A discusión

STOCHASTIC CHOICE ANALYSIS OF TOURISM DESTINATIONS*

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ABSTRACT

The analysis of tourist destination choice, defined by intra-country administrative units and by product types "coastal/inland and village/city", permits the characterisation of tourist flow behaviour, which is fundamental for public planning and business management. In this study, we analyse the determinant factors of tourist destination choice, proposing various research hypotheses relative to the impact of destination attributes and the personal characteristics of tourists. The methodology applied estimates Nested and Random Coefficients Multinomial Logit Models, which allow control over possible correlations among different destinations. The empirical application is realised in Spain on a sample of 3,781 individuals and allows us to conclude that prices, distance to the destination and personal motivations are determinants in destination choice.

Keywords: Tourism Marketing, Intra-country destination, Coastal/inland, Village/city, Nested and Random Coefficients Logit Models.

1. INTRODUCTION

Studies of tourist choice have been conducted from a wide perspective due to the multiple sub-decisions involved in the decision making process (Fesenmaier y Jeng, 2000). One contribution to this work has been the development of probabilistic models of decision derived from the Random Utility Theory which, due to their great flexibility when dealing with the discrete character of tourist choices, have become appropriate instruments in these situations (Morley, 1994a).

One of the most fruitful lines of investigation in this field is the choice of tourist destination (Fesenmaier et al., 2002), which is explained by the influence of destination attributes and individual characteristics. At a theoretical level, Rugg (1973) and Morley (1992) propose their own models to formally represent these tourist decisions from the extension of the Neoclassical Economic Theory of Lancaster (1966), whereas Morey (1984; 1985) and Eymann (1995) present models based on the Home Production Theory of Becker (1965).

At an empirical level, literature distinguishes between various approaches to the definition of tourist destination (see figures 1 and 2). One approach defines choice alternatives (destinations) through the aggregation of geographical areas according to administrative units, geographical proximity and individual perceptions of similarity[1]. With this method, it is avoided an overly-elevated number of alternatives (e.g. if a tourist wishes to take a holiday on

[1] The first criterion correlates the alternatives with countries as administrative areas (Haider & Ewing, 1990), which implies considering all the destinations found in a country as one single alternative. This approach allows for analysis of the global attraction of an administrative unit, which facilitates tourism decision making by public administrators as, in the final instance, it is administrative division which determines lines of action. However, this partition can present problems in geographical areas which are shared between administrative frontiers. If two neighbouring regions have similar attraction to tourists, their degree of substitution will be higher than that of others, which could violate the assumption of Independence Irrelevant Alternatives of some discrete models, such as the Multinomial Logit Model. The second criterion aggregates the alternatives by their geographical proximity (independently of their administrative partition), defining the so called "macro-destinations" or "macro-site" (Siderelis & Moore, 1998). However, this procedure presents inconveniences (Fotheringham & O'Kelly, 1989): i) this destination grouping by the dimension of *space* is not obvious due to its continuous nature, meaning that the delimitation of macro-destinations cannot always be made with clarity with the position of the divisionary lines being left to the discretion of the analyst. Moreover, incoherent situations can arise, such as the case of two neighbouring destinations which belong to different macro-destinations and are not treated as substitutes when they should be. ii) Among the destinations of a macro-destination there can be a hierarchical order based on spatial separation, which implies that these destinations are not equally substitutable, thus violating the axiom of transitivity. iii) The composition of two groups of alternatives is not constant for all individuals, as people situated in different places have different perceptions of space and, therefore, of macro-destinations. The third criterion aggregates tourist destinations by similitude of tourist perceptions (Eymann & Ronning, 1997). In essence, it tests whether parameters referring to these individual perceptions vary significantly among the alternatives of different groups, applying the test of Cramer & Ridder (1991).

the Mediterranean coast, this option would cover any point in the whole area); which is a consequence of the continuous nature of the spatial dimension (Fotheringham & O'Kelly, 1989). The studies of Eymann & Ronning (1992), Haider & Ewing (1990) and Morley (1994a; 1994b) define destinations in terms of administrative units (countries), whereas Siderelis & Moore (1998) and Eymann & Ronning (1997) resort to the use of macro-destinations through the aggregation of geographical areas and tourist perceptions, respectively. Alternatively, another thread bases itself on destination type (discrete nature), such as regional or national natural parks (Wennergren & Nielsen, 1968; Perdue, 1986; Borgers et al., 1988; Fesenmaier, 1988; Morey et al., 1991; Dubin, 1998; Train, 1998; Riera, 2000; Adamowicz et al., 1994; Adamowicz et al., 1998; Schroeder & Louviere, 1999). In all these approaches, the operative formalisation uses revealed preferences (which the analyst does not observe, but which are implicitly considered by individuals to rank alternatives and are only revealed through the actual purchase choice) or stated preferences (in which an individual declares an intention to buy from a group of hypothetical alternatives) with Multinomial Logit, Nested Multinomial Logit and Random Coefficients models (see figures 1 and 2).

However, the probabilistic examination of destination choices of a "village/city" and "costal-inland" type is under-developed in the field of tourism research. This analysis is important because of the tendency of tourists to look for alternatives to the sun, sea and sand type holiday (Bote, 1987; Fuentes, 1995) which predominates in countries like Spain. Moreover, the evolution of these alternatives is largely found in inland areas, as it allows for environmental improvements, land development, reductions in rural exodus and income generation through the diversification of the local economy (Vázquez, 1996). Therefore, the study of the distinctive individual aspects which lead to the selection of this destination type is crucial for the development of tourism policies by public bodies and for the marketing strategies of the tourist industry.

