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ANALYSIS OF SPA TOURIST MOTIVATIONS: A SEGMENTATION APPROACH BASED ON DISCRIMINANT ANALYSIS

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ABSTRACT

Changes in lifestyle and a growing awareness of the importance of health and quality of life are leading to a growing interest in health tourism in general and spa tourism in particular. For this reason, spa tourist motivations are changing and expanding, going from uni-motivational behaviours (cure an ailment or disease) to other that are clearly multi-motivational (rest, relaxation, visit to cultural and natural destinations, enjoyment of food, etc.). The aim of this paper is to confirm the existence of a multi-motivational behaviour pattern in spa tourism as well as to quantify the percentage of the current demand showing this pattern. To do this, with the help of a discriminant analysis used to quantify the probability of the existence of several specific reasons for the practice of thermalism (search for rewarding emotions and feelings; improvement of health; relax; and improvement of physical condition), a segmentation of the demand of spa services in Extremadura (Spain) has been carried out. The results allow researchers to define three groups of tourists: the unmotivated, the multi-motivated and the half-motivated. Multi-motivated tourists represent less than 14% of the total number of tourists, and show a high motivation to improve their physical condition and their health, as well as to simply relax in a spa resort. Consequently, although they still represent a small percentage of the market, multi-motivational behaviour in spa tourism is regarded as an emerging segment that will change both the future of spa resorts offer and the way in which customer demands are managed.

KEYWORDS

Spa tourism; motivation, Extremadura; discriminant analysis; segmentation; multi-motivated clients.

ECONLIT KEYS
C38; C10; C80; D12.

1. INTRODUCTION

Nowadays, health and wellness is growing rapidly and its activity is increasing worldwide (Costa, Quintela & Mendes, 2015).

Spa tourism falls within the realm of wellness tourism, which, in turn, is part of health tourism. However, there is some confusion regarding these terms, mainly because of two reasons. On the one hand, there is the considerable weight of spa tourism in health tourism. Regarding this, Bonfada, Bonfada, Gándara & Fraiz Brea. (2008) affirm that thermalism is, in many countries, including Spain, the main form of health tourism. On the other hand, there is the extension of the term health, which allows it to be understood as something that is beyond a concept opposed to disease, and makes it possible that destinations offering this type of tourism can provide services aimed at meeting the needs of both categories (Rančić, Pavić & Mijatov, 2014).

In any case, this sector is booming, which is favoured, among other things, by changes in lifestyle as well as by a greater awareness of the importance of health and quality of life (Larrubia & Luque, 2009).

This, in turn, has led to changes in the motivations of spa tourists, who now seek not only to be cured of an ailment or disease, but also to break with routine, get in touch with nature, live a different experience, etc.

Therefore, it can be assumed that a visit to a spa may be due to various motivations, and in this sense, the study of these motivations becomes of particular relevance. Rančić et. al.(2014) argue that different people have different motivations to visit a spa. Therefore, the different motivations for visiting a spa should be related to specific socio-demographic variables that enable the segmentation of the demand according to their motivations.

In this context, regarding the study of motivations, age has been traditionally considered as a discriminating factor, associating the visit of younger people to a spa to the enjoyment of a relaxed environment that allows them to escape the stress of

daily routine, while considering that elderly people seek to improve their health (Boekstein, 2014; Larrubia & Luque, 2002, and Peris-Ortiz, Del Rio, Alvarez, 2015).

This research paper aims to confirm whether this assumption is valid in the case of the tourism market of Extremadura, as well as to broaden the criteria for market segmentation to a set of variables in the case of spa tourism in this region.

For this purpose, this paper has been divided into the following sections: following this introduction, section 2 focuses on the issue under consideration presenting an analysis of the existing literature on the study of spa tourist motivations. In section 3, the spa tourism market of Extremadura is contextualised, which serves as a basis for the analysis. Then, the methodology used is detailed in section 4. Section 5 shows the main results obtained from the analysis and, finally, the most relevant conclusions are summarised.

2. SPA TOURIST MOTIVATIONS

Travelling for the purpose of health improvement is one of the oldest motivations in tourism (Swarbrooke & Horner, 1999). Therefore, health tourism stands out as one of the longest established types of tourism.

Indeed, the origin of the use of thermal waters for healing purposes dates back to the earliest civilisations (Erfurt-Cooper, 2009). In any case, thermalism has experienced periods of greater and lesser growth throughout history. Thus, we find that it enjoyed its golden years in Roman times, when there was a strong thermal tradition, later continued in Spain by the Arabs (Larrubia & Luque, 2002). Nevertheless, at other times, this activity decreased, as in the Middle Ages, when it was prohibited as a result of the spread of epidemic diseases and the lack of religious rigour that was attributed to such habits (Costa et. al, 2015).

And so it was until the 80s, when the interest in thermalism was renewed (Larrubia & Luque, 2002) and, although it can be considered a clearly defined niche of the tourism market, the truth is that it has a great growth potential compared to traditional tourism, which gives it an important strategic value (Álvarez, Del Río, González-Vázquez & Merigó, 2015)

The high rate of growth demonstrated by this tourism sector is favoured both by the changing factors in the demand, and by the importance attached to it by the Government, as it is a strategic sector due to the benefits that is generates for destinations from different perspectives.

With regard to its relevance as a strategic sector for destinations, there are different specific features of this sector that justify this assumption. To begin with, spas are usually located in inland destinations, so they become dynamising elements of the local economy (Alén, Fraiz & Mazaira, 2001). Moreover, Antunes (2012) states that spa resorts are seen as real drivers of development at local and regional level, generating indirect effects on the economic and social fabric, and also contributing to the improvement of the quality of life of the local population and the reduction of regional asymmetries.

