The role of geography in the success of the balearic tourism industry

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THE ROLE OF GEOGRAPHY IN THE SUCCESS OF THE BALEARIC TOURISM INDUSTRY

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Keywords: Mass tourism, Balearic Islands, hotels, tourism cluster, industrial district.

JEL Code: L83; R12; R14

Highlights
► The physical context of the tourist experience in a sea, sand and sun destination.
► Entrepreneurship and geography in a mass tourism destination.
► Spatial planning and its effect on consumer loyalty in the Balearic tourist trade.

Abstract
A really large tourist destination, such as the Balearic Islands cannot be defined as a single geographic space without regional differentiation; it spans several islands within each of which are a multiplicity of coastal areas with very varied geographical morphology and differing degrees of exploitation for tourism. We aim to conduct a statistical analysis of the standard features of such coastal areas to determine the geographic base common to the entire Balearic archipelago as a mass tourist destination.

Our analysis is based on the different theoretical concepts of a destination as they appear in tourist literature: A geographically defined area, a group consumption brand name, a location defined by a concrete offer, and so on, and the industrial district concept as initially proposed by Marshall and later developed by authors, such as Krugman and Becattini.
We set out to conduct a fundamentally quantitative analysis for which purpose we established a database containing 41 categories of geographical, commercial and business data for each of the 82 Balearic tourist areas. This information is integrated into a statistically homogenous set of values that enables the application of the Agglomerative Hierarchical Clustering (AHC) statistical method.

The results obtained show that the islands of Menorca and Formentera constitute minor products in clear contrast with the major destinations of Mallorca and Ibiza. The latter two have developed a model composed of a pattern of large areas that are virtually indistinguishable from each other. Each zone can accommodate almost every kind of tourist wishing to visit the Balearic Islands, regardless of nationality, family status or economic level. A final result indicates that the large local hoteliers have developed a very special trading model: Targeting a specific niche of tourist demand while offering a wide geographical distribution of their establishments.

**Introduction**

In this study we analyze the geographical distribution of hotels and other accommodation in one of the world’s largest tourist centers, the Balearic Islands. Our object of study is leisure tourism, an activity in which tourists visit a destination and stay several days or weeks there; their aim is not to see anything in particular, but to enjoy the “tourist experience” which comprises the consumption of natural, artificial and intangible elements in a particular place (Smith 1994). Tourists “[buy] more than a simple collection of services […] [they are] also buying the temporary use of a strange environment, incorporating novel geographical features” (Holloway 1989). So in the tourist business as elsewhere, the territory is much more than simply a venue for an economic activity (Dicken and Malmberg 2001); it is a central element of attraction inside the body of products and services offered to the customer.

This paper focuses on the Balearic Islands, the largest tourist destination in the Mediterranean, in an attempt to see how the geographical structure of the industry in the islands contributes to maintaining their attractiveness among Europeans seeking sea, sand and sun vacations. In the following pages we examine the distribution of the tourist
accommodation and services along the islands’ coastlines and carry out statistical comparisons of the various kinds of subdestination. In the present study the aim is to present a territorial economic analysis, dealing simultaneously with the two most salient levels: the regional, and the local. This approach is relatively unusual, as most previous work has concentrated either one level or the other.

**Literature Review**

Given their commercial, social and economic importance, it is no surprise that tourist destinations have received extensive attention from specialists. Studies in the literature can be broadly divided into two kinds: those that consider tourist destinations as a general concept, and those that focus on specific destinations. Inside the first group, some studies treat the tourist destination as a theoretical entity (Framke 2002; Saarinen 2004; Saraniemi & Kylänen 2011), while others explore what it is that differentiates successful destinations from other similar sites and makes them especially competitive (Crouch, 2011; Dwyer & Chulwon 2003; Ekinci & Hosnay 2006). These authors all emphasize the difficulty of defining such a complex and diverse concept, and stress how the choice of either an economic or a sociological focus can have a decisive influence on the results of the research.

The studies that adopt a fundamentally economic perspective highlight the importance of the destination as an area of consumption. A tourist destination is a brand name under which amenities are offered to, and consumed by, customers (Buhalis 2000). A destination offers an amalgam of individual products and services (Gibson 2009), supplied by a wide cross-section of firms selling them at the same time and in the same place (Urry 1990). It is this model of consumption that shapes the tourist experience provided by a particular area (Buhalis 2000; Leiper 1995).

The second group of studies focuses on specific destinations, and can be classified as regional or local. Examples of studies at regional level broadly similar to ours are the analyses of large-scale Mexican destinations like Cancún (Torres 2002) and Los Cabos (López et al. 2006), the Australian Gold Coast (Pigram 1977; Prideaux 2008; Smith 1991), the Canary Islands (Morales and Santana 1993) and Ibiza (Cirer 2001). Lower down the scale, at local level, the focus has mainly been on the use of the territory in individual tourist destinations in the Caribbean (Weaver 1993), Crete (Andriotis 2008)
and in Benidorm (Ivars et al. 2013) and Sant Antoni (Marí 2000) in the Spanish Mediterranean.