Likewise, the probabilistic analysis of intra-country destinations defined by administrative units has had little coverage in literature; despite the fact that the majority of national tourism in many countries is domestic, as in the case of Spain (Bote et al., 1991; Martínez, 2002); and that the territorial examination of tourism demand is a valuable element of regional economic planning (Usach, 1998), as it can characterize the tourist flow behaviour of nationals within their own country from the point of view of geographical distribution.

In virtue of the above, the objective of this study is to analyse the determinant factors of tourist destination choice in terms of intra-country administrative units and product type ("village/city" and "coastal/inland"). With this aim, we propose various research hypotheses to explain the above decisions by means of destination attributes and tourist personal characteristics. The methodology applied is based on the estimation of various Nested

Multinomial Logit and Random Coefficients models in order to control possible correlations between different destinations. The empirical application is carried out in Spain on a sample of 3,781 individuals in 1995.

The remainder of the paper is presented as follows: The second section reviews the literature on tourist destination choice and proposes several research hypotheses. The third section covers the design of the investigation; describing the methodology, sample and variables used. The fourth section presents the results obtained and their discussion. Finally, the fifth section summarises the conclusions and implications for business management.

2. TOURIST DESTINATION CHOICE -- RESEARCH HYPOTHESES

Literature identifies the following explanatory dimensions of destination choice (Mak & Moncur, 1980; Borocz, 1990; Gartner, 1993; Sirakaya et al., 1996; Seddighi & Theocharous, 2002): destination attributes and personal characteristics (see figures 1 and 2). These dimensions are examined in later sections, in which we propose various research hypotheses for both the choice of intra-country administrative areas and of product type; according to the urban/rural and inland/coastal nature of the destinations-.

2.1. Influence of Destination Attributes

Destination related dimensions are those attributes which can contribute to the formation of perceived attraction among tourists; they are also known as pull factors (Mak & Moncur, 1980; Borocz, 1990; Gartner, 1993; Kim & Lee, 2002). The attributes which are often used in choice models as fundamental elements of destination choice are the following (see figures 1 and 2): surface area (Wennergren & Nielsen, 1968; Hay & McConnell, 1979; Miller & Hay, 1981; Gramann et al., 1985; Borgers et al., 1988; Walsh et al., 1992; Adamowicz et al., 1998; Siderelis & Moore, 1998); distance (Wennergren & Nielsen, 1968; Stopher & Ergün, 1979; Moutinho & Trimble, 1981; Perdue, 1986; Borgers et al., 1988; Fesenmaier, 1988; Adamowicz et al., 1994; Schroeder & Louviere, 1999; Riera, 2000); and prices (Walsh et al., 1992; Siderelis & Moore, 1998; Schroeder & Louviere, 1999; Riera, 2000).

Figure 1.
EMPIRICAL EVIDENCE OF DESTINATION CHOICE WITH REVEALED PREFERENCE PROBABILISTIC MODELS

Authors	Destination	Model	Explicative Dimensions	Operative Variables
Wennergren & Nielsen (1968)	Natural parks	Probabilistic based on the Luce model	Destination attributes	- Surface area of recreational area - Distance
Perdue (1986)	Nature parks	Multinomial Logit	Destination attributes	- Attraction - Distance
Borgers, Van deir Heijden & Timmermans (1988)	Nature parks	Multinomial Logit	Destination attributes	- Surface area - Distance - Type of recreation area - Existence of specific installations - Type of vegetation
Fesenmaier (1988)	Nature parks	Multinomial Logit	Destination attributes Personal characteristics	- Distance - Infrastructure - Motivations
Morey, Shaw & Rowe (1991)	Nature parks	Multinomial Logit	Destination attributes	- Price (Cost of travel) - Activities at the destination
Dubin (1998)	Nature parks	Multinomial Logit	Destination attributes	- Price (travel costs)
Train (1998)	Nature parks	Multinomial Logit y Multinomial Logit with Random Coefficients	Destination attributes	- Size of each area - Price (Travel costs) - Naturals attributes (Number of species, aesthetics number of camping sites number of access points) - Number of protected species - Ranking in tourist guides

Figure 1.
EMPIRICAL EVIDENCE OF DESTINATION CHOICE WITH REVEALED PREFERENCE PROBABILISTIC MODELS *(Continuation)*

Authors	Destination	Model	Explicative Dimensions	Operative Variables
Riera (2000)	Nature parks	Multinomial Logit	Destination attributes	- Surface area - Price (Travel costs) - Natural attributes - Infrastructure - Accessibility - Programmed Activities
			Personal characteristics	- Income - Age - Sex - Studies - Nationality - Occupation
Eymann & Ronning (1992)	Administrative Units (Countries)	Nested Multinomial Logit	Destination attributes	- Price (Purchase parity differential)
			Personal characteristics	- Repetition of destination - Organization of the trip - Fragmentation of holidays
Eymann & Ronning (1997)	Macro-destinations formed by perceptions of similitude of countries.	Nested Multinomial Logit	Destination attributes	- Price (Specific cost index)
			Personal characteristics	- Motivations - Repetition of the destination - Members < 18 years old - Age - Marital status - Education - Size of city of residence - Residence
Siderelis & Moore (1998)	Macro-destinations formed by the analyst by geographical proximity	Nested Multinomial Logit	Destination attributes	- Surface area - Price (Travel cost) - Attributes related to natural attractions, quality and services.