Furthermore, this is a tourism segment that helps increase the average length of stay of tourists, due to the long stays required by treatments, as well as it helps reduce the inherent seasonality of tourism, as most of these stays are usually registered in the low season. In Spain, the Social Thermalism programme of the IMSERSO contributes to this. It is a programme funded by the Ministry of Health, Social Services and Equality of the Government of Spain, which offers retired people the chance to enjoy a stay of between 10 and 12 days in spas, getting medically prescribed treatments, and to enjoy a few days of leisure at low cost.

Finally, its relevance as a strategic sector resides in the fact that it integrates the three essential dimensions needed to be considered as a form of sustainable tourism, given that it is supposed to promote social and cultural sustainability, respect for natural resources and the environment, and that it is an economically viable activity, due to its ability to generate financial resources and employment (Martínez Moure, 2008). For all these reasons, it is not surprising that it is considered a strategic sector for Spanish tourism, as evidenced by its inclusion as a priority sector in the National and Integral Tourism Plan (2012-2015).

In addition, from the demand perspective, significant economic changes are taking place, as well as demographic, social and cultural changes which point to a great future growth potential of this kind of tourism.

From a demographic perspective, the aging of the population implies that any tourism activity that is likely to be targeted at this segment of the population is especially attractive, given both for the current size of the potential market and its prospects for future growth. Thus, Smith & Puzckò (2009) indicate that the main factor influencing the development of wellness tourism is the aging of the population, coupled with the desire to live longer and better.

In this sense, the quest for quality of life becomes a major concern for the population as a result of the emergence of certain diseases associated with changes in lifestyle, such as stress. The concept of health now comprises not only physical but also mental health, and in a world with increasing work stress, health tourism is expected to continue to grow in the future (Boekstein, 2014).

This extension of the term health, which begins to be understood not only as opposed to disease, has helped hydrotherapy and balneotherapy regain their position as therapeutic remedies, especially in developed countries, where there is a growing concern among the population about the search for quality of life (Melgosa Arcos, 2000).

In this new context, in order to improve the competitiveness of the thermal sector, spas need a new direction that allows them to overcome the perception as health centres to which they are traditionally associated and extend their services to new market segments (Larrubia & Luque, 2002).

This new strategy is not without risk. Some authors indicate that spas are in danger of losing its identity as health centres, focusing more on recreational purposes aimed at a young audience at a time when the population is aging, which is dangerous given that this market positioning depends on fashion and social habits (Peris-Ortiz, et. al., 2015).

Gilbert and Van der Weert (1991), meanwhile, suggest that part of the success of European spas has been due to their market repositioning strategy, which focuses on health improvement based on the treatment of illnesses but in a leisure context.

In any case, it is clear that spas have opted for a change in its traditional business model that, in turn, has led to increase in tourists' motivations to visit them. In this regard, the analysis of the motivations of spa tourists has become an interesting field of study that has fostered the emergence of numerous research works (Larrubia &

Luque, 2002; Rančić, et. al., 2014; Mak & Wong, 2007; Bonfada et. al., 2008; Boekstein, 2014).

In these research studies, age has been traditionally used as the main segmentation criterion for spa visitors, in association with one or another motivation. This study aims to analyse and segment spa tourists in Extremadura considering this variable, while incorporating, at the same time, new variables that facilitate a more accurate segmentation of the market.

The following section will analyse the main features of the spa sector in Extremadura in order to provide thorough contextualisation of the results.

3. SPA TOURISM IN EXTREMADURA.

Extremadura is located in the southwest of the Iberian Peninsula and is regarded as an inland tourism destination. In this regard, as previously noted, spa tourism stands out as a key sector due its capacity to generate wealth and employment for the local population in the destinations where spa resorts are located.

Based on the definition of spa provided by the ANET, which describes it as a place with minero-medicinal waters declared of public utility, medical service and adequate facilities to deliver prescribed treatments, Extremadura has a total of seven spas distributed between two provinces, which makes it the autonomous region with the seventh largest number of spas in Spain (National Observatory of Thermalism, 2015).

Regarding their potential to generate tourism activity, it is worth noting that six of them have a hotel, offering a total of 763 beds distributed in 379 rooms. Besides, this number increases as a result of the existence of other hotels located nearby whose clients are predominantly tourists attracted by the possibility of having a spa in the area. This additional accommodation supply provides a total of 901 extra beds distributed in 412 rooms.

The spas of Extremadura are an attractive tourism resource, due to both the tourism services that they offer and the uniqueness of the facilities themselves. In this sense, the Spa of Alange, built on the foundations of a Roman spa dating from

the second century AD and designated as World Heritage by UNESCO in 1993 due to the state of conservation of its thermal baths, stands out.

With respect to the characterisation of the sector, it should be noted that it generated a total of 215,302 overnight stays by 45,984 travellers in 2014, as reported by the Tourism Observatory of Extremadura (OTEX), which implies an average length of stay of 5.6 days that is well above the average stay of generic tourists in Extremadura. Moreover, the importance of this segment in the tourism sector of this region is demonstrated by the relative weight of overnight stays, which account for almost 7% of total overnight stays of tourists in Extremadura.

Regarding the analysis of the characteristics of the demand, some data can be outlined in view of the results of the study performed by the OTEX on which this work is built.

