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González, Pablo Rodríguez and Molina, Oscar
IESA-CSIC, IESA-CSIC

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SPANISH TOURIST BEHAVIOUR. A SPECIFIC OBJECTIVE BASED SEGMENTATION

Pablo Rodríguez González
IESA-CSIC

Oscar Molina Molina)
IESA-CSIC

This work uses data from the Spanish Tourism Demand Segments Survey (N=6900) conducted by the IESA-CSIC for Turismo Andaluz, SA. The objective of the paper is to develop a statistical segmentation or typology of Spanish tourists based on objective aspects of tourist behaviour measured in the survey including destinations visited, theme of the trip, lodging, transportation and travel group. Initial categorical data are reduced using multiple correspondence analysis and grouped through cluster analysis. Afterwards, identified segments are evaluated to analyse their tourist profiles with a view to examining sociological perspectives of tourist behaviour.

Keywords: *Tourist Demand, Segmentation, Spain, Domestic Tourism, Multiple Correspondence Analysis, Cluster Analysis*

INTRODUCTION

In recent years, tourist consumption has experienced far-reaching internal differentiation or diversification due to multiple economic, technological and sociological factors (Urry, 2002; Bramwell, 2004; Cohen, 2008). As a result of this trend, increasingly greater attention has been paid to tourist typologies, classifications and segmentations in analyses on tourist behaviour[1].

The common assumption underlying all these typologies is that, among the wide array of tourist behaviours, there are broad groups of individuals who share common characteristics which are crucial to our understanding and/or manipulation of tourist behaviour. However, researchers differ as to which aspects of this behaviour are relevant for constructing tourist typologies, how they are to be selected and the aim of

analyses, thus making it necessary to address three interrelated problems: the levels of analysis of the variables used as criteria for segmentation, the methodologies employed to develop these typologies and their aim (description and strategic orientation, explanation).

As concerns the segmentation of tourist behaviour, Cervantes, González & Muñíz (1999) propose classifying the different variables used as criteria of segmentation in two manners: the position with respect to the individual (objective/subjective) and the position with respect to the tourism industry (general – non-tourism properties of the elements / specific – tourism properties); giving rise to four levels of reality:

- *Social structure*. The general and objective characteristics of individuals: sociodemographic variables, variables related to access to resources and geographic variables.
- *Tourist action*. Specific and objective characteristics of individual tourist behaviour: the qualities of the trip(s) made (cost, components of the trip, activities).
- *Social and cultural structure*. General subjective characteristics of individuals: cultural values and consumption patterns, stereotypes and lifestyles.
- *Tourist culture*. Specific, subjective characteristics of beliefs about tourism: tourist motivations, perception of destinations, satisfaction, tourist biography.

Table 1 shows some articles (most of them about Spanish tourism demand) classified according these criteria.

A close relationship exists between the purposes of segmentation and the methodologies used to carry it out. When the classification of tourist behaviour is restricted to quantitative statistical analyses, a wide range of statistical methods can be used. Cervantes et al. (1999, following Wind, 1979) propose two criteria to classify these methods. Firstly, prior knowledge of the variable(s) that identify the segments or their development as a latent variable based on other variables that have been included previously (a priori/a posteriori); and secondly, the descriptive intention (to classify individuals) or explanatory intention (to identify homogeneous groups with respect to a dependent variable) which serve to orient the analysis. Table 2 shows the most usual statistical techniques used in the different types of segmentation, with references to articles that applies them to tourism demand. In line with this scheme, cluster analysis, the most widely-used statistical method of segmentation, would be defined as an a posteriori classification method.