Figure 2.
EMPIRICAL EVIDENCES OF DESTINATION CHOICE WITH STATED PREFERENCES PROBABILISTIC MODELS

Authors	Destinations	Model	Explicative Dimensions	Operative Variables
Adamowicz, Louviere & Williams (1994)	Nature parks	Multinomial Logit	Destination attributes	- Distance - Natural characteristics (beach, water quality, land type, size, quantity and type of species) - Restrictions to navigation
Adamowicz, Boxall, Williams & Louviere (1998)	Nature parks	Multinomial Logit applied to Experimental Discrete Choice	Destination attributes	- Surface area - Population of species - Restrictions of use
Schroeder & Louviere (1999)	Nature parks	Multinomial Logit applied to Experimental Discrete Choice	Destination attributes	- Distance and time of journey - Entry Prices - Attributes related to parks
Haider & Ewing (1990)	Administrative Units (Countries)	Multinomial Logit applied to Experimental Discrete Choice	Destination attributes	- Global price - Hotel size - Hotel services - Proximity to beach - Proximity to the city - Distance to the airport - Proximity to other accommodation - Shops
Morley (1994a)	Administrative Units (Countries)	Binomial Logit and Probit applied to Experimental Discrete Choice	Destination attributes Personal characteristics	- Price (Air tickets, Hotel prices and exchange rates) - Income - Age - Sex
Morley (1994b)	Administrative Units (Countries)	Multinomial Logit applied to Experimental Discrete Choice	Destination attributes Personal characteristics	- Price (Air tickets, Hotel prices and exchange rates)- Income - Age - Sex

A) Surface area of the destination

One of the most used attributes when characterising destination alternatives is the surface area on which tourist activity is carried out. Authors agree on it being an attraction factor in the following two senses (Wennergren & Nielsen, 1968): i) from a quantitative perspective, a larger surface area increases positional options for visitors, the diversity of activities available and the supply of places; and ii) in qualitative terms, surface area is an especially important factor of quality in mass tourism; insofar as greater surface area eases congestion. Siderelis & Moore (1998) show that surface area is closely related to the number of establishments, indicating that tourists enjoy better service. At an empirical level, the studies of Wennergren & Nielsen (1968), Borgers et al., (1988), Riera (2000), Train (1998) and Adamowicz et al. (1998) find that the surface area of a natural park is positively linked to its choice as a destination, and Siderelis & Moore (1998) show that the greater surface area of a geographical macro-destination determines its selection. In view of the above, we propose the following hypothesis[2]:

H.1: *A greater surface area of an intra-country destination is associated with a greater probability of its selection.*

B) Distance to the destination

The distance between the usual place of residence of an individual and the destination is an especially important criterion due to the clearly inherent spatial dimension of tourist destination choice. However, there is no consensus in literature on its influence. One train of thought holds that distance – or geographical position of the tourist relative to destinations-- is considered a restriction or a dissuasive dimension of destination choice, as the displacement of an individual to the destination entails physical, temporal and monetary cost (Taylor & Knudson, 1976). This is the result reached by the studies of Wennergren & Nielsen (1968), Perdue (1985), Borgers et al., (1988), Fesenmaier (1988), Adamowicz et al. (1994) and Schroeder & Louviere (1999) in the case of natural parks. Alternatively, another line of research proposes that distance can lend positive utility. Baxter (1980) shows that the journey itself, as a component of the tourism product, can give satisfaction in its own right so that, on occasions, longer distances are preferred. Similarly, Wolfe (1970; 1972) indicates that distance does not always act as a dissuasive factor, as the friction derived from it disappears after passing a certain threshold and it becomes a favourable attribute of the utility of a

[2] Evidently, the inclusion of this variable is only possible for concrete, intra-country destinations, but not for the choice of generic type destination such as “village/city” and “coastal/inland”.

destination. Beaman (1974; 1976) explains this behaviour through a marginal analysis of distance, by observing the reaction of individuals to each unit of distance and concluding that each additional unit travelled offers less resistance than the previous. Given the lack of consensus among authors, we propose the following competing hypotheses[3]:

H.2a: *A greater distance to an intra-country destination is associated with a lower probability of the destination being chosen.*

H.2b: *A greater distance to an intra-country destination is associated with a higher probability of the destination being chosen.*

C) Prices

Analysis of prices in the tourism sector is particularly complex due to the multi-dimensional nature of the prices of tourism products[4], variation in the composition of the products, the high level of competition, (Morley, 1993) and the difficulty of predicting tourist numbers (Witt & Moutinho, 1995). This has led to price impact on tourist decisions being evaluated from the following two perspectives (Sheldon & Mak, 1987; Haider & Ewing, 1990; McCollum et al., 1990; Train, 1998; Kemperman et al., 2000): i) global price, which considers the joint price of components; and ii) component price, in which it is analysed the prices of the elements of the tourism product separately. In the particular case of destination choice, the perspective to take -- global vs. components-, depends on the information available and the context of the application. Thus, at an administrative units (countries) level the global product price is used by Eymann & Ronning (1992), Haider & Ewing (1990) and Morley (1994a, b), transport costs by Morley (1994a,b), Siderelis & Moore (1998) and the cost of accommodation by Morley (1994a,b). For macro-destinations (aggregation of geographical areas) the global price is used by Eymann & Ronning (1997) and transport costs by Siderelis & Moore (1998); whereas for natural parks, transport costs are applied by Morey et al. (1991), Dubin (1998), Train (1998) and Riera (2000) and ticket prices by Schroeder & Louviere (1999). Our study is based on global price.

