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**Disclosing homogeneity within heterogeneity: a segmentation of Spanish active tourism based on motivational pull factors**

**Abstract**

In the context of postmodern tourism, active tourism has acquired great importance. This type of travel fits the tastes of the new tourist, who seeks new and differentiated experiences that deliver a diverse range of sensations. The present work aims at in depth exploring the profile of active tourists, with emphasis on the reasons that lead them to seek this kind of experiences. Given the framework provided by the push and pull theory, the aim of this study is to identify groups with homogeneous features in the heterogeneous collective of active tourists. Factor and cluster analysis, focused on a scale of pull factors, are sequentially applied to data obtained through an online questionnaire. The results show that the Spanish market of active tourism can be segmented into three groups (*health, novelty and cultural heritage seekers, adventure and fun seekers and professionals and health seekers neutral to pull factors*), where the importance attributed to different pull factors varies according to each group's push motivations. Specifically, those who engage in active tourism motivated by keeping healthy and discovering new places or people are those who most value the cultural heritage of the destination; those who engage in it seeking new sensations are those who most value the possibilities of having fun in the destination; and those

who do it for professional reasons are indifferent towards the attractions of the destination. Nevertheless, regardless of the groups to which they belong, active tourists prioritise the richness of the natural surroundings when choosing a destination.

### **Management implications**

A better understanding of its target market is vital for active tourism destinations:

- In the case of rural destinations, the segment of *health, novelty and cultural heritage seekers* could be a good target to which to offer hiking circuits, promoted through specialised guidebooks and magazines, which include interesting heritage resources.
- Urban destinations, especially coastal ones, could seek to attract the *adventure and fun seekers segment* through an offer of exciting and fun activities, whose promotion, preferably carried out through social networking sites, would highlight the possibilities of nightlife.
- Every destination should prioritize the protection and improvement of the natural surroundings.

**Keywords:** Active tourism, natural environment, push and pull motivation factors, segmentation, factor and cluster analysis.

## **1. Introduction**

Spain is one of the main tourist destinations in the world. In 2018 it ranked second in international tourist arrivals (after France) and international tourist receipts (after the United States) (UNWTO, 2019). The tourism industry has been one of the cornerstones on which the

Spanish economy has been based following the economic downturn of 2008. The contribution of tourism to the national GDP, which was already very significant in 2010 (10.2%), has increased to 11.7% estimated for 2017. During the same period, the contribution of tourism to total employment has increased from 11.6% to 12.8% (INE, 2018). In the Spanish Tourism Plan for 2020, which establishes the strategic guidelines for Spanish tourism development over the last decade, active tourism is considered one of the products to be developed and consolidated in order to diversify the Spanish tourism offer, given the highly mature nature of sun and beach tourism, the traditional driving force of tourism activity in Spain (Secretaría General de Turismo, 2008). Consequently, the growth potential of active tourism in a country in which the tourism sector is of extraordinary importance justifies the opportunity of any study which, like the one described in this article, sheds light on the characteristics of active Spanish tourists. Specifically, the objective of the work is to identify, building up from the pull factors that drive the choice of destination, distinguishable homogeneous groups, or clusters, within this collective. In addition, once these segments have been identified, the aim is to profile them in terms of the sociodemographic characteristics of the respondents and the typical features of their active tourism experience, including the reasons for practicing them (push factors).

Nature is conducive to the different types of what Chacón-Cuberos, Chacón-Borrego, Zurita-Ortega and Chacón-Zagalaz (2016) refer to as “the practice of physical activity and sports” or “PASP” (“Práctica de Actividad Física y Deporte” or “PAFYD” in the original Spanish). Engaging in physical activities and sports in a natural environment not only yields psychological, physical, and educational benefits for the practitioner, but also enhances his or her sensitivity to and awareness of nature and its conservation (Boyes, 2013; Peñarrubia, Guillén, & Lapetra, 2016). Moreover, the positive health effects of so-called “green exercise” have been shown to exceed

those of physical activity carried out indoors or in urban environments (Calogiuri, Patil, & Aamodt, 2016). These positive effects focus primarily on mental health. Reviews of various studies by Bowler, Buyung-Ali, Knight, and Pullin (2010) and Thompson Coon et al. (2011) show that exercise in natural environments compared to exercise in other environments (synthetic or indoors) leads to a reduction in negative emotions (anger, sadness, tension, confusion, depression) or is associated with greater feelings of revitalization and positive engagement and increased energy.

In recent decades, people in developed countries have spent an increasingly large portion of their leisure time traveling and engaging in physical activities and sports. While these two things can be done separately (Neal, Sirgy, & Uysal, 1999), the number of individuals leaving their regular place of residence to engage in some type of physical activity or sport (Gibson, 1998a; Kurtzman & Zauhar, 1997), whether staying overnight (tourists) or returning the same day (day trippers), is steadily growing. Interest in sports tourism has been on the rise since the late 1980s (Schwark, 2007), while adventure tourism is one of the fastest growing tourism sectors (UNWTO, 2014).

Postindustrial society has given rise to a postmodern tourism model (Dujmović & Vitasović, 2015) that has moved beyond the Fordist or mass-consumption model. The new model is oriented toward quality tourism, namely, active, diversified, responsible tourism targeted at likewise active, self-sufficient and clearly differentiated tourists, who demand quality in new products and are concerned about the environment and the territory (Ávila & Barrado, 2005). This new model offers the perfect framework for different overlapping niches from the sector (Swarbrooke, Beard, Leckie, & Pomfret, 2003), namely, adventure tourism and activity or active tourism, which are tailored to the tastes and demands of a new breed of tourists who shun passivity.

These types of tourism involve traveling to natural environments and a healthy dose of adventure. They can thus be neatly summed up by the triad *fun-nature-adventure* or as “physical adventure activities in nature” (Olivera & Olivera, 1999, p. 86). One trait that distinguishes activities carried out in a natural environment from alternative physical and sports practices (Peñarrubia et al., 2016) is how the practitioners interact with the environment. This interaction is based on a logic of respect for sustainability due to the tourists’ awareness of nature as something more than the arena for their activities. Instead, they perceive it as an agent in itself that must be preserved (García, 2010). Indeed, this perception is so strong that these types of tourism can be considered part of the nature (or natural area) branch of tourism (Barrado & Vila, 2001; Newsome, Moore, & Dowling, 2002). Since the practitioners’ interaction with the local community and its culture also falls within the scope of this logic, the definitions of adventure tourism and active tourism put forward by the Adventure Travel Trade Association (ATTA) (UNWTO, 2014) and the Active-Tourism Organization (<http://www.active-tourism.com>), respectively, rightfully combine adventure or activity with nature and culture.

This paper uses the term “active tourism” to mean tourism primarily carried out to engage in sports of varying physical intensity that make use of available natural resources while taking care to prevent their degradation (Secretaría General de Turismo, 2004, p. 14). Physical activities and sports in nature can be classified as soft (hiking or canoeing) or hard (climbing or kitesurfing) depending on the physical effort or strength required (ATTA & GW, 2013; Gammon & Robinson, 2003; Swarbrooke et al., 2003; UNWTO, 2014). They can further be classified as land, water, or air activities depending on where they are performed (Martínez & Fernández, 2011; Pomfret, 2006).

In this article our aim is to acquire a deeper understanding of Spanish active tourists, paying special attention to the motivations behind their decisions. While “motivation refers to a state of need, a condition that exerts a 'push' on the individual towards certain types of action seen as likely to bring satisfaction” (Ballantyne, Moutinho, & Rate, 2018, p. 79), travel motivation refers to the psychological reasons for travel (Kluin & Lehto, 2012). Motivation has received extensive attention in the tourism literature (Fodness, 1994; Mansfeld, 1992; Šimková & Holzner, 2014) because it has been recognized as a determinant of both tourist behavior and essential aspects of tourist activity (Devesa, Laguna, & Palacios, 2010). Travellers' behaviour can be understood and predicted by underlying motivations (Pearce & Caltabiano, 1983), so an understanding of travellers' motivations is critical in order to be able to predict future travel patterns (Jang & Wu, 2006). Motivation also influences attitudes (Matheson, Rimmer, & Tinsley, 2014). Luo and Deng (2008), in particular, highlight the close, positive relationship between environmental attitudes and motivations in the case of nature-based tourism. In turn, Tarrant, Bright, Smith, and Cordell (1999) consider that understanding the nature of participant's motivations is important in the planning, inventory, and provision of opportunities for outdoor recreation.