Table 1. Segmentation criteria, levels of reality and literature review

Position with respect to the individual	Position with respect to the tourism industry	
	General	Specific
Objective	SOCIAL ESTRUCTURE Fernández (2006): *Socio-demographic characteristics*	TOURIST ACTION Álvarez Sousa (1994): *Trip characteristics* Fodness & Murray (1999): *Information search patterns* Kang et al (2003): *Decision-making process*
Subjective	CULTURAL STRUCTURE Camarero (2002): *Posmodern values* González Fernández (2005): *Lifestyles*	TOURIST CULTURE Díaz e Iglesias (1999): *Customer expectatives* Román et al (2000): *Satisfaction* Bigné y André (2004): *Tourist emotions*

Table 2. Aims of analysis, statistical techniques and literature review

Aims	Stage in the research design	
	A priori (before data collection)	A posteriori (after data collection)
Typology (classification)	*Single and bivariate tables* McKercher (2002)	*Cluster analysis* *Factor analysis* Kang et al (2003) Bigné and André (2004)
Segmentation (Explanatory purposes)	*Contingency tables* *ANOVA-MANOVA* *Regression Models* Sung et al (2001) Huybers (2003)	*CHAID* *Neural networks* Chen (2003) Bloom (2005)

A further approach is to employ segmentation in conjunction with other statistical methods used in broader analytical strategies. In this case, segmentation methods are combined with data reduction techniques (factor analysis, multidimensional scaling) and hypothesis testing methods to establish, with greater or lesser success, causal relationships in which the dimension that gives rise to the clusters acts as an independent

variable. A general approach to the explanatory power of segmentation in tourism consumption can be found in Van Raiij (1986). Following this approach, Kau and Lim (2005) identify five clusters of visitors to Singapore based on a series of tourist motivation factor scores and analyse the differences between the clusters for both objective aspects (trip and sociodemographic characteristics) and subjective aspects (satisfaction, loyalty).

In line with this general approach, we develop an a posteriori classification in this paper with a view to describing trips made by Spanish tourists based on specific objective characteristics (means of transport, destination, lodging, etc.). This classification is then linked to other variables of tourist behaviour, relating the findings of our research on Spanish tourism demand with relevant topics in the literature on tourism behaviour.

The paper is structured as follows: the objectives of the research, the methodology used and the characteristics of the data are described in the next section. The main results of the segmentation and an initial description of the different segments according to the model variables are then provided. Finally, an in-depth analysis is made of tourism market segments in Spain, in which other aspects of the behaviour of tourists who make different types of trips are examined, giving rise to a series of conclusions that provide further insight into this topic.

WHY AND HOW TO SEGMENT THE SPANISH TOURIST MARKET. RESEARCH OBJECTIVES, METHODOLOGY AND DATA CHARACTERISTICS

Tourism research has traditionally placed greater emphasis on international tourism than domestic or internal tourism. In his analysis of tourist flows, Julio Aramberri (2008) recently emphasised the risks this bias entails by comparing the international ranking of number of international arrivals (World Tourism Organization, WTO) with the ranking of travel and tourism output (World Travel and Tourism Council, WTTC), which is calculated using a tourism satellite accounting tool that includes the income generated by domestic tourism. While in the first ranking North America must divide up a mere 17% of international arrivals with other countries of the continent, it occupies the top position in the second ranking with 34% of global travel and tourism consumption due to the country's thriving domestic market in which travellers do not need to cross borders in order to travel to a wide array of destinations.

Domestic tourism is also highly relevant in the case of Spain. Although Spain is usually described as a 'tourism powerhouse' as it ranks second in 2007 international arrivals (WTO, 2008), the cross-referenced data from FAMILITUR and FRONTUR provided by the Spanish Institute for Tourism Studies (Instituto de Estudios Turísticos, 2008) reveal that overnights generated by domestic tourism (Spaniards who travel to Spanish destinations) greatly exceeds those generated by international tourism (660.2 million vs. 479.5 million overnights; author's findings based on data from FRONTUR, EGATUR and FAMILITUR[2]). Even when the large number of overnights in second residences and other forms of non-commercial lodging are not accounted for, domestic tourism is found to play a crucial role in the total demand of Spain's tourist market, making the country an increasingly attractive target market for an industry that has begun to flag in international markets.