Literature does not reach a consensus on the influence of prices on destination choice. One line of thought holds that demand for tourism products is that of an *ordinary good*, in

[3] As in the previous case, the inclusion of this variable is only possible for concrete, intra-country destinations, but not for the choice of generic type destination such as “village/city” and “coastal/inland”.

[4] As a consequence of the aggregative property of tourism products, prices represent a multidimensional dimension. It should not be forgotten that there are various components with specific prices, such as accommodation, transport, restaurants, tickets to certain attractions, etc.

such a way that price increments diminish consumption (Smith, 1995; Lanquar, 2001; Serra, 2002), meaning that price is considered as a factor which reduces the utility of a destination. At an empirical level, a negative relationship between price and destination choice is found by Morey et al. (1991), Dubin (1998), Train (1998), Riera (2000) and Siderelis & Moore (1998) in the case of natural parks; by Haider & Ewing (1990), Morley (1994a; 1994b) and Eymann & Ronning (1992) for countries (administrative units) and by Siderelis & Morre (1998) for macro-destinations.

Conversely, another line of thought proposes that price does not have a dissuasive effect on destination choice, but that it is an attraction factor. Morrison (1996) indicates that the underlying hedonistic character often found in the consumption of tourism products implies that high prices do not always act against demand; rather that the concept of value for money, which compares the amount spent with the quality of installations and service, takes over (Morrison, 1996). This implies an association of price increase with demand increase. To summarise, the lack of consensus on the impact of price leads us to propose the following competing hypotheses:

H.3a: *High intra-country destination prices are associated with a lower probability of being chosen.*

H.3b: *High intra-country destination prices are associated with a higher probability of being chosen.*

H.3c: *High prices for destination types: "coastal/inland" and "village/city" are associated with a lower probability of being chosen.*

H.3d: *High prices for destination types: "coastal/inland" and "village/city" are associated with a higher probability of being chosen.*

2.2. Influence of Personal Characteristics

Literature shows that individual characteristics which influence the choice of holiday destinations are basically motivations, which act as push factors leading to the realisation of tourist travel (Moutinho, 1987; Sirakaya, 1992; Gartner, 1993; Sirakaya et al., 1996; Kim & Lee, 2002). Generally speaking, the selection of a certain holiday destination implies a desire for some kind of benefit. Because of this, motivations play a fundamental role in destination choice, as they constitute internal thoughts which lead tourist behaviour towards certain ends (Nahab, 1975); in other words, they are the reasons why people take a holiday (Santos, 1983). These motivations can be classified according to the following typology (McIntosh & Goeldner, 1984): i) physical, such as relaxation; ii) cultural, such as discovering new geographical areas; iii) interpersonal, such as socialising and meeting new people; and iv) prestige, such as self-esteem.

Some authors, such as Calantone & Johar (1984) and Hu & Ritchie (1993) find that variation in the importance given by tourists to the attributes of holiday products originates from the motivations relevant to each situation. For example, a person looking for relaxation will not make the same evaluations as someone looking for adventure, of the attribute: "*possibility of going rafting in the destination*".

The initial motivation to take a trip is a determinant in the evaluation of destination attributes and choice (Eymann & Ronning, 1997; De Borja et al., 2002). At an empirical level, the work of Fesenmaier (1988) positively links motivations relating to certain recreational activities with the choice of natural parks and the study of Eymann & Ronning (1997) finds a positive relationship between motivation to "find nature and a good climate" and the choice of macro-destinations aggregated from the perceptions of similitude of the countries. Looking at destination types "village/city" and "coastal/inland", the underlying personal motivations are those of relaxation and sea, sun and sand[5], respectively. Along these lines, we propose the following hypotheses, which link the search for relaxation with village destinations (costal or inland), and the search for sea, sun and sand with coastal destinations (village or city):

H.4: *Relaxation as a motivation is associated with a greater probability of choosing a village destination (costal or inland).*

H.5: *Sea, sun and sand as motivations are associated with a greater probability of choosing coastal destinations (village or city).*

Finally, we would like to stress that, although socio-demographic characteristics are generally utilised as covariates in choice models (Hay & McConnell, 1979; Miller & Hay, 1981; Morley, 1994a; 1994b; Riera, 2000), our study does not include them, due to empirical problems found when estimating the discrete choice models.

[5] The motivations to find relaxation and to find sun, sea and sand are only considered in the case of destination types "coastal-inland" and "village/city", but not for intra-country destinations, as an administrative division of a country can include destinations with different degrees of tranquillity and sun, sea and sand.

3. RESEARCH DESIGN

3.1. *Methodology*

The methodology proposed to test the above hypotheses on destination choice differs according to whether the destinations are specified in terms of intra-country administrative divisions or in terms of destination type (coastal/inland and village/city).

