses, creating company incubators, but functioning differently to those currently in effect as very often human capital requirements are greater than those available, capital becomes the fourth identified feature as this represents an essential ingredient to “knowledge economies” and the construction of clusters.

## **METHODOLOGY**

### *Measuring Clusters*

No specific methodology for the identification and mapping of clusters has gained consensus whether in terms of the core variables to be measured or in terms of the procedures by which the geographic limits of clusters should be determined (MARTIN and SUNLEY, 2002). Nevertheless, STERNBERG and LITZENBERGER (2004) argue that among the various results and methodologies put forward for this task, there are two broad differences in the approaches: top-down and bottom-up. Making recourse to a top-down approach involves first researching up to what point industry is spatially concentrated prior to attempting to localise regional clusters. The spatial distribution of an industry is not uniform and therefore a certain spatial level of company concentration is a precondition for the formation of clusters (MARTIN and SUNLEY, 2002, STERNBERG and LITZENBERG, 2004).

This concentration is very often described through measurements that detail the extent of the spatial division of labour or, more simply, industrial specialisation (AMITI, 1998, 1997; HELMSTÄDTER, 1996; KIM, 1995; KRUGMAN, 1991). The most common tool to this end is the location coefficient (KIM, 1995), initially defined by HOOVER (1936), that captures the degree of specialisation of a region in a particular industry. It is used to establish the locational Gini coefficient thereby measuring the distribution of an industry throughout the sub-regions of the area under analysis (KIM, 1995).

The location coefficient and therefore the locational Gini measure regional specialisation as deviation of the distribution of the total industrial employment, considering overall employment as the referring variable. However, should we consider the cluster definitions presented – in which clusters are perceived as companies in close proximity to each other – the spatial dimension is neglected by measurements of

specialisation (HELMSTÄDTER, 1996; GLASSMANN and VOELZKOW, 2001; BRENNER, 2003). There is no value providing any indication as to the scale of the region analysed or the magnitude of the proximity between companies. Nevertheless, STERNBERG and LITZENBERGER (2004) maintain that the reference value should be considered by area and not by employment or by the inhabitants of a region. Where there is a reference value other than that of regional area, equal spatial distribution of industry cannot be theoretically accepted (ROOS, 2002).

Using the aforementioned specialist measurements, such as measures of industrial concentration, implies that industrial location depends on the global distribution of employment and hence the locations of industry, of employment and of inhabitants are not interdependent. The Gini coefficient ( $G_{std}$ ) is an appropriate instrument for measuring concentration (Devereux, et al., 1999), but does however have to be weighted according to the region's size. Hence, the  $G_{std}$  weighted with the area of the region ( $G_{\alpha}$ ) is proposed as a measurement of spatial industrial concentration.

Furthermore, in order to calculate regional clusters, a Cluster Index (CI) may also be adopted. Its utilisation is suggested by STERNBERG and LITZENBERGER (2004). It is defined as the product of the relative industry density, the relative industrial stock, and the relative size of the establishment. These authors state that its flexibility, simplicity of calculation and the availability of the data necessary combine to ensure its ease of use and operational deployment. This CI may take on values ranging from zero to infinite but which, at the minimum, should be greater than one (average value) in order to potentially identify a cluster. To ensure there is at least one cluster in a specific region, the CI should return a value of over 4.00 (STERNBERG and LITZENBERGER, 2004). This value is attained where two of the three CI components (relative industrial density, relative industrial stock, and relative size of the establishment) are twice as high for the sub-region as the average of the total region (for the third component being the average, hence, one).

However, it is recognised that this value may return an arbitrary result. According to KEEBLE and NACHUM (2002), it is possible that a cluster covers only part of a region or covers a series of regions. The cluster area therefore needs not only to be sufficiently large to gain critical mass but also sufficiently small to enable a sense of community to exist.

*Data Description*

The CAE economic activity codes in accordance with the activities characteristic of the WOT et al. (2001) satellite account as detailed in Table 1 to a five digit level of disaggregation, employment and the number of establishments engaged in each activity as listed in the Directorate-General of Studies, Statistics and Planning of the Portuguese Ministry of Labour and Social Solidarity (DGEEP-MTSS, *Direcção-Geral de Estudos, Estatística e Planeamento do Ministério do Trabalho e Solidariedade Social*) data base. Additionally, we incorporated the area of each counties studied in conjunction with its resident population with these figures supplied by the Portuguese National Statistics Institute (INE, *Instituto Nacional de Estatística*). All data refers to the year of 2009.

**Table 1 – Study Definition of Economic Activities**

49100 Inter-urban railway transport network .	56105 Restaurants with dance floors.
49310 Urban and suburban passenger overland transport .	56106 Residential food delivery services.
50300 Passenger transport by inland water course.	56107 Non-fixed restaurants, (for example, mobile facilities)
51100 Air passenger transport.	56210 Event catering.
55111 Hotels with restaurants.	56290 Other food and beverage activities.
55112 Pensions standard accommodation with restaurants.	56301 Cafés.
55113 Hostels with restaurants.	56302 Bars.
55114 Heritage hotels with restaurants.	56303 Pastry shops and tea houses.
55115 Motels with restaurants.	56304 Other clubs and pubs without stage facilities.
55116 Apartment hotels with restaurants.	56305 Clubs and pubs with event facilities.
55117 Tourism resorts with restaurants.	77110 Renting of passenger vehicles.
55118 Tourism apartments with restaurants.	77210 Renting of recreational and sporting venues.
55119 Other hotel establishments with restaurants.	77340 Renting of maritime and fluvial means of transport.
55121 Hotels without restaurants.	77350 Renting of means of air transport.
55122 Pensions standard accommodation without restaurants.	79110 Travel agencies.
55123 Tourism apartments without restaurants.	79120 Tourism operators.
55124 Other hotel establishments without restaurants.	79900 Other reservation services and related activities.
55201 Furnished tourism accommodation.	91020 Museums.
55202 Rural tourism facilities.	91030 Historical sites and monuments.
55203 Colonies and holiday camps.	91041 Zoos, botanical gardens and aquariums.
55204 Other short term accommodation facilities.	91042 Parks and nature reserves.
55300 Camping and caravan sites.	93210 Entertainment and theme parks.
55900 Other accommodation types.	93291 Tauromachy/bullfighting.
56101 Traditional restaurant types.	93292 Recreational port activities (marinas).
56102 Restaurants with counter service.	93293 Tourism event activity organisation.
56103 Restaurants without table service.	93294 Other non-fixed pleasure and recreation activities.
56104 Traditional restaurants.	

## **IDENTIFICATION AND LOCATION OF TOURISM CLUSTERS**

The first phase in empirical application was the calculation of the locational Gini coefficient (KIM, 1995) so as to determine the peaks in tourism sector activity concentrated across the 308 counties making up the regional areas and tourism development poles on both the Portuguese mainland and its two archipelagos before subsequently constructing the CI for identifying regional clusters. The next phase in identifying and mapping the clusters saw the inclusion of only those regions returning a CI in excess of 4. We might eventually set limits for the value of each respective activity (BRENNER, 2003), however, we sought to identify clusters with comparable characteristics in relation to the rest of the region. Thus, the ten activities containing the greatest number of clusters were selected and, in order to avoid an over-concentration effect (table 2), due to the lower number of companies in relation to the number of regions, industrial sectors with less than 308 establishment were excluded from our analysis.

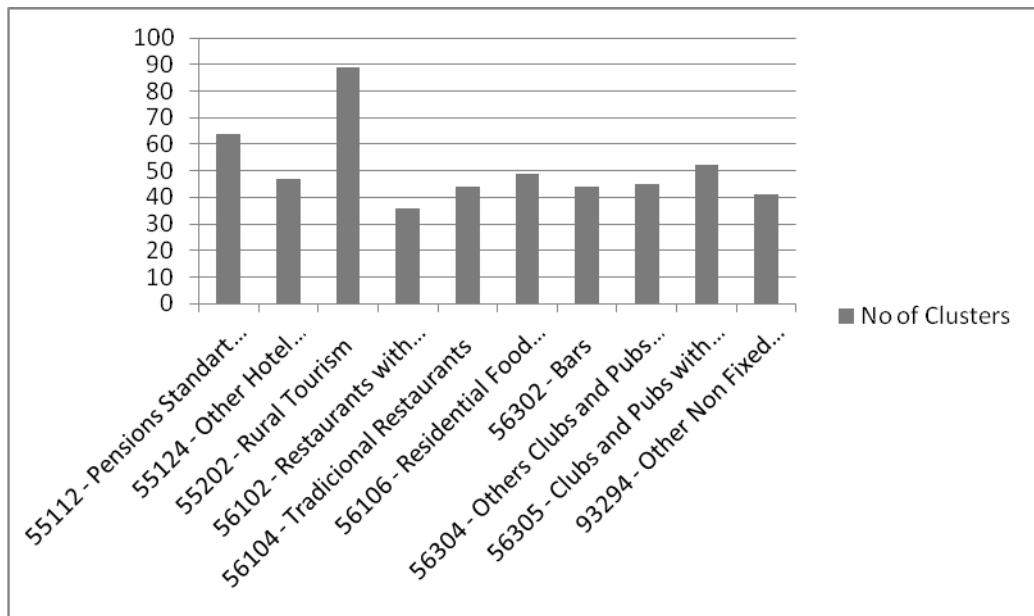
**Table 2 – Most Concentrated Activities**

CAE	Ga	Employment	Establishments	No. of clusters
93210 – ENTERTAINMENT AND THEME PARKS	0.996	461	76	34
93292 – RECREATIONAL PORT ACTIVITIES (MARINAS)	0.981	206	11	10
55203 - COLONIES AND HOLIDAY CAMPS	0.935	10	5	5
49100 – INTER-URBAN RAILWAY TRANSPORT NETWORK	0.920	3265	68	17
91042 – PARKS AND NATURE RESERVES	0.917	98	8	5
93291 – TAUROMACHY/BULLFIGHTING	0.908	34	17	14
55115 – MOTELS WITH RESTAURANT	0.895	417	31	22
49310 – URBAN AND SUBURBAN PASSENGER OVERLAND TRANSPORT	0.881	9293	84	25
51100 – AIR PASSENGER TRANSPORT	0.875	10245	91	17
77350 – RENTING OF MEANS OF AIR TRANSPORT	0.875	7	4	4
55114 – HERITAGE HOTELS WITH RESTAURANTS	0.853	1041	60	49
55116 – APARTMENT HOTELS WITH RESTAURANTS	0.852	3741	105	27
91030 – HISTORICAL SITES AND MONUMENTS	0.838	241	27	22
91041 – ZOOS, BOTANICAL GARDENS AND AQUARIUMS	0.828	457	12	10
55900 – OTHER ACCOMMODATION TYPES	0.813	105	26	22
55113 – OTHER HOTEL ESTABLISHMENTS WITH RESTAURANTS	0.802	1252	95	47
55123 – TOURISM APARTMENTS WITHOUT RESTAURANT	0.783	1064	140	32
56101 – TRADITION TYPE RESTAURANTS	0.779	55333	10470	31
55202 – RURAL TOURISM	0.766	1385	568	89
55300 – CAMPING AND CARAVAN SITES	0.754	1216	115	45
91020 – MUSEUMS	0.745	699	48	21
77340 - RENTING OF MARITIME AND FLUVIAL MEANS OF TRANSPORT	0.745	38	16	9
79110 – TRAVEL AGENCIES	0.729	7563	1468	23
55204 – OTHER SHORT TERM ACCOMMODATION TYPES	0.729	536	85	35
56290 – OTHER FOOD AND BEVERAGE ACTIVITIES	0.718	18896	441	11
55119 – OTHER HOTEL ESTABLISHMENTS WITH RESTAURANTS	0.690	2774	307	56
93293 – TOURISM EVENT ACTIVITY ORGANISATION	0.676	490	177	59
55201 – FURNISHED TOURISM ACCOMMODATION	0.672	271	87	30
50300 - PASSENGER TRANSPORT BY INLAND WATER COURSES	0.664	815	31	15
55121 – HOTELS WITHOUT RESTAURANT	0.663	2075	169	36
55124 – OTHER HOTEL ESTABLISHMENTS WITHOUT RESTAURANT	0.653	1361	311	47
77210 - RENTING OF RECREATIONAL AND SPORTING VENUES	0.619	202	83	40
79900 – OTHER RESERVATION AND RELATED ACTIVITIES	0.612	506	81	26
55118 – TOURISM APARTMENTS WITH RESTAURANT	0.609	2113	87	20
55117 – TOURISM RESORTS WITH RESTAURANT	0.607	1583	64	20
79120 – TOURISM OPERATORS	0.605	445	61	27
77110 - RENTING OF PASSENGER VEHICLES	0.593	3559	580	32
55111 - HOTELS WITH RESTAURANTS	0.584	27899	818	33
93294 – OTHER NON FIXED PLEASURE AND RECREATION ACTIVITIES	0.568	2728	635	41
56106 – RESIDENTIAL FOOD DELIVERY SERVICES	0.563	2797	717	49
55112 – PENSIONS STANDARD ACCOMMODATION WITH RESTAURANTS	0.523	1713	311	64
56105 - RESTAURANTS WITH DANCE FLOORS	0.522	875	139	44
55122 – PENSIONS STANDARD ACCOMMODATION	0.498	1793	469	35
56210 – EVENT CATERING	0.486	808	178	48
56305 – CLUBS AND PUBS WITH EVENT FACILITIES	0.483	1408	341	52
56302 – BARS	0.464	6208	2073	44
56103 - RESTAURANTS WITHOUT TABLE SERVICE	0.433	8484	651	33
56303 – PASTRY SHOPS AND TEA HOUSES	0.412	16441	3617	36
56107 – NON FIXED RESTAURANTS, (FOR EXAMPLE, MOBILE FACILITIES)	0.352	24956	4921	35
56104 – TRADITIONAL RESTAURANTS	0.347	3930	807	44
56301 – CAFÉS	0.280	26988	10885	35
56304 – OTHER CLUBS AND PUBS WITHOUT STAGE FACILITIES	0.273	3600	1188	45
56102 - RESTAURANTS WITH COUNTER SERVICE	0.228	12410	3095	36
Mean for all industries	0.672	276835	46954	34
Mean weighted with employment	0.298			

For the ten tourism sector activities subject to analysis with a CI of greater than 4.00, a total of 505 clusters were identified and distributed as follows: 55202 – Rural Tourism (89 clusters), 55112 – Pensions Standard Accommodation with Restaurants (64

clusters), 55124 – Other Hotel Establishments without Restaurants (47 clusters), 56305 – Clubs and Pubs with Event Facilities (52 clusters), 56106 – Residential Food Delivery Services (49 clusters), 56304 – Other Clubs and Pubs without Stage Facilities (45 clusters), 56104 – Traditional Restaurants (44 clusters), 56302 – Bars (44 clusters), 56102 - Restaurants with Counter Service (36 clusters) and 93294 – Other Non Fixed Pleasure and Recreational Activities (41 clusters). The majority of activities fall within the scope of the hotel and accommodation sector, followed by catering and finally by entertainment and nightlife (Graph 1).

**Graph 1 – Number of Clusters by Activity**



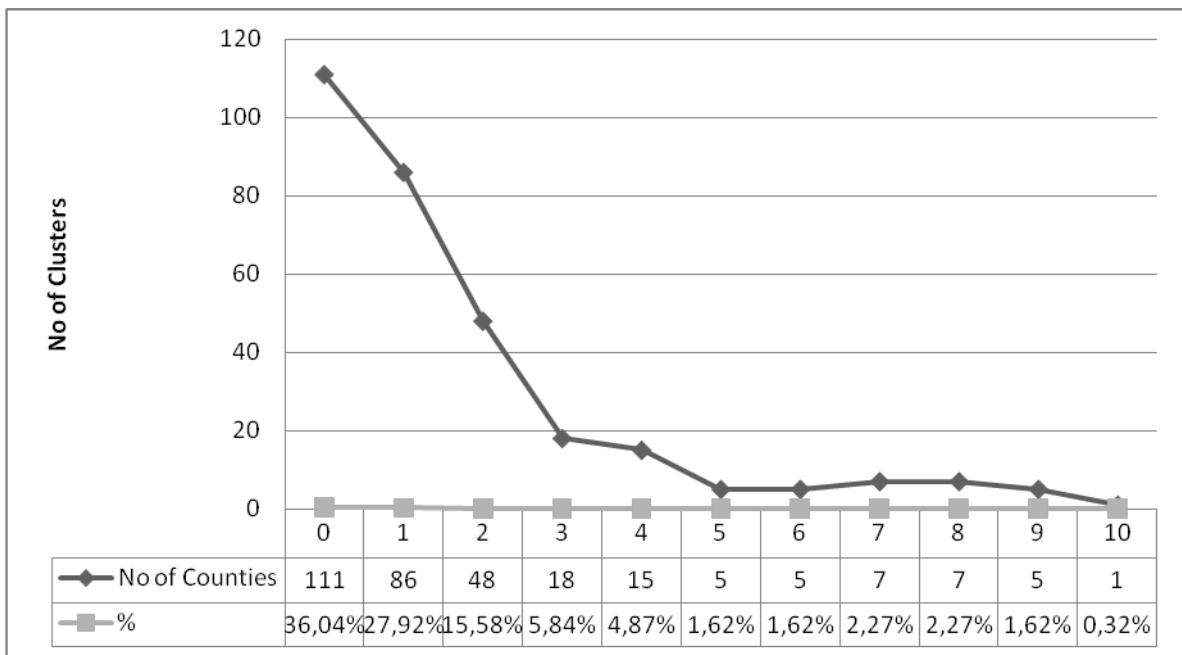
As an activity, rural tourism particularly stands out and encountered in the majority of counties deemed rural according to the KAYSER criterion (1990), hence counties home to fewer than 5,000 inhabitants and applicable to around 29% of Portuguese counties, followed by pensions standard accommodation with restaurants and pubs and clubs with event facilities and recorded in 21% and 17% of the total counties, respectively.

So as to measure the correlation between the concentration of activities and the number of clusters, we applied the Pearson (r) correlation coefficient. We found an insignificant level of correlation ( $r=0.033$ ) similar to the study undertaken by STERNBERG and LITZENBERGER (2004). We may furthermore state that the

average of  $G\alpha$  is higher (0.672) than the average weighted by employment (0.298), hence demonstrating that small and medium sized companies are geographically more concentrated than large companies and corporations. This result stems from the numbers of micro, small and medium sized companies in general in Portugal and in the tourism sector in particular where they make up 99% of all companies and account for some 75% of employment and thus generating a significant influence on the concentration of activities.

Analysis of the following graph highlights the fact that around 36% of Portugal, corresponding to a total of 111 counties does not include any clusters. With one, two and three clusters, we have 86, 48 and 18 counties, respectively. Only one county hosts all the selected activities.