From the analysis of the origin of spa tourists in Extremadura, it can be deduced that they are an eminently domestic tourists, which is a distinctive feature of this sector. Moreover, the main market is Extremadura itself, followed by Andalusia and Madrid. Regarding age, people over 65 are the largest group of spa tourists in the region, representing two-thirds of total spa customers in Extremadura. Most of these customers have only primary education and usually travel with their partner. Besides, in most cases, their level of household income is below 1,500 euros per month.

Once the main features of this sector have been summarised in order to help the reader gain a better understanding of the results presented in the sections below, the analysis methodology used in this study will be detailed.

4. METHODOLOGY

In order to obtain the results presented and discussed in the next section, two statistical tools have been used: discriminant analysis and segmentation techniques, whose essential features will be described in this section.

Discriminant analysis is a technique used to determine whether significant differences exist between the mean values of a set of (discriminating) variables regarding two or more groups defined a priori. This technique is also used to predict

the group to which an individual should belong on the basis of the values taken by the discriminant variables in his or her case.

In the case of having only two groups, this technique defines a discriminant function as a linear combination of the discriminating variables. This discriminant function should be the one that best discriminates between the two groups defined a priori, that is to say, the one that maximises inter-group variability.

Thus, assuming a multivariate normal distribution in the two groups being analysed, $N(\mu_1; \Sigma)$ and $N(\mu_2; \Sigma)$, Fisher's discriminant function is given by the following expression:

$$x' \, b = \frac{x' \, \Sigma^{-1} (\mu_1 - \mu_2)}{\left[(\mu_1 - \mu_2)' \, \Sigma^{-1} (\mu_1 - \mu_2) \right]^{1/2}} \qquad (1)$$

being $b = k \, \Sigma^{-1} (\mu_1 - \mu_2)$ and where k is any constant.

Likewise, the average values of the discriminant function in the two groups are given by the following expression:

$$\mu_1' \, b = \frac{\mu_1' \, \Sigma^{-1} (\mu_1 - \mu_2)}{\left[(\mu_1 - \mu_2)' \, \Sigma^{-1} (\mu_1 - \mu_2) \right]^{1/2}} \qquad (2)$$

$$\mu_2' \, b = \frac{\mu_2' \, \Sigma^{-1} (\mu_1 - \mu_2)}{\left[(\mu_1 - \mu_2)' \, \Sigma^{-1} (\mu_1 - \mu_2) \right]^{1/2}} \qquad (3)$$

Provided that p_1 and p_2 are the probabilities of belonging to the two groups under consideration, being $f_1(x)$ and $f_2(x)$ the multivariate normal density functions of the two groups, Bayes' theorem can be used as a criterion for the classification of the individuals analysed by calculating the a posteriori probabilities of belonging to the two groups. These a posteriori probabilities are calculated as follows:

$$P[\text{grupo } 1/x] = \frac{p_1 \, f_1(x)}{p_1 \, f_1(x) + p_2 \, f_2(x)} \qquad (4)$$

$$P[\text{grupo } 2/x] = \frac{p_2 \, f_2(x)}{p_1 \, f_1(x) + p_2 \, f_2(x)} \qquad (5)$$

Thus, the observation x will be assigned to the group obtaining the largest a posteriori probability.

Segmentation techniques are essentially aimed at identifying a certain number of groups (or clusters), based on the information provided by a sample and analysing the greater or lesser degree of similarity between the individuals analysed. The groups identified should have the lowest possible degree of intra-group variation and, at the same time, the highest possible inter-group variation. Although there are many segmentation techniques, the scientific literature usually distinguishes between hierarchical and non-hierarchical methods. Although Aldenderfer and Blashfield (1984) indicate that the choice of a technique to be used for segmentation will depend on the objectives of the classification, the type of measure used to quantify the similarity or dissimilarity between individuals, the variables used for segmentation, etc., the fact is that a determining factor when choosing between a hierarchical and a non-hierarchical method is sample size, that is, the number of individuals to be classified.

According to Hair, Anderson, Tatham & Black (1998), the use of hierarchical methods is recommended when the number of individuals to be classified is small (under 200 individuals) as the results obtained from large samples are unsatisfactory and unreliable. By contrast, non-hierarchical methods, among which k-means algorithm is the most widely used, are particularly appropriate when the number of individuals to be classified is very high. Furthermore, Hair et al. (1998) also point out that these non-hierarchical methods are much less sensitive to the presence of atypical cases (individuals) or irrelevant classification variables. For these reasons, and considering the size of the sample used in this study (466 individuals), it was opted to segment the population of spa tourists in Extremadura using the k-means algorithm.

This method involves making a first initial grouping into k groups, where k value is previously determined by the researcher. Once an initial classification of the individuals into the groups has been made, the centroid (vector of mean values of the classification variables) of each group is calculated and the Euclidean distance existing between each individual and the centroid of each group is measured. Then, those individuals showing a Euclidean distance to the centroid of their group that is greater than the Euclidean distance to the centroid of another group are relocated and included in the group that yields the shortest Euclidean distance. Due to the fact

that this relocation of the individuals to k groups involves a change in the centroids of the groups, the Euclidean distances between the individuals and new centroids of the groups must be calculated again. Subsequently, individuals will be relocated into groups, and so the process will continue until all individuals are located into the group whose centroid is closer.

5. ANALYSIS OF RESULTS

The data used in this research paper come from a survey completed by a total of 514 spa users conducted by the Tourism Observatory of Extremadura between June and October 2014. In one of the questions of the survey respondents, spa tourists were asked to indicate their main motivations for visiting a spa and practicing thermalism in this region. Out of a list of twelve motivationsi, the four most common motivations noted by respondents have been chosen for this paper. These four motivations are:

- Search for rewarding emotions and feelings (EMOTIONS) (80.5% of total).
- Improvement of health (HEALTH) (75.9%).
- Relax (RELAX) (57.2%).
- Improvement of physical condition (PHYSIQUE) (46.5%).