All these articles analyze large-scale tourist destinations characterized by the presence of a significant number of firms interacting in an open environment. Following on from these studies (and ignoring the self-enclosed enclave-style destinations in which tourists have minimal contact with firms other than the one that runs their hotel) we introduce a theoretical concept that will help us in our analysis of the Balearic tourism industry: the industrial district.

A large-scale tourist destination is characteristically home to a set of firms offering relatively similar goods and services. The presence of a cluster of firms of this kind is also the defining feature of the industrial district, an entity described for the first time by Alfred Marshall and then largely ignored until its revival by Krugman, Porter and Becattini and others in the late twentieth century. Marshall proposed that the advantages of clusters of firms lay in the fact that their proximity allowed the creation of more efficient input and labor markets, helping to bring down costs and encouraging the spread of specialist knowledge (Marshall 1920). Industrial districts also favor the segmentation of markets according to product type (Rhee 1996) and quality (Ottati 1994) and the emergence of mechanisms that prevent predatory behaviors (Guiltnan and Gundlach 1996; Ottati 1991).

However, most models of business clusters and industrial districts tend to ignore the natural environment (Beenstock and Felsenstein 2010; Suedekum 2006). In our case, the environment – specifically, the beach – is of fundamental importance; in fact it is the key to the spatial distribution of the tourist infrastructure along the coastlines of the Balearic Islands. In this context, the beach is a specialized factor of production whose heterogeneity explains the existence of an “optimum distribution of firms by size but not an optimum size of firms” (Friedman 2007).

Objectives of the study

In this study we aim to define the internal structure of the supply of tourist accommodation in the Balearic Islands and to characterize these islands as a tourist destination. A market of the size of the Balearics will inevitably be differentiated. The millions of visitors who arrive in the islands each year come from different countries
and cultures and there are huge differences in their ages, expectations and spending power. Obviously, to cater for such a wide-ranging public, market segmentation is essential.

We will assess how this market segmentation is distributed geographically throughout the archipelago by using tangible physical data such as the characteristics and the category of establishments, the firms to which they belong, and the size and location of the various subdestinations.

So the main questions we set out to answer are the following:

1. Is each island an individually differentiated destination, or is the destination the archipelago itself?
2. We speak of the Balearic Islands as a sun and beach destination. To what extent does this tourism format monopolize the services and products offered by the islands?
3. The Balearic Islands host an impressive number of tourist accommodation firms, reflecting a high level of competitiveness. But do these firms spread their offer widely, or do they concentrate it? Many subdestinations may be controlled as quasi-monopolies by a single firm, or by a small number of firms. If the latter is the case, the geographical dimension emerges as a key factor in the market’s competitiveness: the different subdestinations are competing with each other, since they all depend on a small number of decision-making centers.
4. How are the hotels and other accommodation establishments distributed? Each of them belongs to a particular type and is classified in a category; therefore, we may find concentrations that indicate the existence of a geographical segmentation obeying the price/quality variable. If this segmentation exists, it will mean that tourists tend to cluster according to their socioeconomic status, since this status determines their spending power and category of the establishment where they stay.

The answers to these questions will allow us to define the islands either as a set of destinations that are clearly distinguished from each other, in which each one has a unique personality and caters for a specific clientele, or alternatively as a relatively homogeneous core market in which the various subdestinations resemble each other
closely and in which the few differences observed are due to their specific geographical and historical features.

Our findings are likely to have a strong bearing on the design of the promotion of tourism in the islands and future projects to improve the tourist services and products on offer. As the sun and beach tourism model spreads throughout the world, the analysis of the Balearic tourism model will be helpful on a wider scale as well in predicting the long-term evolution of the new destinations that bear clear commercial similarities to the Balearic Islands.

**Tourism in the Balearics**

According to data published by the World Tourism Organization (WTO), in 2010 Spain came second in the global tourist inflow ranking, surpassed only by the US. In that year Spain received 52.7 million tourists who brought in 48.9 bn euros (WTO 2012). Of these, approximately 18% came to the Balearic Islands (Spanish Institute of Tourism Studies, IET 2012). The islands received slightly over 9.2 million tourists, a figure that places them ahead of countries like Croatia, with 8.7 million, and Portugal, with 6.8 million. At the macroeconomic level, the Balearics have the highest level of tourist specialization of all Spanish regions in terms of the sector’s contribution to regional GDP (Spanish National Statistics Institute, INE 2012).

At entrepreneurial level, the tourism accommodation sector in the Balearics presents the following features (Cirer 2012):

1. Practically all the sector is in the hands of local entrepreneurs.
2. There is a strong tradition of competitiveness.
3. Accommodation firms in the Balearics have always targeted tourists from European countries, especially the British and German markets. Two out of every three tourists coming to the islands since 1966 have been from the UK or Germany.
4. The tourism industry in the islands is a mature sector which has had practically zero growth in the past ten years.