**Graph 2 –Quota of Counties by Activities**



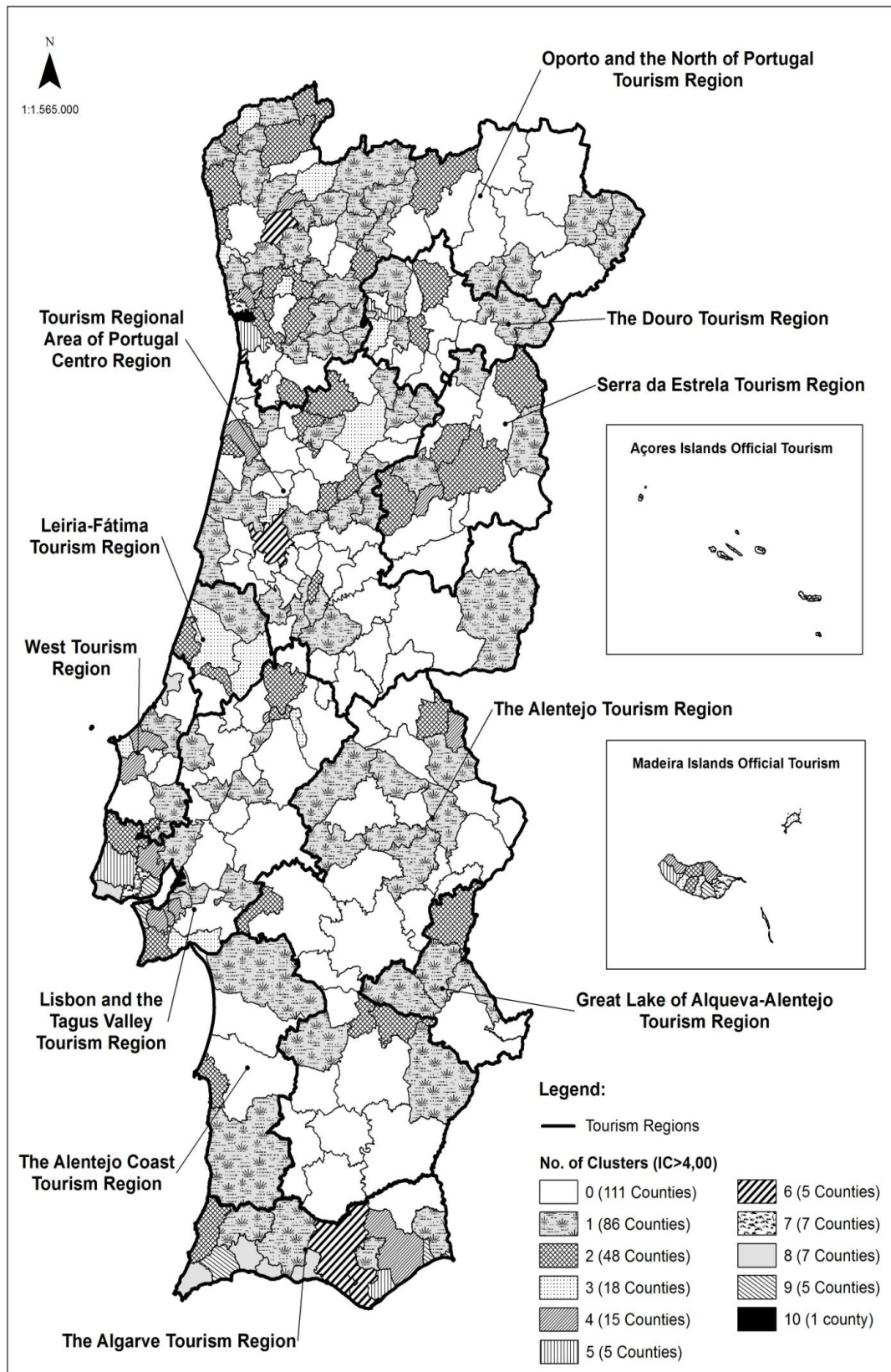
We furthermore analysed the correlation between the number of clusters and the population, size and population density of counties. We found that there was a modest degree of correlation ( $r=0.545$ ) between the number of clusters and the population, hence, the higher the level of population, the higher the number of clusters. As regards size and cluster numbers, there is moderately negative correlation ( $r=-0.305$ ), implying that the larger the counties size, the lower the number of clusters. In relation to



population density, deployed as the indicator combining population and size, there is strong correlation between cluster numbers and population density ( $r=0.665$ ) and hence, the greater the population density, the greater the number of clusters. We carried out similar analysis contrasting cluster numbers with the number employed (0.509), the number of companies (0.609) and the number of employees per company – the average number of employees (0.65). The cluster numbers correlate moderately with employee numbers and strongly with the number of companies and average number of employees per company. All of these correlations were positive and therefore the greater the number of jobs, companies and works and employees per company, the greater the number of clusters.

The spatial distribution shown in Fig.1 evidences that the largest single number of tourism clusters are located in the city of Oporto, represented by a total of ten activities with this counties covering one of the smallest areas ( $41.30 \text{ km}^2$ ) in the country while representing one of the most densely populated counties (210,558 inhabitants), contributing around 4.70 % of employment in these activities on a nationwide basis.

Figure 1 – Location of Clusters Identified in Portugal



Displaying nine clusters, we have the counties of Almada, Funchal, Lisboa and Vila Real de Santo António, with eight clusters are the counties of Albufeira, Cascais, Lagoa, Nazaré, Portimão, S. João da Madeira and Vila do Bispo, while Amadora, Machico, Matosinhos, Odivelas, Oeiras, Ponta Delgada and Santa Cruz attain seven clusters, while the counties of Braga, Coimbra, Espinho, Faro, and Loulé manage six clusters and Calheta (the Azores), Olhão, Peso da Régua, Sintra and Vila Nova de Gaia each host five clusters. Returning zero, one, two, three and four clusters are around 90% of the counties of Portugal and those endowed with larger geographic areas.

Applying the analysis to the level of tourism region, we find that the region displaying the greatest number of clusters in relation to its total size is the Algarve with a total of 77 clusters, with a particular emphasis on coastal areas. The results also highlight the coastal zone of the Lisbon and the Tagus Valley region due to its diversity of clusters, especially Lisbon and Almada (both with 9), Cascais (8), Amadora, Odivelas and Oeiras (7) and Sintra (5), forming the only tourism cluster agglomeration. These results may be interpreted and justified by the tourism image and reputation that these regions hold internationally. Regarding the tourism region of Oporto and the North of Portugal, despite containing the greatest number of clusters explained by the fact the region holds the largest number of counties in the country, the results throw the coastal counties of Oporto (10), Matosinhos, (7), Espinho and Braga (6) and Vila Nova de Gaia (5) into the spotlight. In the Douro tourism region, the only highlight is Peso da Régua, counties renowned for its production of the fortified wine, port, and the impressive beauty of its vineyards, classified by UNESCO as World Heritage in 2001.

In the Central region, the majority of counties do not contain any clusters and with a large number of counties home to between one and three clusters. Leading in this tourism region is Coimbra (6), a county with centuries of academic traditions and Aveiro (4) known as the Venice of Portugal, given the trips taken out onto its lagoon on the traditional local vessel – *moliceiros*. In the Serra da Estrela tourism region, only the county of Manteigas (4) turns in a significant result due to its location in the heart of the Serra da Estrela tourism destination with the remaining counties hosting only very low numbers of clusters. This must in no small part be due to being a region lacking in business investment in the tourism sector despite otherwise being a region rich in natural and historical resources. In the West tourism region, Nazaré county stands out

from other counties given it displays eight clusters, once again, a coastally located county. In relation to the Alentejo tourism region, Marvão stands out with four clusters and a county capitalising not only on its border location with Spain but also with deep historical and natural roots and currently a candidate to World Heritage status.

The number of clusters in the remaining tourism regions in mainland Portugal does not have a great deal of weight in relation to the others and never exceeding a total of three clusters. In relation to Madeira, with a total number of 44 clusters, we highlight the counties of Funchal (9), Machico and Santa Cruz (7). The Azores contain 37 clusters, with a highlight being the county of Ponta Delgada (7), the archipelago's capital.

## **CONCLUSIONS**

This methodological proposal for spatial clusters identification shows that the phenomenon of clustering can be studied empirically. The results allow confirming that the most concentrated activities do not necessarily form the most clusters and the larger the size of the region studied, the lesser are their numbers. We may also conclude that a greater population density generates a greater number of clusters and the larger the number of jobs, companies or employees by company, the greater the number of clusters. Given the relationships identified in ascertaining the number of clusters, it is correspondingly important not to overlook these variables when determining the presence of clusters. Through recourse to the cluster index, it proved possible to portray the potential clusters already existing in the national economy in the tourism sector. We thus confirm that clusters, beyond being susceptible to empirical identification, also vary considerably according to the activity, location and dimension (MARTIN and SUNLEY, 2002).

We may furthermore state that there are shared synergies between counties returning the most clusters as they gain mutual productive advantages based upon their proximity in terms of the overall tourism regions. We thus verify, for example, that the fact Oporto county represents the local government region with the single largest number of tourism clusters, as well as the fact it is a competitive region with high economic growth, reflects one core assumption to the concept of cluster: promoting

greater regional economic distinction and differentiation. The same happens with the Lisbon region and its respective counties as well as the Algarve tourism region. Indeed, the Algarve is a region that economically depends, and to an almost exclusive extent, on tourism with activities related to this sector enabling continuity in its economic growth in conjunction with its competitiveness as a regional tourism pole.

One of the major problems facing Portugal is the underdevelopment of inland regions and this is reflected in the low numbers of clusters found away from coastal centres. Clearly, the entities responsible should ensure the terms and infrastructures necessary to fostering a generally positive environment for tourism businesses are in place. Rendering support to structures and efforts to nurture clusters may add up to the difference between the relative success and failure of a tourism region and similarly much may be learned from the clusters developed in other national tourism regions.

Although this study provides important insights into the identification, operational approach and mapping of clusters, the same also suffers certain limitations. These limitations, in turn, do open up the door to future research.

Given the results attained, it would be of relevance to apply this cluster identification methodology to a geographic area of greater scope, such as Europe for example and compare these results (clusters) with those identified by the European Cluster Observatory. Another proposal for future research would be to empirically relate the clusters identified with economic performance and local/regional entrepreneurship.

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## **Chapter 3 - Tourism Cluster Positioning and Performance Evaluation: The Case of Portugal**

**TOURISM CLUSTER POSITIONING AND PERFORMANCE EVALUATION:  
THE CASE OF PORTUGAL**

**Abstract**

The tourism sector carries truly strategic importance for any future national or regional economy. Previous research on clusters has largely been restricted to industrial sectors and applying conceptual methodologies. In filling this gap, an empirical study might prove more suitable for evaluating the performance of tourism clusters and yet the literature within this scope is scarce and demands more research. This paper evaluates tourism clusters in Portugal as well as mapping them through multivariate analysis. Our empirical results validate the need to apply statistical tests and reveal that substantial differences in clusters performance do exist. In particular, the study reveals three different clusters in Portugal with different performance levels - low, medium and high. Our study also provides contributions towards assessing the tourism industry clusters.

Keywords: Tourism, Clusters, Mapping, Economic Performance, Competitiveness Portugal.

***1. Introduction***

Tourism is today recognized as one of the most important of economic and social phenomena. In this millennium, this sector has been a structuring feature in global economic dynamics and as such has been identified as a leading sector worldwide in scope (PITER, 2005).

Portugal represents an excellent tourism destination attracting both citizens from around the world and the Portuguese themselves. A favourable climate, hospitable people equipped with good communication skills are coupled with the diverse potential of the tourism service range made up of the sheer extent and diversity of its coastline and river systems in addition to the many other factors contributing towards the success and expansion of this sector. Portugal, furthermore, contains a highly differentiated physiographic range in terms of landscapes, gastronomy, heritage, ambiences and cultures capable of responding to wide reaching motivations.

According to the Confederation of Portuguese Tourism - CTP (2005), the tourism sector registered significant expansion worldwide in the last few decades, taking on increasing importance in the global economy and a structuring feature of its dynamics. At the beginning of this century in Portugal, tourism represented about 10 percent of Gross National Product and has proven a key sector in the transformation of the national economy.

As a destination, Portugal is experiencing positive growth in terms of international tourism arrivals and revenue generation (World Economic Forum, 2009). In 2006, Portugal was forecast to be among the tourism destinations attaining the highest growth rates in Europe through development based on qualifications and competitiveness, transforming the tourism sector into a growth driver for the national economy (PENT, 2006). Over the 2007-2008 period, in terms of the tourism sector contribution (ascertained through Internal Tourism Consumption) towards Gross National Product, Portugal came in second place in the European ranking and already into double figures: 10.4%, right behind Spain (with 10.5%) (World Economic Forum, 2009).

Opperman (1993) and Jackson (2006) both state that at the regional level this sector is put forward as an essential tool in regional development and economic growth, perceived as a weapon preventing the desertification and economic stagnation of regions, especially inland, rural communities. From this perspective, competitiveness contributes greatly towards constructing the social, cultural, and economic variables that impact on national performances in international markets.

Wealth creation is the engine of economic growth and an important factor in innovation (Dwyer and Kim, 2003). For Dwyer et al. (2004), national competitiveness is not a result in itself but a means of reaching an end with end goal of industrial development the increase in people's wealth. It is due to the great unanimity that clusters increase the competitiveness (Porter, 1990; Porter, 2002; Rocha 2004) and innovative capacity (Baptista and Swan, 1998; Nordin, 2003; Sölvell et al., 2006; Hospers et al., 2009) of a regional industry and corresponding the reason tourism constitutes such a powerful instrument for regional development (Engelstoft et al., 2006; Santos, 2007) that explains the pertinence and essentialness of understanding the role of clusters in the tourism sector. The discussion on tourism clusters remains in an embryonic phase (Rosenfeld, 1997; Nordin, 2003; Capone, 2004), particularly in terms of the lack of research on this field. Perhaps for this reason, the cluster concept is frequently criticized for being only vaguely defined and lacking in any universal consensus (Martin and Sunley, 2003; Asheim et al., 2006). In most case studies, the existence of a cluster is anecdotally evaluated and without any methodological support structure (Engelstoft et al., 2006).

The mapping of clusters, the creation of systematic data sets on the presence of clusters throughout many regions, enabled the accomplishment of systematic testing of

the relationships between clusters and economic performance (Porter, 2003; Folta et al., 2006; Gilbert et al., 2008; Porter et al., 2007). The effects of clusters on the regional economic performance have been analyzed in some studies (Wennberg and Lindqvist, 2008). Porter (2003) found that regional economic performance is strongly influenced by the strength of local clusters.

Within this context, the present study makes an essential contribution as a methodological and instrumental tool seeking to establish a quantitative method for surveying the existence of clusters in a relatively unexplored sector of the literature - tourism. The paper is organized as follows: first, there is a literature review on tourism sector clusters pointing out some specific factors in mapping clusters and evaluating their economic performance. We then describe the methodology we deployed in order to identify, to map and to evaluate the economic performance of tourism clusters in Portugal. The conclusions, the limitations and future directions of research are then subject to discussion.

## ***2. Literature Review***

### **2.1 Definition of Clusters**

Clusters have been defined (implicitly or explicitly) by several researchers as a set of geographically proximate firms (Swann and Prevezer, 1996; Rosenfeld, 1997; Porter, 1998; Cooke and Morgan, 1998; Crouch and Farrel, 2001; Cooke, 2001), or located in a specific area (Swann and Prevezer, 1996; Cortright, 2006), that produce a product or similar service (Rosenfeld, 1997), by others as a group of interrelated industries (Simmie and Sennet, 1999; Porter, 2000, 2003), without ignoring the importance of institutions (Porter, 1998), of synergies established between firms

located in the cluster (Roselfed, 1997) and the eventual competition between them (Feser, 1998; Bergamn and Feser, 1999; Ketels and Memedovic, 2008), and still further as catalysts for competitiveness policies (Shakya, 2009).

The concept of clusters has been generally applied to the transformation industry (Jackson and Murphy 2002; Steinle and Schiele 2002; Nordin 2003; Cunha and Cunha, 2005) with its applicability to the service sector limited in scope, especially to tourism. However, in the most recent years, there has been exponential growth (Jackson and Murphy, 2002; Breda et al., 2004; Flowers and Easterling, 2006).

According to Porter (2003), the regional economic performance is strongly influenced by the strength of local clusters and the vitality and plurality of innovation. The literature on clusters establishes that the agglomeration facilitates cheaper externalities in terms of accessing the factors of production (static externalities) as well as promoting learning and innovation (dynamic externalities) through interactive learning (Porter, 2003; Folta et al., 2006; Gilbert et al., 2008; Titze et al., 2008). Titze et al. (2008) go farther when stating that the success of clusters in developed countries spread quickly to developing countries due to the interest of both professional researchers and policy makers.

One fundamental facet is that economic activity is concentrated in space before then paying increasing attention to the agglomerated strength and the local role in economic development.

Following the seminal work of Becattini (1979), defending the usage of industrial regions as basic units of analysis, many researchers have considered industrial clusters or industrial regions, as entities in their own right. Case studies on specific regions framed some of the most perspicacious and renowned works on industrial

clusters. Among these studies are research projects looking at known clusters - Silicon Valley (Saxenian, 1994), the cinematographic industry of Hollywood (Scott, 2004), Kentucky Cluster Chalupa (Rosenfeld et al., 2000), the Minnesota snowmobile industry cluster (Munnich et al., 2002) among others. For example, Huggins (2008) presents case studies of four knowledge clusters to understand how the *modus operandi* of these clusters evolves. He studied the cases of the Silicon Valley clusters (the United States), Cambridge (the United Kingdom), Ottawa (Canada), and Helsinki (Finland). Ganne and Lecler (2009) edited a set of research approaching three models - industrial regions, industrial clusters and Polar Regions of competitiveness - through a general vision on the cases of Japan, China, Vietnam and Thailand.

Business Europe (2009) is optimistic when affirming that clusters are a source of job creation stimulating innovation and enabling the conveying of information between different actors and the creation of strong synergies between complementary sectors throughout the value chain. Clusters represent an essential tool for fostering entrepreneurial spirits, helping companies find resources, knowledge and technology and facilitating the transformation of ideas into business-oriented chances (Porter, 2003). Clusters can reduce barriers to market entrance and also boost the founding of new companies and business-oriented models. This fact is underlined by highly successful experiences, such as the biotechnology center in Wallonia, Belgium and Solar Valley in the former East Germany, where these groups emerged out of a series of closures of mines and steel workshops. Clusters are part of strategies designed to increase regional competitiveness and development (Business Europe, 2009).

However, there are studies that contradict such evidence related to new companies being positively affected, not affected, or exactly negatively affected by their



location in an economic cluster (Wennberg and Lindqvist, 2008). Other aspects are criticized, especially the ambiguity of the cluster concept, the conceptual absence of internal and external cluster social networks, as well as the lack of identity of the cluster dimension (Asheim et al., 2006).

## **2.2 Clusters in the Tourism Sector**

The majority of studies on clusters analyse the transformation industry with a lack of service oriented studies, in particular on tourism (McRae-Williams, 2002; Capone, 2004). Tourism represents a driver of economic development with particular incidence at the regional level, but whose national impact is also significant (Jackson and Murphy, 2002). The same authors state that the application of the cluster concept to the tourist industry is extremely appropriate due to the fact that the product interacts with the local basis, promoting sharing between interrelated companies, leading to the formation of clusters.

Despite developing studies particularly within the scope of the most traditional industries, Porter (1998) relates the importance of tourism cluster components and stating that the satisfaction of the tourist does not only depend on the main attractions of the place, but also on the quality and the efficiency of correlated companies - hotels, restaurants, shopping centers and means of transport.

The definitions of tourism cluster are also scarce in contrast to the cluster concept in general (Santos, 2007). Monfort (2000) defines a tourism cluster as a complex group of different elements, including the services carried out through business-oriented tourism companies (lodging, restaurants, travel agencies, the diverse range of aquatic and thematic parks and similar) or supplied by vacation tourism

experiences, multidimensional meetings of interrelated companies and industries, communication and transport infrastructures and complementary activities, services and the natural resources and institutional policies.

For Beni (2003), cluster tourism is a set of attractions with detached areas for tourists, concentrated in a delimited geographic space endowed with equipment and services with quality, collective efficiency, social cohesion and policies, merging the chain of production and associative culture and with excellent management through company networks that create comparative and competitive advantages. Capone (2004) states that a tourism cluster is a geographic concentration of companies and institutions interconnected through tourist activities, including suppliers, services, governments, institutions, universities and competitors.

Noveli et al. (2006) add that the aim of a tourism cluster is to take companies that generally work in isolation with the purpose of construct a tourist product of success in a certain region. Cunha and Cunha (2005) in their study on the impact of tourism clusters on local development, put forward a concrete definition of tourism clusters as a group of companies and/or institutions involved in a product tied to its local basis and the joint sharing of an accumulation of entailed companies in the tourist products of the region. According to Brown and Geddes (2007), the government must stimulate and finance programs both to attract private investment and to invest in infrastructures, as well as promoting the tourist region particularly given that tourism clusters stand up well to recessions.

The importance of developing global as well as local networks between tourism firms and clusters seeking to attain global competitiveness has been increasingly emphasized in published studies (Erkuş-Öztürk, 2009). Jackson and Murphy (2002)

establish an analytical framework for improving our understanding of successful tourist destinations and Flowers and Easterling (2006) apply the theory of Porter's cluster and the strategies of competitiveness for the trips and tourism industry in the South Carolina Low Country and Resort Islands Region, where they examine tourism cluster growth.

### **2.3 Mapping Clusters**

The mapping of clusters is a relatively new approach that generates a better perception of the presence, profile and economic performance of clusters. The use of the word "mapping" encapsulates two basic aspects of this research method (Ketels and Sölvell, 2006): first, the mapping of clusters is based on the mapping of industrial cluster classification codes. And secondly, cluster mapping data enable them to be geographically located.