Market segmentation is one of the most widely used techniques in strategic marketing. Segmentation assumes that markets are heterogeneous, meaning it is possible to segment consumers into smaller groups based on their common characteristics (Kruger, Viljoen, & Saayman, 2017), for whom products can be designed and offered that satisfy their specific needs. This is equally valid for the tourism sector. As noted by Kastenholz, Davis, and Paul (1999), the segmentation of visitors has been widely acknowledged as strategic marketing tool in the literature on tourism published in the last decades. The fact that this is still the case can be seen in the more recent studies of Eusébio, Carneiro, Kastenholz, and Alvelos (2017) or Kruger et al. (2017). There

is also an abundance of literature focused on active tourism, which not only demonstrates the heterogeneous nature of these tourists, but also highlights the important management implications derived from segmenting and profiling them. Albayrak and Caber (2018), for example, after segmenting tourists participating in whitewater rafting into four groups, recommend adapting promotional messages to the motivations that matter most to each group, and offering complementary activities according to the risk aversion of each group; while Jones and Yamamoto (2016), in his analysis focused on climbers at a moderate mountain destination, argue that segment-based monitoring is essential to develop management measures, including targeted risk reduction strategies that allow the mitigation of incidents and injuries.

Given the influence of motivation on the behaviour and decisions of tourists, the usage of motivation as a market segmentation criterion (Lee, Lee, & Wicks, 2004) comes as no surprise, as something that may enable researchers to generate distinct tourist typologies (Albayrak & Caber, 2018). According to Prebensen and Lee (2013), this is particularly the case with nature-based tourist studies, which tend to segment tourists by motivation and/or demographic differences and not by other aspects, such as their nationality and/or cultural differences.

In summary, the segmentation and profiling that we propose in this work, based on the motivations of active tourists, especially the pull factors that drive the choice of destination, and our discussion of this, provides valuable information for companies in the tourism sector as well as for managers of tourist destinations. Within the limitations of their available resources and attractions, they can make use of it to design and promote services, making it possible to target the specific demands of the different clusters of active tourists, contributing towards their greater satisfaction and strengthening their loyalty.



## 2. Push and pull motivation factors in active tourism

The push and pull theory of motivation is considered one of the most useful approaches to developing an adequate understanding of the motivational foundations of tourism (Chen & Chen, 2015; Dann, 1977; Klenosky, 2002; Prayag & Hosany, 2014).

Push factors are internal in nature and have to do with the desires, goals, or needs that drive individuals to travel, whereas pull factors are external in nature and have to do with the attributes that make a destination attractive (Crompton, 1979; Uysal & Jarowski, 1994; Xu & Chan, 2016). The first bring the work of tourism researchers into line with that of psychologists, while the second are often defined as motives by marketers (Wu & Pearce, 2014). In fact, pull factors usually capture the preferences of tourists (Rid, Ezeuduji, & Pröbstl-Haider, 2014) according to specific attributes of the destination. The two factors thus cover key aspects at work when people are making travel decisions, namely, *whether* to go (push factors) and *where* to go (pull factors) (Klenosky, 2002). Although they are usually considered separately (Uysal & Jurowski, 1994; Caber & Albayrak, 2016), Yoon and Uysal (2005) argue that push factors can be reinforced by pull factors.

The literature on active tourism, or, at least, on types of tourism related to the natural environment, has identified several push and pull factors. In their analysis of the motivations of visitors to six South Korean national parks, Kim, Lee, and Klenosky (2003) included the following push factors, among others: “to take a rest,” “to get away from everyday life,” “to enjoy adventure,” “to build friendship,” “to have enjoyable time with family,” and “to enhance health.” Among pull factors, they included “rare fauna and flora (or aquatic plants and animals),” “beautiful natural resources,” “cultural and historic resources,” “clean and comfortable accommodations,” and “easy accessibility.” In their research on mountaineering adventure tourists and rock-climbing

tourists, Pomfret (2006) and Caber and Albayrak (2016), respectively, consider the motivational dimensions proposed by Ewert (1985) and include as push factors related to those types of tourism items such as: “excitement, personal testing and accomplishment,” “I climb for the exhilaration,” “I climb because of risk,” “I climb for the accomplishment,” and “I climb to test my physical skill” (within the motivational dimension of challenge and risk); “relaxation, slowing of the mind and getting away,” “I climb for relaxation,” and “I climb to slow my mind” (catharsis dimension); and “forming friendships” (locus of control dimension). Pomfret (2006) also includes “sensation seeking” as a personality attribute, although it could actually be considered another push factor.

As pull factors, Pomfret (2006) includes the natural mountain environment, emphasizing its “natural qualities” (vegetation, landscape) and “management conditions” (roads), as well as mountaineering opportunities, especially “commercially organized activities.” Caber and Albayrak (2016) use 17 items from Woratschek, Hannich, and Ritchie (2007), including “regional cooking,” “new culture,” “rocks accessible,” “easy to reach area,” “inexpensive accommodation,” “sightseeing places in the near area,” and “activities besides climbing,” among others. These same authors additionally include as pull factors some elements that might also be classified as push factors, such as “new climbing experiences,” “new people,” and “new place.” In their study on international bird watchers, Chen and Chen (2015) include push factors such as “I wanted to get away from everyday routine,” “I wanted to experience a different lifestyle,” “I wanted to learn about a different culture,” “I wanted to observe other types of wildlife,” “I wanted to meet new people who enjoy birding,” and “I wanted to enhance my relationship with friends and family,” as well as pull factors such as “It provides standard hotel accommodations,” “It provides comfortable public transportation (e.g., train, bus, and flights),” “It provides well paved and well maintained roads,” “The birding guide is highly experienced in birding,” “It provides opportunities to attend

cultural events and ceremonies,” “It provides opportunities to appreciate traditional architecture,” and “It provides opportunities for other activities (e.g., museums, galleries, and exhibitions).” Lastly, in their research on the motivations of Hong Kong’s nature tourists, Xu and Chan (2016) include “meeting new and varied people,” “keeping physically fit,” “experiencing something different,” “visiting a new place,” “resting and relaxing,” “gaining a new perspective on life,” and “to enhance health” among the push factors and “experience the natural environment,” “cultural and historic resources,” “closer than other attractions,” and “convenient transport” among the pull factors.

The above findings suggest that, while some of the push variables that drive people to travel to natural environments where they can engage in physical activities and sports are compatible with any form of leisure (escape from everyday routine, relaxation, slowing of the mind), others are more specific to the experience of traveling itself (meeting new people, visiting a new place) or the practice of a particular physical activity or sport, whether for health-related reasons (to keep physically fit, to enhance health) or the associated adventure and emotion (experiencing something different, excitement, testing yourself, exhilaration, risk).

Meanwhile, the pull factors include a varied assortment of destination attributes that can help attract active tourists. Some are related to the cultural and natural heritage that visitors can enjoy (natural qualities, regional cooking), while others, related to how tourism is organized in the given territory, refer to the types of available accommodations or serve to enhance other factors (accommodations, management conditions, commercially organized activities).

### **3. Methodology**

Primary data were collected using the quantitative technique of the questionnaire. Due to the lack of an active tourist census that would have made it possible to obtain a random sample, the sample was obtained through Spanish companies providing active tourism services, which were located and contacted through their Facebook business profiles. This was considered an adequate source of information due to the general ubiquity of social media and its increasing impact on the tourism sector (Zeng & Gerritsen, 2014), in particular, as a channel for tourists to share their experiences (Munar & Jacobsen, 2014). According to the Rural Ibérica database ([www.ruraliberica.com](http://www.ruraliberica.com)), 769 Spanish companies provide active-tourism services, of which 312 (40.56%) could be located through their Facebook profile, resulting in a total of 126 valid responses.

The survey itself consisted of 20 questions and was divided into the following three blocks:

**Block I (Questions 1 to 10):** Open- and closed-ended questions concerning typical aspects of the respondents' experience with active tourism, namely: the activities most frequently performed, frequency, whether they stayed overnight, cost, and who they usually traveled with. This block also included a closed-ended question on respondents' motivation for engaging in active tourism with five possible responses based on different push variables identified in the literature review: (1) getting away from routine, (2) experiencing new sensations, (3) meeting people, (4) discovering new places or landscapes, and (5) keeping physically fit. Furthermore, since many active tourism activities require the advice or guidance of specialized professionals at the destination, an additional push variable was included, namely, (6) professional reasons. According to Collins and Tisdell (2002), this latter factor is one of the motivations for people to engage in active tourism practices other than holiday tourism.