The many surveys carried out in the Balearics give an idea of the profile of the tourists who come to the islands. According to the Survey of Tourist Spending, conducted in 2002, 2003 and 2004, most tourists report high levels of satisfaction and
value very positively the beaches and the quality of the accommodation (Alegre & Garau 2011; Cladera 2002, 2009). The high overall quality of the island destination has been recorded in several articles focusing on specific market segments – British (Kozak 2001), British senior (Ryan 1995) and Norwegian (Jacobsen 2002) – which have recorded strong satisfaction with the overall quality of the destination. This means the Balearic Islands have one of the highest levels of consumer loyalty in the world (Garín & Montero 2007); 64% of visitors are repeaters (Cladera 2009).

The general behavior highlighted by these studies suggests that tourists in the Balearics are fairly static and devote only a small proportion of their time to excursions and visits. Similar behavior has been reported in other similar – though geographically distant – destinations such as Cancún (Torres 2002). The activities valued most highly by the tourists are relaxing by the hotel pool or on the beach, followed by enjoying the nightlife and shopping in the immediate vicinity. The common denominator of these activities is the opportunity for social contact inside a clearly structured, predictable environment. Many tourists see their vacation as a relaxing break, an interval in which to strengthen family relations (Obrador 2009), while others see it as a chance to meet people and to forge new relationships which, in many cases, may become long-lasting (Cladera 2009; Jacobsen 2002).

Most tourists visiting the Balearic Islands express a desire to get away from their everyday routine in an environment in which they can ignore their obligations and enjoy the lack of social restrictions: they dress casually, get up late, enjoy the nightlife, try exotic food and drink, and so on (Cohen 1984; Dann 1977). In addition, the proximity with other people in a similar situation to their own facilitates social interaction (Crompton 1979). Vacationing involves the purchase of a physical and social experience (Urry 1990); tourists visiting the Balearic Islands are attracted by the competitive prices offered by the hotels and other services and amenities and by the leisure activities on the beach and in the hotel, but also by the opportunity to create social relationships in an environment specially created for this purpose (Smith 1994; Caletrío 2009; Obrador 2009).

Recent studies confirm that the beach and accommodation package remains the main attraction for tourists visiting the Balearics (Alegre & Garau 2011; Alegre et al. 2013; Cirer 2013). So any interpretation of the success of the Balearic Islands as a mass
tourism destination should be based on an analysis of the spatial distribution of the accommodation and its relation to the beaches.

Data used in the statistical analysis

All the data used in this study come from the hotel firms themselves – mainly from web pages, and also from catalogs, publicity material, and information provided by the islands’ hotel associations.

As the principal objective of this study is to analyze the geographical distribution of tourism business clusters, we have used only data from the locations that contain at least three establishments and 300 rooms in hotels, hostales (boarding-houses) or apartments. Henceforth these will be referred to as units. Applying this strategy, we have obtained data corresponding to 1,610 establishments which include 180,540 units, 92% of the total. The data not recorded refer essentially to hostales and apartments, as shown in Table 1.

<table>
<thead>
<tr>
<th>TABLE 1. Comparison between the official tourism statistics for the Balearics and the database used in the present study.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Majorca</td>
</tr>
<tr>
<td>Ibiza</td>
</tr>
<tr>
<td>Minorca</td>
</tr>
<tr>
<td>Formentera</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Hostales (HS)</td>
</tr>
<tr>
<td>Apartments (AP)</td>
</tr>
<tr>
<td>Hotels + Aparthotels (H+AH)</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Note: All the data correspond to rooms in hotels and tourist apartments available in the 2011 season.

Table 2 displays the wide range of types and categories of accommodation in the Balearic tourism sector, and shows that this variety extends to all four islands. We classify the establishments into four types: Hostales, Apartments, Hotels and Aparthotels – HS, AP, H, AH – and five categories, based on the official system using stars (Balearic government 2012). The star rating system provides an excellent reflection of the overall quality of the establishment and is the main factor in setting the price that customers pay (Cirer 2013).
The role of geography in the success of the Balearic tourism industry

TABLE 2. Data used. Distribution of the rooms in hotel/tourist apartments by type of establishment and category.

<table>
<thead>
<tr>
<th>Establishment</th>
<th>Rooms</th>
<th>HS</th>
<th>AP</th>
<th>H</th>
<th>AH</th>
<th>*</th>
<th>**</th>
<th>***</th>
<th>****</th>
<th>*****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majorca</td>
<td>1.014</td>
<td>127.503</td>
<td>2.500</td>
<td>13.026</td>
<td>82.333</td>
<td>29.644</td>
<td>3.752</td>
<td>12.761</td>
<td>67.887</td>
<td>40.579</td>
</tr>
<tr>
<td>Ibiza</td>
<td>357</td>
<td>33.249</td>
<td>2.227</td>
<td>6.572</td>
<td>20.958</td>
<td>3.492</td>
<td>3.845</td>
<td>8.252</td>
<td>15.229</td>
<td>5.421</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1.610</td>
<td>180.540</td>
<td>5.420</td>
<td>25.954</td>
<td>111.362</td>
<td>37.804</td>
<td>9.817</td>
<td>24.877</td>
<td>91.128</td>
<td>51.027</td>
</tr>
</tbody>
</table>

HS=hostal; AP=apartment; H=hotel; AH=aparthotel.
Source: Author’s own data.