3.1.1. Intra-Country Administrative Divisions

For the analysis of intra-country choice of administrative units we propose the estimation of Multinomial Logit Models with random coefficients due to the fact that they allow us to operate in situations which do not comply with the hypothesis of Independence from Irrelevant Alternatives (IIA). The number of intra-country destinations (administrative units) is usually very large (e.g. 50 provinces in Spain), which impedes the use of Multinomial Logit Models, as correlation between unobservable attributes of the various alternatives leads to non-compliance with the hypothesis of IIA. Neither is the use of Multinomial Probit Models feasible, due to estimation difficulties in situations where there are more than four alternatives (McFadden, 1986). The utility function of the Logit with random coefficients is defined by the expression

$$U_i = \sum_{h=1}^{H} \beta_{th} z_{ih} + \varepsilon_i$$

where z_{ih} represents attribute h of alternative i, β_{th} is the random parameter of individual t with reference to variable h, and ε_i is the Gumbel distributed error term. Therefore, the choice probability of alternative i is expressed as (Train, 2003):

$$P_i = \int_{\beta_t} \frac{\exp\left\{\sum_{h=1}^{H} \beta_{th} z_{ih}\right\}}{\sum_{j=1}^{J} \exp\left\{\sum_{h=1}^{H} \beta_{th} z_{jh}\right\}} \phi(\beta_t \mid b, W) d\beta_t$$

where J is the number of alternatives and ϕ is the density function of β_t, assuming that β_t is distributed as a Normal with average b and variance W. A significant estimation of variance implies the superiority of the Multinomial Logit Model with random coefficients over the Multinomial Logit Model, due to non-compliance with IIA (Train, 2003).

However, the above integral does not give a closed solution, which means that its estimation requires the application of simulation techniques (Train, 2001a). This circumstance explains why this model has not been widely used in Marketing until relatively recently (Erdem et al., 2002). The final aim is to optimize the following function by maximum simulated likelihood

$$MVS(\theta) = \sum_{t=1}^{T} \sum_{j=1}^{J} d_{tj} \ln \left\{ \frac{1}{R} \sum_{r=1}^{R} \frac{\exp\left\{ \sum_{h=1}^{H} \beta_{th}^{r} z_{ih} \right\}}{\sum_{j=1}^{J} \exp\left\{ \sum_{h=1}^{H} \beta_{th}^{r} z_{jh} \right\}} \right\}$$

where $d_{tj} = 1$ if individual t chooses alternative j, and zero if not; and R is the number of draws of the density function $\phi(\beta_t)$. In this case, vector $\theta = \{b, W\}$ represents the maximum simulated likelihood estimator (MSLE). To realise the draws of the density function we use the Halton sequences method, which it is found better than random draws as it reduces error (Spanier & Maize, 1991; Train, 1999; Munizaga & Alvarez-Daziano, 2001; Hensher, 2001).

3.1.2. "Coastal/inland and Village/city" Destinations

The methodology proposed for the analysis of the choice of destination types, which are defined according to their urban/rural characters and their positions (Coastal village, Coastal city, Inland village and Inland city), is based on the estimation of a Nested Logit model. This is due to the fact that, it considers non-compliance with the IIA assumption derived from unobservable factors common to various alternatives; and that it allows us to form nests of alternatives and account for their tree-like structure. In this particular case, it allows us to find the optimum specification by comparing nests established according to urban/rural character ("coastal and inland villages" versus "coastal and inland cities"), and those established according to position, ("coastal villages and cities" versus "inland villages and cities").

The utility function in this situation is defined as the sum of the utility of alternative i and the utility of the nest which contains i (Train, 2003):

$$U_i = \left(\sum_{k=1}^{K} \beta_{kl} x_{kl} + \varepsilon_{l_i} \right) + \left(\sum_{h=1}^{H} \beta_h z_{ih} + \varepsilon_i \right)$$

where the first term in brackets represents characteristics x_k of nest l, which contains alternative i, and the second term represents attributes z_h of i; ε_i and ε_{l_i} are independent in such a way that ε_i has a Gumbel distribution with unitary scale parameter, $\varepsilon_i \sim G(1,\eta)$, and ε_{l_i} is such that $\max_{i \in l_i} U_i \sim G(\mu,\eta)$.

Based on Train (2003), the choice probability of alternative i is defined by the expression:

$$P_i = \frac{\exp\left\{\sum_{h=1}^{H}\beta_h z_{ih}\right\}}{\sum_{j=1}^{I_i}\exp\left\{\sum_{h=1}^{H}\beta_h z_{jh}\right\}} \frac{\exp\left\{\sum_{k=1}^{K}\beta_{kl}x_{tkl} + \tau \ln\left(\sum_{j=1}^{I_i}\exp\left\{\sum_{h=1}^{H}\beta_h z_{jh}\right\}\right)\right\}}{\sum_{l=1}^{L}\exp\left\{\sum_{k=1}^{K}\beta_{kl}x_{tkl} + \tau \ln\left(\sum_{j=1}^{I_i}\exp\left\{\sum_{h=1}^{H}\beta_h z_{jh}\right\}\right)\right\}}$$

where τ is the parameter associated with inclusive value (which covers the internal correlation of the alternatives in a nest, calculated as 1-τ). This probability P_i will be estimated by maximum likelihood, optimising function $MV(\theta) = \sum_{t=1}^{T}\sum_{j=1}^{J} d_{tj} \ln P_j$, where d_{tj} =1 if individual t chooses alternative j, and zero if not.

The estimation of the inclusive value parameter allows us to identify the optimum nest specification. The selection procedure for optimum nest specification considers the following criteria of estimated value of τ (Train, 2003): 1) *Non-unitary inclusive value.* If this parameter is different to one, the specification of the Nested Multinomial Logit Model is superior to the Multinomial Logit (note that if τ=1, the expression of P_i is reduced to the Multinomial Logit), because it would include the correlations structure of the alternatives in the nests; 2) *Range of the inclusive value parameter.* This value should be contained in interval (0-1) as, otherwise, there would be greater correlation between alternatives from different nests than between those of the same nest, which would mean that the proposed specification was not adequate; and 3) *Equality/inequality of the parameters of different nests.* The flexibility of this model allows us to estimate an inclusive value parameter for each nest, which facilitates the identification of asymmetric correlation patterns among the nests. Along these lines, rejection of equality of these parameters would mean that the Nested Logit with different inclusive parameters for each nest better covers substitution patterns than the Nested Logit with a common parameter for all nests.