Sölvell et al. (2009) state that the mapping of clusters is an important step in scientific research and clusters policy. According to Ketels and Sölvell (2006), the main advantage of the clusters mapping approach is the comparability between its roots in the behaviours of real companies. Cluster survey data are an important input to understanding the composition of a regional economy and the patterns of geographic distribution of economic activities in a determined cluster category.

However, according to Sölvell et al. (2009), there are discussions as to the quality of the data used, especially the disaggregation of the indicators available concluding they are below the desired standard required for professionals and political decision makers. The following reasons are set out in evidence: (i) professionals need more data on their clusters to better adapt the individual cluster definitions, (ii) there are not enough data on the impact of policies on clusters to render general support to

political decision makers encharged with clusters and (iii) political decision makers need more data translated into shared recommendations on what to do and which areas are most worthy of focus.

These are clear limitations that can only be overcome by the slow process of improving either the way statistical data are collected or adopting an entirely different approach to data collection. In general, cluster mapping has to be transformed from a tool useful for researchers and high level consultants into an instrument with direct applicability to cluster professionals (Sölvell et al., 2009).

Some research on mapping clusters adopted the methodology of Porter (2003), specifically as regards the role of clusters and competitiveness in stimulating regional economies (Karen et al., 2008), as well as in case studies of innovation clusters in Europe (COM, 2007; COM, 2008). Furthermore, the European Cluster Observatory identified more than 200 regional clusters through this methodology.

In Portugal, regional clusters have been identified as a “sub-product” of a study aiming to contribute towards boosting the international competitiveness of Portuguese industry (Porter, 1994). The study shows that Portuguese industries face a comparatively high exportation tax. One characteristic of those industries is their frequent geographic concentration. The examples indicate, however, that several of these industries hardly constitute clusters as they only compensate for “undeveloped” clusters with a low level of interaction between companies and industries.

Gouveia and Duarte (2001), and Santos (2002) carry out analyses of the tourist sector in Portugal, despite neglecting relative conceptual aspects as to the definition and characterization of clusters. The authors, in general, do not relate how they identified tourism clusters nor how they quantified them nor did they rigorously locate them. The

latter also does not make any reference to future prospects, policy measures for nurturing and developing these clusters. There is also no thorough evaluation of their impacts in terms of the environment and sustainability. Santos (2007) presents a methodological and quantitative proposal, general in character, for the identification of tourism clusters, testing it on the Algarve Region where the policy authorities and the public in general perceive as a tourism cluster. The author concludes from the methodology applied that there was no tourism cluster in this region. At best, it was based exclusively on agglomeration pointers and would constitute a tourism cluster in a relatively restricted niche of hotel sectors - tourist apartments and resorts.

The European SMEs Observatory (2002) states that different changes were emerging in recent years as result of governmental strategies aiming to stimulate greater cooperation between enterprises, create technological infrastructures and promote the image of some products in Portugal and internationally. These efforts had established the foundations for the implementation of a national clusters policy.

### ***3. Methodology and Research Data***

#### **3.1 Methodology**

When an investigator engages in research, he/she faces a series of doubts and frequently lacks the information most appropriate to solving them. Such decisions depend on some factors such as the aim of the study, the nature of variables, among others (Perez et al. 2006). Many methodologies have been adopted for the identification and evaluation of cluster performance through recourse to indicators including variables related to wages, job growth, number of patent applications, taxation revenues (Porter, 2003; Lindqvist and Wennberg, 2010). According to Sölvell et al. (2009), the European

Cluster Observatory represents the state of the art in placing a European cluster scale in the service of organizations while these authors maintain there is a clear need for progress towards becoming a complete information service complemented by studies with other variables.

Sölvell (2009) states that a new model of clusters must be constructed in such a way as to involve an evolutionary as well as a constructive strength while advocating a still more complex understanding of clusters, incorporating a series of different characters, playing different roles and with a mixture of different relations. In the future, the European Cluster Observatory plans to apply certain levels of enterprise data to identify clusters, specifically: geographic coordinates, complete identification of regions, turnover, and detailed classification of economic activities, among others (Sölvell, 2008; 2009).

In this sense, we adopt the methodology proposed by Sölvell (2008, 2009) for researching new models of identification and cluster performance and to somehow contribute towards the stated aims of the European Cluster Observatory. We base our study on the 2008 turnover of companies located on mainland Portugal and the archipelagos of the Azores and Madeira, in accordance with data from the Portuguese Institute of Statistics (INE), broken down by the Portuguese regions and the respective economic activities (CAE). Correspondingly, we are able to attain information on the final number of clusters, their frequencies and the descriptive statistics of each cluster, each CAE and region. The adopted methodology was based on the utilisation of secondary data supplied by the INE and was chosen for the application of the quantitative multivariate analysis (cluster analysis) method with SPSS software.

The continuous variable corresponds to 2008 turnover and consists of the net amount of sales and services (including remuneration) according to normal business activities, consequently after sales deductions and including neither value added tax nor any other taxes directly related to sales and services.

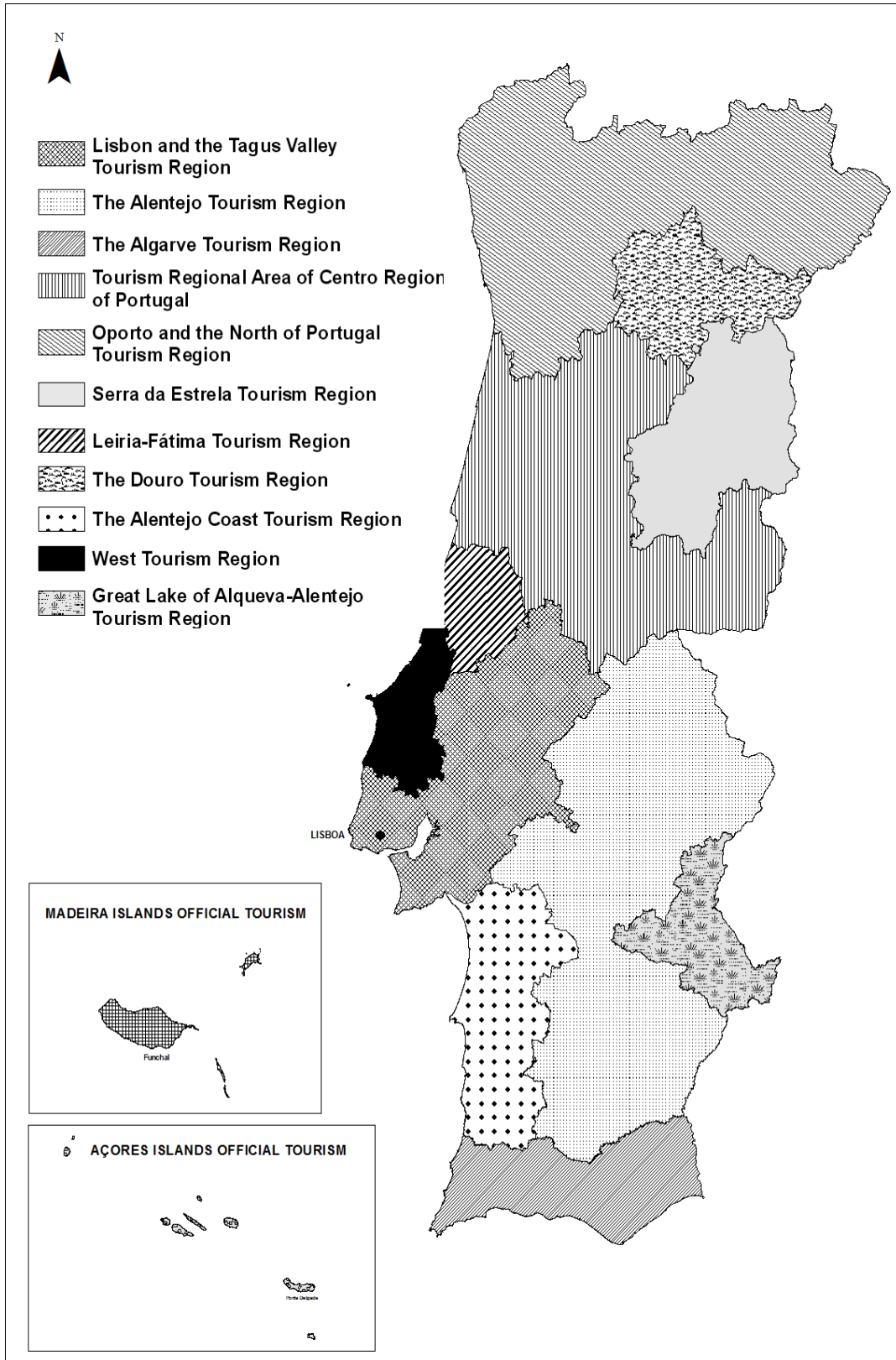
Two categorical variables were adopted: activities characterising the tourism account satellite as defined by WOT et al. (2001) and a disaggregated level of economic activity (CAE Rev. 3), five digits to analyze the degree of space agglomeration of the 53 defined activities, as shown in the following table:

**Table 1 – Economic Activities Defined in the Study**

49100 Interurban transport of passengers by railway	56105 Restaurants with dancing spaces
49310 Land transports , urban and suburb. passengers	56106 Ready meals to take home
50300 Transport of passengers through interior waterways	56107 Restaurants (including movable activities)
51100 Air transport of passengers	56210 Provide meals for events
55111 Hotels and restaurants	56290 Other activities of meal services
55112 Pensions with restaurant	56301 Coffees
55113 Inns with restaurant	56302 Bars
55114 Lodgings with restaurant	56303 Pastries and tea houses
55115 Motels with restaurant	56304 Other drinking establishments without shows
55116 Hotels -apartments with restaurant	56305 Drinking establishments with dancing spaces.
55117 Tourist resorts with restaurant	77110 Rental cars
55118 Tourist apartment with restaurant	77210 Sports renting
55119 Other hotel establishments with restaurant	77340 Water transport renting
55121 Hotels without restaurant	77350 Air transport renting
55122 Pensions without restaurant	79110 Travel agency activities
55123 Tourist apartment without restaurant	79120 Tourist operator activities
55124 Other hotel establishments without restaurant	79900 Other reservation services and related activities
55201 Furnished lodgement for tourists	91020 Museum activities
55202 Rural tourism	91030 Activities of historical places and monuments
55203 Holiday colonies and camps	91041 Zoo, botanic and aquarium activities
55204 Other short term lodging place	91042 Park and natural reserve activities.
55300 Campsites and caravan	93210 Amusement park and thematic activities.
55900 Other lodging places	93291 Bullfighting activities.
56101 Traditional restaurants	93292 Marine activities
56102 Restaurants with balcony seats	93293 Organization of tourist activities
56103 Restaurants without table service	93294 Other amusement activities
56104 Typical restaurants	

The other categorical variable consists of the 30 regions of the territorial unit nomenclature of 2002, the research geographic area, later mapped and analysed according to the regional areas that make up the tourism sector in Portugal, as portrayed in the following figure:

Figure 1 - Regional Portuguese Tourism Areas





### 3.2 Statistical Analysis and Discussion of Results

According to Norusis (2004), cluster analysis is a multivariate procedure to detect homogeneous groups in data whether composed by variables or cases. Cluster analysis seeks to organize a set of cases into homogeneous groups in such a way that the individuals belonging to a group are as similar as possible to each other while differentiated from others. This analysis attempts to classify a set of objects (individuals, products, etcetera) into groups or categories using the observed values of variables, without it being necessary to define the criteria classifying the data that integrate a certain group (Norusis, 2004).

Therefore, we will apply the *TwoStep Cluster Analysis*, an explanatory tool that discloses natural groupings in a data set that, otherwise, would not be evident (Aldenderfer and Blashfield, 1984). The algorithm used for this procedure has diverse options that differentiate it from other grouping techniques:

- i) The ability to create groupings (*clusters*) based on categorical and continuous variables;
- ii) Automatic Selection of the number of clusters through comparing the model creation choice values throughout different group solutions. This procedure is able to automatically determine an excellent number of clusters;
- iii) The ability to efficiently analyze a great amount of data via escalation - “tree of groupings” summarizing the registers.

In order to analyze the continuous variable in sets, turnover and the categorical variable (region and CAE) in our case, *TwoStep analysis* applies the distance of likelihood measure that assumes the variable in the *cluster* model is independent. At the same time, the continuous variable (turnover) is identified as of normal distribution and

each categorical variable (region and CAE) as of multinomial distribution. Through this analysis, we attain information on the number of clusters, their final frequencies in conjunction with descriptive cluster statistics. This analysis involves four steps:

- 1) We obtain measurements of the distance between the similarities and the separation (differences) in clusters;
- 2) We combine the two more closed clusters to form the new *cluster*;
- 3) We calculate, once again, the distances with the same ‘existing similarities’ of the existing clusters for the new *cluster*;
- 4) We repeat the procedure in step two until the *cluster* is built.

This process reveals a hierarchical cluster solution. Higher *clusters* contain more integrated lower level *clusters*. At each level, clusters are separated (each item belongs to a single *cluster*). This analysis sequentially identifies clusters in the joined solution. The process of auto-clustering allowed for selecting the number of clusters, where the lowest *BIC* (*Bayesian Information Criterion*) values indicate better models. The best cluster solution is the lowest *BIC* value. A good solution has a high ratio between the changes in *BIC* and distance measures (Table 2).

**Table 2 - Auto-Clustering**

Number of Clusters	Schwarz's Bayesian Criterion (BIC)	BIC Change(a)	Ratio of BIC Changes(b)	Ratio of Distance Measures(c)
1	17708,358			
2	16673,418	-1034,940	1,000	1,628
3	16253,531	-419,886	,406	1,441
4	16133,215	-120,316	,116	1,198
5	<b>16125,002</b>	-8,214	,008	1,093
6	16165,104	40,102	-,039	1,115
7	16258,947	93,844	-,091	1,247
8	16444,963	186,016	-,180	1,010
9	16634,533	189,569	-,183	1,276
10	16904,144	269,611	-,261	1,024
11	17180,580	276,436	-,267	1,062
12	17473,484	292,904	-,283	1,014
13	17769,953	296,469	-,286	1,202
14	18110,552	340,599	-,329	1,007
15	18452,682	342,130	-,331	1,068

a The changes are from the previous number of clusters in the table.

b The change ratios are relative to the change in the two cluster solution.

c The ratios of distance measures are based on the current number of clusters against the previous number of clusters.

The *TwoStep cluster* solution found three *clusters*, the first represents 43.7 percent of the sample (N=519 registers), the second accounts for 28.3 percent (N=336) and the third 28 percent (N=333) (Table 3). Due to the fact there are no records for some regions, certain CAEs (turnover= 0€) considered 1,188 registers and excluded 2,131. However, they were treated as cases missing from the database without any need to exclude them as the registration methodology for all regions and CAE has to be

accomplished (even though there were no values and expressed as 0 € by the INE), as shown in table 4.

**Table 3 – Distribution of *Clusters***

Description	N	Percent of Combined	Percent of Total
<i>Cluster</i> 1	519	43.7 percent	15,6 percent
2	336	28.3 percent	10,1 percent
3	333	28.0 percent	10,0 percent
Combined	1188	100.0 percent	35,8 percent
Excluded Cases	2131		64.2 percent
Total	3319		100.0 percent

The following table provides information on the average turnover for each cluster:

**Table 4 – Centroids of *Clusters***

Description		Turnover (Thousands)	
		Mean	Std. Deviation
Cluster	1	11709,4575	32953,71214
	2	15241,8467	37961,99638
	3	51885,0425	228961,16258
	Combined	23969,8553	125893,28312

On interpreting these results, we find that clusters 1, 2 and 3 have average turnover of 11,709 thousands/€ (43.7 percent), 15,242 thousands/€ (28.3 percent) and 51,885 thousands/€ (28 percent), respectively. Based on these results and for a better understanding of the performance evaluation of the clusters identified, we consider the following *cluster* typology:

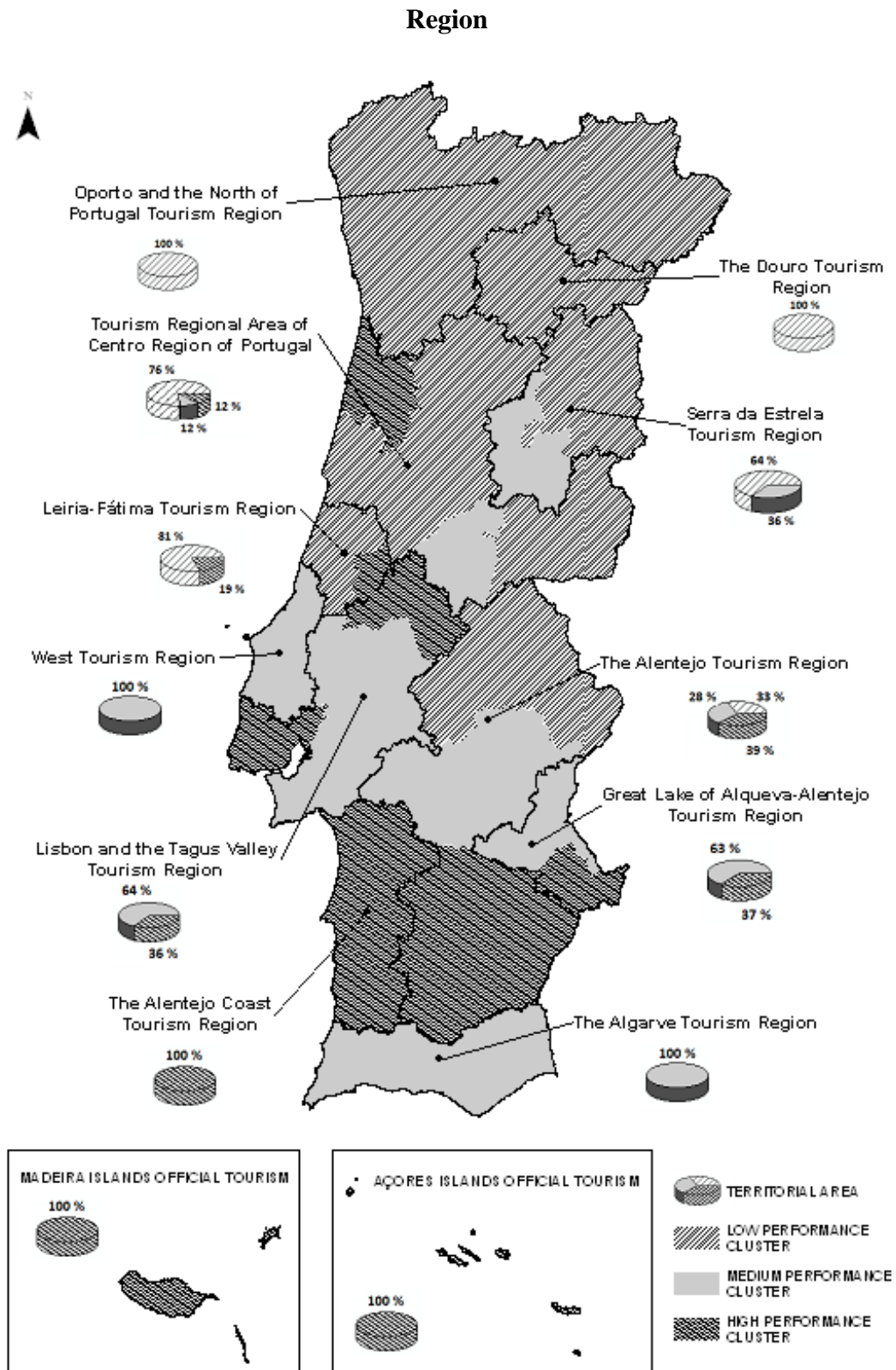
*Cluster 1* – Low Performance Cluster

*Cluster 2* – Medium Performance Cluster

*Cluster 3* – High Performance Cluster

Having identified clusters through the above described methodology, we proceeded with mapping and positioning the clusters identified for the different Portuguese tourism areas, as depicted in the following figure:

Figure 2 – Cluster Performance Distribution by Tourism



Analysis of the results of mapping demonstrates the low performance cluster is predominantly concentrated in the North and Central Inland of Portugal, while clusters of medium and high performance dominate the Central Coast, South and Islands. They are distinguished despite the tourism regions of Oporto and the north of Portugal, of the Algarve, the Alentejo Coast, Douro and the West are exclusively included in only one type of cluster. The remaining regions are constituted by differentiated clusters. We must highlight the fact that in rural, inland Portugal, the low performance cluster predominates while along the coast the medium and high performance cluster takes precedence.