The above points clearly reveal the importance of certain aspects of Spanish tourist behaviour that give rise to segmented sets of trips. The destination choice for trips (international or domestic) is key to determining the commercial interest (from the perspective of Spanish tourist supply) of the trip in question. Likewise, type of lodging (commercial or non-commercial) provides relevant information regarding tourist profitability. Extending this analysis further, it should be noted that given the relative specialisation of different Spanish regions in terms of the specific combinations of products they offer (geographical, historical, tourist development), the primary motivation (or thematic orientation, i.e. sun and sea, cultural, rural, etc.) of leisure travel will determine which destination is chosen and delimit the activities and tourist components that should be included in the offer. Other aspects that are frequently taken into account include the means of transport used to travel to the destination and the group of people who make the trip. The above five variables will be used in our analysis as criteria of segmentation.

These are the criteria which are commonly included a priori in the research design and analysed separately in double-entry tables. The question is: Is it possible that some of these characteristics coincide, giving rise to specific types of trips in which market patterns function differently? That is, if a trip is understood as a tourist product comprising a series of sub-products (lodging, transport, activities) which are consumed by a group (travel group) at a specific location (destination), the aim of this research will be to determine if there are typical combinations of these factors that permit us to talk about qualitatively different tourist products.

As regards the methodology, cluster analysis is the most widely-used statistical tool for classifying individuals according to the proximity of the values of a set of variables. However, this procedure has some requisites regarding data characteristics that entail certain problems for the objectives of the analysis. While cluster techniques often provide better results with scale level variables, the variables involved in the segmentation model are measured at the nominal level since they respond to characteristics that are classified into mutually exclusive categories (i.e., travel destination). This impedes the use of the K-means and poses difficulties for the hierarchal model given the large sample size (N=4182).

In a previous work, the authors (Rodríguez and Molina, 2008) used the two-step cluster algorithm included in the SPSS 12.0 and subsequent packages to overcome the problems of calculating distances for the nominal variables in large samples. This algorithm, which iteratively combines hierarchal and non-hierarchal procedures using the log-likelihood function to measure the distance between objects (cases and variables), significantly improves the stability and interpretability of the results and has been used in this analysis.

However, in order to improve the robustness of the results and refine the treatment given to nominal variables, we chose to previously apply a data reduction procedure to the data matrix in order to transform the categorical information into continuous variables. Specifically, we used the HOMALS homogeneity analysis included in the SPSS 12.0 Categories module. This method conducts a multiple correspondence analysis (MCA) which, in a similar manner to factor analysis, computes dimensional measures that position each case in the space formed by the correspondences between the different categories of the variables introduced in the model (Van de Geer, 1993).

The sample was then classified by applying the SPSS 12.0 two-step cluster analysis to the two dimensional variables obtained with the MCA. Using double-entry tables and Z tests, the clusters were described by examining their distinctive characteristics in the variables that were initially introduced in the MCA. Finally, the identified segments were evaluated according to different criteria (Kang et al., 2003), thus permitting us to examine the descriptive capacity of this exploratory analysis.

Data characteristics. The data were drawn from a sample of 4182 tourists (people who had made at least one leisure or holiday trip in 2006) that were selected from a wider sample (N=6949) of Spaniards aged 18 and older who do not reside in Andalusia or the Canary and Balearic Islands. The sample was obtained using a random stratified sampling

procedure with non-proportional affixation for six geographical areas (absolute maximum error of 1.2% for the entire population with a 95% confidence interval). Information was gathered by means of computer assisted telephone interviews (CATI) using a structured questionnaire on four aspects of travel: tourist behaviour (general aspects and characteristics of the trip of reference), perceptions about the destinations (Andalusia and other regions of Spain), tourist motivations and sociodemographic characteristics.