**Block II (Questions 11 and 12):** Closed-ended questions to be rated on a 5-point Likert scale (from 1 to 5) concerning various factors that might influence the choice of destination. While

two of these factors (advice or suggestions from friends or acquaintances and recommendations from specialized guides or magazines) cannot be considered destination attributes, i.e., pull factors, the remaining 17 can. Of this latter group, 13 were drawn from the literature review, namely: (1) proximity to main residence; (2) availability of specialized companies and staff; (3) availability of adequate natural resources; (4) availability of an attractive complementary offer; (5) gastronomy; (6) inexpensive accommodations; (7) rural accommodations; (8) luxury accommodations; (9) landscape lushness; (10) archaeological heritage; (11) festivals, fairs, and cultural traditions; (12) natural richness; and (13) accessibility.

Four other destination attributes considered in the tourism literature were also selected as candidate drivers of active tourists' choices. The first has to do with health and is characteristic of nature-based inland destinations (Tizzoni, 2015), such as thermalism. The second is a destination's coastal location (Baloglu & Uysal, 1996), which adds specific attractions (such as beaches, cliffs, and marine fauna and flora) to its overall status as a prime place for certain water activities. The last two, namely, proximity to urban areas (Turnbull & Uysal, 1995; Yuan & McDonald, 1990) and nightlife (Baloglu & Uysal, 1996; Mohammad & Som, 2010), expand the range of factors that, although not directly related to the specific activities to be performed, can still be included among the factors that active tourists assess when choosing a destination. Thus, the list of factors was expanded to include (14) thermalism, (15) coastal location, (16) proximity to urban areas, and (17) nightlife.

**Block III (Questions 13 to 20):** Open- and closed-ended questions to determine respondents' sociodemographic profile, specifically, questions regarding: gender, age, education level, occupation, residence, family unit type, and income level.

The data obtained were analyzed through the combined use of two multivariate statistical techniques, factor analysis and cluster analysis (Hair, Black, Babin, & Anderson, 2010). Once the clusters had been identified, the  $\chi^2$  test of independence (contingency tables) and analysis of variance (one-way ANOVA) were used to test for the existence of significant differences among them. The combined use of all or some of these techniques is common in research that aims to segment tourism demand (Chiang, Wang, Lee, & Chen, 2015; Devesa et al., 2010; Eusébio et al., 2017; Paker & Vural, 2016; Roca, Villares, & Ortego, 2009).

The scale used for the questions on pull factors in Block II of the survey, which displayed an acceptable level of internal consistency (Cronbach's alpha of 0.783) (George & Mallery (2003); Werts, Linn, & Jöreskog, 1974), was used as the basis for the multivariate analysis to be performed to segment the demand. This scale was first subjected to exploratory factor analysis, a method used to reduce the number of dimensions to obtain  $n$  mutually independent latent variables (factors or components) able to synthesize the information contained in the original  $k$  variables ( $n < k$ ). Specifically, the principal component technique was used, extracting the components whose eigenvalues were higher than 1. To obtain solutions with the clearest possible interpretation, varimax rotation was performed on the factor loadings.

Once the relevant components were identified, their factor scores were used as composite variables in a cluster analysis, a classification technique that allows to obtain distinguishable groups of individuals with homogeneous attributes. For this purpose, a hierarchical cluster analysis was carried out, using Ward's method of linkage with squared Euclidean distance as the distance measure, to obtain a dendrogram, a graphic representation of successive groups of cases (clusters) according to hierarchical levels that facilitates an assessment of the optimal number of groups. Assuming the solution suggested by the hierarchical approach, we resorted to the non-hierarchical

procedure of k-means in order to determine the composition of the clusters. Finally, the existence of significant differences among the clusters was verified by means of two procedures, depending on the type of variable being analyzed: the  $\chi^2$  test of independence (contingency tables) and analysis of variance (one-way ANOVA).

#### **4. Results**

The studied active tourists were mostly men (61.90%), young (72.22% between the ages of 25 and 44), college-educated (59.53%), employed (self-employed or company employee) in the private sector (81.74%), and living with a partner with or without children (73.81%). They engage in active tourism quite frequently (68.26%, at least once a month), especially hiking (45.24%). Their trips last, on average, slightly over two days (69.05% reported having stayed overnight during their last experience), and they mainly travel with friends (58.87%).

Following the initial exploratory factor analysis of the question scale for the 17 pull factors, in accordance with Kastenholz et al. (1999), the factorial solution resulting in the factors that could be interpreted with the highest possible internal consistency, including any variables with acceptable factor loadings, was selected. Based on these criteria, eight factors were removed from the analysis: (1) proximity to main residence, (2) availability of specialized companies and staff, (3) availability of adequate natural resources, (4) availability of an attractive complementary offer, (7) rural accommodations, (8) luxury accommodations, (12) natural richness, and (14) thermalism. The final scale used in the factor analysis, which continued to display an acceptable level of internal consistency (Cronbach's alpha of 0.749) (George & Mallery (2003); Werts et al., 1974), thus consisted of the remaining nine factors. The KMO statistic was sufficiently high (0.75), while Bartlett's sphericity test was statistically significant (approximate  $\chi^2$  value of 239.70; 36 d.f.; p-

value of 0.00). The factor model thus suitably explains the sample data. The analysis reveals the existence of two factors with eigenvalues greater than 1, which, together, explain 50.19% of the total variance. Both displayed an acceptable level of internal consistency (Cronbach's alpha of 0.706 and 0.690, respectively) (George & Mallery (2003); Werts et al., 1974). These results are shown in Table 1.

Table 1. Results of the exploratory factor analysis of the pull question scale

<b>Factor/Question</b>	<b>Factor loading</b>	<b>Eigenvalue</b>	<b>Variance explained (%)</b>	<b>Cumulative variance explained (%)</b>
<b>Factor 1 (Cronbach's <math>\alpha = 0.706</math>):</b>		3.06	33.94	33.94
Nightlife	0.80			
Proximity to urban areas	0.75			
Coastal location	0.64			
Inexpensive accommodations	0.57			
Accessibility	0.47			
<b>Factor 2 (Cronbach's <math>\alpha = 0.690</math>):</b>		1.46	16.25	50.19
Gastronomy	0.77			
Landscape lushness	0.70			
Parties, fairs, and cultural traditions	0.66			
Archaeological heritage	0.45			

An orthogonal rotation was performed to identify the variables associated with each factor, all of which had factor loadings no smaller than 0.45, which may be considered fair or higher (Comrey & Lee, 1992).

Factor 1, which explains most of the variance (33.9%), is associated with variables related to the attributes of the destination having to do with the enjoyment of nocturnal leisure activities in urban areas, preferably coastal and accessible, and with available inexpensive accommodation. It is therefore qualified as the *urban and nightlife leisure* component of the pull factors.



Opposed to this, Factor 2, which accounts for 16.3% of the variance, includes the attributes that are adequate for more relaxed tourists, those who look forward to enjoying the different types of cultural heritage of the destination (gastronomy, landscape, archaeological sites, different cultural traditions). Its qualification as the *cultural heritage* component of the pull factors seems adequate.

The factor scores of the two extracted components make up the composite variables that are subjected to cluster analysis to identify groups of active tourists with similar motivations. From the application of the hierarchical cluster analysis it can be deduced, based on the criterion of relative increase of agglomeration coefficient and the dendrogram (Kastenholz et al., 1999; Rid et al., 2014), that the most consistent solution involves segmenting the sample into three clusters, whose composition is determined by means of the non-hierarchical method of the k-averages.

One way to verify that identified clusters are actually distinct is to perform an ANOVA analysis and the subsequent post-hoc tests to assess the existence of significant differences among them for each of the two factors (Kastenholz et al., 1999). The results confirmed the existence of such significant differences for both factors ( $F_{2, 123} = 77.44$  with  $p = 0.000$ , for Factor 1; and  $F_{2,123} = 85.89$  with  $p = 0.000$ , for Factor 2).

Moreover, the post-hoc tests, conducted using the Bonferroni method, since Levene's test confirmed the homogeneity of variance, confirmed the presence of differences among all three clusters for Factor 2 and between Clusters 1 and 2, on the one hand, and Clusters 2 and 3, on the other, for Factor 1. The three clusters were thus sufficiently distinct.

Table 2 shows the variables for which, following the application of the  $\chi^2$  test of independence (contingency tables) or analysis of variance (one-way ANOVA), significant differences were detected among the identified clusters. As can be seen, these differences between

clusters were concentrated in those factors that can influence the choice of destination, especially the pull factors (with three exceptions: (1) proximity to main residence, (3) availability of adequate natural resources, and (7) rural accommodations).