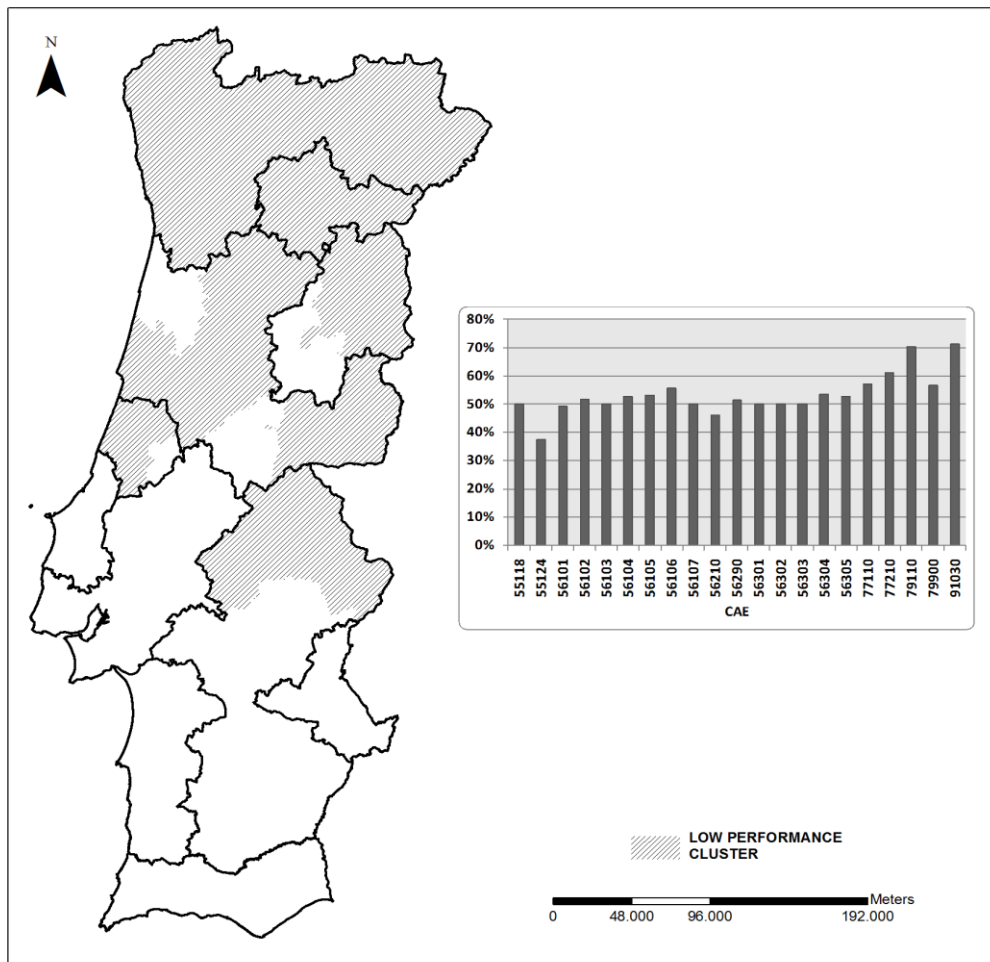
We may highlight that the Central regional area, to the north of the Alentejo, contains the three cluster types. In this Central region, the high performance (12%) cluster is located on the coast and may be related to be an alternative sun, sea and gastronomy (the famous Bairrada's piglet) tourist destination. In the Alentejo, and as we head southwards through this region, we discover an increase in the region's performance.

Although the regional area of Leiria-Fátima belongs predominantly to a low performance cluster (81 percent), 19 percent is included in a high performance cluster. This might be related to the fact this region hosts the municipality of Fátima, an area with a heavy emphasis on religious tourism (Sanctuary of Fátima). The same happens with the regional area of Serra da Estrela, where 64 percent belongs to a low performance cluster, with the other 36 percent included in a medium performance cluster, probably explained by its inclusion in a region investing in Mountain and Winter Tourism (Serra da Estrela).

In relation to the regional area of Lisbon and the Tagus Valley, despite the prevalence of a medium performance cluster (64 percent), 36 percent of this region is characterized as high performance. This achievement may derive from its status as home to the capital (Lisbon) as well as being a city providing a set of tourist activities that attract a wide and diversified tourism, also stimulated by the internationally known brand image.

The following figures depicts those CAEs that most contribute to the formation of the Low, Medium and High Performance clusters:

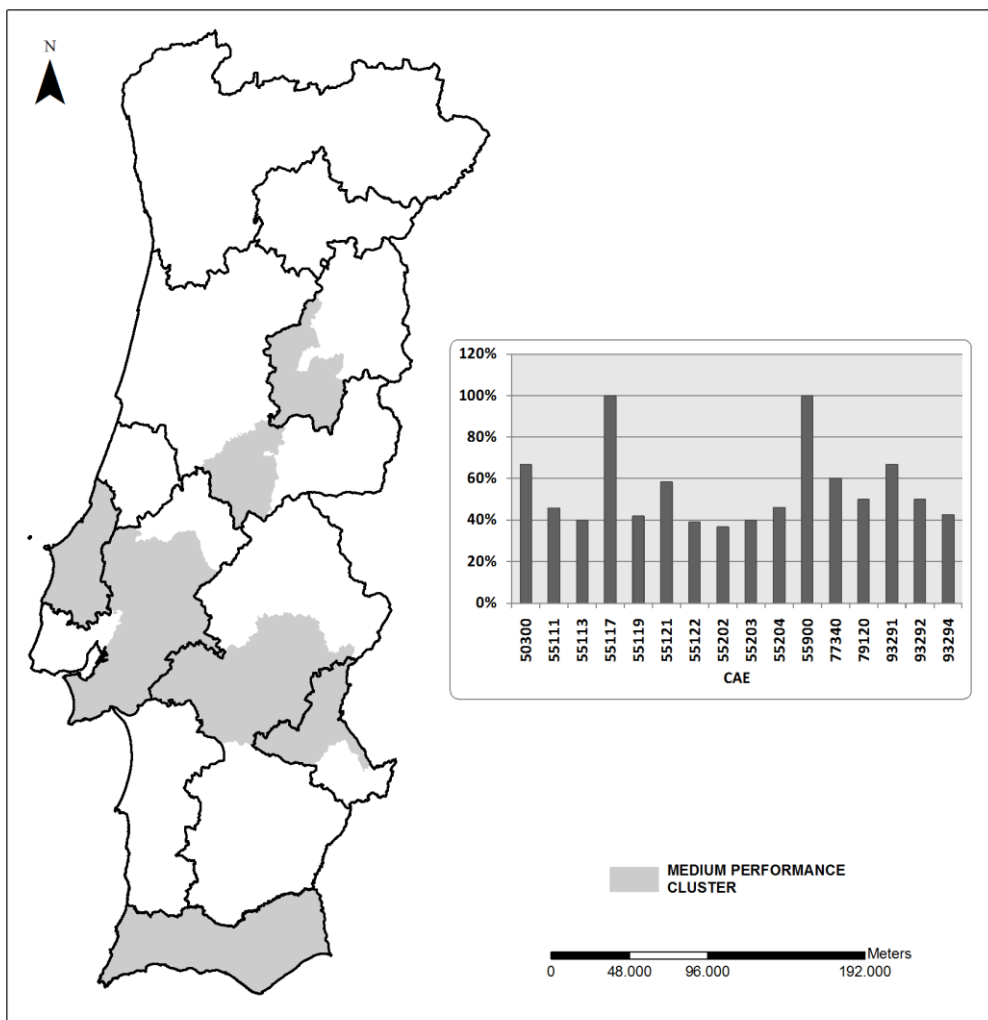
**Figure 3 – Low Performance Cluster**





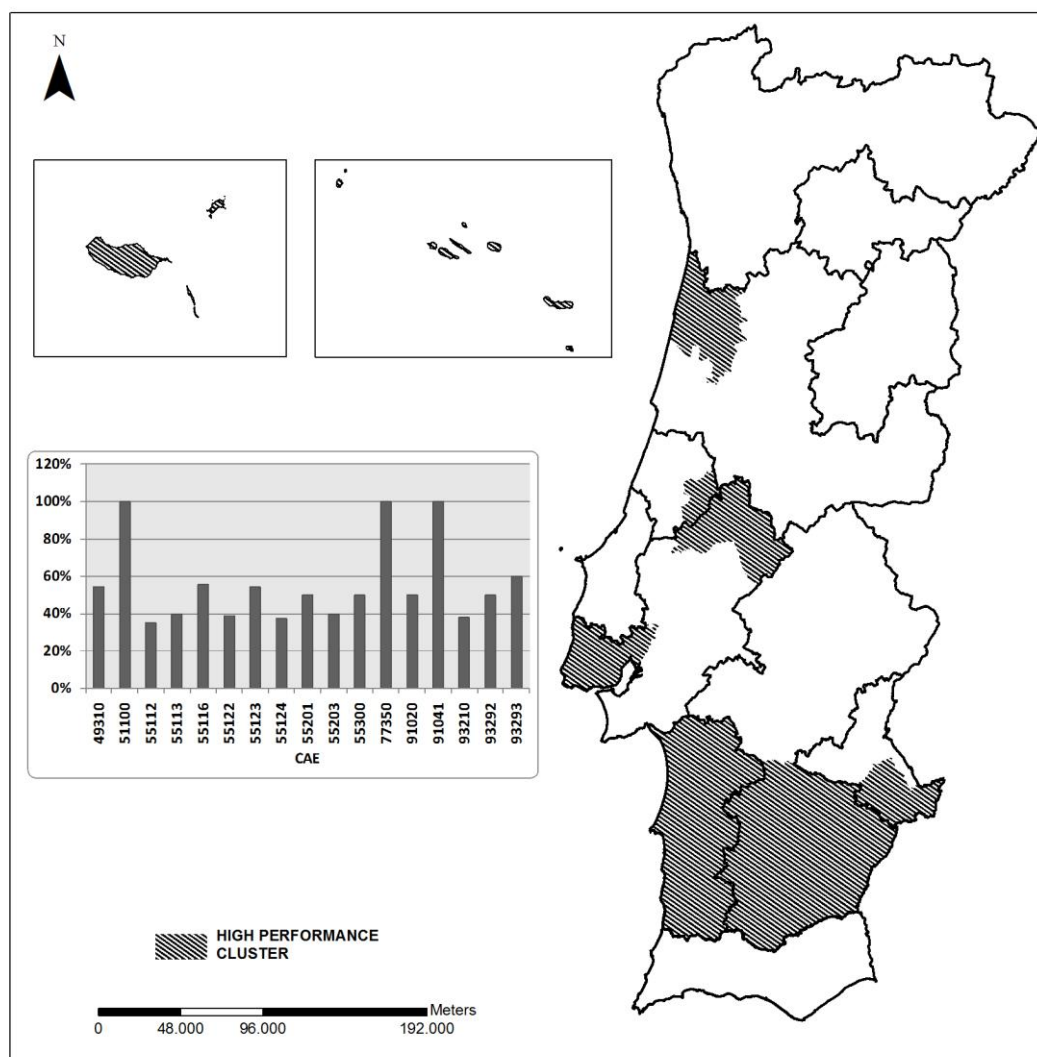
In Figure 4, we find that the tourism activities of greater significance in the medium performance cluster are related to lodging. We should also highlight maritime related activities as well as passenger transport, with these activities especially prominent in the Algarve region. Bullfighting related activities are also reported and to the extent of their inclusion in those areas where there remains a strong bullfighting tradition.

Figure 4 – Medium Performance Cluster



In this cluster (Figure 5), there is a mix of activities that contribute towards the high performance attained, in particular: zoological operations, botanical gardens and aquariums, the transport and rental of aerial ways, organization of entertainment activities and exclusive to the clusters identified. Lodging and accommodation are also evidenced as well as the recreation port activities (largely representing a cluster in coastal area). Museum related activities are intrinsically related to Greater Lisbon due to the large number of museums located within its borders.

**Figure 5 – High Performance Cluster**



#### ***4. Final Considerations***

This paper sets out an approach for the mapping of clusters as well as evaluating their performance. In terms of continental Portugal, tourism region performance rises as we proceed from the North southwards through Portugal. In rural, inland Portugal, there is a low performance cluster while coastal areas are home to a medium and high performance cluster. These results coincide with the opinions first formalized and in keeping with the consensus of opinion on the sector. This holds particularly as the empirical evidence on the Algarve tourism region, while known internationally for its sun and sea related tourism, does not include a high performance cluster as might be deduced, but rather a medium performance cluster. This situation may be attributed to the influence that the international crisis of recent years has had on tourism at all leading destinations worldwide, with region being no exception.

The tourism regions of the Alentejo Coast, the South of the Alentejo region, and the islands of Madeira and the Azores turn in high tourism performances. Regarding the Alentejo, these results in some part derive from new trends in alternative tourist destinations to sun and sea packages in the Algarve, for example, and rising demand for nature tourism. As regards the islands, the performance may be explained by the brand image of this region known as “Pearls of the Atlantic”. We would also point out that despite the regions of Oporto and the North of Portugal and Central Inland being endowed with particular landscape features, unique natural resources, replete with culture and history, their lack of development prevents them from contributing overall towards the national tourism sector performance of Portugal.

Analyzing the weighting of turnover by CAE for each cluster, we verify that the low performance cluster contains the greatest variety of economic activities, followed by the high and then the medium performance clusters. Some activities exclusive to certain clusters: the activities of small farms, travel agencies and historical monuments - to the low performance

cluster, tourist resorts with restaurants and other lodging infrastructures - to the medium performance cluster, air transportation of passengers, air transport renting and zoological, botanical gardens and aquariums - to the high performance cluster. Furthermore, the activities of recreational ports, campsites and caravans, inns with restaurant, pensions without restaurant also share the average and high performance clusters. The same occurs for other hotel establishments without restaurants for the low and high performance clusters.

These findings have important implications for both academics and policy makers. In general, a competitive and dynamic region is characterized by the simultaneous presence and combination of several factors able to attract and sustain an increasing number of tourism activities. Our findings show that those high performance clusters are regions which detain a set of distinctive resources contributing towards their competitiveness.

With a view to enhancing the competitiveness of the three clusters obtained, we would propose the following recommendations. This research has demonstrated the need to design and implement growth policies capable of driving tourism in the low and average performance clusters taking into account the specific needs of the respective regions, where coastal and maritime or mountain and rural zones, in addition to urban areas. The authorities should design development models and establish packages of measures able to foster and boost competitive advantages, capitalising on the potential held by each region. Alliances and networks between companies operating within the scope of the aforementioned clusters and cooperation and interaction between the tourism entities are other factors to be taken into consideration within the framework of efforts to raise the performance standards of these regions.

For the high performance cluster, a vision, an image and a brand need establishing for the respective regions so as to guarantee economic performance. The sector's competitiveness is inherently bound up with sustainability as the quality of tourism destinations greatly

depends on the prevailing natural environment and the local community. Hence, a global approach is necessary that simultaneously seeks to enhance the economic prosperity of the sector, social cohesion, environmental protection and the cultural range of tourism destinations.

Any study incurs inevitable limitations. The “perfect study” was never, and will never, be produced. The limitations of any study vary depending on the choices, deliberately and unconsciously made. In general terms, the limitations of the present study stem from two basic aspects: i) the quality and availability of the database, especially in the disaggregation of the pointers, and ii) the fact that the methodology is pioneering in terms of creating a new model for the identification of clusters and that had never before been empirically tested. However, we are convinced this study contributed towards advancing our understanding of tourism cluster economic performance. According to our results, it would be interesting to ascertain whether there is a direct relationship between cluster performance, identified with other indicators, for example, average monthly profits and firm size in terms of employee numbers. Another suggestion for future research would be establishing a competitiveness model and verify its applicability to several tourism clusters thereby identifying just which indicators and variables make the greatest contribution towards regional development and thereby stating the implications for potential competitiveness.

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# **Chapter 4 - Determinants of Tourism Destination Competitiveness: Applying of a Structural Model**

## **Determinants of Tourism Destination Competitiveness: Applying of a Structural Model**

### **Abstract**

Despite the diversity of studies in competitiveness, thus far there has been little research aimed at capturing and measuring the effects of different factors of competitiveness in the tourism sector. This research, based upon the cross-referencing of primary and secondary data, pioneers the identification of the different facets contributing towards tourism sector competitiveness through proposing and implementing a new tourism competitiveness model. Additionally, we explore which factors contribute most and are susceptible to leveraging the competitiveness of tourism destinations by tourism region. We conclude that the competitiveness of a specific tourism destination depends on a combination of various dimensions and factors with direct and indirect relationships and influences according to the characteristics of the respective tourism region. Some implications and future challenges are also set out.

**Keywords:** Competitiveness, Tourism Destination, Cluster, Structural Equation Modeling, Portugal.

### ***1. Introduction***

The development of tourism destinations has received widespread attention in recent years both in terms of tourism research and management studies (Enright and Newton 2004; Shih, 2006; Schianetz et al., 2007; Zhang et al., 2011, Haugland et al., 2011, Dwyer et al., 2011). How to establish, nurture, protect and strengthen tourism destinations and their positions in increasingly competitive and global markets represents a major challenge that has been attributed a very high profile within the tourism industry (Crouch, 2007). Enright and Newton (2004) suggest that the success of tourism destinations in world markets is influenced by their relative competitiveness. Their competitiveness is increasingly important to countries seeking to take a growing slice of this expanding market and clearly this is of special relevance to communities highly dependent on the prevailing state of the tourism sector and travel industry (Echtner and Ritchie, 2003; Navickas and Malakauskaite, 2009). The concept



and actually evaluating the competitiveness of a particular destination has also gained greater profile within the different currents of the literature. The reason for such interest arises not only out of the growing economic importance of the tourism sector but also the rising levels of competition in this market as one of the consequences of the transitional process from mass tourism to a new tourism paradigm that incorporates an approach tailored to the attitudes and needs of tourists (Cracolici et al., 2006). According to Kim (2000), tourism sector competitiveness is defined as the capacity for the environmental conditions of the tourism market, tourism and human resources as well as the tourism infrastructures of a country to generate added value and boost overall national wealth. This author also adds that tourism sector competitiveness is not only a measurement of potential capacity but also an evaluation of the present capacity and the sector's actual level of performance. From the perspective of Malakauskaite and Navickas (2010), tourism sector competitiveness – similar to the competitiveness of any other economic sector – cannot be hived off from the harmonious and sustainable development of the tourism destinations. Tourism development thus needs to be sustainable not only economically but also in socio-political, technological, natural, ecological and cultural terms.

The evaluation of tourism sector competitiveness is a fairly common research problem, identified and analysed by many researches (Navickas and Malakauskaite, 2009). In the tourism sector, some studies have sought to measure the levels of competitiveness of different countries through recourse to primary data (Faulkner et al., 1999; Kozak & Rimmington, 1999; Hudson et al., 2004; March, 2004; Kim and Dwyer, 2003; Dwyer et al., 2004; Enright and Newton, 2004, 2005; Omerzel, 2006; Claver-Cortés et al., 2007; Crouch, 2007; Gomezelj & Mihalic, 2008) and secondary data (Gooroochurn and Sugiyarto; 2005; Statev, 2009; WEF, 2007, 2008, 2009, 2010, 2011; ECLAC, 2009; Zhang et al., 2011). There

is, however, a gap in the literature as regards studies simultaneously deploying primary and secondary data for measuring the regional competitiveness of tourism destinations.

Hence, the empirical application of the competitiveness model proposed in this research was based upon the collection of primary and secondary data on tourism destination competitiveness thereby contributing towards narrowing the gap identified in the literature and simultaneously contributing towards understanding the phenomenon of competitiveness within the context of tourism destinations. Additionally and in particular in Portugal, the evaluation of tourism destination competitiveness remains at a very early stage. To this end, this research seeks to determine which dimensions contribute towards the competitiveness of regional areas and poles of national tourism development in addition to identifying the significant factors of difference between the tourism regions subject to study.