Given that trips are the unit of analysis employed in the segmentation, it is important to clarify the methodology used to obtain a sample of trips from the sample of individuals. During the interview, respondents (tourists) who had taken at least one leisure trip during the reference period were asked to list the destinations (Spanish provinces or foreign countries) they had travelled to during the year in question. The CATI system then selected one of these destinations at random. Information was subsequently gathered regarding the characteristics of this particular reference trip (among them, the variables used in this segmentation). With due caution, we assume that this sample of reference trips comprises a representative sample of leisure and holiday travel engaged in by Spaniards throughout a year.

CHARACTERISTICS OF TRIPS BY SPANIARDS. DATA REDUCTION USING MULTIPLE CORRESPONDENCE ANALYSIS

In this section, we discuss the results obtained in the data reduction using multiple correspondence analysis. The variables originally included in the survey were recoded by merging certain categories. These variables were recoded in order to omit categories with few cases and obtain more robust results, while ensuring the coherency of the merged categories. The variables for the trip of reference and their categories are collected in Table 3.

Table 3. Variables and Categories of the Model

Destination	*Theme of trip*	*Type of lodging*	*Travel group*	*Means of transport*
Andalusia	Sun and sea	Hotel/Hostel	Travelled alone	Private vehicle
Northern Spain	Country and nature	Apartment	With spouse /partner only	Coach /Train
Levante Region/ Catalonia	Cities and monuments	Private residence	Nuclear family (couple with child/ren)	Plane
Interior	Get to know the place	Rural lodging/ Campsites	Extended family	
Balearic and Canary Islands	Visit friends or relatives (VFR)		Colleagues /Friends /Others	
Abroad	Others			

The variables were reduced to two dimensions following 22 iterations upon reaching the criteria for convergence (convergence increment <0.00001 with respect to the previous iteration). Both dimensions explain 79% of the categorical information contained in the original variables.

Table 4. Discrimination measures

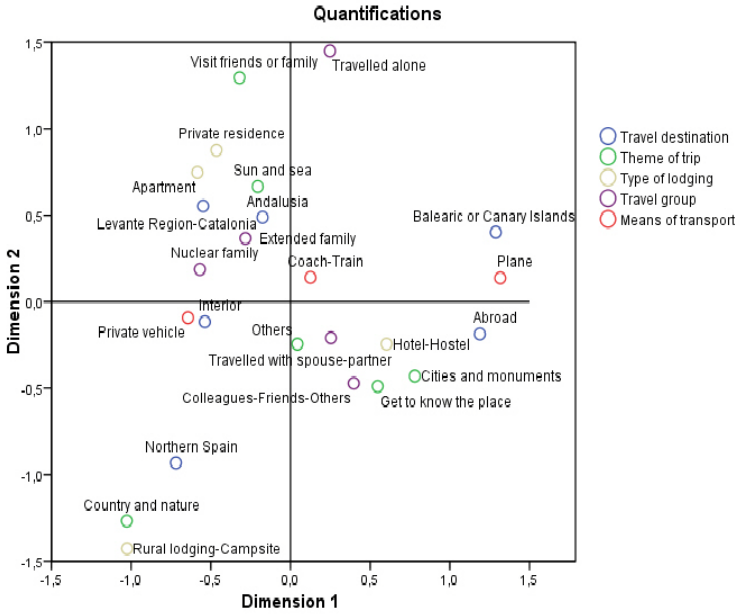
	Dimension	
	1	2
Travel destination	.660	.294
Theme of trip	.329	.651
Type of lodging	.394	.534
Travel group	.156	.211
Means of transport	.708	.013
Eigen value	*.450*	*.341*

The first dimension explains 45% of the original variability, where the variables “transport” and “travel destination” have the largest discrimination capacity in this dimension (0.708 y 0.660, respectively).

The second dimension explains 34.1% of the information and is more closely related to the variables "theme of trip" (0.651) and "type of lodging" (0.534). "Travel group" reveals a low level of discrimination in both dimensions (0.156 and 0.211) (see Table 4).