The geographical area in which an establishment is located is the basic variable for our analysis. To define it, in practically all cases we use the location indicated by the firm in its publicity material. This information always appears in the firms’ descriptions of their establishments, an indication of the importance that they attach to it. Therefore, the criterion applied in defining our 82 areas is commercial, rather than strictly geographical. All the areas are on the coastline; the presence of hotels inland is marginal. This finding confirms that the expansion of tourism in the Mediterranean has not increased the size of towns and cities but has led to the large-scale creation of coastal corridors (Gonen 1981).

The data used in our statistical analysis fall into three categories: data on the establishment, data on the owner company, and data on the area where the establishment is located. (Appendix A lists all the variables used)

1) Data referring individually to each business concern – 21 variables. This includes the size of each facility, the combination of type and category, the distance from the center of the tourist area and the distance from the beach.

2) Data referring to the firm that manages the establishment, obtained in all cases obtained from information provided by the firm itself. This includes the number of units managed by the firm in the Balearics, its overall size and the location of its decision-making center.

3) Data referring to the area – eight variables. The key information comprises its size – the number of establishments and units – the distance from the airport, proximity to other tourist areas, and the number of hotel firms present.
Most of the 41 variables scored between 0 and 100; otherwise, the values were homogenized. In this way 41 values were obtained between 0 and 100 for each of the 82 areas in the Balearics, and form the basis of the statistical analysis.

**Groupings of tourist areas**

First a correlation analysis was performed to check that none of the variables were correlated. The result is clearly negative: only nine pairs of variables – among the 800 – showed a Pearson’s correlation coefficient above 0.5, so there was no redundancy of information.

The statistical analysis used Agglomerative Hierarchical Clustering (AHC) as the main instrument. This method calculates the distances between the various clusters in a set (Mahalanobis 1936) and joins the two closest together, which become a new single cluster, thus reducing the size of the unit data set. The process is repeated recursively until all clusters have been merged into one cluster. The result is plotted in a dendrogram.

In our case, the homogenization of the data allows the use of Euclidean distances and Ward’s agglomerative method. This method does not compute distances between clusters. Rather, it forms clusters by maximizing within-clusters homogeneity. That is, the Ward’s method tries to minimize the total within-group or within-cluster sum of squares, (Lattin et al, 2003, p. 48). All the statistical analysis was performed with the Addinsoft XLSTAT program.

The statistical procedure does not provide a numerical tool to indicate when the process should be terminated (Fraley & Raftery 1998). In our case the most useful division is the one that classifies the sample of 82 areas into four sets, which we term *Urban*, *Isolated*, *Minorca*, and *Central*. This division reduces the total dissimilarity by almost two thirds and creates sets that are easy to identify qualitatively.

Figure 1 shows the dendrogram generated by analysing the data from 82 areas divided into these four sets. Table 3 shows the main data characterizing each group, and highlights the clear predominance of the *Central* model.
Let us now detail the main features of each of these four groups:

1) **URBAN.** This group covers almost 9% of the units, including the capitals of the three main islands: Palma de Mallorca, Eivissa and Maó, and the smaller towns offering tourist accommodation in Ibiza – Sant Antoni and Santa Eulària – and Ciutadella in Menorca. These cities have a clearly defined commercial area offering non-tourist services of all kinds: markets, banks, schools, medical centers, and so on. The tourist accommodation in the urban areas are rather dispersed; establishments of all kinds and categories are available, but
substantially smaller than those in the typically tourist areas. The owners are usually small local firms.

2) **ISOLATED.** Only nine areas come under this heading, accounting for 4% of the units. These are small areas dominated by a few large hotels which usually offer all-inclusive packages – which obviously restricts the range of complementary goods and services on offer – and are aimed at upper-range family tourism. Typically, a single large firm manages almost two-thirds of the accommodation on offer in each area. From the geographical point of view, the main feature of this model is that it predominates in Formentera, but has no presence at all in Minorca.

3) **MINORCA.** This group is so named because it includes all the facilities on offer in the island except for those that come under the “Urban” category – in the cities of Ciutadella and Maó. There are 16,512 units of this kind in Minorca, but only 3,782 in Ibiza and 3,038 in Majorca. Their main characteristics are the presence of a high proportion of apartments and aparthotels and the marked dispersal in terms of the category: the presence of 1, 2 and 5 star establishments in Minorca is well above the average for the Balearics as a whole. The establishments are also smaller, although they tend to occupy large areas of land. In general, the tourist areas in Minorca are less built-up, more spread out and offer fewer complementary services than for example Ibiza and Majorca. Figure 2 shows the geographical distribution of this model and highlights its predominance on the island of Minorca. The same figure shows the geographical distribution of the two previous destinations, **Urban** and **Isolated.**

4) **CENTRAL.** Three-quarters of the units in the Balearics are classified under this heading. Figure 3 shows their geographical distribution: the entire coastline of Majorca and Ibiza, and their complete absence on the islands of Minorca and Formentera.