Table 2. Main differentiating characteristics among the clusters

		Sample (N = 126)	Health, novelty and cultural heritage seekers (N = 51)	Adventure and fun seekers (N = 41)	Professionals and health seekers neutral to pull factors (N = 34)	Significance Test
<b>Sociodemographic profile (%)</b>						
Net household income (euros per month)	≤ 1,500	44.07	43.75	57.89	28.13	$\chi^2 = 6.249$ gl = 2 $p = 0.044$
	> 1,500	55.93	56.25	42.11	71.87	
<b>Typical features of the active tourism experience (%)</b>						
Reasons for engaging in active tourism (push factors)	Get away from routine	63.49	72.55	63.41	50.00	$\chi^2 = 26.495$ gl = 8 $p = 0.001$
	New sensations	33.33	19.61	56.10	26.47	
	Fitness	29.37	37.25	12.20	38.24	
	Places/People	40.48	49.02	36.59	32.35	
	Professional	7.14	1.96	4.88	17.65	
<b>Rating of factors that could influence the choice of destination (5-point Likert scale, 1 to 5)</b>						
Not destination attributes	Suggestions from friends	3.72	3.90	3.93	3.21	$F_{2, 123} = 8.847$ $p = 0.000$ <b>B</b> C1 > C3 C2 > C3
	Guides and magazines	2.87	3.20	2.90	2.35	$F_{2, 123} = 6.538$ $p = 0.002$ <b>B</b> C1 > C3
Destination attributes (pull factors)	Landscape lushness	4.32	4.75	4.34	3.65	$F_{2, 123} = 20.860$ $p = 0.000$ <b>GH</b> C1 > C2 C1 > C3 C2 > C3
	Natural richness	3.94	4.51	3.66	3.41	$F_{2, 123} = 14.484$ $p = 0.000$ <b>GH</b> C1 > C2 C1 > C3
	Gastronomy	3.76	4.43	3.59	2.97	$F_{2, 123} = 39.862$ $p = 0.000$ <b>B</b> C1 > C2 C1 > C3 C2 > C3

Specialized companies and staff	3.53	3.37	3.98	3.24	$F_{2, 123} = 5.733$ $p = 0.004$ <b>GH</b> C1 < C2 C2 > C3
Complementary offer	3.19	3.45	3.39	2.56	$F_{2, 123} = 7.551$ $p = 0.001$ <b>B</b> C1 > C3 C2 > C3
Accessibility	3.12	3.27	3.66	2.24	$F_{2, 123} = 21.191$ $p = 0.000$ <b>B</b> C1 > C3 C2 > C3
Inexpensive accommodations	3.09	3.12	3.76	2.24	$F_{2, 123} = 15.887$ $p = 0.000$ <b>GH</b> C1 < C2 C1 > C3 C2 > C3
Parties, fairs, and cultural traditions	2.87	3.35	3.32	1.59	$F_{2, 123} = 32.755$ $p = 0.000$ <b>GH</b> C1 > C3 C2 > C3
Archaeology	2.86	3.08	2.95	2.41	$F_{2, 123} = 4.559, p = 0.012$ <b>GH</b> C1 > C3 C2 > C3
Coastal location	2.73	2.63	3.46	2.00	$F_{2, 123} = 11.290$ $p = 0.000$ <b>GH</b> C1 < C2 C1 > C3 C2 > C3
Thermalism	2.51	2.51	3.00	1.91	$F_{2, 123} = 8.923$ $p = 0.000$ <b>GH</b> C1 > C3 C2 > C3
Nightlife	2.16	1.49	3.32	1.76	$F_{2, 123} = 59.597$ $p = 0.000$ <b>GH</b> C1 < C2 C2 > C3
Urban areas	2.09	1.75	2.85	1.68	$F_{2, 123} = 19.547$ $p = 0.000$ <b>B</b> C1 < C2 C2 > C3
Luxury accommodations	2.05	2.33	2.02	1.65	$F_{2, 123} = 3.788$ $p = 0.026$ <b>GH</b> C1 > C3

Note. In the significance test column, “**B**” refers to the Bonferroni post-hoc test (used when Levene’s test confirms the homogeneity of variance); “**GH**” refers to the Games-Howell post-hoc test (used when Levene’s test does not confirm the homogeneity of variance); and “C1”, “C2” and “C3” refer to Clusters 1, 2, and 3, respectively.

In contrast, of the typical characteristics of active tourism, the only variable for which significant differences were found was that referring to reasons for engaging in this type of tourism,

i.e., the push factors. Likewise, with regard to respondents' sociodemographic profile, significant differences were only detected among the three clusters in relation to income level.

Based on the characteristics of the total sample reported above, the three clusters can be characterized as follows:

**Cluster 1: Health, novelty and cultural heritage seekers** (the 40.47% of the respondents)

In this group, which has the highest percentage of women (43.14%) and the highest average age (39.20), individuals with university studies (66.67%) and employees from both the private sector (52.94%) and the public sector (11.76%) predominate more than in any other group. The breakdown of the individuals in this group by income level is similar to that of the overall sample (56.25% have a net household income in excess of 1500 euros per month). They mostly aim to get away from routine (72.55%), but also to discover new places or landscapes (49.02%) and/or keep physically fit (37.25%). To do so, they engage in activities such as hiking (50.98%), although they also participate more in mountaineering/climbing (13.73%) or walking on horseback (11.76%) than other groups. In addition, although the most commonly preferred company is friends (50.98%), they are the group that mainly prefers to engage in active tourism on their own (3.92%), with their partner (29.41%), or with their family (13.73%). When it comes to choosing a destination, they rate aspects such as landscape lushness (4.75), natural richness (4.51), and the existence of an attractive complementary offer (3.45) more highly. This was the group to give the highest rate to recommendations from specialized guides and magazines (3.20). Thus, all four of the elements comprising Factor 2 (the cultural heritage component of the pull factors) were rated more highly by this group than by either of the other two. In contrast, they gave lower rates than Cluster 2 to the five elements included in Factor 1 (the urban leisure and nightlife component of the pull factors). This includes nightlife (1.49), which they rated even lower than Cluster 3.

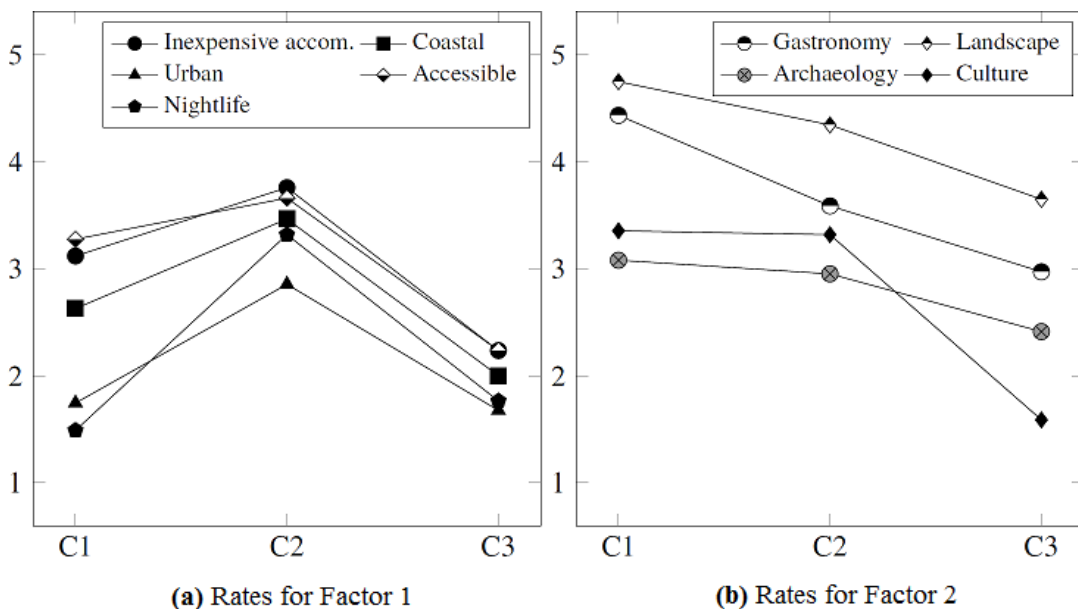
**Cluster 2: Adventure and fun seekers** (the 32.55% of the respondents)

In contrast to the previous group, men clearly predominate in this group (70.73%). Furthermore, the group not only has the lowest average age (34.88), but also the highest percentage of individuals below the age of 34 (51.22%). It is also the group with the highest presence of self-employed workers (43.90%) and which includes all of the students in the sample (9.76%), as well as the highest percentage of single-member families (24.39%). This is the cluster with the largest percentage of members (57.89%) in the low-income segment. Besides getting away from routine (63.41%), these individuals want to experience new sensations (56.10%). To this end, they engage in activities such as surfing/windsurfing (19.51%), paintball (14.63%) or canyoning (7.32%) to a greater extent than the other groups; on the contrary, they are the least inclined towards hiking (31.71%). In addition, the most usual company for individuals in this group are friends (66.67%). This cluster gave higher rates to the availability of specialized companies and staff (3.98) and the opinions of friends and acquaintances (3.93) than either of the other two clusters did. In contrast, it places scant importance on recommendations from specialized guides and magazines (2.90). By a big margin, this was also the group of individuals to rate the options provided by the urban leisure and nightlife component of the pull factors most highly, on average, almost as high as those provided by the cultural heritage component. Moreover, it gave higher rates to all five of the options comprising Factor 1 (the urban leisure and nightlife component of the pull factors) than either of the other two clusters did.