Both dimensions have been interpreted taking into account the variables that have a greater discrimination capacity. To do so, the average scores of individuals in each category of the variable, also denoted as quantifications, are analysed in relation to the rest of the categories of variables of each dimension. The dimensions are interpreted according to the configuration of the categories with respect to the dimensions. Once the dimensions have been defined, possible patterns of the original variables are examined taking into account the groups of categories that are formed due to their proximity to the resulting dimension, for which the following graphic representation in the form of a perceptual map is of great aid (see Figure 1).

Figure 1. Location of categories in the dimensions



In the first dimension, which corresponds to the association between destination and means of transport, air travel (1.317) to destinations

abroad (1.189) and to the Canary and Balearic Islands (1.288) are located at the positive end of the axis. Trips by coach and train (0.125) to Andalusia (-0.175) are located in the central area of the axis. Trips in private vehicles (-0.643) to northern Spain (-0.719), the Levante Region/Catalonia (-0.548) and the interior (-0.537) are located on the negative area of the axis, suggesting that this dimension is an indicator of the effect of distance to destinations when choosing means of transport.

In the second dimension, which corresponds to the relationship between theme of trip and type of lodging, private residences (0.876) and apartments (0.747), VFR trips (1.294) and sun and sea travel (0.665) are located at the positive end of the axis. Hotel/Hostel (-0.245) and other orientations (-0.245) are located in the central area of the axis, while motivations for cultural tourism (see cities and monuments, 0.429; get to know the place, -0.489) are located somewhat further left of the axis. Rural tourism (country and nature; -1.267) and rural lodging/campsites (-1.426) are located at the negative end of the axis. The positions in this dimension reflect the range of products that comprise each tourism theme (activities and lodging).

TRAVEL SEGMENTS IN SPANISH TOURISM DEMAND. RESULTS OF THE CLUSTER ANALYSIS

A five-cluster solution was obtained by applying the 2-step cluster to the dimension. The centroid of each cluster in the dimensions and their weights in the total number of trips are shown in Table 5.

Table 5. Distribution and Values of Cluster Centroids

		Centroids		Weight in sample
		Dimension 1	Dimension 2	%
Cluster	1	-0.13	-0.36	32.2
	2	-1.18	-1.59	12.5
	3	1.50	-0.32	21.1
	4	0.81	1.14	9.1
	5	-0.77	1.09	25.2

N=4182. Weighted results

When observing the variation between the clusters in the different dimensions, the values of the centroids of the first dimension were found to differ significantly from each other, with an order from lower to higher of 2-5-1-4-3. As regards the second dimension, significant differences can be seen between cluster 2 (lowest value), clusters 1 and 3 (values close to zero) and clusters 4 and 5 (values above 1.00). Although both dimensions contribute significantly to the formation of all the clusters, dimension 1 is particularly important (-Log10(P)>250) for clusters 3 and 5, while dimension 2 contributes more highly to clusters 5 and 2.

In what follows the clusters are described according to the variables that were initially introduced in the MCA. The results are shown in Table 6.

C1. Short-distance cultural trips

This segment accounts for 31.8% of the trips. In this type of trip, private vehicles predominate (76.2%) as do coaches/trains (20.3%). Cultural travel (cities and monuments and get to know the place) accounts for 50.5% of the trips in this segment, although sun and sea are also relevant (22.2%) as well as other motivations (15.5%). In almost two of every three trips in this segment, visitors lodge in a hotel/hostel (64.4%), although it should be noted that private residences also account for a fairly significant proportion of accommodations (20.1%). In general, destinations within the peninsula are more frequent in this particular segment than in all other types of trips, especially trips in the interior (20.3%) and to northern Spain (24.9%). Compared to other segments, family groups play a less relevant role in these trips (29.6% compared to 41.1% of the total) than large groups (friends, colleagues and others, 36.7%) and, to a lesser degree, couples (32.9%).