The article is structured as follows. We firstly set out a review of the literature on tourism competitiveness before presenting the conceptual tourism competitiveness model to be operationalised. We then move onto a description of the methodology deployed as well as the data and variables deployed in the study. Finally, we carry out our analysis before discussing the research results and putting forward the respective conclusions.

## ***2. Literature Review***

The concept of competitiveness may seem simple to understand, however, its complexity swiftly becomes clear when we seek to define and analysis it based upon the various sources in the literature (Porter, 1994; Cooke and Morgan, 1998; Desrochers and Suatet, 2004). Porter (1990) argues that its ambiguity is one consequence of an enormous variety in definitions and perspectives on competitiveness thus rendering any exhaustive and consensual definition difficult. Nevertheless, the view of this author is that the

competitiveness of a country is the result of the competitiveness of its companies and business competitiveness is related with the way that its business model interacts with its surrounding environment in producing products and services able to aggregate value. According to Casadesus-Masanell and Ricart (2010), a majority of competitiveness literature articles focus on geographic units – regions, countries or even clusters and various means have served as proposals for nurturing virtuous cycles enabling companies to build up strengths and capacities later deployed to sustain international competitiveness.

Competitiveness has broadly contributed towards the construction of social, cultural and economic variables that impact on the performance of a country in international markets. The creation of wealth is the motor for economic growth and an important leverage of innovation (Dwyer and Kim, 2003). Dwyer et al. (2004) propose that national competitiveness is not a result in itself but rather the means of attaining an end, a final objective of industrial development able to boost the wealth of peoples. Costa et al. (2004) defend how competitiveness is a transversal concern of contemporary societies. In all activities, not only the economic, competitiveness is striven after. Being competitive is a term and a condition for every sought after objective. Casadesus-Masanell and Ricart (2010) agree that competitiveness is a common concern to many countries and regions but then take this further in asserting that competitiveness provides a means of accelerating development and taking market share internationally.

In recent years, competitiveness has become a commonly deployed concept for the description of the approach and the sustainable development of the travel and tourism industry, as well as for tourism destinations themselves, taking into consideration a set of references relative to the most important dimensions of the industry such as the business environment, infrastructures, laws and regulations and the resources available (Bălan et al. 2009). The competitiveness of a tourism destination is a complex and relative concept and in

no small part due to the nature suggested in the definition attributed to a particular tourism destination, whether understood as a place or as a type of real or perceived border, such as the physical limitations of an island, political borders or even through to the same limits but established by the market itself (Kotler et al., 2006). According to Dwyer and Kim (2003), the competitiveness of a tourism destination is related to its capacity as a destination to provide tourists with goods and services better than its competition.

Tourism sector competitiveness involves many factors such as the natural environment (location, geography, landscape, climate, etc), the built environment and infrastructures (tourism transport services, leisure and entertainment support infrastructures, services, retail, the hotel network) and the globalisation of markets (Navickas and Malakauskaite, 2009). Malakauskaite and Navickas (2010) point out that tourism sector competitiveness contributes significantly to economic development and may be described as the result of synergies between the natural and human factors created by tourism destination resources, determined by the capacity of tourism based companies to attract new visitors and raise their levels of expenditure through the provision of quality goods and services as well as valuable experiences.

In order to understand tourism destination competitiveness, we need to take into account not only the basic factors to comparative advantage but also the more advanced facets making up competitive advantages (Omerzel, 2006). The competitive advantages are composed of the resources available at a destination, the competitive advantages signifying the capacity of a destination to apply these resources effectively into the long term.

The interest in studying the competitiveness of tourism destinations has brought about a range of studies. Many held as their core objective putting forward a diagnosis of the competitiveness of specific destinations (Crouch, 2007), including the United States of America (Ahmed and Krohn 1990), Las Vegas (Chon and Mayer, 1995), European cities

(Mazanec, 1995), Southeast Asia (Pearce, 1997), Sun/Lost City in South Africa (Botha et al. 1999), South Australia (Faulkner, et al., 1999), a resort casino in the United States (D'Hautesserre, 2000), cultural tourism in Toronto (Carmichael, 2002), Mediterranean resorts (Papatheodorou, 2002), Australia (Dwyer et al., 2004), South Korea and Australia (Kim & Dwyer 2003), Spain and Turkey (Kozak 2003), a ski resort in Canada (Hudson et al., 2004), the Asia-Pacific region (Enright and Newton 2005), Zimbabwe (Vengesayi, 2005), Slovenia (Omerzel, 2006), the Caribbean (ECLAC, 2009), and Brazil (Richie and Crouch, 2010).

Other research has focused on particular facets of destination competitiveness, including its positioning (Chacko, 1998), destination management systems (Baker et al., 1996), destination promotion and commercialisation (Buhalis, 2000), price competitiveness (Stevens, 1992; Dwyer et al., 2000a, 2000b, 2000c, 2001, 2002), quality management (Go and Govers, 2000), the environment (Hassan 2000; Mihalic 2000), nature based tourism (Huybers & Bennett 2003), strategic management (Jamal and Getz, 1996; Soteriou and Roberts, 1998), and organised tourism groups (Taylor, 1995).

Furthermore, there is the research based upon the development of competitiveness models and general theories on destinations (Porter, 1990; Crouch and Ritchie, 1999; Dwyer and Kim, 2003; Heath, 2003; Vengesayi, 2003; Ferreira and Estevão, 2009; Malakauskaite and Navickas, 2010).

While there may be a plethora of studies on the theme of competitiveness, there are practically no approaches measuring tourism competitiveness through recourse to primary and secondary data to measure the regional competitiveness of tourism destinations.

### ***3. Measuring Tourism Destination Competitiveness***

Within the framework of analysing and measuring the competitiveness of a tourism destination, attention must be paid to developing the national competitiveness indicators able to grasp the motivations of tourists (Dwyer and Kim, 2003). Furthermore, such indicators incorporate not only subjective attributes (natural and cultural resources, tourism infrastructures, entertainment, service quality, destination access routes, hospitality levels, innovation, security, political stability), objectively determined features (tourism market share, tourism revenues, etcetera) but also statistics on socio-economic prosperity (productivity levels, unemployment, GDP per capita, economic growth rates, etcetera). According to Gooroochurn and Sugiyarto (2005), competitiveness needs measuring as a multidimensional and relative phenomenon and in the awareness that results shall vary in accordance with the choice of variables and/or the year chosen and /or the geographic scope (countries or regions) selected for analysis.

Putting forward a tourism destination competitiveness model structured around competition based indicators enables the identification of the relative strengths and weaknesses of the different destinations that may be utilised by the sector and by its government entities within the scope of efforts to enhance tourism revenues and the socio-economic impacts resulting from sector growth (Dwyer and Kim, 2003). Within the same perspective, Breda (2004) argues that for an accurate portrayal of competition, we fundamentally need to identify the current and the potential competitors, their objectives and strategies, the positioning and performance of each competitor within the respective product market and their strengths and weaknesses. Other factors should also be studied and including the climate, the location, the quality/price relationship, the ongoing marketing activities, tourism accommodation quality and the respective government support structures.

There are also other indicators that enable the measuring of competitiveness at the regional level, specifically business density patterns, population density (inhabitants per km<sup>2</sup>), variations in GDP, immigration rates, company size (employment), bankruptcies (Verspagen, 1991; Fagerberg, 1994; Griffith et al., 2004; Cameron et al., 2005; Keller, 2005).

#### ***4. Tourism Competitiveness Model***

In order to evaluate the competitiveness of a tourism destination, there are two aspects that need to be incorporated: building up an evaluation model and selecting an evaluation method (Zhang et al., 2011). The model proposed and tested in this research (Figure 1) consists of a combination of various of the dimensions making up the most commonly referenced competitiveness models in the literature: the Porter's (1990) diamond model, and the Crouch and Ritchie (1999) and Dwyer and Kim (2003) models.

The objective of the proposed model is an understanding of the direct and indirect contributions made by the different dimensions to regional competitiveness. These dimensions are: the Existence of Related and Support Industries, Factor Conditions, Demand Conditions, Firm Strategy, Structure and Rivalry, Destination Management, and Resources and Attractions. This model also recognises the role of government in defining the policies that shape regional competitiveness and highlights the role of universities as an essential strategic variable in developing research into innovations and differentiations in tourism products and services as well as in the training and educating of human resources. The relationships and dimensions presented are fundamental to the competitiveness of a tourism cluster, and consequently for regional competitiveness.

Based upon the review of the tourism competitiveness literature and analysis of the relationships between each dimension incorporated into the model, we formulated the following research hypotheses:

H1) The Government plays an essential role in competitiveness through:

- H1a) universities
- H1b) the existence of related and support industries
- H1c) factor conditions
- H1d) demand conditions
- H1e) firm strategy, structure and rivalry
- H1f) destination management
- H1g) resources and attractions

H2) Universities play an important role in competitiveness through:

- H2a) the existence of related and support industries
- H2b) factor conditions
- H2c) demand conditions
- H2d) strategy, structure and rivalry
- H2e) destination management
- H2f) resources and attractions

H3) Firm Strategy, Structure and rivalry are influenced by:

- H3a) the existence of related industries
- H3b) factor conditions
- H3c) demand conditions

H4) Tourism Destination Management is influenced by:

- H4a) the existence of related and support industries
- H4b) factor conditions
- H4c) demand conditions
- H4d) firm strategy, structure and rivalry

H5) Resources and Attractions are influenced by:

- H5a) the existence of related and support industries
- H5b) factor conditions
- H5c) demand conditions
- H5d) firm strategy, structure and rivalry



H6) The Competitiveness of a Tourism Cluster is determined by:

H6a) the government

H6b) universities

P6c) the existence of related and support industries

P6d) factor conditions

P6e) demand conditions

P6f) firm strategy, structure and rivalry

P6g) destination management

P6h) resources and attractions

H7) Regional competitiveness is determined by:

H7a) the government

H7b) universities

H7c) the existence of related and support industries

H7d) factor conditions

H7e) demand conditions

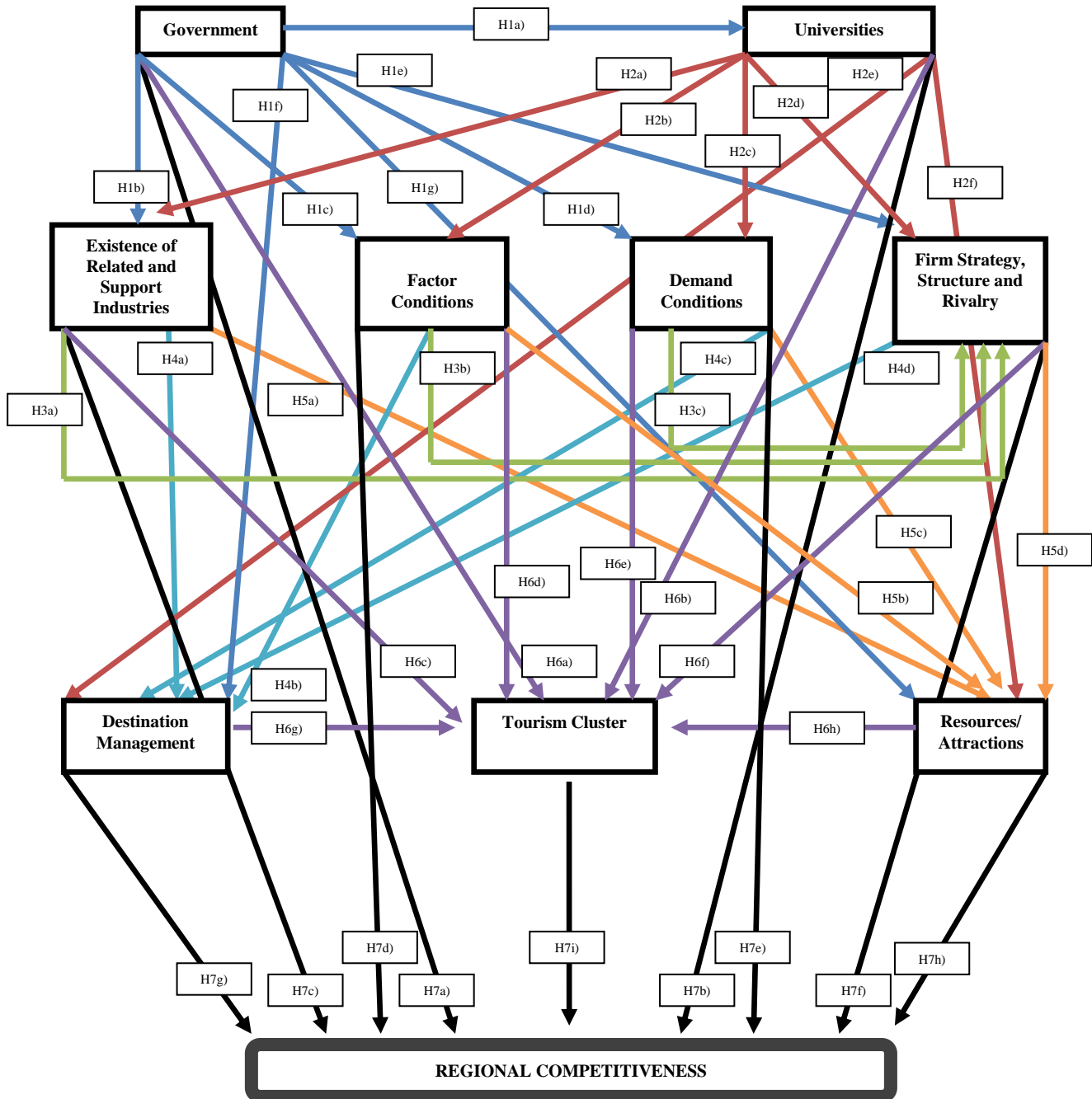
H7f) firm strategy, structure and rivalry

H7g) destination management

H7h) resources and attractions

H7i) tourism cluster

Figure 1 – Conceptual Model and Research Hypotheses



## 4. Methodology

### 4.1 Unit of Analysis

The unit of analysis for our research is made up of companies engaged in activities characteristic of the satellite account by WOT et al. (2001) in accordance with Table 1 to a disaggregated five digit level:

**Table 1 – Economy Activities Defined for Study**

49100 Inter-urban railway transport network .	56105 Restaurants with dance floors.
49310 Urban and suburban passenger overland transport .	56106 Residential food delivery services.
50300 Passenger transport by inland water course.	56107 Non-fixed restaurants, (for example, mobile facilities)
51100 Air passenger transport.	56210 Event catering.
55111 Hotels with restaurants.	56290 Other food and beverage activities.
55112 Pensions standard accommodation with restaurants.	56301 Cafés.
55113 Hostels with restaurants.	56302 Bars.
55114 Heritage hotels with restaurants.	56303 Pastry shops and tea houses.
55115 Motels with restaurants.	56304 Other clubs and pubs without stage facilities.
55116 Apartment hotels with restaurants.	56305 Clubs and pubs with event facilities.
55117 Tourism resorts with restaurants.	77110 Renting of passenger vehicles.
55118 Tourism apartments with restaurants.	77210 Renting of recreational and sporting venues.
55119 Other hotel establishments with restaurants.	77340 Renting of maritime and fluvial means of transport.
55121 Hotels without restaurants.	77350 Renting of means of air transport.
55122 Pensions standard accommodation without restaurants.	79110 Travel agencies.
55123 Tourism apartments without restaurants.	79120 Tourism operators.
55124 Other hotel establishments without restaurants.	79900 Other reservation services and related activities.
55201 Furnished tourism accommodation.	91020 Museums.
55202 Rural tourism facilities.	91030 Historical sites and monuments.
55203 Colonies and holiday camps.	91041 Zoos, botanical gardens and aquariums.
55204 Other short term accommodation facilities.	91042 Parks and nature reserves.
55300 Camping and caravan sites.	93210 Entertainment and theme parks.
55900 Other accommodation types.	93291 Tauromachy/bullfighting.
56101 Traditional restaurant types.	93292 Recreational port activities (marinas).
56102 Restaurants with counter service.	93293 Tourism event activity organisation.
56103 Restaurants without table service.	93294 Other non-fixed pleasure and recreation activities.
56104 Traditional restaurants.	

### 4.2 Applying the Proposed Model

In the statistical analytical process, the researcher always encounters that which needs measuring, controlling or manipulating during the research process. This is contextualised through variables susceptible to statistical study able to extract information (Malhotra, 2010). Validated Likert scales were deployed to measure the structural model constructs for the primary data (Table 2):

**Table 2 – Constructs Measuring**

<b>Constructs</b>	<b>Indicators</b>
<i><b>Government</b></i>	The Government supports regional development There is sufficient local government investment in innovation and development Local government policies impacting on business are appropriate Local government policies favour and support growth in tourism Tourism investment is encouraged by local government The state has invested in destination access infrastructures The state has engaged in security campaigns against terrorism and/or criminality The state mandated increase in holidays influences choice of destination The state backs the recovery and conservation of natural, historical and cultural resources Improvements to the information and communication infrastructures Fostering partnerships between government agencies, industries and universities Promoting transport and other physical infrastructures Promoting specialist education and training programs boosting labour skills Enabling start-up company access to investment capital Reformulating legislation in favour of the sector Increasing funding for research Attracting new investors
<i><b>Universities</b></i>	Developing tourism product and service innovation able to enhance demand Developing differentiation strategies able to enhance demand Human resource education and training Maintaining close relationships with companies Supplying information able to improve your business
<i><b>Existence of Related and Supported Industries</b></i>	Good quality accommodation is available There is variety in the accommodation available There is a good accommodation quality/price relationship There are appropriate levels of destination transport access Local tourism transport is efficient Local tourism transport is good quality Restaurant services are able to cope with local tourism flows Leisure facilities and services meet tourism demand Sports facilities and conditions are in place Support companies are able to meet the level of tourism demand Tourism companies run cultural programs able to generate visitor satisfaction
<i><b>Factor conditions</b></i>	The general quality of human resource training is good for the sector There are enough specialist professionals for the sector's level of activity The general quality of life ensures easy retention of employees Tourism company managers are competent The labour legislation in effect for the sector motivates your employees It is easy to obtain financing for your activities The necessary start-up investment costs are accessible The general quality of transport accesses and infrastructures is good The 'Cleanliness'/Sanitation conditions are good The region is safe for tourists The natural resources receive due protection Historical and cultural resources are well cared for
<i><b>Demand conditions</b></i>	Some tourists register niche tastes and demands The tourists are demanding The educational level of tourists influences destination choice Tourists generally recognise the destination as a quality destination Efforts are made to identify whether tourists intend to return Importance is attached to collecting tourism destination visitor opinions Tourism companies generally act in accordance with business ethics

(Continue)

<b>Constructs</b>	<b>Indicators</b>
<i><b>Strategy, structure and rivalry</b></i>	Your company contributes towards regional economic tourism development Your company faces intense local competition There is a variety of companies in your sector of activity Companies openly share information There is cooperation between public and private sector tourism companies The location of your company (region) contributes towards business innovation Your relationship with competitors is characterised by cooperation Innovation is important to the success of your company Differentiation in terms of your products and services is important
<i><b>Destination management</b></i>	Running promotional tourism packages Destination publicity campaigns Recourse to email as a marketing and communication strategy Recourse to social networks for promotional purposes National destination reputation International destination reputation Tourism destination products and services have an international profile Tourism orientation and information Tourism telecommunication systems Communication between tourists and residents Resident hospitality towards visitors Entrepreneurial quality of local businesses Company focus on growth and innovation policies Strong emphasis on product/service research, development and innovation Proactive attitude of tourism company managers Local community support for special tourism events Healthcare/medical services for tourists Financial institutions and exchange rate facilities Tourist Offices
<i><b>Resources and attractions</b></i>	Attractiveness of climate for tourism Natural wonders/landscapes Flora Fauna Historical/heritage sites Architectonic characteristics Thematic museum visits Customs Gastronomic variety Wines Unspoiled natural environments Special events/festivals Entertainment and theme parks Sporting activities Entertainment quality Entertainment variety Nature related activities Radical sports National parks, including nature reserves Pedestrian footpaths Nightlife (for example bars, discos, etcetera) Handicrafts Visitor access to natural areas

The tourism cluster and regional competitiveness constructs were measured through recourse to secondary data. Tourism clusters were extracted through recourse to the Cluster

Index (CI) methodology of Sternberg and Litzenberger (2004) and deploying the following variables: employment, council size, inhabitants per council and number of establishments. Employment in activities under study and the population density of the respective regions served to evaluate regional competitiveness.