**Cluster 3: Professionals and health seekers neutral to pull factors** (the 26.98% of the respondents)

This group, in which the proportion of men (58.82%) and the average age (35.91) are slightly below the values of the sample, has the lowest percentage of people with university studies (50%)

and the highest percentage with vocational training (44.12%). This cluster is dominated, to a much greater extent than either of the other two (71.87%), by individuals in the high-income bracket. Although their main motivation is also to get away from routine (50.0%), it was less important for this cluster than for either of the others. Keeping physically fit (38.24%) and professional reasons (17.65%) had a much higher weight than in the sample as a whole. This is the group in which a higher percentage of individuals opt for hiking (52.94%), although skiing (11.76%) and canoeing (11.76%) are also practiced more than in other groups. In addition, it is the group whose members practice active tourism more frequently (73.53% do so at least once a month, of which 56% do so more than once a week), and those who opt more for the company of an organised group (8.87%). These individuals gave the lowest rates to all the aspects included in the survey related to destination choice except for nightlife, although they hardly gave it any importance either (1.76). Specifically, only landscape lushness (3.65), natural richness (3.41), the availability of specialized companies and staff (3.24), and advice or suggestions from friends or acquaintances (3.21) received rates higher than 3. In any case, this group gave a higher average rate to the cultural heritage component of the pull factors than to the urban leisure and nightlife component.



### **Figure 1. Rates given by each cluster to the pull factors corresponding to Factors 1 and 2**

As can be seen in Figure 1(a), individuals in Cluster 2 gave the highest rates to the pull factors belonging to the urban leisure and nightlife component. In contrast, Figure 1(b) shows that the respondents in Cluster 1 gave the highest rates to the pull factors belonging to the cultural heritage component. Meanwhile, the members of Cluster 3 gave the lowest rates to all the pull factors, regardless of the component they belonged to, except for nightlife. Figure 1 also shows that, overall, active tourists rated the cultural heritage component of the pull factors (Factor 2) more highly than the urban leisure and nightlife component (Factor 1).

## **5. Discussion**

This paper has shown that most Spanish active tourists are motivated by the desire to get away from routine and that they prioritize a destination's cultural heritage when choosing where to engage in physical activities or sports in nature. Nevertheless, it has also shown that this group can be segmented into three subgroups, or clusters, based on both the motivation to engage in active tourism (push factors) and the destination attributes that influence their choice of destination (pull factors). These two factors are actually intertwined and are also related to the sociodemographic profile of each active tourist, as well as the typical features of their experience, which vary across the clusters, although not in a statistically significant way.

The results obtained for the overall sample confirm the persistence of the sociodemographic profile of active tourists identified in the 1990s (Gibson, 1998b; Hall, 1992), namely, male, young (25 to 44 years old), college-educated, and employed. This is consistent with the findings of ATTA and GW (2013). Moreover, like other studies (Andrades, 2008; Canadian Tourism Commission, 2008), the present research verified these tourists' preference for hiking, a land activity that does

not require specialized preparation or equipment. It further confirmed that active tourists usually travel in groups, although their preferred travel companions vary depending on the type of tourist. International tourists tend to travel with their partner and family (ATTA & GW, 2013), whereas domestic tourists, who made up the majority of the sample here, seem to prefer the company of friends.

As for their motivations to travel, as reflected in the push variables, the respondents prioritized getting away from routine and, to a lesser extent, discovering new places or landscapes. The search and appropriation of places outside an individual's regular space is part of the essence of tourism of any kind (Schwark, 2007). Active tourists are no exception; they, too, are seeking to relax, explore new places, and discover different cultures, as reported by ATTA and GW (2013).

Finally, among the pull factors, respondents prioritized those aspects related to nature (landscape lushness and natural richness) when choosing a destination. In fact, no significant differences were detected among the three clusters in terms of the rates given to the existence of adequate natural resources, suggesting that the natural environment is a key factor for any active tourist (Andrades, 2008; ATTA & GW, 2013). Even the members of Cluster 2, for whom experiencing new sensations was a motivational priority, rated landscape and nature highly.

Almost three quarters of the members of Cluster 1 were motivated by the desire to get away from routine, which, in their case, was linked to a motivation related to the act of traveling itself (discovering new places and landscapes) or to keeping physically fit. This latter motivation is related to the health aspects of physical activities and sports. These active tourists, many of whom are more mature women with a higher educational background and a good level of income, were the segment most likely to travel alone or in the company of their partner or family. For the most part, they engaged in stress-free activities, such as hiking, followed, to a larger extent than for the



members of either of the other two clusters, by recommendations from specialized guides and magazines. Thus, they do not seem to be seeking new sensations. This is consistent with the finding that the pull factors comprising the urban leisure and nightlife component were not, generally, important for them. In keeping with Boyes's (2013) findings regarding seniors, risk and uncertainty seem to be only secondary factors compared to other types of benefits provided by nature-based activities, such as those related to health. These are individuals who, as reported by Suárez, Zoghbi, and Aguiar (2013) in the specific case of nautical tourism, have an "energetic" and "practical" lifestyle and value the possibility of visiting new places by engaging in a healthy activity. In other words, they engage in outdoor activities at the destination that enhance their health (Calogiuri et al., 2016), improve their quality of life (Chacón-Cuberos et al., 2016; Hall, 1992), and, thus, constitute a healthy leisure alternative (Peñarrubia et al., 2016). Unsurprisingly, the growing concern with health is one of the factors that explains the rise in sports-related travel (Gibson, 1998a). In short, this group represents the health-based branch of active tourism and can thus be thought of as a segment of health tourism (Goeldner, 1989).

In contrast, for individuals in Cluster 2, the desire to get away from routine is coupled with a motivation related to the adventure/thrill of physical activities and sports, that is, the desire to experience new sensations. In accordance with Martin and Priest's (1986) adventure paradigm, aspects such as perceived risk and the chance to test one's own skills are important for these tourists to make the most out of these adventure experiences. However, as subsequently corrected by Cater (2006), more than *risk*, these tourists are hoping to experience *fear*. These active tourists, in their majority males aged thirty or under, many of whom are self-employed or students with a relatively low income level, travel with friends in order to practice activities that find more exciting than hiking, such as surf or windsurf, canyoning, and even a mostly playful activity such as

paintball. This is a common profile among practitioners of this type of activity, as found by Hardiman and Burgin (2011) in their analysis of canyonists in the Greater Blue Mountains World Heritage Area (Australia). Keeping physically fit is not at all a priority for these individuals. On the contrary, they may well combine their practice of a sport or activity with less healthful habits, such as partying and alcohol consumption, as in the case of the surfers who travel to the Mentawai Islands in Indonesia (Ponting, McDonald, & Wearing, 2005). It thus seems reasonable that the members of this group would value the urban leisure and nightlife component of the pull factors more highly. Based on the types of activities they enjoy, the finding that they give more importance to advice and suggestions from friends and acquaintances, that is, from likely travel companions, than to recommendations from specialized guides and magazines, and that they similarly highly value the availability of specialized companies and staff, also seems reasonable.

The most salient distinctive feature of the individuals in Cluster 3 is their indifference to destination attributes. As with Cluster 1, some of the members of this group engage in a simple activity, such as hiking, albeit even more frequently and with a greater emphasis on fitness, while others engage in more demanding activities, such as canoeing or skiing, for professional reasons, occasionally guiding an organised group of tourists. Given this latter profile, intrinsic to sports-driven tourists (Jackson & Reeves, 1998), for whom sports are an essential requirement even from a professional viewpoint, it is no surprise not only that destination attributes hardly matter to the members of this group, but also that getting away from routine is likewise less of a motivation for them. In fact, engaging in these activities in natural settings as a professional duty can lead to stress and negative emotions (such as anger or anxiety), which, far from facilitating escape, can negatively affect the quality of service provided. This can be true to such an extent that the practitioner may decide to quit the activity, as reported by Houge Mackenzie and Kerr (2013a, b),

in their study of the emotional consequences of the ties and relationships established by adventure tourism guides with their employers and each other.