Therefore, the affirmative or negative answer to these four motivations to practice thermal tourism was used to define a priori groups, so that for each of these motivations, two groups were defined: the group of those who noted that motivation as one that determined their presence in the spa (affirmative answer) and the group of those who did not choose that motivation (negative answer).

Once the groups which served as the basis for the discriminant functions were defined, the next step was to consider the discriminating variables, that is, those variables that could best discriminate tourists with a specific motivation for the practice of spa tourism from those who lacked such motivation. Thus, considering the information provided by the questionnaire, the following six discriminating variables were taken into account:

- Age
- Educational level

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- Household income

- Type of accommodation

- Travel group size

- First visit to a spa

Due to the impossibility of obtaining the value of the discriminant function in those cases in which there was no answer in any of the above discriminating variables, the analysis forced the exclusion of 48 cases. Therefore, the total number of cases analysed amounted to 466 and for each of these cases it has been possible to obtain the value of the discriminant function for each of the four motivations considered.

After that, a discriminant function for each one of the four motivations was built based on the six discriminating variables available. The main objective of this task is to determine the discriminating power of the discriminating variables, together and separately.

In order to perform this joint analysis, Table 1 presents the Wilks' Lambda statistic used to test the discriminating capacity of the function created. As it can be observed in that table, the discriminating variables failed to clearly differentiate between the two defined groups regarding two of the four motivations studied: improvement of health (HEALTH) and search for rewarding emotions and feelings (EMOTIONS). That is to say, regarding the two most common motivations for spa tourism, the discriminating variables considered did not seem to be significant enough to condition them, to a greater or lesser extent.

However, the other two motivations considered, relax (RELAX) and improvement of physical condition (PHYSIQUE), show different values in their centroids in relation to the discriminating variables. This means, therefore, that the degree of willingness to consider relax and improvement of physical condition as determining motivations for spa tourism varies depending on tourists' features such as age, educational level, income level, etc.

Motivation	Wilks' Lambda	Chi-square	d.f.	Signif.
EMOTIONS	0.997	1.183	6	0.978
HEALTH	0.988	5.493	6	0.482
RELAX	0.950	23.781	6	0.001
PHYSIQUE	0.961	18.461	6	0.005

Table 1. Comparison of the discriminant functions associated with the motivations for spa tourism

Source: authors' own elaboration based on calculations performed using SPSS 19.0.

Additionally, and in order to determine the individual discriminating power of the discriminating variables chosen regarding the motivations for spa tourism, Table 2 shows the combined intra-group correlations between those discriminating variables and the standardised canonical discriminant function created for each motivation. With the additional data contained in Table 3, which shows the value of the discriminant functions in the centroids of the two groups considered (motivated: positive answer to a motivation; unmotivated: negative answer to that same motivation), it is possible to establish the following relations between the discriminating variables and each one of the motivations studied:

- Search for rewarding emotions and feelings: the discriminating variables are virtually uncorrelated with the discriminant function, with the only exception of the first visit to the spa. Actually, this variable shows a high positive correlation with the discriminant function, which means that those tourists visiting a spa for the first time are more likely to search rewarding emotions and feelings there than those other tourists who have already visited a spa before.

- Improvement of health: the two discriminating variables most closely related to the discriminant function are travel group size and educational level. The negative correlation between group size and the discriminant function should be interpreted as meaning that the improvement of health as a motivation for spa tourism is more common among tourists who travel in large groups than among those who travel in small groups. Moreover, the positive correlation between educational level and the discriminant function implies that the higher the level of education of spa tourists, the weaker their motivation to improve their health during their stay at a spa resort.

- Relax: Age is the discriminant variable that shows the highest correlation with the discriminant function set for this motivation. This means that younger individuals are more motivated by relaxation in the spas of the region that those of advanced age. Likewise, it is also noted that those tourists staying in high-class hotels (4 or 5-star) are more likely to seek relaxation during their stay at a spa than those staying in lower class hotels or in non-hotel establishments. A greater tendency to relax as the main motivation for spa

tourism is also observed among those who have previously visited a particular spa resort than those who visit it for the first time. Finally, the negative correlation between educational level and the discriminant function means that relax is a more frequent motivation among tourists with a higher level education.

- Improvement of physical condition: the discriminant function taken into consideration in order to differentiate between those tourists who state this motivation versus those who do not shows a high positive correlation with both type of accommodations and age, and a somewhat weaker negative correlation with group size. This circumstance results in the fact that tourists staying in high-class hotels and younger tourists exhibit a higher motivation to improve their physical condition. In contrast, tourists who travel in large groups are those less inclined to visit spas to improve their physical condition.

	EMOTIONS	HEALTH	RELAX	PHYSIQUE
Age	-0.068	0.338	0.780	0.585
Educational level	0.157	0.481	-0.396	-0.025
Household income	-0.123	0.254	-0.256	0.190
Type of accommodation	-0.005	0.241	0.657	0.666
Group size	0.186	-0.579	-0.160	-0.320
First visit	0.873	0.010	0.442	0.148

Table 2. Combined intra-group correlations between the discriminating variables and canonical discriminant function

Source: authors' own elaboration based on calculations performed using SPSS 19.0.