### 4.3 Data Description

The methodology adopted for research data collection required the utilisation of both primary and secondary data. For the former, we applied the questionnaire methodology as our research tool. In turn, this questionnaire was structured in keeping with other studies (Porter, 1990; Crouch and Ritchie, 1999; Dwyer and Kim, 2003). The questionnaire was targeted at company managers and leaders through direct contact, via telephone and email. Respondents were guaranteed privacy and data confidentiality and also informed as to the research objectives. Below, we present a summary of data description of the field research carried out:

**Table 3 – Data Description of Field Research**

<b>Geographic Area</b>	Regions and Tourism Development Poles on Mainland and Archipelago Portugal
<b>Activities</b>	Activities characteristic of the WOT et al. (2001) satellite account
<b>Unit of Analysis</b>	Companies classified according to the corporate activity codes (CAE) under study and having launched operational activities prior to 2009
<b>Data Collection Method</b>	Primary data: Questionnaire Survey; Secondary data: employment, number of establishments, size and number of inhabitants by regional area and tourism development poles
<b>Duration of Field Research</b>	November 2010 to March 2011
<b>Number of Valid Sample Responses</b>	466
<b>Size of Sample</b>	4560
<b>Respondents</b>	Senior company members of staff
<b>Response Rate</b>	10.22%
<b>Means of Data Collection</b>	Telephone and email
<b>Statistics Models Applied</b>	Structural equation modelling
<b>Data Analysis</b>	SPSS and AMOS 19.0
<b>Quality Control</b>	Regarding the questionnaire, this was tailored to the research objectives and the questions were related to the model undergoing validation. The questionnaire was also subject to a pre-test phase that enabled an evaluation of respondent attitudes to the questionnaire, understanding the questions and overall questionnaire coherence and answer consistency. We further sought to ensure the sample used for this pilot study was similar to the characteristics of the population forecast for the general survey so as to confirm the questionnaire's operational and practical effectiveness

Respondent reluctance to provide information and low response rates represent the major problems facing researchers (Keegan & Lucas, 2005) when carrying out studies. Given such limitations, we may consider the response rate obtained not only satisfactory but also appropriate for statistical analysis.

Secondary data was sourced from the data base run by the Portuguese Ministry of Employment and Social Solidarity's General Directorate of Studies, Statistics and Planning (DGEEP-MTSS) and the National Institute of Statistics for the year 2009 and specifically, employment, number of establishments, size and number of inhabitants by regional area and tourism development poles on mainland and archipelago Portugal for activities within the scope of the WOT et al. (2001) satellite account.

#### **4.4 Data Analysis**

In terms of the methodology utilised, we applied a two time approach (Anderson and Gerbin, 1988; 1992) thus analysing the measurement model through exploratory factorial analysis (EFA) before subjecting it to confirmatory factorial analysis (CFA) through SPSS version 19.0 software. Given the multivariate nature of the structural model and the need to evaluate the properties of the measurement scale in addition to simultaneously constructing the respective material relationship, we applied structural equation modelling (SEM) through recourse to AMOS 19.0 (Analysis of Moment Structures). AMOS represents one of the most commonly adopted applications for regression equation system analysis (Nachtigall et al., 2003) and hence ideal not only for elaborating the primary analysis of data but also for adjusting the structural model with a statistical methodology enabling the confirmation of the theoretical structural analysis. The measurement furthermore includes the relationships

between the non-observable constructs and the various questions rendering these same constructs operational and thereby corresponding to observable variables.

## ***5. Results***

### **5.1 Sample Analysis**

Of the 446 companies surveyed, 22.4% (100) belong to the Lisbon and the Tagus Valley Tourism Region, 15.7% (70) are from the Porto and North of Portugal Tourism Region, 11.4% (51) from the Algarve Region and 11% (49) the Centre, with these four tourism regions accounting for almost two thirds of the sample (Table 4).



Table 4 – Sample Description

	Description	N	%
TOURISM REGION	North	70	15.7%
	Centre	49	11.0%
	Lisbon and T.V.	100	22.4%
	Alentejo	24	5.4%
	Algarve	51	11.4%
	Douro	10	2.2%
	Serra da Estrela	34	7.6%
	Leiria-Fátima	24	5.4%
	West	20	4.5%
	Alqueva	12	2.7%
	Alentejan Coastline	20	4.5%
	Madeira	19	4.3%
	Azores	13	2.9%
	<b>Total</b>	<b>446</b>	<b>100.0%</b>
CAE	55111 - Hotels with Restaurant	132	29.6%
	55113 - Other Accommodation with Restaurant	30	6.7%
	55202 - Rural Tourism	28	6.3%
	56101 - Traditional Type Restaurants	30	6.7%
	79110 - Travel Agency Activities	22	4.9%
	Others	204	45.7%
	<b>Total</b>	<b>446</b>	<b>100.0%</b>
YEAR FOUNDED	Before 1960	14	3.2%
	1961 - 1970	34	7.7%
	1971 - 1980	35	8.0%
	1981 - 1990	69	15.7%
	1991 - 2000	121	27.6%
	2001 - 2010	166	37.8%
	<b>Total</b>	<b>439</b>	<b>100.0%</b>
LEGAL STRUCTURE	Individual	15	3.4%
	Quota Company	327	73.8%
	Private Company	80	18.1%
	Others	23	5.2%
	<b>Total</b>	<b>445</b>	<b>100.5%</b>
No. EMPLOYEES	0 - 9	212	47.9%
	10 - 19	104	23.5%
	20 - 49	89	20.1%
	50 - 99	24	5.4%
	100 or over	14	3.2%
	<b>Total</b>	<b>443</b>	<b>100.0%</b>
POSITION	Administration/management/leadership	263	60.5%
	Others	175	40.2%
	<b>Total</b>	<b>438</b>	<b>100.7%</b>
ACADEMIC QUALIFICATIONS	Primary education	16	3.9%
	Secondary education	81	19.9%
	Professional training school	83	20.3%
	University education	228	55.9%
	<b>Total</b>	<b>408</b>	<b>100.0%</b>
AGE	20 - 29	58	13.3%
	30 - 39	127	29.2%
	40 - 49	124	28.5%
	50 - 64	112	25.7%
	65 or over	14	3.2%
	<b>Total</b>	<b>435</b>	<b>100.0%</b>

As may be seen in Table 3, Hotels with Restaurant were the CAE type with greatest response levels, with 132 companies (29.6%), followed by Other Accommodation with Restaurant and Traditional Type Restaurants on 6.7% and Rural Tourism on 6%. In relation to

the founding of the company, 37.8% (166) launched operations between 2001 and 2010, 27.6% (121) in the final decade of the 20th century with 15.7% (66) opening up in the 1980s. Regarding the legal structure, three-quarters of the sample are (73.6%) quotas companies and 18.10% correspond to private companies within the scope of which micro-companies (0 to 9 employees) prevail – 47.90% with small sized companies making up 43.60%, and with a limited number (3.2%) of small and large companies (100 or more employees). The range includes companies employing between one and 527 employee with an average of 21 and a median of 10 members of staff. Over 60% of persons responding to the questionnaire worked in the main in management functions and had also mostly completed higher education (55.9%), followed by professional training and secondary school education with 20.30% and 19.90%, respectively. The largest single percentage of respondents was aged between 30 and 39 (29.20%), trailed by those age between 40 and 49 (28.5%), between 50 and 64 years (25.70%) while only 58 respondents corresponded to an age range of between 20 and 29.

## **5.2 Model Adaptability - Model Measurement**

We analysed the measurement models for each of the individual dimensions (existence of related and support industries, factor conditions, demand conditions, firm strategy, structure and rivalry, destination management, resources and attractions, government and universities) so as to ascertain the theoretical relationships between the observed variables and the respective factors in accordance with the data (Table 4 in the annex). Firstly, we evaluated the internal consistency for each question calculating Cronbach's Alpha coefficient and in relation to the construct *Existence of Related and Support Industries* EFA determined three factors: *Accommodation Quality/Variety/Price Relationship*, *Transport Efficiency and Quality* and *Tourism Support Infrastructures*, corresponding to explained variance of 65.9%.

Cronbach's Alpha coefficient for the totality of the items reached 0.847 and for the factors returned 0.732, 0.889 and 0.756, respectively.

In the *Factor Conditions* construct, EFA determined, with an explained variance of 67.6%, three factors, *Human Resource Specialisation*; *Capital Resources, Physical and Access Infrastructures*; *Destination Hygiene and Safety* and *Resource Conservation and Preservation*. Cronbach's Alpha for all items stood at 0.818 and 0.776, 0.683 and 0.781 respectively for the factors. The item "The labour legislation in effect for the sector motivates your employees" was excluded from the factor referring to Human Resource Specialisation as it decreased the Cronbach's Alpha result.

The EFA results for the *Demand Conditions* scale determined the *Tourist Sophistication and Preferences*, *Destination Quality Control* and *Tourist Education and Motivation* factors as accounting for explained variance of 51.9%, with Cronbach's Alpha recording 0.660 for the scale as a whole and 0.634 and 0.646, respectively for each factor.

Within the construct *Firm Strategy, Structure and Rivalry*, three factors were returned as explaining 64.7% of the variance, *Differentiation and Innovation*, *Competition* and *Cooperation*. The Cronbach's Alpha result was 0.655, 0.633 and 0.767 respectively for each factor and 0.640 for the complete scale. The item "Your relationship with competitors is characterised by cooperation", despite having been included in the Competition factor through EFA was then eliminated as it substantially decreased the Cronbach's Alpha performance.

Four of the items making up the *Resources and Attractions* construct (Cronbach's Alpha = 0.916) were identified as factors: *Attractiveness of Natural Resources* (Cronbach's Alpha = 0.907), *Attractiveness of Cultural/Historical Resources* and *Entertainment and Gastronomy Activities* (Cronbach's Alpha = 0.875) and *Traditions* (Cronbach's Alpha = 0.749), which explain 68.8% of variance.

The *Destination Management* construct (Table 4) was segmented by EFA into four factors that account for 69.3% of variance (Cronbach's Alpha = 0.937). The factors identified were *Marketing and Promotion and Tourism Information* (Cronbach's Alpha = 0.925), *Destination Hospitality* (Cronbach's Alpha = 0.761), *Entrepreneurialism and Proactiveness* (Cronbach's Alpha = 0.884) and *Tourism Support Services* (Cronbach's Alpha = 0.754).

From the *Government* (Cronbach's Alpha = 0.799) construct, EFA returned four factors, with total explained variance of 62.7% (Table 4). The factors were: *Promotion of Regional Development* (Cronbach's Alpha = 0.915), *Security, Resource Conservation and Legislation* (Cronbach's Alpha = 0.635), *Government Infrastructure Support Measures, Cooperation and Education* (Cronbach's Alpha = 0.749) and *Government Support Measures for New Businesses* (Cronbach's Alpha = 0.753). The item "The state has invested in destination access infrastructures" was excluded from the first factor given its considerable negative impact on the Cronbach's Alpha result. The final dimension analysed referred to *Universities*, constituted by a single factor and with a Cronbach's Alpha of 0.869.

In general terms, the Cronbach's Alpha coefficient findings are greater than 0.7 and never less than 0.6 and hence from the outset signify that the defined factors have both good internal consistency and that there is a good level of questionnaire reliability (Nunnally, 1978; Bagozzi and Yi 1988).

In the CFA, a measurement model was estimated for each of the aforementioned constructs. Analysing the adjustment quality (Table 5 and 6) in accordance with diverse means of measurement (Bagozzi and Yi, 1988; Bagozzi and Foxall, 1996; Diamantopoulos and Siguaw, 2000), such as the Chi-Square Statistic, the Comparative Fit Index – CFI, the Incremental Fit Index – IFI, the Tucker Lewis Index – TLI, the Normed Fit Index – NFI and the Root-Mean-Square Error of Approximation, found that despite these indexes not being ideal, they contained values deemed acceptable for carrying out the adjustment (Byrne 2001).

**Table 5 – Results of the Measurement Model Adjustment Indexes**

Items	Chi	df	p-value	CFI	IFI	TLI	NFI	RMSEA
Existence of related and support industries	184,410	41	0.000	0.924	0.925	0.878	0.906	0.089
Factor conditions	232,393	41	0.000	0.877	0.879	0.802	0.857	0.102
Demand conditions	49,472	13	0.000	0.881	0.887	0.745	0.853	0.084
Strategy, structure and rivalry	246,508	24	0.000	0.764	0.769	0.556	0.735	0.128
Resources and attractions	1833,627	206	0.000	0.724	0.726	0.661	0.702	0.133
Destination management	1021,576	146	0.000	0.829	0.830	0.777	0.808	0.116
Government	381,573	113	0.000	0.912	0.913	0.881	0.881	0.073
Universities	83,964	2	0.000	0.906	0.907	0.532	0.905	0.303

**Table 6 – Results of the Structural Model Adjustment Indexes**

Items	Chi	df	P-value	CFI	IFI	TLI	NFI	RMSEA
Employment	3308,941	275	0.000	0.889	0.875	0.837	0.881	0.119
Population Density	3354,558	275	0.000	0.861	0.855	0.823	0.857	0.123

### 5.3 Appropriateness of Model – Complete Structural Model

The eight measurement models were incorporated into a final structural model that, in addition to the aforementioned constructs, also factored in the Cluster Index so as to ascertain the presence of tourism clusters with employment and population density gauging regional competitiveness. For each construct factor, a composite variable was established for the measurement of each of the items associated with each factor.

**Table 7 – Structural Model Results for the Employment Variable**

Dimensions		Dimensions	Estimate	LI	LS	P	Hip.	Results
Universities	<---	Governement	0,085	-0,025	0,195	0,13	1a	Rejected
Factor Conditions	<---	Governement	0,403	0,27	0,536	***	1c	Accept
Related and Support Industries	<---	Governement	0,214	0,087	0,341	***	1b	Accept
Demand Conditions	<---	Governement	0,082	-0,073	0,237	0,299	1d	Rejected
Related and Support Industries	<---	Universities	0,104	-0,008	0,216	0,069	2a	Rejected
Factor Conditions	<---	Universities	-0,015	-0,129	0,099	0,792	2b	Rejected
Demand Conditions	<---	Universities	0,153	0,014	0,292	0,03	2c	Accept
Firm Strategy, Structure and Rivalry	<---	Governement	0,049	-0,106	0,204	0,532	1e	Rejected
Firm Strategy, Structure and Rivalry	<---	Universities	0,147	0,024	0,27	0,019	2d	Accept
Firm Strategy, Structure and Rivalry	<---	Related and Support Industries	0,231	0,096	0,366	***	3a	Accept
Firm Strategy, Structure and Rivalry	<---	Factor Conditions	0,391	0,25	0,532	***	3b	Accept
Firm Strategy, Structure and Rivalry	<---	Demand Conditions	0,156	-0,011	0,323	0,068	3c	Rejected
Resources and Attractions	<---	Governement	0,194	0,057	0,331	0,006	1g	Accept
Destination Management	<---	Governement	0,172	0,029	0,315	0,019	1f	Accept
Destination Management	<---	Universities	0,095	-0,021	0,211	0,106	2e	Rejected
Resources and Attractions	<---	Universities	0,056	-0,054	0,166	0,316	2f	Rejected
Management Destination	<---	Demand Conditions	0,051	-0,108	0,21	0,531	4c	Rejected
Destination Management	<---	Firm Strategy, Structure and Rivalry	0,216	0,081	0,351	0,002	4d	Accept
Management Destination	<---	Factor Conditions	0,14	-0,003	0,283	0,054	4b	Rejected
Destination Management	<---	Related and Support Industries	0,232	0,101	0,363	***	4a	Accept
Resources and Attractions	<---	Related and Support Industries	0,294	0,169	0,419	***	5a	Accept
Resources and Attractions	<---	Factor Conditions	0,172	0,035	0,309	0,014	5b	Accept
Resources and Attractions	<---	Demand Conditions	0,01	-0,143	0,163	0,899	5c	Rejected
Resources and Attractions	<---	Firm Strategy, Structure and Rivalry	0,122	-0,007	0,251	0,064	5d	Rejected
Clusters	<---	Destination Management	-0,203	-1,832	1,426	0,807	6g	Rejected
Clusters	<---	Resources and Attractions	6,624	5,042	8,206	***	6h	Accept
Clusters	<---	Related and Support Industries	9,71	7,968	11,45	***	6c	Accept
Clusters	<---	Factor Conditions	-10,672	-12,48	-8,867	***	6d	Accept
Clusters	<---	Firm Strategy, Structure and Rivalry	-2,726	-4,547	-0,905	0,003	6f	Accept
Clusters	<---	Demand Conditions	7,379	5,484	9,274	***	6e	Accept
Clusters	<---	Universities	-1,599	-3,108	-0,09	0,038	6b	Accept
Clusters	<---	Governement	0,655	-1,254	2,564	0,501	6a	Rejected
Employment	<---	Demand Conditions	3316,616	690,86	5942	0,013	7e	Accept
Employment	<---	Firm Strategy, Structure and Rivalry	-2103,72	-3779	-428,4	0,014	7f	Accept
Employment	<---	Destination Management	625,3	-753,1	2004	0,374	7g	Rejected
Employment	<---	Governement	535,754	-1104	2175	0,522	7a	Rejected
Employment	<---	Universities	-56,044	-1398	1286	0,935	7b	Rejected
Employment	<---	Related and Support Industries	4675,82	2038,1	7314	***	7c	Accept
Employment	<---	Factor Conditions	-4517,79	-7330	-1705	0,002	7d	Accept
Employment	<---	Resources and Attractions	724,813	-1167	2616	0,453	7h	Rejected
Employment	<---	Clusters	593,406	396,73	790,1	***	7i	Accept
Population Density	<---	Demand Conditions	198,853	-34,73	432,4	0,095	7e	Rejected
Population Density	<---	Firm Strategy, Structure and Rivalry	-113,552	-262,8	35,73	0,136	7f	Rejected
Population Density	<---	Destination Management	-120,418	-243,8	2,931	0,056	7g	Rejected
Population Density	<---	Governement	15,815	-130,9	162,5	0,833	7a	Rejected
Population Density	<---	Universities	39,036	-80,74	158,8	0,523	7b	Rejected
Population Density	<---	Related and Support Industries	293,296	59,542	527,1	0,014	7c	Accept
Population Density	<---	Factor Conditions	-286,069	-535,4	-36,75	0,025	7d	Accept
Population Density	<---	Resources and Attractions	135,101	-32,85	303	0,115	7h	Rejected
Population Density	<---	Clusters	75,403	58,163	92,64	***	7i	Accept

\*\*\*<0,05

Table 7 above displays the results of the estimates, confidence ranges (CR95%) and structural model P-values. The findings demonstrated a positive statistical influence of the government construct within the factor conditions construct ( $\beta=0.40$ , CR95%: 0.27-0.54,  $p<0.001$ ), the existence of related and support industries ( $\beta=0.21$ , CR95%: 0.09-0.34,  $p<0.001$ ), resources and attractions ( $\beta=0.19$ , CR95%: 0.06-0.33,  $p<0.01$ ), destination management ( $\beta=0.17$ , CR95%: 0.03-0.32,  $p<0.02$ ). The model also returned a statistically significant positive influence of the university construct on the demand conditions scale ( $\beta=0.15$ , CR95%: 0.01-0.29,  $p<0.030$ ) and on firm strategy, structure and rivalry ( $\beta=0.15$ , CR95%: 0.02-0.27,  $p<0.019$ ), with this latter measure equally influenced statistically speaking by the constructs existence of related and support industries ( $\beta=0.23$ , CR95%: 0.10-0.37,  $p<0.001$ ) and factor conditions ( $\beta=0.39$ , CR95%: 0.25-0.53,  $p<0.001$ ). The scale referring to destination management is significantly influenced, in addition to the aforementioned government measure, by firm strategy, structure and rivalry ( $\beta=0.22$ , CR95%: 0.08-0.35,  $p<0.002$ ) and the existence of related and support industries ( $\beta=0.23$ , CR95%: 0.10-0.36,  $p<0.001$ ). The resources and attractions scale is significantly influenced by the existence of related and support industries ( $\beta=0.29$ , CR95%: 0.17-0.42,  $p<0.001$ ) and by factor conditions ( $\beta=0.17$ , CR95%: 0.04-0.31,  $p<0.014$ ).