3.2. Sample and Variables

To reach our proposed objectives, we have used information on tourist choice behaviour obtained from the national survey "Spanish Holidaying Behaviour (III)", which was carried out by the Spanish Centre for Sociological Research. This is due to the following reasons: i) The availability of information on individual tourist destination choice behaviour in terms of intra-country administrative units and of destination types “coastal/inland and village/city”; and ii) The survey is directed at a sample (over 18 years old) obtained in origin, which avoids the characteristic selection bias of destination collected samples, leading to a more precise analysis of tourist demand. The sample is taken from a total population of 30,820,626 adult individuals in Spain, using multistage sampling, stratified by conglomerations, with proportional selection of primary units -cities- and of secondary units –censorial sections-. The information was collected in October 1995 through personal, at home, interviews with a structured questionnaire. The final sample is of 3,781 individuals –of which 68.72% go on holiday-, with a sample error of ±1.24% for a confidence level of 95.5%.

In order to make the choice models operative, we will define the variables used and identify the dependent and independent variables.

1) Dependent variables. To represent the sest of intra-country destinations (administrative units) available to the tourist, we use 50 dummy variables for the provinces and 17 for the autonomous communities. The autonomous communities are the 17 first-order regional divisions in Spain. The provinces are the 50 second-order regional divisions into which the autonomous communities are sub-divided (Encarta, 1999). In order to include the chosen destination type (coastal-inland and rural-urban), we use the following four dummy variables: i) coastal, which takes a value of 1 when chosen and 0 if not; ii) inland, where a value of 1 shows that it has been chosen and 0 if not; iii) village, which takes a value of 1 when chosen and 0 if not; and iv) city, where a value of 1 shows that it has been chosen and 0 if not.

2) Independent variables. a) *Surface area of the destination.* This dimension is measured by the area in square kilometres of the intra-country destination (autonomous communities and provinces), as it reflects the quantitative and qualitative aspects of this attraction factor (Wennergren & Nielsen, 1968; Siderelis & Moore, 1998; Train, 1998), (see section 2.1.). This information is from the Statistical Handbook of the National Institute of Statistics.

b) *Distance to the destination*. In general, studies use different indicators of real distance[6], such as the Euclidean distance -in kilometres or miles- (Wennergren & Nielsen, 1968; Stopher & Ergün, 1979; Moutinho & Trimble, 1981; Peterson et al., 1983; Perdue, 1986; Borgers et al., 1988; Fesenmaier, 1988; Adamowicz et al., 1994; Dellaert et al., 1997; Schroeder & Louviere, 1999), and displacement time (Louviere & Hensher, 1983; Dellaert et al., 1997; Schroeder & Louviere, 1999; Kemperman et al., 2000).

Following these authors, we measure distance in kilometres (distance 1) and in time invested in displacement (distance 2), which facilitates a comparison of the results with those of other international studies. The use of both variables implies the construction of four origin-destination matrices, two of a 50x50 order and two of 17x17, in which we include kilometres and time between each origin and destination for the provinces and autonomous communities, respectively. This information on distances and displacement times between origins and destinations is found in the Campsa Interactive Guide (taking the provincial capitals as reference points).

c) Destination Prices. Literature measures the prices of a destination with different indicators. For example, costs at the destination in absolute quantities or in terms relative to individual tourist income. However, the difficulties tourists have in knowing, a priori, all costs (e.g. goods bought at the destination) and the exact cost of each component, obliges researchers to make simplifications in their empirical applications. Consequently, various authors propose the use of widely available proxies (compared to finding detailed price lists of products and services in each destination) to reflect the prices of a destination.

Morey et al. (1991), Dubin (1998), Train (1998), Riera (2000), Siderelis & Moore (1998) and Morley (1994a,b) employ travel costs as a proxy of total price, as it is one of the highest costs to the tourist. Moreover, travel costs are an extension of the, previously analysed, concept of distance; thus giving distance the advantage of being considered in

[6] Psychology and Geography of Behaviour show the existence of discrepancies among perceived distance by individuals -or subjective- and the real distance -objective or geographical-. Ewing (1980) argues the incidence of factors such as the familiarity or monotony of a route. Baxter & Ewing (1981) propose the "perceptual barrier effect", by which a distance is perceived to increase due to a perceived rather than real barrier (e.g. a mountain pass). Moreover, with the lack of "perceptual barriers", tourists perceive destinations closer than they physically are (Mayo & Jarvis, 1986). Finally, Baxter & Ewing (1979) propose the so called "intervening opportunities effect", which considers the flow of people between two destinations *a* and *b* with similar characteristics and equidistant from an origin *o* are influenced by intermediary destinations. Thus, a destination *c* situated between *o* and *a* greatly reduces flows between *o* and *b*, independently of the fact that *c* competes indistinctly with *a* and *b*. In other words, these intermediary opportunities act as "distance amplifiers" between two destinations. The lack of information in our study on the perceptions of individuals prevents us from using subjective measurements of distance.