Finally, the characterization of the different segments of active tourists confirms that the importance given to the various pull factors differs depending on the dominant push factors for each group. It thus establishes that push and pull factors are interrelated, a possibility suggested and discussed in earlier contributions (Klenosky, 2002; Kim et al., 2003; Xu and Chan, 2016).

## **6. Conclusions**

The collection of the data for this study through Spanish active tourism providers that could be contacted via Facebook prevented the introduction of elements of bias that would have occurred had the sample been obtained at selected destinations. This source made it possible to reach practitioners of every type of nature-based activity and, thus, to avoid the limitations intrinsic to specific profiles.

The analysis of the sample, and, especially, its segmentation into three clusters, provides an enhanced characterization of the population of Spanish active tourists. It confirms that the natural environment is a key factor in their decisions regarding where to travel, but also that the group is not homogenous, but rather made up of individuals with different needs and preferences. In this way, we gain a clearer characterization of active tourism and affords a better understanding of tourism demand based on motivation, two of the benefits of visitor segmentation according to Kruger et al. (2017) in their review of the literature on the subject.

Thus, among those who travel in order to engage in physical activities and sports in nature, some are mainly motivated by the desire to improve their physical and psychological health. Others give more importance to adventure, with its components of risk, thrill, and uncertainty. Finally,

some engage in these activities as part of their job. These different motivations are associated with different preferences in terms of destination attributes. Tourists who prioritize health are more inclined toward the cultural heritage component, especially, gastronomy, archaeological heritage, and access to the local community's cultural traditions. Active tourists looking to experience new sensations rate factors linked to the urban leisure and nightlife component more highly, that is, they are the most interested in enjoying the nightlife in easily accessible urban and coastal areas.

Given the heterogeneity of active tourists, destination managers, active tourism companies and tour operators cannot deal with them all in the same way. They must decide which segment or segments can be more attractive and adjust their offer, in particular the product formulation, and their promotional strategies, to the characteristics, desires and needs of the tourists that comprise each of them. Specifically, the evidence obtained suggests that in the case of rural destinations, primarily inland, the segment of health, novelty and cultural heritage seekers could be a good target. These are mature people with a good level of education and income, eager to see new places, who should be offered the possibility of enjoying the cultural heritage of the destination while practicing low-risk activities such as hiking or horse riding. A good option would be the design of hiking circuits whose itinerary includes relevant landscapes and/or outstanding samples of the heritage of the destination (churches, archaeological remains, water mills, etc.) and/or establishments where visitors can sample the traditional gastronomy of the region. In addition, it would be advisable to promote this offer through specialised guidebooks and magazines, which are the preferred source of information on the destination for this group. This publicity should highlight the suitability of this offer to be enjoyed by couples or families seeking a relaxed, healthy activity in unfamiliar surroundings. On the other hand, urban destinations, especially coastal ones, could direct their efforts to attracting the segment of adventure and fun seekers. In this case, the

offer should concentrate on activities such as surfing/windsurfing, canyoning or paintball, which allow these young people to experience new emotions and have fun in the company of their friends, under the supervision of specialised personnel. This offer should also include affordable accommodation options, which are highly valued by this low-income group. Promotional campaigns aimed at this segment of active tourists should highlight the possibilities of nightlife in the destination. Social networks and other online media could be the appropriate channel to get the message across to these groups of young people. It should be noted that satisfying this group can make a decisive contribution towards attracting new customers, given the importance they attach to the opinions of friends and acquaintances when it comes to finding out about new destinations.

The main limitation of the study is the reduced number of factors (2) extracted in the factor analysis. This is a direct consequence of the fact that in seeking to obtain interpretable factors with high internal consistency through this analysis, the original scale of 17 pull factors was reduced to only 9. Although the 17 proposed variables reflect in a fairly exhaustive manner the reasons that an active tourist may have for choosing a particular destination where they can enjoy the activity of their choice, future research could endeavour to extend the number of these pull factors.

Future research should examine the possibly different impacts of the identified groups of active tourists on the destinations that they visit. Such an investigation could be conducted by considering the principles of ecotourism (Ponting et al., 2005), characterized by the defense of a sustainable and equitable destination planning and management model based on, among other aspects, the participatory involvement of local communities.

## **References**

- Albayrak, T., & Caber, M. (2018). A motivation-based segmentation of holiday tourists participating in white-water rafting. *Journal of Destination Marketing & Management*, 9, 64-71. doi: <https://doi.org/10.1016/j.jdmm.2017.11.001>
- Andrades, L. (2008). Planificación turística y sostenible. Aplicación a un destino de costa interior de Extremadura: el embalse de La Serena. *Revista de Estudios Empresariales, Segunda época*, 2, 24-47.
- ATTA & GW (2013). *Adventure Tourism Market Study 2013*. Retrieved from <http://files.adventuretravel.biz/docs/research/adventure-tourism-market-study-2013-web.pdf>
- Ávila, R., & Barrado, D. A. (2005). Nuevas tendencias en el desarrollo de destinos turísticos: marcos conceptuales y operativos para su planificación y gestión. *Cuadernos de Turismo*, 15, 27-43.
- Ballantyne, R., Moutinho, L., & Rate, S. (2018). Consumer Behaviour in Tourism. In L. Moutinho, A. Vargas-Sánchez (Eds.), *Strategic Management in Tourism* (3rd ed.) (pp. 73-86). Boston (MA): CABI.
- Baloglu, S., & Uysal, M. (1996). Market segments of push and pull motivations: a canonical correlation approach. *International Journal of Contemporary Hospitality Management*, 8(3), 32-38. doi: <https://doi.org/10.1108/09596119610115989>
- Barrado, D. A., & Vila, M. (2001). Turismo en espacios de montaña y naturales. In D. A. Barrado & J. Clabuig (Eds.), *Geografía mundial del turismo* (pp. 123-149). Madrid: Síntesis.
- Bowler, D. E., Buyung-Ali, L. M., Knight, T. M., & Pullin, A. S. (2010). A systematic review of evidence for the added benefits to health of exposure to natural environments. *BMC Public Health*, 10, 456. doi: <http://www.biomedcentral.com/1471-2458/10/456>

- Boyes, M. (2013). Outdoor adventure and successful ageing. *Ageing and Society*, 33(4), 644-665.  
doi: <https://doi.org/10.1017/S0144686X12000165>
- Caber, M., & Albayrak, T. (2016). Push or pull? Identifying rock climbing tourists' motivations. *Tourism Management*, 55, 74-84. doi: <https://doi.org/10.1016/j.tourman.2016.02.003>
- Calogiuri, G., Patil, G. G., & Aamodt, G. (2016). Is green exercise for all? A descriptive study of green exercise habits and promoting factors in adult Norwegians. *International Journal of Environmental Research and Public Health*, 13(11), 1165. Doi: <https://doi.org/10.3390/ijerph13111165>
- Canadian Tourism Commission (2008). *TAMS 2006: U.S. activity profile: hiking, climbing and paddling while on trips*. Retrieved from [http://publications.gc.ca/collections/collection\\_2009/ic/Iu86-30-24-2006E.pdf](http://publications.gc.ca/collections/collection_2009/ic/Iu86-30-24-2006E.pdf)
- Cater, C. I. (2006). Playing with risk? Participant perceptions of risk and management implications in adventure tourism. *Tourism Management*, 27(2), 317-325. doi: [10.1016/j.tourman.2004.10.005](https://doi.org/10.1016/j.tourman.2004.10.005)
- Chacón-Cuberos, R., Chacón-Borrego, F., Zurita-Ortega, F., & Cachón-Zagalaz, J. (2016). Perfiles deportivos según sexo y edad en la población adulta de Sevilla. Un modelo de regresión. *Cultura, Ciencia y Deporte*, 11(33), 207-215.
- Chen, L. -J., & Chen, W. -P. (2015). Push-pull factors in international birders' travel. *Tourism Management*, 48, 416-425. doi: [10.1016/j.tourman.2014.12.011](https://doi.org/10.1016/j.tourman.2014.12.011)
- Chiang, C. C., Wang, M. Y., Lee, C. F., & Chen, Y. C. (2015). Assessing travel motivations of cultural tourists: A factor-cluster segmentation analysis. *Journal of Information and Optimization Sciences*, 36(3), 269-282. doi: <https://doi.org/10.1080/02522667.2014.996028>