In the second part of the empirical analysis, the discriminant functions set have been used to calculate the a posteriori probability of belonging to the group of motivated visitors in each of the four causes of motivation being considered, by applying Bayes' theorem. Then, according to the characteristics of each tourist (age, educational level, income level, etc.), the probability of having answered affirmatively to all four motivations studied has been calculated, which results in a total of four probabilities per tourist surveyed.

	EMOTIONS	HEALTH	RELAX	PHYSIQUE
Motivated	-0.025	-0.060	-0.200	-0.213
Unmotivated	0.104	0.198	0.264	0.191

Table 3. Discriminant functions evaluated in the centroids of the groups of motivated and unmotivated tourists

Source: authors' own elaboration based on calculations performed using SPSS 19.0.

Based on these four probabilities and using the k-means algorithm, a segmentation of the sample in a total of 3 groups has been carried out. In order to determine the optimal number of segments to be considered, we have used the methodology proposed by Aguiló and Rosselló (2005), given that any a priori decision had been taken regarding the number of segments. Following this methodology, several non-hierarchical cluster solutions have been obtained in which the number of potential segments varies. The results are shown in Table 4. As can be seen, from 4 segments on minor groups (with a value for the overall population of 10% or less) appear whose specific behaviour is not interesting due to their marginal relevance to the overall market of spa tourism. For this reason, it has been opted for 3 segments as a solution.

Group	Number of groups
	2	3	4	5	6	7	8
A	65%	53%	23%	45%	15%	20%	7%
B	35%	14%	33%	10%	39%	25%	33%
C	-	33%	34%	19%	9%	12%	11%
D	-	-	10%	12%	20%	6%	6%
E	-	-	-	14%	4%	9%	13%
F	-	-	-	-	14%	24%	4%
G	-	-	-	-	-	4%	11%
H	-	-	-	-	-	-	16%

Table 4. Percentage of the sample in each segment (range of solutions from 2 to 8 segments)

Source: authors' own elaboration (adapted from Aguiló and Rosselló, 2005) based on calculations performed using SPSS 19.0.

In addition, also following Aguiló and Rossello (2005), the inter-group variability in this solution of 3 segments has been determined by calculating the absolute Euclidean distance between the end centroids of these groups. Since the variables used for segmentation have been the probabilities of providing a positive answer to each one of the analysed motivations, this variability refers, in fact, to the differences in the probability of motivation among the identified groups, which is presented in the table 5. As it can be readily appreciated, segment B presents more differentiated levels of motivation for spa tourism than the other two segments, because of its variability with respect to segments A and C is significant. However, the variability

between segments A and C is significantly lower, which highlights a more similar behaviour as far as motivations are concerned.

Group	A	B
B	0.6258	-
C	0.2870	0.3468

Table 5. Inter-group variability (3 segments)

Source: authors' own elaboration (adapted from Aguiló and Rosselló, 2005).

Thus, once the segmentation has been performed, the values corresponding to the average probability of each group for the motivations considered, which can be used to describe such groups according to their motivational attitude, are shown in Table 6. Based on that, the population of spa tourists can be divided into the following three groups:

Unmotivated (group A) (53.2% of total tourists): these tourists show an average probability of giving an affirmative answer that is never higher than 50% regarding the four motivations studied. They are, therefore, less motivated than other segments identified, showing especially weak motivation for the improvement of their health and their physical condition.

Multi-motivated (group B) (13.7% of total tourists): This is the most motivated group, since the average probability of positive answer is in all cases over 50%, with its high motivation for both improving their physical condition as their health especially noteworthy. Although to a lesser extent than the previous two motivations, these tourists seem to be the most highly motivated by mere relax in spa resorts.

Half-motivated (group C) (33.0% of total tourists): this third group also shows a probability of providing an affirmative answer to the motivations considered higher than 50%, but it differs from the multi-motivated segment regarding the fact that the average probability this time is lower, ranging between 50% and 54% in all cases.

	Group 1 Unmotivated	Group 2 Multi-motivated	Group 3 Half-motivated
EMOTIONS	50.0%	50.0%	50.4%
HEALTH	42.7%	67.0%	54.2%
RELAX	47.5%	57.6%	52.2%
PHYSIQUE	42.2%	70.8%	54.5%

Table 6. Segmentation of spa tourist population according to motivation

(average probability of affirmative answer to motivations)

Source: authors' own elaboration based on calculations performed using SPSS 19.0.

This segmentation of the spa tourism demand in Extremadura based on the probability associated with different motivations must go hand in hand with the analysis of other behavioural variables related to each one of the segments, providing a much clearer characterisation. Accordingly, the last part of this empirical analysis has involved the performance of this characterisation on the basis of the results shown in the Appendix to this paper.

Unmotivated tourists:

These are elderly tourists (more than 90% of them are 65 years of age) who usually travel in very small groups (1 or 2 persons in most cases). Moreover, their educational level is the lowest of the three segments identified, since almost 70% of them have no education or only primary education. Their level of income is low considering that two-thirds of them perceive a monthly income below 1,500 euros. Another clearly defined feature of these tourists is the long average length of their stay in the spa resorts they visit (95% of them stay in the region more than 5 nights) and their strong preference for middle-class hotels to stay overnight (almost 90% of tourists belonging to this segment stay in 1 to 3-star hotels).

Besides, these tourists show the lowest average expenditure in both accommodation and meals, but, curiously, they are those who spend more on leisure and shopping. In addition, health is a major motivation in this segment given that 8 out of 10 of them have come to the spa to seek treatment for a health problem. "Word of mouth" is the most effective marketing tool among these tourists since more than half of them knew about the existence of the spa where they stayed through the recommendation of friends or relatives. These tourists are clearly related to the social thermalism programme of the IMSERSO, considering that 7 out of 10 of them booked their stay at the spa through this agency of the Ministry of Health, Social Services and Equality.