The Cluster Index (the measurement of tourism clusters) is statistically influenced by resources and attractions ( $\beta=6.62$ , CR95%: 5.04-8.21,  $p<0.001$ ), the existence of related and support industries ( $\beta=9.71$ , CR95%: 7.97-11.45,  $p<0.001$ ), factor conditions ( $\beta=-10.67$ , CR95%: -12.48;-8.87,  $p<0.001$ ), firm strategy, structure and rivalry ( $\beta=-2.73$ ; CR95%: -4.55;-0.91,  $p<0.003$ ), demand conditions ( $\beta=7.38$ , CR95%: 5.48-9.27;  $p<0.001$ ) and universities ( $\beta=-1.60$ , CR95%: -3.11;-0.09;  $p<0.04$ ). The constructs for factor conditions; firm strategy, structure and rivalry and universities all apply a negative influence on the Cluster Index and correspondingly the lower the score of these three scales, the higher the Cluster Index. In

relation to factor conditions, companies experience difficulty in understanding the importance of human resource specialisation, with accessing capital resources an obstacle to developing businesses as are infrastructures and means of access while low priorities are also attributed to regional hygiene and safety and resource conservation and preservation for tourism activities. Innovation and differentiation have not played a meaningful role within the scope of the activities studied as demonstrated by the firm strategy, structure and rivalry and universities constructs with partnerships, cooperation and competition also underestimated. Despite companies failing to understand the potential of benefits deriving from formal engagement with universities, such cooperation and connections are in effect through the employment of professionals with higher education qualification as we found that 55.90% of respondents had attained this level.

Employment (measuring regional competitiveness) is directly statistically influenced by the measures for demand conditions ( $\beta=3316.62$ , CR95%: 690.9-5942;  $p<0.013$ ), firm strategy, structure and rivalry ( $\beta=-2103.7$ , CR95%:(-3779.0)-(-428.4),  $p<0.01$ ), existence of related and support industries ( $\beta=4675.8$ , CR95%: 2038.1-7314,  $p<0.001$ ), factor conditions ( $\beta=-4517.8$ , CR95%: (-7330-1705.3),  $p<0.02$ ) and by tourism cluster ( $\beta=593.4$ , CR95%: 396.7-790.1,  $p<0.001$ ). Furthermore, while on the one hand regional competitiveness has a heightened impact on some constructs, firm strategy, structure and rivalry and factor conditions generate a negative on the cluster item. In relation to the former, the results again demonstrated that partnerships and cooperation with the competition are underestimated in importance with companies reporting that the sophistication and preferences of tourists, destination quality control in conjunction with tourist education and motivation do not provide any input into the competitiveness of the sector.

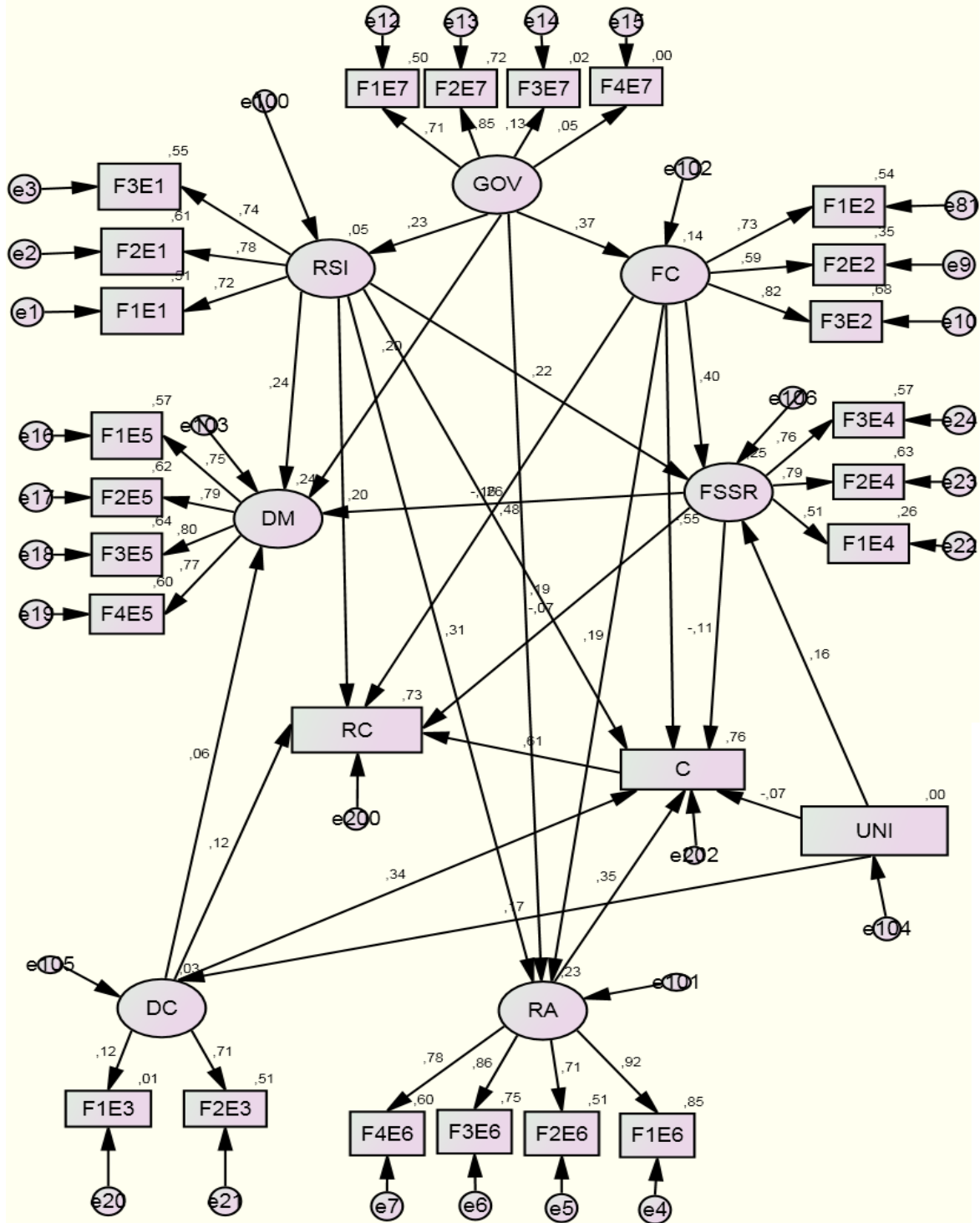
A second model alternative to that detailed above was tested with the only alteration being the variable for measuring competitiveness switched from employment to population



density. The results were similar to the model above with the exception of the influence of diverse variations in density levels. Table 7 sets out these findings and details the constructs: existence of related and support industries ( $\beta=293.3$  CR95%: 59.5-527.1,  $p<0.14$ ), factor conditions ( $\beta=-286.07$ , CR95%: (-535.4)-(-36.75),  $p<0.025$ ) and clusters ( $\beta=75.4$ , CR95%: 58.2-92.6,  $p<0.001$ ). The factor conditions construct returns a negative influence on employment with the analysis identical to that generated with the employment variable.

Figure 2 provides the complete structural model with the standardised regression weightings.

Figure 2 – Complete Structural Model Results



RSI - Related and Support Industries

RA - Resources and Attractions

FC - Factor Conditions

DM - Destination Management

DC - Demand Conditions

C - Cluster

FSSR - Firm Strategy, Structure and Rivalry

RC - Regional Competitiveness

GOV - Government

UNI - Universities

In keeping with the results of analysis, it proved possible to verify the proposed research hypotheses (Table 7).

#### **5.4 Regional Analysis of the Scales**

This section analyses the composite variables associated to the factors making up the eight constructs already analysed by tourism region. The tourism regions were grouped into the Region of Oporto and the North of Portugal (North), the Region of Lisbon and the Tagus Valley (LTV), Algarve and Others (the results generated corresponding to the averages). The objective is to ascertain whether there are any statistically significant differences in the factors identified by the exploratory factorial analysis of the eight constructs. Hence, we applied the ANOVA variance analysis test (Table 8 in the annex). In order to identify pairs of statistically different averages, the Bonferroni Multiple Comparisons test was deployed to study any differences existing between regions.

In relation to the existence of related and support industries scale, the findings detail significant differences in the accommodation quality/variety/price relationship factor ( $p < 0.05$ ) between the LTV (4.08) and Others (3.80) regions (Bonferroni Test:  $p = 0.027$ ) while within the scope of the transport efficiency and quality factor there are significant differences ( $p < 0.01$ ) between the regions LTV (3.35) and North (2.76) (Bonferroni Test –  $p = 0.022$ ). Analysis of the factor conditions shows significant differences in effect ( $p < 0.001$ ) between the LTV (3.52) and Algarve (3.45) regions comparative to the others (3.9) (Bonferroni Tests –  $p = 0.001$  and  $p = 0.001$ , respectively) within the framework of destination hygiene and safety and resource conservation. In demand conditions and strategy, structure and rivalry, there are no statistically significant differences between the tourism regions across these diverse factors.

Under the resources and attractions construct, there are significant differences ( $p < 0.001$ ) but uniquely in the factor Gastronomy and Traditions. The Algarve (4.73) is the tourism region that displays substantially higher levels than the other regions (North – 3.41, Bonferroni Test –  $p = 0.000$ ; Others – 3.85, Bonferroni Test –  $p = 0.000$ ; LTV – 3.89, Bonferroni Test –  $p = 0.000$ ), while the North returns a result significantly lower than the LTV (Bonferroni Test –  $p = 0.011$ ) and Others (Bonferroni Test –  $p = 0.006$ ) regions. In relation to destination management, there are statistically significant differences ( $p < 0.001$ ) between regions in the marketing and promotion and tourism information factor. The regions of the Algarve (3.56) and LTV (3.47) record significantly higher levels than Others (3.11) (Bonferroni Tests –  $p = 0.005$  and  $p = 0.005$ , respectively). In the government and universities constructs, there are no significant variations between the tourism regions across the diverse factors.

## ***7. Conclusions***

This research aimed to identify different dimensions contributing towards tourism sector competitiveness through proposing and implementing a new tourism destinations competitiveness model. The dimensions of tourism competitiveness are multi-dimensional and extremely complex.

We have thus demonstrated that the proposed competitiveness model does serve to contribute towards the creation of value given that it enables the competitiveness of a tourism destination to be determined and facilitates in understanding the direct and indirect relationships surrounding the phenomenon of regional competitiveness within the context of tourism destinations. The main contribution derives from the inherent nature of the model and its implications for regional competitiveness.

The results, furthermore, demonstrate that the following constructs make a direct contribution towards competitiveness – demand conditions, firm strategy, structure and rivalry, related and support industries, factor conditions and clusters. Hence, these results are coherent with the vision of Porter (1990) within which regional competitive success depends on the relative strength of the four first constructs in promoting regional development. This also boosts the perception that clusters make a significant contribution towards competitiveness and confirming studies by authors (Porter, 1990; Bergamn and Feser, 2000; Porter, 2002; Rocha, 2004; Shakya, 2009) defending such a paradigm.

Indeed, we also need to highlight the relevance of the second and fourth constructs, which despite being statistically significant wield a negative effect on competitiveness. This may mean that human resource specialisation, capital resources, physical infrastructures and accessibility, destination hygiene and safety, resource conservation and preservation, differentiation and innovation, competition, and cooperation are non-recognised factors in competitiveness. Measures capable of inverting this situation and fostering a sense of entrepreneurial spirit around the development of these factors would seem of the greatest importance.

We should also point out that the government, universities, destination management and resources and attractions constructs, in isolation, do not contribute towards regional competitiveness. However, where we join these factors up with others, we may attain an indirect form of competitiveness, for example, when combining the promotion of regional development, security, resource conservation, legislation and government backed measures for cooperation and education, the existence of related and support industries with the accommodation quality, variety and price relationship, transport efficiency and quality and tourism support infrastructures. Universities similarly contribute towards competitiveness

through demand conditions and the factors of tourist sophistication and preferences, destination quality control as well as tourist education and motivations.

We would also highlight that one means for clusters to attain competitiveness is through resources and attractions and specifically the factors of climate, the attractiveness of both the natural and the cultural and historical resources, entertainment activities, gastronomy and traditions. We may immediately notice the great importance of this dimension in the creation of comparative advantage and thereby contributing towards enhancing tourism destination competitiveness. These empirical findings are also in keeping with the results of studies by Crouch and Ritchie (1999) and Crouch (2007).

The development of tourism destination management, identified as one of the most important dimensions to competitiveness, achieves no success in actual implementation, and in accordance with studies carried out by Omerzel (2006) and Gomezelj and Mihalic (2008). Dwyer and Kim (2003) in their model warned that destination management might negatively influence competitiveness, which is the result returned by our research. The main problem would seem to be related with the ineffectiveness of tourism destination promotion, destination hospitality and the lack of entrepreneurship and proactiveness as well as destination support services.

In relation to clusters, every dimension contributes towards their existence with the exception of the government item. However, the factor conditions, firm strategy, structure and rivalry and universities provide a negative input into the existence of clusters, while human resource specialisation, access to capital resources, physical and access infrastructures, destination hygiene and safety, resource conservation and preservation, the development of differentiation and innovation strategies, competition and cooperation, education and human resource training are neutral as regards the setting up of tourism companies.

Cluster company competitiveness is determined by resources and attractions, the existence of related and support industries, and demand conditions with the intervention of government and universities corresponding to the following factors: climate, attractiveness of both natural and cultural and historical resources, entertainment activities, gastronomy and traditions, along with the accommodation quality, variety and price relationship, transport efficiency and quality and tourism support infrastructures, the promotion of regional development, security, resource conservation, legislation and government cooperation measures and education and differentiation and innovation in the products and services on offer as well as human resource training. Nevertheless, only the resources and attractions, the existence of related and support industries and demand conditions contribute directly to the founding of clusters with all other factors making only an indirect contribution. This similarly happens with competitiveness where factor conditions and firm strategy, structure and rivalry, despite being statistically significant, bear a negative effect on clusters.

Another related issue deals with how a tourism destination might in itself be competitive, this is not synonymous with a destination located in a cluster region. According to the model's results, the existence of related and support industries, factor and demand conditions, firm strategy, structure and rivalry and clusters contain enough significance, whether considered in isolation or jointly, as driving forces behind the development of regional competitive in line with the conclusions of studies by Porter (1990).

Through this research project, we have also proven able to evaluate the alignment of each factor within the scope of the respective tourism regions. Based upon the dimensions contributing towards competitiveness, we would highlight the following factors: the accommodation quality/variety/price relationship differs significantly in the LTV region in relation to all others and understandably given that the former hosts the national capital and is home to an enormous range of accommodation services. In the transport efficiency and

quality factor, the LTV region stands out in relation to the North. In the hygiene, destination security and resource conservation factors, the LTV and Algarve regions stand out from the remainder and in keeping with their profiles as leading international level destinations demanding attention is paid to such aspects. Given Portugal is home to a rich and diverse gastronomy and other traditions, this factor is only significantly higher in the Algarve. The development of tourism in inland regions might benefit from leveraging this facet so as to attain competitiveness. There is also the fact that the Algarve displays greater susceptibility to the relevance of marketing and promotion and tourism information than other regions and hardly surprising given the region's global profile as a tourism destination.

Clearly, the complexity inherent to studying competitiveness undoubtedly renders its measuring an extremely complicated task as we duly find when putting this model into practice and finding that such tourism destination competitiveness depends on a combination of a range of dimensions and factors with direct and indirect relationships within a country made up of differing regions each with specific characteristics. We would expect that the model serves as a tool of reference for the respective competent authorities as a means of contributing towards refining the implementation of regional development strategies. As with any study, this project also has its own limitations with one major obstacle being the fact that there was low level of company openness to answering the questionnaire. This fact may relate to a lack of awareness among certain entities and individuals as to how such projects generate not only contributions to scientific knowledge in general but also local and national development in particular. We would advocate the replication of this research and its application to other tourism destinations on a global scale so as to challenge and strengthen its validity and comparative effectiveness. One other suggestion would be expanding the model to include new entrepreneurialism linked facets given their sheer importance in setting up and managing companies.



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**ANNEX**

**Table 4 – Exploratory Factorial Analysis of the Constructs**

<b>Existence of Related and Support Industries</b>	<b>Factors</b>	<b>Cronbach's Alpha</b>
Good quality accommodation is available There is variety in the accommodation available There is a good accommodation quality/price relationship	Accommodation Quality /Variety /Price Relationship	0.732
There are appropriate levels of destination transport access Local tourism transport is efficient Local tourism transport is good quality	Transport Efficiency and Quality	0.889
Restaurant services are able to cope with local tourism flows Leisure facilities and services meet tourism demand Sports facilities and conditions are in place In general terms, support companies are able to meet the level of tourism demand (bars, discos...) Tourism companies run cultural programs able to generate visitor satisfaction	Tourism Support Infrastructures	0.756
<b>Factor conditions</b>	<b>Factors</b>	<b>Cronbach's Alpha</b>
The general quality of human resource training is good for the sector There are enough specialist professionals for the sector's level of activity The general quality of life ensures easy retention of employees In general terms, tourism company managers are competent	Human Resource Specialisation	0.776
It is easy to obtain financing for your activities The necessary start-up investment costs are accessible The general quality of transport accesses and infrastructures is good	Capital Resources, Physical and Access Infrastructures	0.683
The 'Cleanliness'/Sanitation conditions are good The region is safe for tourists The natural resources receive due protection Historical and cultural resources are well cared for	Destination Hygiene and Safety and Resource Conservation and Preservation	0.781
<b>Demand conditions</b>	<b>Factors</b>	<b>Cronbach's Alpha</b>
Tourism companies generally act in accordance with business ethics Some tourists register niche tastes and demands Tourists generally recognise the destination as a quality destination Efforts are made to identify whether tourists intend to return	Tourist Sophistication and Preferences and Destination Quality Control	0.634
The tourists are demanding The educational level of tourists influences destination choice Importance is attached to collecting tourism destination visitor opinions	Tourist Education and Motivations	0.646
<b>Business strategy, structure and rivalry</b>	<b>Factors</b>	<b>Cronbach's Alpha</b>
Your company contributes towards regional development The location of your company (region) contributes towards business innovation Innovation is important to the success of your company Differentiation in terms of your products and services is important	Differentiation and Innovation	0.655
Your company faces intense local competition There is a variety of companies in your sector of activity	Competition	0.633
Companies openly share information There is cooperation between public and private sector tourism companies	Cooperation	0.767
<b>Resources and attractions</b>	<b>Factors</b>	<b>Cronbach's Alpha</b>
Attractiveness of climate for tourism	Climate	
Natural wonders/landscapes Flora Fauna Unspoiled natural environments Nature related activities Radical sports National parks, including nature reserves Pedestrian footpaths Visitor access to natural areas	Attractiveness of Natural Resources	0.907
Historical/heritage sites Architectonic characteristics Thematic museum visits Special events/festivals Entertainment and theme parks Sporting activities Entertainment quality Entertainment variety Radical sports Nightlife (for example bars, discos, etcetera)	Attractiveness of Cultural/Historical Resources and Entertainment Activities	0.875
Customs Gastronomic variety Wines Handicrafts	Gastronomy and Traditions	0.749

(Continue)



## Competitiveness and Clusters in the Portuguese Tourism Sector

ConDestination management	Factors	Cronbach's Alpha
Running promotional tourism packages Destination publicity campaigns Recourse to email as a marketing and communication strategy Recourse to social networks for promotional purposes National destination reputation International destination reputation Tourism destination products and services have an international profile Tourism orientation and information Tourism telecommunication systems	Marketing and Promotion and Tourism Information	0,925
Communication between tourists and residents Resident hospitality towards visitors	Destination Hospitality	0,761
Entrepreneurial quality of local businesses Company focus on growth and innovation policies Strong emphasis on product/service research, development and innovation Proactive attitude of tourism company managers Local community support for special tourism events	Entrepreneurialism and Proactiveness	0,884
Healthcare/medical services for tourists Financial institutions and exchange rate facilities Tourist Offices	Tourism Support Services	0,754
Government	Factors	Cronbach's Alpha
The Government supports regional development There is sufficient local government investment in innovation and development Local government policies impacting on business are appropriate Local government policies favour and support growth in tourism Tourism investment is encouraged by local government	Promotion of Regional Development	0,915
The state has engaged in security campaigns against terrorism and/or criminality The state mandated increase in holidays influences choice of destination The state backs the recovery and conservation of natural, historical and cultural resources	Security, Resource Conservation and Legislation	0,635
Improvements to the information and communication infrastructures Fostering partnerships between government agencies, industries and universities Promoting transport and other physical infrastructures Promoting specialist education and training programs boosting labour skills	Government Infrastructure Support Measures, Cooperation and Education	0,749
Enabling start-up company access to investment capital Reformulating legislation in favour of the sector Increasing funding for research Attracting new investors	Government Support Measures for New Businesses	0,753
Universities	Factors	Cronbach's Alpha
Developing tourism product and service innovation able to enhance demand Developing differentiation strategies able to enhance demand Human resource education and training Maintaining close relationships with companies Supplying information able to improve your business	Universities	0,869