C2. Nature trips to northern Spain

This segment accounts for 12.3% of all travel. Private vehicles are by large the preferred means of transport (94.6%). Thematic orientations related to the countryside and nature account for almost three-fourths of the trips in this segment, followed by the less urban facet of cultural tourism (get to know the place, 13.2%). In line with these orientations, rural lodging and campsites obtain the highest value (74.8%), followed far behind by hotels/hostels (12.8%). Northern Spain is clearly predominant in this segment of trips (64.7%), although the interior also accounts for a relatively high percentage of this type of travel (18.0%). Nuclear families

(36.6%) and couples (27.4%) make up the largest part of this segment, followed at some distance by large groups (23.6%).

C3. Cultural trips outside the peninsula

This segment accounts for 19.8% of travel. Air travel is the chief means of transport for this type of trips (85.2%), which are chiefly cultural in nature (71.5%), although sun and sea are also important (16.8%). As can be deduced from the name of this segment, two destinations are particularly important here: destinations abroad (57.9%) and the Canary and Balearic Islands (33.4%). The majority of travellers in this segment lodge in hotels (86.8%). Here couples obtain the highest values of all the segments (40.5%), followed at a short distance by large groups (38.6%).

C4. Non-cultural trips outside the peninsula

This segment is smaller in size (9% of trips) and is similar to the above segment in terms of means of transport and destinations. Air travel (82.8%) is the most frequent form of transportation, while island destinations (47.3%) and travel abroad (33.4%) continue to carry a large weight in this segment. In terms of destinations within the peninsula, Andalusia obtains the highest ranking (12.6%). Clear differences with respect to the previous segment are found in terms of travel motivations: cultural themes account for a mere 10.4% of all trips, while 45.3% are VFR trips, followed by sun and sea destinations (39.7%). In line with the importance of VFR trips, private residences carry a large weight (47.4%) than hotels (33.6%). A large number of people in this segment travel alone (27.8%).

C5. Family trips to the coast

This is the second largest segment (27.2%). This segment chiefly includes travel in private vehicles (84.6%) and, to a much lesser degree, travel by coach or train (13.9%). In contrast to the first and second segment, sun and sea is the most important motivation (52.8%), although VFR also accounts for a large percentage of the trips (35.8%). Private residences are the preferred lodging choice in this segment (56.6%), followed by apartments (25.1%). The majority of these trips are made by family groups (67.5%), followed by couples (17.5%). The majority of the trips in this segment are to the Spanish Mediterranean coast. Of these, half

are made to the Levante Region/Catalonia (50.5%), followed by Andalusia (22.2%).

Table 6. Profile of Segments in Segmentation Variables

		Cluster (% col)					
		C1	C2	C3	C4	C5	Total
Travel destination	Andalusia	16.7	2.1	4.7	12.6	22.2	13.6
	Northern Spain	24.9	64.7	1.2	0.3	10.2	18.9
	Levante Region/Catalonia	27.0	10.6	1.7	5.0	50.5	24.4
	Interior	20.3	18.0	0.8	0.8	13.7	12.6
	Balearic or Canary Islands	1.0	0.3	33.4	47.3	0.2	11.2
	Abroad	8.1	2.3	57.9	33.4	1.1	17.6
	Others	2.0	2.0	0.4	0.6	2.2	1.6
Means of transport	Private vehicle	76.2	94.6	2.5	1.6	84.6	59.5
	Coach/Train	20.3	3.9	7.9	8.3	13.9	13.0
	Plane	2.4	0.2	85.2	82.8	1.0	25.3
	Others	1.1	1.2	4.3	7.3	0.5	2.1
Type of lodging	Hotel/Hostel	64.4	12.8	86.8	33.6	15.8	46.5
	Apartment	4.3	2.1	1.6	11.0	25.1	9.8
	Private residence	20.1	7.4	2.6	47.4	56.6	27.5
	Rural lodging/Campsite	9.3	74.8	1.5	3.4	0.5	12.9
	Other accommodations	1.9	2.8	7.5	4.6	1.9	3.4
Travel group	Travelled alone	0.9	0.6	2.3	27.8	8.3	5.5
	Travelled with	32.	27.	40.	19.	17.	28.4