monetary terms[7]. However, the measurement of travel costs is not without problems. Travel costs are made up of the following three elements (Ewing, 1980): i) the effective cost of travelling, measurable by the price paid on public transport (Dellaert et al., 1997; Morley 1994a; 1994b) or in a private vehicle; whether by unit of distance (e.g., 24 ptas/km (Riera, 2000) or 0.16$/mile (Siderelis & Moore, 1998)) or by total fuel costs (Train, 1998); ii) the physical and psychological effort of realising the journey, which, to date, has not been modelled given the impossibility of representing it in monetary terms and by unit of time (Ewing, 1980); and iii) the opportunity costs of the time given to the journey (what an individual would earn if s/he spent the travelling time on money earning activities) whose measurement has been very limited in literature; using estimations from other fields (value of time spent travelling to work (Cesario, 1976; Edward & Dennis, 1976) -- untrustworthy for tourism (Goodwin, 1976; Ewing, 1980); the result of regressing the number of journeys in a period on travelling time, salary and cost of transport (Hof & Rosenthal, 1987); or arbitrarily fixing a value of 1/3 of salary per hour (Train, 1998)).

Another indicator is the exchange rate of the destination country (Witt & Martin, 1987; Morley, 1994a, 1994b). However, authors such as Eymann & Ronning (1992) and Usach (1999) consider that the correct method of reflecting the prices of a certain tourist market is to compare destination prices with those of the home market and those of competing destinations. Along this line, Eymann & Ronning (1992) use purchase parity differentials between the origin and respective destinations, obtained from the corresponding consumer price indexes[8]. In line with these authors, our study measures destination prices of intra-country administrative units (autonomous communities and provinces) through consumer price index differentials among origins and destinations, which are published in the National Institute of Statistics, which represent the cost of living of each origin/destination.

Finally, prices of destination types coastal/inland and village/city are measured using another indicator proposed by literature as a proxy: the specific cost index for each destination and individual of Eymann & Ronning (1997). This is obtained with the following two stage procedure: i) a regression model is estimated $G_{it} = \alpha_i + \beta_i X_{it}^{(1)} + \gamma_i X_t^{(2)} + \varepsilon_{it}$ where G_{it} are the tourism costs of each individual *t* in each destination type, $X_{it}^{(1)}$ is the consumption intensity in the corresponding destination type *i* based on the number of days spent there, and

[7] As indicated earlier, tourist displacement can provide utility in itself, meaning that a spatial measurement of distance –which does not reflect monetary cost – does not always entail a reduction in satisfaction. Conversely, measurement of distance in monetary terms implies that its marginal utility must be negative in all cases, as a unitary increment in distance entails greater costs and, therefore, loss of utility (Dubin, 1998).

[8] Morley (1994c) demonstrates that the Consumer Price Index of a geographical region is a good indicator of tourist prices, by showing high correlation between the two.

$X_t^{(2)}$ are the socio-demographic characteristics of the individual (age, age squared and income[9]); and ii) estimated parameters α_i, β_i and γ_i are used to construct the specific cost indices ICE_{it} for each destination and individual using the expression

$$ICE_{it} = \hat{\alpha}_i + \hat{\beta}_i \overline{X}_i^{(1)} + \hat{\gamma}_i X_t^{(2)}$$

where $\overline{X}_i^{(1)}$ represents the average consumption of variable $X_i^{(1)}$ in destination *i*.

d) *Motivation to find relaxation.* This dimension is measured by means of a dummy variable, where a value of one means that the individual considers this motivation when choosing a destination, and zero if not (McIntosh & Goeldner, 1984; Eymann & Ronning, 1997).

e) *Motivation to find sun, sea and sand*. This is also found with a dummy, where a value of one means that the individual considers this motivation when choosing a destination, and zero if not (Eymann & Ronning, 1997)

4. RESULTS OBTAINED AND DISCUSSION

4.1. Determinants of Destination Choice – Intra-Country by Autonomous Community

The maximum simulated likelihood estimation of the Multinomial Logit Model with random coefficients, of intra-country autonomous community destinations, and on the dimensions of the proposed hypotheses (surface area and prices) is found in Table 1. We have not included the distance variable as it implies the measurement of the distance of each individual from a reference point of each autonomous community (say, the capital of each autonomous community), which would incur significant measurement errors in the case of the autonomous communities. Baxter & Ewing (1980) suggest that, to analyse distance; the definition of destinations should be as disintegrated as possible.

Prior to the estimation of the model, we need to find the parameters which should be included randomly. Firstly, we make an estimation based on the assumption that all the parameters are random (Equation 1), which tells us whether the estimation of the variance (*W*)

[9] We select these variables because they give the optimum combination in accordance with Schwarz Information Criterion.

of parameter β is statistically different from zero. The very presence of variance distinct from zero associated with a parameter proves its random character (Train, 1998). The results obtained show that significant variance is only found in the case of the destination surface area parameter, which implies the superiority of the Multinomial Logit Model with Random Coefficients over the Multinomial Logit Model. In the next step, we estimate equation 2, which only considers this parameter to be random with the prices parameter remaining fixed. The Schwarz Information Criterion (SIC) indicates that this second specification makes a better fit.