Table 8 – ANOVA Construct Results

			N	Average	LI	LS	p	
Existence of Related and Support Industries	Accommodation Quality /Variety/Price Relationship	North	58	3.94	3.79	4.08	0.024	
		LTV	88	4.08	3.93	4.22		
		Algarve	48	4.03	3.82	4.25		
		Others	206	3.80	3.68	3.92		
	Transport Efficiency and Quality	North	58	2.76	2.48	3.04	0.008	
		LTV	88	3.35	3.12	3.57		
		Algarve	48	2.87	2.55	3.19		
		Others	206	2.92	2.75	3.08		
	Tourism Support Infrastructures	North	58	3.56	3.37	3.76	0.653	
		LTV	88	3.55	3.39	3.71		
		Algarve	48	3.66	3.51	3.82		
		Others	206	3.51	3.40	3.62		
Factor conditions	Human Resource Specialisation	North	58	3.27	3.05	3.49	0.078	
		LTV	88	3.04	2.88	3.20		
		Algarve	48	3.13	2.94	3.32		
		Others	206	3.28	3.18	3.39		
	Capital Resources, Physical and Access Infrastructures	North	58	2.61	2.40	2.82	0.150	
		LTV	88	2.46	2.29	2.62		
		Algarve	48	2.51	2.33	2.70		
		Others	206	2.70	2.57	2.84		
	Destination Hygiene and Safety and Resource Conservation and Preservation	North	58	3.75	3.53	3.96	0.000	
		LTV	88	3.52	3.37	3.67		
		Algarve	48	3.45	3.22	3.67		
		Others	206	3.90	3.80	4.01		
Demand conditions	Tourist Sophistication and Preferences and Destination Quality Control	North	58	3.85	3.68	4.02	0.297	
		LTV	88	3.67	3.55	3.78		
		Algarve	48	3.66	3.49	3.83		
		Others	206	3.73	3.65	3.82		
	Tourist Education and Motivations	North	58	4.24	4.08	4.40	0.620	
		LTV	88	4.32	4.20	4.44		
		Algarve	48	4.19	4.03	4.35		
		Others	206	4.24	4.15	4.33		
	Strategy, structure and rivalry	Differentiation and Innovation	North	58	4.29	4.16	4.42	0.664
			LTV	88	4.21	4.09	4.32	
			Algarve	48	4.23	4.08	4.38	
			Others	206	4.19	4.11	4.27	
Competition		North	58	3.53	3.31	3.75	0.131	
		LTV	88	3.56	3.38	3.73		
		Algarve	48	3.74	3.53	3.95		
		Others	206	3.74	3.63	3.84		
Cooperation		North	58	2.78	2.54	3.03	0.063	
		LTV	88	2.70	2.50	2.90		
		Algarve	48	2.81	2.51	3.12		
		Others	206	3.02	2.87	3.17		
Resources and attractions	Climate	North	58	3.33	3.09	3.56	0.053	
		LTV	88	3.28	3.09	3.46		
		Algarve	48	3.40	3.17	3.62		
		Others	206	3.67	3.56	3.77		
	Attractiveness of Natural Resources	North	58	3.34	3.16	3.51	0.177	
		LTV	88	3.42	3.25	3.59		
		Algarve	48	3.22	3.05	3.39		
		Others	206	3.22	3.12	3.33		
	Attractiveness of Cultural/Historical Resources and Entertainment Activities	North	58	3.72	3.56	3.89	0.052	
		LTV	88	3.54	3.38	3.70		
		Algarve	48	3.37	3.18	3.56		
		Others	206	3.62	3.52	3.71		
Gastronomy and Traditions	North	58	3.41	3.19	3.64	0.000		
	LTV	88	3.89	3.67	4.10			
	Algarve	48	4.73	4.53	4.93			
	Others	206	3.85	3.73	3.98			
Destination management	Marketing and Promotion and Tourism Information	North	58	3.22	3.03	3.40	0.000	
		LTV	88	3.47	3.27	3.66		
		Algarve	48	3.56	3.35	3.77		
		Others	206	3.11	2.99	3.23		
	Destination Hospitality	North	58	3.71	3.50	3.91	0.976	
		LTV	88	3.70	3.54	3.87		
		Algarve	48	3.70	3.43	3.97		
		Others	206	3.70	3.60	3.81		
	Entrepreneurialism and Proactiveness	North	58	3.32	3.10	3.55	0.474	
		LTV	88	3.15	2.97	3.34		
		Algarve	48	3.09	2.87	3.32		
		Others	206	3.23	3.12	3.34		
Tourism Support Services	North	58	3.14	2.92	3.35	0.097		
	LTV	88	3.27	3.08	3.46			
	Algarve	48	2.94	2.67	3.20			
	Others	206	3.26	3.14	3.37			

(Continue)

## Competitiveness and Clusters in the Portuguese Tourism Sector

			N	Average	LI	LS	p
Government	Promotion of Regional Development	North	58	2.71	2.48	2.93	0.423
		LTV	88	2.80	2.62	2.98	
		Algarve	48	2.68	2.42	2.93	
		Others	206	2.87	2.74	3.00	
	Security, Resource Conservation and Legislation	North	58	3.08	2.89	3.26	0.976
		LTV	88	2.88	2.72	3.03	
		Algarve	48	2.79	2.53	3.05	
		Others	206	3.03	2.91	3.14	
	Government Infrastructure Support Measures, Cooperation and Education	North	58	4.04	3.87	4.21	0.121
		LTV	88	4.25	4.12	4.38	
		Algarve	48	4.02	3.82	4.22	
		Others	206	4.13	4.04	4.22	
Government Support Measures for New Businesses	North	58	4.02	3.83	4.22	0.195	
	LTV	88	4.18	4.03	4.33		
	Algarve	48	3.92	3.75	4.10		
	Others	206	4.07	3.97	4.16		
Universities	Universities	North	58	3.99	3.77	4.21	0.453
		LTV	88	4.14	4.01	4.27	
		Algarve	48	3.97	3.73	4.20	
		Others	206	4.09	3.99	4.18	

## **Final Considerations**

We would like to begin our final considerations by addressing the last topic, highlighting the importance of competitiveness in tourism destinations and the complexity in tension and relations between many dimensions and factors. Despite its complexity, competition among tourism destinations around the world has never been as tough as now and no destination should be indifferent to the competitive challenges to which it is exposed. The model tested in the last paper can facilitate the understanding and the complex and laborious task of analyzing competitiveness.

At a time when Portugal is experiencing such a difficult economic period, where the search for competitiveness is a major concern, it is necessary for the government to intervene more directly and to take measures in order to encourage companies to increase their productivity and entrepreneurship to promote and foster the creation of new companies, capable of responding to the new challenges posed by the economic difficulties. Sovereignty resides in the companies' competitiveness, because there is no competitiveness without productivity. Should be required more direct action in risk management activities which serve as strategies to allow Portugal to be a prime tourist destination and to achieve a more competitive position in the tourism sector. Tourism can be a major factor in the internationalization of the economy and contribute to a higher level of competitiveness of Portuguese economy.

However, we cannot confine ourselves only to words; actions are needed to activate the potential that the country has in the development of its resources. In practice, it is necessary to outline a strategic framework and to project the opportunities to achieve the goals and objectives in order to promote competitiveness. From the analysis made we concluded that cooperation between companies contributes to competitiveness, but from the perspective of the respondents this cooperation does not contribute to the development of a tourism destination. The same applies to the entrepreneurship and proactive entrepreneurs factor. However, it is urgent to change this mentality and bet on a strong spirit of partnership and collaboration of the various players in order to acknowledge the potential of the destination in order to maximize the resources and capacities available.

Yet, we have seen the existence of a large gap that is not promoting the image of the destinations in order to consolidate and compete effectively in international markets. The preferences of tourists, the change of lifestyle, attitudes and values should be the main forces in building the marketing of the destination. Given the empirical evidencies that the resources and tourism attractions contribute to competitiveness, they should be preserved and properly managed and also the investments to the development of tourism should be a central concern. Moreover, competitiveness cannot be separated from the sustainable and harmonious development of tourism

destinations. So, it is important the assessment of each factor in each tourism region in order to take full advantage of any dimension that could contribute to regional development.

From this thesis it was also possible to verify a strong relationship between clusters and competitiveness, i.e., it was evident that clusters contribute to competitiveness. These results should not only provide encouragement even to the more theoretically sceptical but also provide a point of departure for establishing new tourism clusters and fostering the growth and expansion of those existing and thereby boosting regional development especially in the inland and more disadvantaged regions and countering the economic asymmetries that Portugal still experiences.

Portugal has a great cultural, historical and natural heritage to promote the development of tourism, and it may even be a solution in the medium and long term to the extent that such resources and attractions also contribute directly to competitiveness.

Given the controversy on the concept of tourism clusters and after the research carried out around this theme with the aim of contributing to the clarification of the concept, it can be defined as a set of related companies and as a touristic support located in a competitive environment, having regard to population size and geographical destination where it is inserted. Our major contribution to the definition of tourism clusters is on the last part of it.

Another important issue of this research is the kind of tourism performance areas and Tourism Development Poles that we found when we have identified three types of performance clusters: low, medium and high. After the data cross-checking with the locations of the clusters found in the second paper, the results were not always what we expected. That is, the clusters location does not necessarily correspond to the high performance tourism regions . It was noted that this may be related to the poor tourism destination management. Each destination must create competitive and comparative advantages in a sustained manner, and it must be an ongoing process.

The starting point for this research was the conceptual model proposed in the first paper, which served as an inspiration for this doctoral thesis. Thereafter, many investigations appeared at the international level approaching this theme; however, in Portugal this research area is stagnant, there is a lack of new researches published about clusters and competitiveness in the tourism sector. We believe that this argument is clearly contributing to the advance of scientific knowledge about the tourism sector competitiveness and may well serve to inspire further research in order to promote competitiveness and regional development. And may even be a source of guidance and starting point for the decision makers and scholars to focus in an attempt to find ways and mechanisms to leverage the national economy.

We could not consider this step the end; instead it is the beginning of what needs to be done for tourism competitiveness in Portugal. Competitiveness is a constant process and the business environment is constantly changing, so we must continue to investigate these relevant and interesting issues.

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## Annex



Exmo. Senhor (a),

O meu nome é Cristina Maria Santos Estêvão, sou aluna do Departamento de Gestão e Economia da Universidade da Beira Interior e faço parte de um projecto de investigação que se está a desenvolver sobre a competitividade dos destinos turísticos.

Para que este projecto seja levado a cabo torna-se imprescindível a sua preciosíssima colaboração, pois os dados unicamente poderão ser obtidos mediante a sua participação.

Deste modo, venho pedir-lhe que preencha o seguinte questionário anexado e que use o seu escasso tempo disponível neste simples gesto de cooperação que para nós revelar-se-á de uma inigualável importância. Informamos, desde já, que as informações por si cedidas serão confidenciais! A análise dos resultados será feita de forma agregada pelo que não será relevante a identificação das respostas ao nível individual.

Agradecemos a atenção despendida, apelando, desde já, à sua sensibilidade para colaborar neste projecto, em que o seu êxito dependerá, fundamentalmente, da Vossa contribuição.

Aguardamos, ansiosamente, a Vossa resposta.

O Nosso muito Obrigado!

Atentamente de V<sup>a</sup>. Ex.<sup>a</sup>

Cristina Estêvão

P.S. - Se pretender esclarecer alguma dúvida ou qualquer outro assunto, queira contactar-me:  
Cristina Estêvão (kristina.estevao@hotmail.com) - Telemóvel: 967015717

### Questionário

Neste questionário encontra um conjunto de afirmações sobre elementos importantes ao estudo da competitividade do destino turístico onde está inserida a sua empresa. O mesmo tem um total de 5 grupos de questões e levará cerca de 15 minutos a completar. Não existem respostas certas ou erradas, por favor apenas seja sincero. As suas respostas a este questionário serão inteiramente confidenciais e serão analisadas unicamente no agregado. Para cada um dos grupos seguintes, as questões dizem respeito unicamente ao seu concelho.

#### Identificação e Caracterização da Empresa

1. Concelho da localização da empresa \_\_\_\_\_ 2. CAE \_\_\_\_\_ 3. N.º Trab. \_\_\_\_\_  
 Ano Início de Actividade \_\_\_\_\_ Forma Jurídica \_\_\_\_\_

Por favor, seleccione o número que melhor expressa a sua opinião sobre a situação actual, indicando se concorda ou discorda com as seguintes frases:

1	2	3	4	5	6
Discordo Totalmente	Discordo	Não Concordo nem Discordo	Concordo	Concordo Totalmente	Sem Opinião

Questões	(1)	(2)	(3)	(4)	(5)	(6)
Existe uma boa qualidade de alojamento						
Existe variedade de alojamento						
Existe uma boa relação qualidade/preço no alojamento						
Existem transportes suficientes de acesso ao destino						
O transporte turístico local é eficiente						
O transporte turístico local é de boa qualidade						
Os serviços de restauração são suficientes para o fluxo turístico local						
Existem serviços de lazer suficientes para a procura turística						
Existem condições para a prática da actividade desportiva						
De um modo geral, existem empresas de suporte suficientes para fazer face à procura turística (por exemplo, bares, restaurantes, hotéis, agencias de viagens, etc.)						
As empresas de turismo têm programas culturais para assegurar a satisfação do visitante						
As empresas de turismo no geral, actuam conforme os princípios de ética comercial						
A qualidade geral da formação dos recursos humanos é boa na sua actividade						
Existem profissionais especializados suficientes na sua actividade						
A qualidade de vida geral retém facilmente os empregados						
De uma forma geral, os gestores de empresas de turismo são competentes						
A legislação laboral que regulamenta a sua actividade é motivadora para os seus empregados						
É fácil a obtenção de financiamento para a sua actividade						
O custo de investimento necessário para iniciar a sua actividade é acessível						
A qualidade geral de acessos e infra-estruturas de transportes é boa						
As condições 'Limpeza'/Saneamento são boas						
A região é segura para os turistas						
Os recursos naturais estão devidamente preservados						
Os recursos históricos e culturais estão bem conservados						
Alguns turistas mostram gostos fora do comum						
Os turistas são exigentes						
O nível educacional dos turistas influencia a escolha do destino turístico						
Os turistas no geral, reconhecem este como um destino de qualidade						
Existe a preocupação de saber se os turistas voltam						
É importante saber a opinião dos clientes sobre o destino turístico						
A sua empresa contribui para o desenvolvimento regional						
A competitividade local da sua empresa é intensa						
Existe variedade de empresas no seu ramo de actividade						
As empresas partilham abertamente informação						
Existe cooperação entre empresas do sector do Turismo público e privado						
A localização da sua empresa (região) contribui para a inovação do seu negócio						
A sua relação para com os concorrentes é caracterizada pela cooperação						
A inovação é importante para o sucesso da sua empresa						
A diferenciação ao nível dos produtos e serviços que comercializa é importante						

Por favor, seleccione o número que melhor expressa a sua opinião sobre quão atractivo é para si o seu concelho em termos de **Produto Turístico**, comparando com outras regiões concorrentes:

1	2	3	4	5	6
Muito abaixo da média	Ligeiramente abaixo da média	Média	Ligeiramente acima da média	Muito acima da média	Sem Opinião

Questões	(1)	(2)	(3)	(4)	(5)	(6)
Atractividade do clima para o turismo						
Maravilhas/Cenário Natural						
Flora						
Fauna						
Locais Históricos/Património						
Características arquitectónicas						
Visita a museus temáticos						
Costumes						
Variedade gastronómica						
Enologia						
Natureza não devastada						
Eventos/festas especiais						
Parques de diversão e temáticos						
Actividades de desporto						
Qualidade do entretenimento						
Variedade do entretenimento						
Actividades de contacto com a natureza						
Desportos radicais						
Parques nacionais, incluindo reservas naturais						
Percurso Pedestres						
Vida nocturna (por exemplo, bares, discotecas, dança)						
Artesanato						
Acessos dos visitantes a áreas naturais						
Oferta de pacotes turísticos promocionais						
Campanhas publicitárias do destino						
O uso do correio electrónico como estratégia de marketing e comunicação						
Divulgação do destino em redes sociais						
Reputação nacional do destino						
Reputação internacional do destino						
Os produtos e serviços oferecidos pelo destino turístico são conhecidos internacionalmente						
Orientação e informação turística						
Sistema de telecomunicações para turistas						
Comunicação entre turistas e residentes						
Hospitalidade dos residentes face aos visitantes						
Qualidades empreendedoras nos negócios locais						
A orientação das empresas para políticas de crescimento e de inovação						
Forte ênfase na investigação, desenvolvimento e inovação dos produtos/serviços						
Atitude proactiva nos gestores das empresas turísticas						
Apoio da comunidade local nos eventos especiais turísticos						
Serviços de saúde/médicos para servir os turistas						
Instituições financeiras e serviços de câmbios monetários						
Postos de Turismo						

Por favor, seleccione o número que melhor expressa a sua opinião sobre a situação actual, indicando se concorda ou discorda com as seguintes frases:

1	2	3	4	5	6
Discordo Totalmente	Discordo	Não Concordo nem Discordo	Concordo	Concordo Totalmente	Sem Opinião

Questões	(1)	(2)	(3)	(4)	(5)	(6)
O governo promove o desenvolvimento regional						
O apoio do governo local no investimento em inovação e desenvolvimento é amplo						
As políticas do governo local que afectam o seu negócio são apropriadas						
As políticas do governo local apoiam o crescimento do turismo						
O investimento turístico é encorajado pelo governo local						
O Estado tem investido nas acessibilidades do destino						
O Estado tem promovido acções de segurança contra o terrorismo e/ou criminalidade						
O aumento dos dias de férias por parte do governo influencia a escolha do destino						
O Estado promove a recuperação e conservação dos recursos naturais, históricos e culturais						

Pensando nos próximos cinco anos, em que medida considera cada uma das seguintes acções governamentais importantes e prioritária?

1	2	3	4	5	6
Não é de todo importante	Pouco importante	Importante	Muito Importante	Extremamente importante	Sem opinião

Questões	(1)	(2)	(3)	(4)	(5)	(6)
Melhorar as infra-estruturas de informação e comunicação						
Activar parcerias entre agências governamentais, indústrias e universidades						
Promover os transportes e outras infra-estruturas físicas						
Apoiar as empresas iniciantes no acesso ao capital de investimento						
Reformular a legislação a favor da sua actividade						
Aumentar os fundos para a investigação						
Atrair novos investidores						

Em que medida é que as instituições de ensino superior têm um papel útil:

1	2	3	4	5	6	
Não é de todo útil	Pouco útil	Útil	Muito Útil	Extremamente útil	Sem resposta	
Questões	(1)	(2)	(3)	(4)	(5)	(6)
No desenvolvimento de estratégias de inovação nos produtos e serviços turísticos de forma a torná-los atractivos						
No desenvolvimento de estratégias de diferenciação nos produtos e serviços turísticos de forma a torná-los atractivos						
Na educação e formação dos recursos humanos						
Na criação de relações próximas com as empresas						
Fornecendo informações e dando informações para melhorar o seu negócio						

**DADOS PESSOAIS**

Qual a função que exerce na sua empresa? \_\_\_\_\_

Idade \_\_\_\_\_

Formação

Ens. Básico  Ens. Secundário  Ens. Técnico/Profissional  Ens. Universitário

Agradecemos pelo tempo despendido a responder a este questionário. As suas informações serão extremamente úteis.

Por favor escreva aqui se desejar fazer algum comentário

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Muito Obrigada!