	spouse/partner	9	4	5	6	5	
	Nuclear family	19.4	36.6	9.2	22.0	40.7	25.5
	Extended family	10.2	11.9	9.3	19.9	26.7	15.6
	Colleagues/Friends/Others	36.7	23.6	38.6	10.6	6.7	25.0
Theme of trip	Sun and sea	22.2	4.0	16.8	39.7	52.8	28.8
	Country and nature	10.4	72.0	3.3		2.6	13.5
	Cities and monuments	21.2	4.3	35.0	4.4	1.7	15.0
	Visit friends or relatives	1.3	1.1	0.6	45.3	35.8	14.5
	Get to know the place	29.3	13.2	36.5	6.0	2.6	19.4
	Others	15.5	5.4	7.8	4.5	4.5	8.8

EVALUATION OF SEGMENTS

In this section we characterise the segments taking into account the differences that arise in some of the relevant indicators of the trips (seasonality, length, activities, sources of information; see Table 7). We provide some parameters of interest for the strategic assessment of the proposed segmentation following the criteria of Kang et al. (2003).

Family trips to the coast (C5) are mostly concentrated in the summer season (75.5%); a fact that is to be expected given the importance of sun and sea in this segment. These trips are relatively long (two weeks in length) in which activities we call 'relaxed coastal' are of special importance (Rodríguez González and Moreira, 2008). When organising this type of trips, travellers make little use of tourist information sources other than recommendations by friends and family. This suggests that these are "routine" trips that do not require complex decisions as described in the typology of Fodness and Murray (1998, 1999).

In contrast to the above, *cultural trips outside the peninsula* (C3) is the least seasonal. 56.7% of trips are made during seasons other than summer, while 20.8% are specifically made in the last quarter of the year.

The predominant pattern of activities on these trips is what we call 'active interior', which are characterised by an intensive programme of cultural activities (museums, events, popular festivals and festivities, shopping, etc.). This segment is characterised by shorter stays, as would be expected by the presence of relatively costly components (hotel, plane travel) and the tendency to take off-season trips (the importance of long winter weekend holidays). In this segment, information provided by travel agencies is more important, which together with the extended use of online information, means that the travellers in this segment engage in 'extensive' decision-making processes.

The segment *nature trips to northern Spain* (C2) reveals distinctive characteristics that permit us to examine aspects of the stereotyped image of rural tourism in greater detail. These trips are more seasonal than normally assumed (62.4% during the summer season) and short in length (9.12 overnights), in which activities of the 'relaxed interior' type predominate (46%). We consider this to be very relevant, given that the data reveal the existence of tourists who are more interested in relaxing in an environment away from big cities than engaging in nature activities; activities practiced by only one of every five travellers in this segment (19.4%). In contrast, activities we call 'active coastal', which combine cultural or nature activities with beach leisure, are more frequent (23.5%). For an in-depth qualitative analysis of the specific characteristics of this emergent model of coastal tourism see Rodríguez González (2007). An interesting aspect of this segment is the use of sources of information: the travellers in this segment are very independent and do not usually resort to information provided by 'traditional' tourist intermediaries (agencies), but instead make use of online information in conjunction with tourist information networks at the place of destination.