Figures 4a, 4b and 4c show the distribution of the units in these areas according to the type of establishments, the category, and the number of firms present. We see that the presence of **hostales** is marginal and that of apartments only secondary – around 13%, with a few exceptions. As for the category the predominance of 3- and 4-star establishments is practically total; 1- and 2-star establishments account for only 13% of the offer, and 5-star establishments for less than 2%. 
Figure 4c shows that none of the areas are controlled by a small number of firms. In all the small areas the ownership of most establishments is shared by a minimum of five firms, whereas in the larger ones 40% or more of the units are managed by the smaller firms, i.e., those in eighth position or below. These data clearly reject any position of market dominance at local or global level; the Balearic tourist market is extremely competitive in all its geographical areas. Another characteristic of the Central areas is that they tend to take the form of clusters, located next to each other, as we see in Figures 3 and 5.

We thus obtain the first important result regarding the spatial distribution of tourism in the Balearics: Minorca and Formentera present two specific tourist models, each of them clearly distinct from the Central model that predominates in the islands of Majorca and Ibiza. These two latter islands emerge as a single tourism entity. In the Balearics, three basic types of tourist destination coexist: the majority type in Mallorca and Ibiza, a second type on the island of Menorca and a third, relatively minor type in Formentera. So the distribution of tourism services and products suggests that the Balearic Islands do not form a single, undifferentiated destination.

The last model of resort, thinly represented though in fact found on all the islands, comprises the Isolated type destinations. These are enclave-type destinations, commercially and geographically well-defined and visited by tourists with little interest in the island. These resorts could be located anywhere in the Mediterranean without their image or their ability to attract customers being affected.
Figure 2. Distribution of the non-Central tourist areas

Figure 3. Distribution of the Central tourist areas
Figure 4. Principal characteristics of the Central tourist areas.
Figure 5. Outlines of the Central areas with more than 2,000 rooms/apartments.
The Central areas: the mainstay of the Balearic tourist trade

As regards the physical features of the Central areas, figure 5 shows the outlines of all the ones with more than 2,000 units – created by joining together the establishments furthest from the center. The linear morphology that appears in all the cases highlights the role of the beach as the key feature in this territorial structure. The accommodation facilities are always located next to the beach, and do not extend further inland than some 200/300 meters.

Taking the sample as a whole, the establishments located on the seafront contain a mean of 146 units, while the mean of those located further back is only 105; as regards category, those on the seafront have a mean of 3.3 stars, and the others a mean of 3.0 stars. Tourists want to be able to walk to the beach and they value the seafront location very highly. Well-located establishments can aspire to attract customers with higher purchasing power, because their product has higher added value (Cirer 2013; Alegre et al. 2013).

This pattern of distribution, with the largest buildings located on the coastline and a progressive reduction in size as one moves further inland, has predominated ever since mass tourism came to the islands (Cirer 2001) and recalls descriptions of other large-scale beach holiday destinations (Gonen 1981; Pearce 1979; Pigram 1977). Another key historical factor is that this pattern has emerged as a consequence of spontaneous, chaotic processes; as in beach holiday destinations all over the world (Andriotis 2008; Morales and Santana 1993; Smith 1991), in the early years of the mass tourism phenomenon there was no system in place to plan the division of the space available in an organized, integrated way.

The immediate consequence is that the beach has become a highly specialized factor which is in extremely short supply; today, in fact, not a single large beach remains available for development in either Majorca or Ibiza. To some extent, this explains why the sector of tourist accommodation has shown practically zero growth in the past ten or twelve years.

Some of the establishments constructed at the end of the twentieth century – by which time the few undeveloped sites on the coast had become prohibitively expensive – tried to escape the tyranny of the beach and were built in areas up to a mile or so away
from the coast. In recompense, they offered all the advantages of a large-scale resort: huge swimming pools and solariums, gardens, playgrounds, and free sports facilities. However, the owners and managers were under no illusions about the importance of the sea to their customers, as almost all the establishments located outside the tourist areas offer free bus services to and from the nearest beach. The existence of these establishments slightly alters the visual impression of the map, creating the inland protuberances seen in areas like Peguera and Badia d’Alcudia; without them the morphology of the tourist areas would be totally linear.

Proximity to the sea is highly valued by tourists from the north of Europe. Inside the same hotel, rooms with a seaview tend to be 15% – 20% more expensive (Cirer 2013). Tourists often refer to “the significance of the sea as a ‘natural entity’ […] The sea is described as a healing and life-giving presence” (Caletrío 2011). The influence of the proximity to the sea is very strong even in urban areas, where the strictly tourist areas are clearly separated from the residential and commercial areas. Tourism dominates the seafront in the cities of Palma, Sant Antoni, Santa Eulària and Maó.