Finally, they are those who have the strongest intention to return to the spa where they have been and to recommend it to their relatives or friends. Their spa experience is extensive, in view of the fact that 93% of them have already visited a spa before, even when the frequency of their use of the spa services is low (86% of

them travel to a spa once a year or less). Moreover, the level of loyalty that they show to a spa in particular is far higher than in other segments as 7 out of every 10 of these tourists affirm that they almost always travel to the same spa.

Multi-motivated tourists:

This is the youngest segment of tourists, taken into account that more than 60% of them are aged between 30 and 50 years, while those over 65 years old are a minority. They are also those who most commonly travel with their family and in large groups (more than a quarter of them travel in groups consisting of 4 or more people). Besides, these tourists show the highest educational level (two-thirds of them have completed intermediate or university education) and income level (1 of every 3 tourists has a monthly income of, at least, 2,000 euros). However, their average length of stay in spas is the shortest of the three segments, since more than half of them only stay one or two nights. Their preference for high-class hotels is more than evident, given that 94% of them stay in 4 or 5-star hotels.

Their high average level of expenditure on accommodation and meals is also significant, which is clearly the highest of the three segments identified. However, their average expenditure on leisure and shopping is the lowest of all segments. Moreover, it is the only segment in which the motivation purely related to holidays is far stronger than the motivation related to health. These are the tourists who most often known and get informed about the spa resorts they visit through the Internet, and they are also the ones who most frequently use this tool for booking their stay, as well as they also outperform all other segments in terms of percentage of direct reservations.

Finally, although more than 90% of these tourists express their interest in returning to the spa resort where they have stayed, the fact is that they are those who most usually express a desire not to return to it and not to recommend it to relatives or friends (slightly less than 5% of them in both cases). Besides, this is the segment of tourists with less spa experience, as more than a third of them had not visited any other spa before. However, they are those who use the services offered by the spas most frequently (30% of them visit spas twice or more times a year) and those who

are less likely to repeat their visit to the same spa (two thirds of them prefer to visit different spas and not to repeat the visit to the same one).

Half-motivated tourists:

This third group of tourists occupies an intermediate position with respect to many aspects characterising the previous two segments, showing, therefore, less polarisation than the observed in both unmotivated and multi-motivated tourists. Thus, while this segment accounts for the highest percentage of people aged between 51 and 65 years (more than a third of total tourists), these tourists share with unmotivated tourists the preference for being in the company of their family and partner; and with multi-motivated tourists, the high average size of group they travel with. In addition, these tourists show the highest percentage of people with no education, although this is not the segment with the lowest educational level, as they show a higher percentage of tourists having completed secondary or university education. They also share with unmotivated tourists a low monthly household income and a long average stay in the spa resort, though the latter is lower in the case half-motivated tourists (stays for longer than 5 nights are less frequent while 1-5 night stays are more common). Moreover, the polarisation observed in the previous two segments in relation to the type of accommodation used does not appear in this third segment, since there is a certain balance between tourists of this group staying in 4-5 star hotels and those staying in 1-3 star hotels.

This third segment has the lowest tourism expenditure per day, which leaves it far behind multi-motivated tourists in terms of expenditure on accommodation and meals, and also behind unmotivated tourists regarding expenditure on leisure and shopping. Furthermore, like in the case of unmotivated tourists, the motivation for health is stronger than for holidaying, although much less pronounced. This segment of tourists makes less use of the internet to find and obtain information about a particular spa than multi-motivated tourists, although slightly more than unmotivated tourists. Despite this, the percentage of tourists that find out about a spa through the IMSERSO or through the recommendation of friends is very similar between the first and third segment identified. The Social Thermalism programme of the IMSERSO also plays a key role in this third segment, since most tourists booked their stay at

the spa through this agency, although this percentage does not approach that of the group of unmotivated tourists.

In order to complete the characterisation of this third segment, it should be noted that its members lag behind multi-motivated tourists in their interest to return to the same spa and to recommend it to their relatives or friends; but forge ahead in terms of spa experience, although it does not reach the level observed among unmotivated tourists. The frequency of use of the services offered by spas among tourists of this third segment is lower than among multi-motivated tourists and very similar to that reported by unmotivated tourists. Finally, it is observed that there is a strong balance in this segment between those visiting almost always the same spa and those who, on the contrary, choose to vary and not repeat their visit to the same spa.

6. CONCLUSIONS

Health tourism, which includes spa tourism, is presented as an interesting tourism segment due to its current high growth rate as well as the growth potential attributed to it.

Spa tourism, in addition, is shown as a strategic sector given the elevated number of stays that it generates, its contribution to the reduction of the seasonality associated with the tourism activity, its nature as a kind of sustainable tourism and the opportunities provided for inland destinations to help create wealth and local employment.

The high growth rate shown by this sector is explained by demographic, cultural, social and economic changes. It is worth noting the increase in the possible uses of spas that has allowed for diversification of the profile of clients attending these facilities, which begin to have different kinds of customers who go to spas driven by different motivations. In this sense, the study of motivations becomes an attractive field given the need to generate knowledge that enables spas to segment their market and better meet the needs of the different profiles of the target market they intend to address.

By using demographic variables such as age, educational level, household income, type of accommodation used, travel group size and first visit to the spa,

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three segments of spa tourists in Extremadura have been obtained according to the different motivations that make go to a spa. To do this, a total of four motivations have been considered: care for health, improvement of physical condition, relax and search for rewarding emotions and feelings.