Table 7. Tourism Profile of the Different Segments

		Number of two-step clusters					
		1	2	3	4	5	Total
		% col	% col	% col	% col	% col	% col
Month trip taken	January - March	10.5	8.5	13.5	10.2	2.9	8.8
	April - June	22.5	17.4	22.3	15.3	14.6	19.0
	July - September	54.0	62.4	43.3	56.3	75.5	58.9
	October - December	13.0	11.7	20.8	18.2	7.0	13.3
Average length of trip (nights)		8,89	9.12	8.95	17.05	14.30	11.13
Clusters by	1 Relaxed coastal	16.8	11.1	8.7	22.6	39.0	21.1

activity	2 Active coastal	23.8	23.5	29.6	44.3	27.2	27.7
	3 Relaxed interior	29.6	46.0	11.8	17.0	25.7	25.9
	4 Active interior	29.8	19.4	49.9	16.0	8.1	25.3
Sources of tourism info (multiple responses)	Recommended by friends and family	47.8	52.0	44.9	52.5	51.1	49.1
	Recommended by travel agent	16.6	7.5	30.6	19.8	10.3	16.8
	Travel agency catalogues-offers	21.4	9.4	37.5	18.9	11.7	20.2
	Advertisements in press and on television	8.5	6.4	9.7	6.9	4.9	7.4
	Information offices at destination	43.0	58.5	46.9	35.1	24.4	39.9
	Online information about transport and lodging	36.5	58.0	52.2	41.3	16.7	37.3
	Online information about activities and tourism resources	33.5	52.8	51.6	34.7	18.5	35.5

The segment *non-cultural trips outside the peninsula* (C4) reveals specific features. In this segment, travellers take the longest trips; a factor that contributes to the importance of private residences and visits to friends and family. In spite of the fact that culture is not the principal orientation, 'active' tourist patterns predominate in these trips. As regards sources of information, the combination of air travel and accommodation in private residences means that the travellers in this segment make a relatively high use of online information on transport and lodging.

Finally, the segment *short-distance cultural trips* (C1) is the segment with the least distinctive characteristics as the values are almost always situated at median thresholds. These trips are less concentrated in summer than those of the C2 or C5 segments, but continue to reveal a clear inclination for summer travel (54% of the trips are taken from July to September). Together with segments C2 and C3, this segment includes trips with an approximate duration of 9 nights as compared to the longer trips found in segments C4 and C5. A final aspect that is worthy of mention here is the greater tendency for travellers to engage in 'interior' rather than 'coastal' activities during these trips.

CONCLUSIONS

Some contributions of this paper can be pointed out. At the methodological level, the combination of multiple correspondence analysis and clustering methods is an innovative approach in tourist

segmentation research. The multiple correspondence analysis identifies two relevant dimensions in order to explain the variation in the Spaniards' tourist trips. One dimension marked by distance (transportation and destination) and the other related with motivation (theme of trip and type of lodging). The cluster analysis revealed five segments of tourists with qualitatively different trip profiles. Both dimensions shed light on well known association between common variables. Although they would look obvious, the novelty of these findings comes from the identification and quantification of typical positions (trip types) in the intersection between these dimensions into the Spanish domestic tourism. Their implications for policy and research purposes are discussed in the evaluation section, showing significant differences in terms of decision and information processes and activities patterns. Further research should attend to the influence of sociodemographic factors in the choice of trip types.

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ENDNOTES

1. This study is framed within the research project titled *Tourism and Society in Andalusia*, which has been conducted since 2005 at the IESA-CSIC with funds from the Ministry of Tourism, Trade and Sports of the Regional Government of Andalusia. For a more extensive study and a more exhaustive bibliographic review of the topic of tourist segmentation see Rodríguez and Molina (2008).
2. FRONTUR: Spanish Border Survey of Inbound Tourism; FAMILITUR: Spanish National Tourism Survey; EGATUR: Tourism Expenditure Survey. Available at www.iet.tourspain.es

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REFEREED ANONYMOUSLY

Pablo Rodríguez González (prodriguez@iesa.csic.es) is a Research Technician at IESA-CSIC, Córdoba..

Oscar Molina Molina (omolina@iesa.csic.es) is a Research Technician at IESA-CSIC, Córdoba.