- Collins, D., & Tisdell, C. (2002). Age-related lifecycles: purpose variations. *Annals of Tourism Research*, 29(3), 801-818. doi: [10.1016 / S0160-7383 \(01\) 00081-0](https://doi.org/10.1016/S0160-7383(01)00081-0)
- Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Crompton, J. L. (1979). Motivations for Pleasure Vacation. *Annals of Tourism Research*, 6(4), 408-424. doi: [https://doi.org/10.1016/0160-7383\(79\)90004-5](https://doi.org/10.1016/0160-7383(79)90004-5)
- Dann, G. M. S. (1977). Anomie, Ego-Enhancement and Tourism. *Annals of Tourism Research*, 4(4), 184-194. doi: [https://doi.org/10.1016/0160-7383\(77\)90037-8](https://doi.org/10.1016/0160-7383(77)90037-8)
- Devesa, M., Laguna, M., & Palacios, A. (2010). The role of motivation in visitor satisfaction: Empirical evidence in rural tourism. *Tourism Management*, 31(4), 547-552. doi: [10.1016/j.tourman.2009.06.006](https://doi.org/10.1016/j.tourman.2009.06.006)
- Dujmović, M., & Vitasović, A. (2015). Postmodern society and tourism. *Journal of Tourism and Hospitality Management*, 3(9-10), 192-203. doi: [10.17265/2328-2169/2015.10.003](https://doi.org/10.17265/2328-2169/2015.10.003)
- Eusébio, C., Carneiro, M. J., Kastenholz, E., & Alvelos, H. (2017). Social tourism programmes for the senior market: a benefit segmentation analysis. *Journal of Tourism and Cultural Change*, 15(1), 59-79. doi: <https://doi.org/10.1080/14766825.2015.1117093>
- Ewert, A. (1985). Why people climb: the relationship of participant motives and experience level to mountaineering. *Journal of Leisure Research*, 17(3), 241-250. doi: <https://doi.org/10.1080/00222216.1985.11969634>
- Fodness, D. (1994). Measuring tourist motivation. *Annals of Tourism Research*, 21(3), 555-581. doi: [https://doi.org/10.1016/0160-7383\(94\)90120-1](https://doi.org/10.1016/0160-7383(94)90120-1)



- Gammon, S., & Robinson, T. (2003). Sport and tourism: a conceptual framework. *Journal of Sport and Tourism*, 8(1), 21-26. doi: <https://doi.org/10.1080/14775080306236>
- García, P. J. (2010). Turismo activo y medio ambiente: una implicación necesaria. Aspectos jurídicos. *Cuadernos de Turismo*, 26, 153-176.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference, 11.0 update* (4th ed.). Boston: Allyn & Bacon.
- Gibson, H. J. (1998a). Sport tourism: a critical analysis of research. *Sport management review*, 1(1), 45-76. doi: [https://doi.org/10.1016/S1441-3523\(98\)70099-3](https://doi.org/10.1016/S1441-3523(98)70099-3)
- Gibson, H. J. (1998b). Active sport tourism: who participates? *Leisure Studies*, 17(2), 155-170. doi: [10.1080/026143698375213](https://doi.org/10.1080/026143698375213)
- Goeldner, C. (1989). 9th Congress AIEST: English workshop summary. *Revue de Tourisme*, 44(4), 6-7.
- Hair Jr., J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7<sup>th</sup> ed.). Upper Saddle River: Pearson Educacion Limited.
- Hall, C. M. (1992). Review. Adventure, sport and health tourism. In B. Weiler & C. M. Hall (Eds.), *Special Interest Tourism* (pp. 141-158). London: Belhaven Press.
- Hardiman, N., & Burgin, S. (2011). Canyoning adventure recreation in the Blue Mountains World Heritage Area (Australia): The canyoning trends over the last decade. *Tourism Management*, 32(6), 1324-1331. doi: [10.1016/j.tourman.2011.01.002](https://doi.org/10.1016/j.tourman.2011.01.002)
- Houge Mackenzie, S., & Kerr, J. H. (2013a). Stress and emotions at work: An adventure tourism guide's experiences. *Tourism Management*, 36, 3-14. doi: <https://doi.org/10.1016/j.tourman.2012.10.018>

- Houge Mackenzie, S., & Kerr, J. H. (2013b). Can't we all just get along? Emotions and the team guiding experience in adventure tourism. *Journal of Destination Marketing and Management*, 2(2), 85-93. doi: <https://doi.org/10.1016/j.jdmm.2013.03.003>
- INE (2018). *Cuenta Satélite del Turismo en España. Serie 2010-2017. Nota de prensa*. Retrieved December 9, 2019, from [https://www.ine.es/prensa/cst\\_2017.pdf](https://www.ine.es/prensa/cst_2017.pdf)
- Jackson, G., & Reeves, M. (1998). Evidencing the sports-tourism interrelationship: a case study of elite British athletes. In M. F. Collins & I. S. Cooper (Eds.), *Leisure management: issues and applications* (pp. 263-275). New York: CAB International.
- Jang, S., & Wu, C. M. E. (2006). Seniors' travel motivation and the influential factors: an examination of Taiwanese seniors. *Tourism Management*, 27, 306-316. doi: <https://doi.org/10.1016/j.tourman.2004.11.006>
- Jones, T. E., & Yamamoto, K. (2016). Segment-based monitoring of domestic and international climbers at Mount Fuji: Targeted risk reduction strategies for existing and emerging visitor segments. *Journal of Outdoor Recreation and Tourism*, 13, 10-17. doi: <https://doi.org/10.1016/j.jort.2016.01.002>
- Kastenholz, E., Davis, D., & Paul, G. (1999). Segmenting tourism in rural areas: The case of North and Central Portugal. *Journal of Travel Research*, 37(4), 353-363. doi: <https://doi.org/10.1177/004728759903700405>
- Kim, S. S., Lee, C. K., & Klenosky, D. B. (2003). The influence of push and pull factors at Korean national parks. *Tourism Management*, 24(2), 169-180. doi: [https://doi.org/10.1016/S0261-5177\(02\)00059-6](https://doi.org/10.1016/S0261-5177(02)00059-6)

- Klenosky, D. B. (2002). The “Pull” of Tourism Destinations: A Means-End Investigation. *Journal of Travel Research*, 40(4), 385-395. doi: <https://doi.org/10.1177/004728750204000405>
- Kruger, M., Viljoen, A., & Saayman, M. (2017). Who visits the Kruger National Park, and why? Identifying target markets. *Journal of Travel & Tourism Marketing*, 34(3), 312-340. doi: <https://doi.org/10.1080/10548408.2016.1156618>
- Kluin, J. Y., & Lehto, X. Y. (2012). Measuring family reunion travel motivations. *Annals of Tourism Research*, 39(2), 820–841. doi: <https://doi.org/10.1016/j.annals.2011.09.008>
- Kurtzman, J., & Zauhar, J. (1997). A wave in time-the sports tourism phenomena. *Journal of Sport Tourism*, 4(2), 7-24. doi: <https://doi.org/10.1080/10295399708718624>
- Lee, C.-K., Lee, Y.-K., & Wicks, B. E. (2004). Segmentation of festival motivation by nationality and satisfaction. *Tourism Management*, 25, 61-70. doi: [https://doi.org/10.1016/S0261-5177\(03\)00060-8](https://doi.org/10.1016/S0261-5177(03)00060-8)
- Luo, Y., & Deng, J. (2008). The new environmental paradigm and nature-based tourism motivation. *Journal of Travel Research*, 46, 392-402. doi: <https://doi.org/10.1177/0047287507308331>
- Mansfeld, Y. (1992). From motivation to actual travel. *Annals of Tourism Research*, 19(3), 399-419. doi: [https://doi.org/10.1016/0160-7383\(92\)90127-B](https://doi.org/10.1016/0160-7383(92)90127-B)
- Martin, P., & Priest, S. (1986). Understanding the adventure experience. *Journal of Adventure Education*, 3(1), 18-21.
- Martínez, A. S., & Fernández, R. (2011). Estudio comparativo de empresas de turismo de aventura de la provincia de Valencia. *Gran Tour. Revista de Investigaciones Turísticas*, 3, 51-68.