Thus, a multi-motivated segment of tourists was obtained whose profile corresponds to the youngest customers, with the highest educational level and level of income; they usually travel with their family and stay in high-class hotels for short periods of time, having a high expenditure on accommodation, food and drinks.

On the opposite side, the segment of unmotivated tourists corresponds to older tourists, with a lower level of education and income, who have longer average stays and opt for lower class establishments, with leisure and shopping for souvenirs or gifts being the main components of their tourism expenditure.

The segment of half-motivated tourists is in an intermediate position between the two previously stated.

The results obtained in this paper reflect the need for spa resorts to orient their offer to an audience characterised by increasingly varied motivations and shorter stays. The idea of a spa as a simple centre offering treatments for ailments or diseases is, therefore, becoming obsolete; while its consideration as a multiple-activity centre, which is creating new niche markets as a result of the changes in the current society, responds more faithfully to what spa resorts will be (or should be) in the future.

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References

Aguiló-Pérez, E.; Rosselló-Nadal, J. Host community perceptions: a cluster analysis. Annals of Tourism Research, volume 32, Issue. 4, 2005, pp. 925-941.

Aldenderfer, M.; Blashfield, R. Cluster Analysis. Volume 44. . Beverly Hills. Sage University Paper series on Quantitative Applications in the Social Science, 1984

Alén, M.E.; Fraiz, J.A.; Mazaira, A. Turismo termal: análisis del caso gallego XI Jornadas Hispanolusas de Gestión Científica: Empresa y nueva economía, 3, 2001, pp. 3-13.

Álvarez, J.; Del Río, M.C.; González-Vázquez, E.; Merigó, J.M. Motivation for implementing a system of quality management in Spanish Thalassotherapy Centers. In: Peris-Ortiz, M. & Álvarez, J. (Eds.), Health and Wellness Tourism, Switzerland. Springer International Publishing, 2015. ISBN: 798-3-319-11489-7.

Antunes, J.G. O reposicionamento do termalismo como estratégia de desenvolvimento turístico. O caso da região Dão-Laföes. Revista de Turismo e Desenvolvimento, 17-18, 2012, pp. 1469-1480.

Asociación Nacional de Balnearios (ANBAL): http://www.balnearios.org/ (último acceso: enero de 2016)

Boekstein, M. Tourism, health and the changing role of thermal springs-should south Africa reposition its thermal spring tourism product African Journal of Hospitality, Tourism and Leisure, volume 3, Issue 2, 2014, pp. 1-9.

Bonfada, M.R.H.; Bonfada, P.L.B.; Gándara, J.M.G.; Fraiz Brea, J.A. Turismo termal: cambios conceptuales y mercadológicos de los balnearios en España. Revista de Turismo Visão y Ação, volume 10, issue 3, 2008, pp. 415-434.

Costa, C.; Quintela, J.; Mendes, J. Health and wellnes tourism: a strategic plan for tourism and thermalism valorization of São Pedro do Sul.In: Peris-Ortiz, M. & Álvarez, J. (Eds.), Health and Wellness Tourism, Switzerland. Springer International Publishing, 2015. ISBN: 798-3-319-11489-7.

Erfurt-Cooper, P. Use of Natural Hot and Mineral Springs Throughtout History. In: Erfurt-Cooper, P. & Cooper. M. (Eds.), Helth and Wellness Tourism: Spas and Hot Spring. Canadá: Channel View Publications, 2009, pp. 49-109. ISBN-13: 978-1-84541-112-1.

Gilbert, D.C.; Van de Weert, M. The health care tourism product in Western Europe. Revue de Tourisme, volume 2, 1991, pp. 5-9.

Hair, J.; Anderson, R.; Tatham, R.; Black, W. Multivariate Data Analysis.6 th edition. Upper Saddle River: Prentice Hall, 1998. ISBN: 01303229290.

Jobson, J.D. Applied Multivariate Data Analysis: Volume II. Categorical and multivariate methods. New York: Springer-Verlag, 1992. ISBN: 978-1-4612-6947-2.

Larrubia, R.; Luque, A.M. Las estaciones termales en Andalucía: de la explotación tradicional a la configuración de un nuevo producto turístico integral. Cuadernos de Turismo, volume 10, 2002, pp. 101-122.

Mak, A.H.N.; Wong, K.K.F. Motivation of Hong Kong residents seeking spa experiences when travelling away from Hong Kong Proceedings of 5th Asia-Pacific CHRIE and 13 th Asia-Pacific Tourism Association Joint Conference. 2007.

Martínez Moure, O. Talasoterapia y turismo: los recursos terapéuticos del agua del mar como mecanismo sostenible de promoción turística para los municipios costeros: el caso de la provincia de Pontevedra (Galicia) Medicina Naturista, voume 2, issue 2, 2008, pp. 136-142.

Melgosa Arcos, F.J. Turismo de Salud: termalismo y balneario. En: Blanquer Criado, D. (Dir) III Congreso de turismo, universidad y empresa, 2000, pp. 259-386. Tirant lo Blanch.

Observatorio de Turismo de Extremadura (OTEX): http://turismoextremadura.com/viajar/turismo/es/pie/observatorio-2015.html

(accessed January 2016)

Observatorio Nacional del Termalismo: http://www.observatoriotermalismo.org/

(accessed January 2016).

Peris-Ortiz, M.; Del Río, M.C.; Álvarez, J. Barriers to Implementing Quality Management in Spanish Thalassotherapy Centers. In: Peris-Ortiz, M. & Álvarez, J. (Eds.), Health and Wellness Tourism, Switzerland. Springer International Publishing, 2015. ISBN: 798-3-319-11489-7.