With these data we can now answer the second question we posed at the beginning the article. Clearly, the Balearic tourism industry is monopolized by the sun and beach model. Almost all the hotels and other types of accommodation are located on the beach; those that are not, which are situated in urban areas, are at least on the coast. Hardly any tourist services and products are on offer inland. Finally, we stress that virtually all the areas shown in Figure 5 are isolated, without any contact with residential or business areas. The tourist areas are usually surrounded by forest or agricultural land and are always located far from the industrial estates where the companies that supply the hotels are based.

This morphology is very different from the concentric circles in the models derived from Miosec and Yokeno, which are habitually used to describe urban destinations (Chung and Kalnins 2001; Pearce 1979; Shoval, 2006; Urtasun and Gutierrez 2006; Zhang et al. 2011) and from those found in traditional coastal destinations in northern Europe and America, in which the railway station was the centre of the resort (Liu and Wall 2009; Stansfield 1978). Nor do the Balearic resorts resemble the enclaves found in the Caribbean (López et al. 2006; Tilman 1994); there are no private beaches, and almost all the Central areas are connected with the rest of the island via public transport.
Hotel chains in the Balearics

<table>
<thead>
<tr>
<th>FIRM</th>
<th>Hotels</th>
<th>Rooms</th>
<th>Most frequent category</th>
<th>Areas in which it is present</th>
<th>Areas with a single hotel</th>
<th>Most important area for the firm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stars</td>
<td>%/total</td>
<td></td>
<td>Magalluf</td>
</tr>
<tr>
<td>Sol-Melià</td>
<td>24</td>
<td>8.137</td>
<td>3</td>
<td>62</td>
<td>15</td>
<td>11</td>
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<tr>
<td>Grupotel</td>
<td>32</td>
<td>5.636</td>
<td>4</td>
<td>51</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>GPS</td>
<td>52</td>
<td>4.979</td>
<td>2</td>
<td>55</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Fiesta</td>
<td>19</td>
<td>4.888</td>
<td>3</td>
<td>88</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>HIHotels</td>
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<td>4.355</td>
<td>3</td>
<td>74</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Iberostar</td>
<td>13</td>
<td>3.893</td>
<td>4</td>
<td>78</td>
<td>7</td>
<td>5</td>
</tr>
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<td>Protur</td>
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<td>3.308</td>
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<td>58</td>
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</tr>
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<td>Viva</td>
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<td>3.148</td>
<td>4</td>
<td>72</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>HSM</td>
<td>20</td>
<td>3.064</td>
<td>3</td>
<td>57</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Optursa</td>
<td>11</td>
<td>2.942</td>
<td>3</td>
<td>77</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

NOTE: All the data refer only to establishments in the Balearic Islands. Source: Firms’ web pages.

Figure 4c above shows that none of the Central areas of the Balearic Islands are dominated by a single firm and that, in general, the largest firm present in each area rarely accounts for more than 25% of the accommodation on offer. Table 4 presents data for establishments belonging to the ten largest hotel chains. All these chains are present in at least four different areas, and Protur is the only firm which has more than half of its rooms in the same area.

The large hotel chains rarely concentrate more than one third of their offer in their main area; the rest of their establishments are dispersed quite widely. Sol-Melià, for example, has four huge establishments on the beach at Magalluf, comprising 2,047 units; Fiesta has six large hotels in Platja den Bossa practically in a line offering almost 2,000 units and Riu has five hotels in Platja de Palma N-Las Maravillas in less than a quarter of a mile. Interestingly, in spite of the proximity of establishments belonging to the same chain, no joint mechanisms of exploitation are found. As the publicity material of the chains suggests, each hotel is an individual, distinct entity.

So it seems that the large Balearic hotel firms have not sought to concentrate their offer in a limited number of sites and have no objection to having a single establishment in a large area, even though this entails adopting a secondary position at local level. All the firms in the list have a very long history (Cirer 2012) and have had more than...
enough time to adapt their offer. Their current geographical distribution, then, is deliberate.

We are now in a position to answer our third question: none of the firms enjoys a position of dominance in a particular geographical area. As their establishments are spread quite widely across the islands, aggressive competitive practices between the different areas are not in their interests. There is no business segmentation at the geographical level, as the large companies distribute their interests almost randomly through all the Central areas.

Our data offer a second interesting conclusion: with the sole exception of GPS, the large chains tend to concentrate their offer in a particular category. Large and medium-sized firms concentrate two-thirds or more of their offer in a single category, either 3- or 4-star. In addition, inside each category the chains tend to place all their establishments in a particular price range (Cirer 2013), thus increasing their concentration in a specific market niche even further.

To summarize, the islands’ firms display a high level of geographical dispersal, but also a high level of commercial specialization in specific market segments. In spite of sharing the same business concerns, and in spite of their evident geographical proximity, the different chains maintain the heterogeneity in capacities, strategies and behaviors that characterizes all clusters (Ter Wal & Boschma 2011, Lazzeretti & Capone, 2008).