- Matheson, C. M., Rimmer, R., & Tinsley, R. (2014). Spiritual attitudes and visitor motivations at the Beltane Fire Festival, Edinburgh. *Tourism Management*, 44, 16-33. doi: <http://dx.doi.org/10.1016/j.tourman.2014.01.023>
- Mohammad, B. A. M. A. H., & Som, A. P. M. (2010). An Analysis of Push and Pull Travel Motivations of Foreign Tourists to Jordan. *International Journal of Business and Management*, 5(12), 41-50. doi: <http://dx.doi.org/10.5539/ijbm.v5n12p41>
- Munar, A. M., & Jacobsen, J. K. S. (2014). Motivations for sharing tourism experiences through social media. *Tourism Management*, 43, 46-54. doi: [10.1016/j.tourman.2014.01.012](http://dx.doi.org/10.1016/j.tourman.2014.01.012)
- Neal, J. D., Sirgy, M. J., & Uysal, M. (1999). The role of satisfaction with leisure travel/tourism services and experience in satisfaction with leisure life and overall life. *Journal of Business Research*, 44(3), 153-163. doi: <https://doi.org/10.1177/0047287507303977>
- Newsome, D., Moore, S. A., & Dowling, R. K. (2002). *Natural area tourism. Ecology, impacts and management*. Clevedon: Channel View Publications.
- Olivera, A., & Olivera, J. (1999). Las actividades físicas de aventura en la naturaleza. Estudio de la oferta y la demanda en el sector empresarial. *Apunts. Educació física i esports*, 57, 86-94.
- Paker, N., & Vural, C. A. (2016). Customer segmentation for marinas: Evaluating marinas as destinations. *Tourism Management*, 56, 156-171. doi: <https://doi.org/10.1016/j.tourman.2016.03.024>
- Pearce, P. L., & Caltabiano, M. (1983). Inferring travel motivation from travelers' experiences. *Journal of Travel Research*, 12(2), 16-20. doi: <https://doi.org/10.1177/004728758302200203>
- Peñarrubia, C., Guillén, R., & Lapetra, S. (2016). Las actividades en el medio natural en Educación Física, ¿teoría o práctica? *Cultura, Ciencia y Deporte*, 11(31), 27-36.

- Pomfret, G. (2006). Mountaineering adventure tourists: a conceptual framework for research. *Tourism Management*, 27(1), 113-123. doi: [10.1016 / j.tourman.2004.08.003](https://doi.org/10.1016/j.tourman.2004.08.003)
- Ponting, J., McDonald, M., & Wearing, S. (2005). De-Constructing Wonderland: Surfing Tourism in the Mentawai Islands, Indonesia. *Loisir et Société / Society and Leisure*, 28(1), 141-162. doi: <https://doi.org/10.1080/07053436.2005.10707674>
- Prayag, G., & Hosany, S. (2014). When Middle East meets West: understanding the motives and perceptions of young tourists from United Arab Emirates. *Tourism Management*, 40, 35-45. doi: [10.1016/j.tourman.2013.05.003](https://doi.org/10.1016/j.tourman.2013.05.003)
- Prebensen, N. K., & Lee, Y.-S. (2013). Why visit an eco-friendly destination? Perspectives of four European nationalities. *Journal of Vacation Marketing*, 19(2), 105-116. doi: <https://doi.org/10.1177/1356766712457671>
- Rid, W., Ezeuduji, I. O., & Pröbstl-Haider, U. (2014). Segmentation by motivation for rural tourism activities in The Gambia. *Journal of Tourism Management*, 40, 102-116. doi: <http://dx.doi.org/10.1016/j.tourman.2013.05.006>
- Roca, E., Villares, M., & Ortego, M. I. (2009). Assessing public perceptions of beach quality according to beach user's profile: A case study in the Costa Brava (Spain). *Tourism Management*, 30(4), 598-607. doi: [10.1016/j.tourman.2008.10.015](https://doi.org/10.1016/j.tourman.2008.10.015)
- Schwark, J. (2007). Sport tourism: introduction and overview. *European Journal for Sport and Society*, 4(2), 117-132. doi: <https://doi.org/10.1080/16138171.2007.11687799>
- Secretaría General de Turismo (2004). *El turismo de naturaleza en España y su plan de impulso*. Madrid: Ministerio de Industria, Turismo y Comercio.

- Secretaría General de Turismo (2008). *Turismo 2020. Plan del Turismo Español Horizonte 2020*. Madrid: Ministerio de Industria, Turismo y Comercio.
- Šimková, E., & Holzner, J. (2014). Motivation of Tourism Participants. *Procedia - Social and Behavioral Sciences*, 159, 660-664. doi: <https://doi.org/10.1016/j.sbspro.2014.12.455>
- Suárez, M. A., Zoghbi, P., & Aguiar, T. (2013). Motivación del turista hacia la práctica de deportes náuticos: un estudio en el destino turístico de Gran Canaria. *Revista de Análisis Turístico*, 15, 37-48.
- Swarbrooke, J., Beard, C., Leckie, S., & Pomfret, G. (2003). *Adventure Tourism. The new frontier*. Oxford: Butterworth Heinemann.
- Tarrant, M. A., Bright, A. D., Smith, E., & Cordell, H. K. (1999). Motivations, attitudes, preferences, and satisfactions among outdoor recreationists. In H. K. Cordell, C. Betz, J. M. Bowker, et al. (Eds.), *Outdoor recreation in American life: A national assessment of demand and supply trends* (pp. 403-431). Champaign, IL: Sagamore Publishing.
- Tizzoni, E. (2015). Competitive Branding Policies for Medium Mountain Tourism Destinations: a Case Study from the Val Di Sole (Trento). *AlmaTourism. Journal of Tourism, Culture and Territorial Development*, 12, 63-80. doi: [10.6092 / issn.2036-5195 / 4525](https://doi.org/10.6092/issn.2036-5195/4525)
- Thompson Coon, J., Boddy, K., Stein, K., Whear, R., Barton, J., & Depledge, M. H. (2011). Does participating in physical activity in outdoor natural environments have a greater effect on physical and mental wellbeing than physical activity indoors? A systematic review. *Environmental Science & Technology*, 45, 1761–1772. doi: <https://doi.org/10.1021/es102947t>

- Turnbull, D. R., & Uysal, M. (1995). An Exploratory Study of German Visitors to the Caribbean: Push and Pull Motivations. *Journal of Travel and Tourism Marketing*, 4(2), 85-92. doi: [https://doi.org/10.1300/J073v04n02\\_07](https://doi.org/10.1300/J073v04n02_07)
- UNWTO (2014). *AM Reports, Volume nine. Global Report on Adventure Tourism*. Madrid: UNWTO.
- UNWTO (2019). *International Tourism Highlights. 2019 Edition*. Madrid: UNWTO. doi: <https://doi.org/10.18111/9789284421152>
- Uysal, M., & Jurowski, C. (1994). Testing the Push and Pull Factors. *Annals of Tourism Research*, 21(4), 844-846. doi: [https://doi.org/10.1016/0160-7383\(94\)90091-4](https://doi.org/10.1016/0160-7383(94)90091-4)
- Werts, C. E., Linn, R. L. & Jöreskog, K. G. (1974). Interclass Reliability Estimates. Testing Structural Assumptions. *Educational and Psychological Measurement*, 34, 25-33. doi: <https://doi.org/10.1177/001316447403400104>
- Woratschek, H., Hannich, F. M., & Ritchie, B. (2007). Motivations of sports tourists: An empirical analysis in several European rock climbing regions (Diskussionspapier 02-07). Bayrouth: Universität Bayrouth.
- Wu, M.-Y., & Pearce, P. L. (2014). Chinese recreational vehicle users in Australia: A netnographic study of tourist motivation. *Tourism Management*, 43, 22-35. doi: <http://dx.doi.org/10.1016/j.tourman.2014.01.023>
- Xu, J., & Chan, S. (2016). A new nature-based tourism motivation model: Testing the moderating effects of the push motivation. *Tourism Management Perspectives*, 18, 107-110. doi: [10.1016 / j.tmp.2016.01.001](https://doi.org/10.1016/j.tmp.2016.01.001)

- Yoon, Y., & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: a structural model. *Tourism management*, 26(1), 45-56. doi: <https://doi.org/10.1016/j.tourman.2003.08.016>
- Yuan, S., & McDonald, C. (1990), Motivational determinants of international pleasure time. *Journal of Travel Research*, 29(1), 42-44. doi: <https://doi.org/10.1177/004728759002900109>
- Zeng, B., & Gerritsen, R. (2014). What do we know about social media in tourism? A review. *Tourism Management Perspectives*, 10, 27-36. doi: [10.1016/j.tmp.2014.01.001](https://doi.org/10.1016/j.tmp.2014.01.001)