Rančić, M.; Pavić, L.; Mijatov, M. Wellness center in Slovenia: tourists´profiles and motivational factors, Turizam, volume 18, issue 2, 2014, pp. 72-83.

Smith, M.; Puczkó, L. Health and Wellness Tourism. Oxford: Elseiver. ISBN: 978-0-7506-8343-2.

Swarbrooke, J.; Horner, S. Consumer Behaviour in Tourism. Butterworth, Oxford, 1999. ISBN-13: 978-0-7506-6735-7.

APPENDIX

PROFILE CHARACTERISTICS OF THE TOURIST SEGMENTS IDENTIFIED

	Unmotivated	Multi-motivated	Half-motivated
Age:			
Under 30 years old	0 .0%	9.4%	0.6%
Between 30 and 50 years old	0 .8%	60.9%	5.8%
Between 51 and 65 years old	8 .1%	20.3%	34.4%
More than 65 years old	91.1%	9.4%	59.1%
Who do you travel with? :			
My partner	54.4%	59.4%	54.5%
My family	12.5%	21.9%	18.8%
Friends	19.8%	17.2%	16.9%
Colleagues	0.0%	0.0%	0.6%
I travel alone	13.3%	1.6%	9.1%
Travel group size:			
1 person	13.3%	1.6%	8.4%
2 persons	71.0%	59.4%	56.5%
3 persons	10.5%	10.9%	8.4%
4 persons	2.8%	10.9%	14.9%
5 persons	0.4%	1.6%	4.5%
More than 5 persons	2.0%	15.6%	7.1%
Educational level:			
Uneducated	21.4%	9.4%	22.1%
Primary	47.2%	21.9%	34.4%
Secondary	14.9%	34.4%	26.0%
Higher	16.5%	34.4%	17.5%
Monthly household income:			
Less than 1,000 euros	44.8%	26.6%	45.5%
Between 1,001 and 1,500 euros	22.6%	28.1%	24.0%
Between 1,501 and 2,000 euros	9.7%	12.5%	13.6%
Between 2,001 and 2,500 euros	14.1%	12.5%	7.1%
More than 2,500 euros	8.9%	20.3%	9.7%
How many nights are you staying in this region on this trip? :			
1 night	0.4%	17.2%	1.3%
2 nights	0.8%	37.5%	3.9%
3 nights	0.0%	12.5%	5.2%
4 nights	0.0%	3.1%	3.2%
5 nights	2.0%	4.7%	5.8%
More than 5 nights	95.2%	25.0%	79.2%
N/A	1.6%	0.0%	1.3%
Type of accommodation:			
4 or 5-star hotel	4.8%	93.8%	54.5%
1, 2 or 3-star hotel	88.7%	4.7%	43.5%
Non-hotel accommodation	6.5%	1.6%	1.9%
Daily tourist expenditure per person:			
Accommodation	29.20 euros	53.45 euros	37.24 euros
Meals, coffee, soft drinks, ...	21.99 euros	33.03 euros	24.53 euros
Leisure	20.76 euros	15.00 euros	17.98 euros
Shopping (gifts, souvenirs, ...)	45.09 euros	28.65 euros	38.93 euros
Main travel motivation:			
Holidays	16.9%	65.6%	30.5%
Health	79.4%	31.3%	62.3%
Another reason	3.6%	3.1%	7.1%

Source: Authors' own elaboration.

PROFILE CHARACTERISTICS OF THE TOURIST SEGMENTS IDENTIFIED
(Continuation)

	Unmotivated	Multi-motivated	Half-motivated
How did you know about this spa?:			
IMSERSO	24.2%	7.8%	22.7%
Friends' recommendation	56.0%	34.4%	52.6%
Brochures and guidebooks	2.0%	1.6%	0.6%
Internet	8.1%	43.8%	18.2%
Advertising in the press, radio, TV...	0.4%	1.6%	1.9%
Travel agency recommendation	0.0%	0.0%	0.6%
Other	9.3%	9.4%	3.2%
N/A	0.0%	1.6%	0.0%
How did you book this trip?:			
Through IMSERSO	68.1%	15.6%	54.5%
Through the Internet	3.6%	32.8%	9.7%
Through a travel agency	0.4%	6.3%	3.9%
Directly (personally)	25.8%	28.1%	26.6%
Through other means	2.0%	14.1%	5.2%
N/A	0.0%	3.1%	0.0%
Would you like to return to this spa?:			
Yes	98.0%	92.2%	91.6%
No	0.4%	4.7%	3.9%
N/A	1.6%	3.1%	4.5%
Would you recommend this spa?:			
Yes	99.2%	92.2%	94.2%
No	0.8%	4.7%	3.2%
N/A	0.0%	3.1%	2.6%
Is this your first visit to a spa?:			
Yes	6.9%	35.9%	21.4%
No	93.1%	64.1%	78.3%
How regularly do you make use spas services?:			
Once a year or less	86.1%	70.7%	78.5%
A couple of times a year	9.1%	12.2%	15.7%
Several times a year	1.3%	17.1%	0.8%
Almost every month	0.9%	0.0%	0.8%
N/A	2.6%	0.0%	4.1%
Do you usually visit the same spa?:			
Almost always	70.6%	34.9%	48.0%
I prefer to change/I do not like to repeat	29.0%	65.1%	52.0%
N/A	0.4%	0.0%	0.0%

Source: Authors' own elaboration.

[i] The motivations presented in the survey question were not mutually exclusive, so that each tourist could choose as many motivations as he or she considered appropriate.