**Tourism areas and clusters in perspective**

Most of the visitors to the Balearics seek accommodation near the beach, but for those for whom the beach is not an essential prerequisite the islands offer more than 15,000 rooms in towns and cities. The accommodation on offer in the urban areas ranges from tiny hostales that offer no additional services to 5-star luxury hotels.

However, the Urban areas account for only 9% of the accommodation available in the islands. The emphasis of the tourism model is clearly on sun, sand and sea. The presence of a beach is a *sine qua non* for a Mediterranean tourist area and, without exception, the larger the beach, the larger the cluster that surrounds it. As a result, the
large beaches offer a huge variety of services and amenities which, properly segmented, can cater for European tourists of all kinds, whatever their income and interests. This wide variety of tourist accommodation is present in all the coastal areas of the islands, and in the areas we define as Central there is an equally diverse range of services and attractions for families, couples, and young people.

For tourists seeking relaxing retreat vacations, the islands offer the areas we define as Minorca. The 19 areas in this category also present a notable diversity; they offer a wide variety of landscapes – from small coves hidden behind the woods to vast stretches of sand – resort sizes, from 300 units to 3,500, and accommodation categories.

The Central areas account for three-quarters of the total, and are characterized by the mass presence of 3- or 4-star establishments. In absolute terms, however, they also include an appreciable quantity of 1- and 2-star establishments with more than 20,000 units, of which 17,000 are apartments. Twelve of the 38 Central areas include 5-star accommodation, with as many as 2,000 units. For their part, the 3- and 4-star establishments present a far greater diversity than one might expect. To begin with, five accommodation systems are available in all these areas: room only, bed and breakfast, half board, full board and all-inclusive. Inside each category, chains tend to offer systematically higher or lower than average prices, with the result that practically the entire price range is covered (Cirer 2013). The offer is specialized because of the consumers’ clear preference for variety. This creates a strong tendency towards the physical grouping of products, as has been suggested by theorists who have studied the question in general terms, not necessarily from the perspective of tourism (Cainelli 2012; Johansson and Quigley 2003).

This preference for variety creates a marked segmentation at the level of individual establishments, but interestingly there is no geographical market segmentation. All the large areas target tourists of all kinds and socioeconomic levels. The diversity in the accommodation and complementary services on offer generates a multitude of spaces for social interactions: the hotels, the beach, the bars and restaurants, the shopping centers, the daytime leisure attractions for families and the nightlife for the young – and not so young – travelling in groups. In all these places any European can find people of a similar social level and with similar interests with whom to interact without the restrictions imposed by their habitual place of residence. Any
tourist can satisfy their vacational leisure needs in accordance with their tastes and purchasing power, however diverse they may be.

As we have seen, most of the large tourist areas of the Central type form clusters which, at a higher level, reproduce the characteristics of their constituent areas (figure 5). In turn, these clusters are identical to those of the next level, that is, the island level (Ibiza or Majorca). So they present the self-similarity that constitutes the basic condition of fractality (Mandelbrot 1987; Pöppe 2011). It is a nested, Russian dolls structure, in which each new element is similar to the one at the higher level (Dicken & Malmberg 2001).

The tourist areas specialize strongly in the production and consumption of marketable goods. They are clearly differentiated from the other areas of the islands devoted to standard commercial or residential functions or to agriculture. This dichotomous distribution has also been described in other mass sea, sand and sun destinations such as the Australian Gold Coast (Pigram 1977). Each tourist area is integrated in various ways in the industrial district, first through the hotel chains that spread their interests all over the islands, second through the inputs provided by the suppliers, since none of the chains are vertically integrated and all tend to buy their supplies in the marketplace. Increasingly, they are outsourcing services traditionally provided in situ, such as laundry or maintenance.

Though the Central areas are shared between Majorca and Ibiza, they do not form a single, common business district. First the entrepreneurs of both islands tend not to move: Majorcan firms have only some 4,000 units in Ibiza, 12% of the total supply, and Ibizan firms only 1,700 units in Majorca. Second, the volume of transport of goods between the islands is virtually zero, and so the interconnections at supplier level are scarce. The only exception is Formentera, an island that depends heavily on supplies from the port of Ibiza. In conclusion, in Majorca and Ibiza tourism share the same model, but each island constitutes a clearly defined distinctive industrial district.

Conclusion

In this article we have seen that the immense majority of the tourist services and amenities are located in areas that are clearly segregated from the rest of the territory. However, all the tourist areas are fully integrated in the local economy: the hotels
belong overwhelmingly to island firms, which acquire all their supplies and services from auxiliary firms. These firms are all located outside the tourist areas, but their high density and degree of specialization provide the hotel chains with a very competitive offer of inputs. Clearly, the tourist trade benefits from the advantages of the industrial district described in the classical model of Marshall and Krugman (Fujita & Krugman 1995; Krugman 1991; Marshall 1920), albeit with its own particular spatial distribution.

How does the geographical distribution of the local accommodation firms fit into this panorama? We have seen that, as far as category is concerned, the chains specialize in a particular market segment, and that inside this segment they tend to concentrate their offer at a specific price range (Cirer 2012, 2013). The chains locate their establishments in different areas in order to exploit their specific competences. Our conclusion is that different kinds of tourist – families, groups of young people, older couples, and so on – tend to spread out almost randomly in the large areas, and so each area will receive an approximately similar proportion of each of these kinds of customer. In this situation, the large chains have an incentive to distribute their offer over as many different areas as possible to reach all the potential clients in their particular market segment; they know that there is no point in trying to achieve local monopolies. Clearly there is no one-to-one equivalence between area and market. Each area includes many different markets (Prideaux 2000), differentiated by their family status, their economic level and their choice of vacation model.

This entrepreneurial behavior may appear surprising, but in fact it conforms almost perfectly to that proposed by microeconomics and marketing theory. In a competitive environment, products of similar quality generate aggressive competition and low margins (Rhee 1996). The best way out of this vicious circle is product differentiation, a tacit – that is, not directed – distribution of the market which nonetheless maintains its competitiveness intact. In this way, price wars and predatory behavior (Guiltinan and Gundlach 1996) and collusion (Pan 2005) are avoided, since the firms, in spite of their physical proximity, are not really competing for the same kind of client. In our case, this differentiation obliges firms to spread over a large number of geographical areas in order to reach the largest possible proportion of the potential demand. This finding confirms those of previous studies, which have reported high product heterogeneity inside dense concentrations of hotels – not only in the beach vacation market (Chung & Kalnins 2001; Enz et al. 2008; Freedman & Kosová 2011).
Finally, diversity in accommodation in each resort area is a necessary but not a sufficient condition for a positive tourism experience. The hotels and apartments offer the tourists a base in which to enjoy their leisure time and to establish social relations, but in most cases they do not cater for all the tourists’ needs; the additional element that completes the tourist experience is the complementary offer.

Most tourists come in search of new experiences: they want to be able to walk around and shop, to eat and drink new things in new places, above all, they want to enjoy themselves inside a protected, relaxing environment, populated by other people with the same interests, even if they are of a different nationality or socioeconomic status. Only a dense web of small independent businesses can guarantee the existence of an offer diverse enough to satisfy all the clients, and only a large area with thousands of accommodation units can generate the demand to fill the theme parks, discotheques and other specialized leisure establishments. This superposition of business networks and clusters is the reason for the success of the tourist sector in the Balearic Islands.
Appendix A

1) Data referring individually to each business concern – 21 variables:
   a) Size of the establishment measured in rooms or apartments. One variable.
   b) Type of establishment and category. HS, AP, H, AH; *, **, ***, ****, *****. This item has generated 16 variables, since some of the combinations of type and category do not exist.
   c) Geographical concentration of the hotels, estimated by calculating the geographical center of gravity of the areas and the distance between each establishment and this center of gravity. Google Maps and the Oziexplorer program were used.
   d) Distance from the beach. Only three cases are considered: *primera línea* – on the seafront – *segunda línea* – within ten minutes’ walk from the beach – and distant, in which some form of transport is required to get to the beach – three variables.

2) Data referring to the firm that manage the establishment, obtained in all cases from information provided by the firm itself. Twelve variables.
   a) Regional size of the firm measured by the number of units it manages inside the Balearic Islands. We classify the firms in quartiles, obtaining four brackets:
      i) Up to 217 units.
      ii) From 218 to 900 units.
      iii) From 901 to 2,900 units.
      iv) More than 2,901 units.
   b) Overall size of the firm, measured by the total number of establishments it manages worldwide. We also classify the firms in quartiles:
      i) Up to 4 establishments.
      ii) From 5 to 39 establishments.
      iii) From 40 to 399 establishments.
      iv) More than 400 establishments.
   c) Distance from the firm’s headquarters to the hotel, classified in four groups:
      i) Headquarters in the same area as the establishment.
      ii) Headquarters on the same island as the establishment but in a different area.
      iii) Headquarters based on a different island, but inside the Balearics.
      iv) Headquarters based outside the Balearics.
3) Data referring to the area – eight variables.
   a) Number of tourist accommodation establishments in the area.
   b) Total number of units offered by the establishments in the area.
   c) Distance from the airport. In the case of Formentera, a distance of 100 Km – 60 miles – has been added to estimate the time taken by bus and boat from the airport of Ibiza.
   d) Proximity index. All the areas considered are coastal and many are located immediately next to each other. To consider this second level of concentration, we construct a proximity index based on the size of the neighboring areas to the right and to the left. An area that is totally isolated will present a score of 0, while a very small area, surrounded by two very large areas, will present a score near 100.

   \[ \text{Index proximity}_i = \frac{\text{Units Area} (i - 1) + \text{Units Area} (i + 1)}{\text{U.Area} (i - 1) + \text{U.Area} (i) + \text{U.Area} (i + 1)} \times 100 \]

   e) Percentage of units managed by the main firms in the area; percentage of units managed by:
      i) The largest firm
      ii) The second and third largest firms
      iii) The fourth, fifth, sixth and seventh largest firms.
      iv) The remaining firms (eighth largest and smaller).
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