As a result, we see that the two variables analysed are significant at a level below 0.1%. The coefficient which relates the surface area of autonomous communities with the probability of their being chosen is positive, which suggests that surface area is a destination attraction; in accordance with Wennergren & Nielsen (1968), Siderelis & Moore (1998) and Train (1998); and in line with hypothesis H.1. The fact that the variance of the parameter is significant is indicative of there being diversity in the preferences of our sample. For its part, the price coefficient is negative, showing the utility reduction of high prices in intra-country destinations (autonomous communities). This supports hypothesis H.3a, which holds that tourism products are ordinary goods (high prices reduce demand); in line with Smith (1995); and rejects the competing hypothesis H.3b.

Table 1.
DETERMINANTS OF INTRA-COUNTRY DESTINATION CHOICE (Autonomous Communities) WITH RANDOM COEFFICIENTS MULTINOMIAL LOGIT
(Standard errors in brackets)

Independent Variables	**Equation 1**		**Equation 2**	
	β	**Standar Error of β (√W)**	β	**Standar Error of β (√W)**
Surface area	0.203[a]	0.121[a]	0.203[a]	0.123[a]
	(0.007)	(0.030)	(0.007)	(0.029)
Prices	-0.222[a]	0.001	-0.223[a]	-
	(0.025)	(0.009)	(0.025)	
MV(θ)	-5,444.24		-5,444.10	
CIS	-5,450.89		-5,449.09	

a=prob<0.1%; b=prob<1%; c=prob<5%.

4.2. *Determinants of the Choice of Intra-Country Destinations by Provinces*

In the case of intra-country destinations defined in terms of provinces; in addition to surface area and destination prices, we consider the impact of the distance between origins and destinations, measured in kilometres (Distance 1) and in travelling time (Distance 2) to each provincial capital (reference point). We are following the suggestion of Baxter & Ewing (1981) insofar as the delimitation of destinations by provinces is the most disintegrated definition of distance obtainable from the information available. The simulated maximum likelihood estimation of the Random Coefficients Multinomial Logit Model is found in Table 2.

Table 2.
DETERMINANTS OF INTRA-COUNTRY DESTINATION CHOICE (Provinces) WITH RANDOM COEFFICIENTS MULTINOMIAL LOGIT
(Standard errors in brackets)

Independent Variables	Equation 1		Equation 2		Equation 3		Equation 4	
	β	Standar Error of β ($\sqrt{W}$)	β	Standar Error of β ($\sqrt{W}$)	β	Standar Error of β ($\sqrt{W}$)	β	Standar Error of β ($\sqrt{W}$)
Surface area	-0.618[a]	0.003	-0.619[a]	-	-0,543[a]	0,048	-0,542[a]	-
	(0.057)	(0.053)	(0.057)		(0,061)	(0,130)	(0,059)	
Distance 1	-0.380[a]	0.347[a]	-0.381[a]	0.345[a]				
	(0.015)	(0.014)	(0.015)	(0.014)				
Distance 2					-0,492[a]	0,663[a]	-0,493[a]	0,658[a]
					(0,021)	(0,027)	(0,021)	(0,026)
Prices	-0.232[a]	0.005	-0.232[a]	-	-0,223[a]	0,102	-0,222[a]	-
	(0.022)	(0.017)	(0.022)		(0,024)	(0,281)	(0,023)	
MV(θ)	-7,339.09		-7,337.71		-7,251.88		-7,251.46	
CIS	-7,349.07		-7,344.36		-7,261.86		-7,258.11	

a=prob<0.1%; b=prob<1%; c=prob<5%.

Following the earlier procedure to determine the parameters which should be introduced randomly we estimate Equations 1 and 3 and find that only distance needs to be associated with random parameters. This implies the superiority of the Random Coefficients Logit over the Multinomial Logit. Accordingly, we estimate equations 2 and 4, and find that the SIC criterion once again shows that they are superior to the previous equations. Moreover, both equations present robust results with significant coefficients at a level below 0.1% and the same sign in all equations.

As could be expected, prices present a negative sign, which suggests that tourists tend to choose intra-country destinations (provinces) with lower prices; in line with Smith (1995) and Lanquar (2001). Therefore, hypothesis H.3a is proved and competing hypothesis H.3b rejected. This result, along with that obtained on choice of autonomous communities, lends support to the idea that tourism products are ordinary goods in the case of intra-country administrative units. Distance is also significant at a level below 0.1% and presents a negative sign, which leads us to characterise distance as a dissuasive factor in the choice of a destination province; in line with Taylor & Knudson (1976). This means that, the displacement of an individual towards an intra-country destination implies physical, temporal and monetary costs. Consequently, hypothesis H.2a holds and the competing hypothesis H.2b is rejected. It should be noted that the significance of its variance suggests that distance has a differentiated effect among the sample, which suggests that long distances do not imply less utility for all the individuals of the population.

In the case of surface area, we find a negative coefficient for provinces (Table 2) but positive for autonomous communicates (Table 1), which prevents us from making conclusions on hypothesis H1 at an intra-country administrative unit level. In other words, we cannot defend the argumentation of Wennergren & Nielsen (1968) that the surface area of a destination is an attraction factor in a quality sense (less overcrowding) and in an availability of accommodation sense. The different signs obtained can be explained, according to Ewing (1980), because the surface area of a destination is too simplistic to be considered as a valid attraction factor for all destination types. It should not be forgotten that destination surface area was used in the original study of Wennergren & Nielsen (1968) as an analogy with the probabilistic approach proposed by Huff (1963) for shopping centres, but this surface area/attraction relationship is not applicable to all tourism contexts.

Therefore, the positive sign in the autonomous community specification (which does not include the distance due to the aforementioned measurement problems) can be explained, in line with Ewing (1980), by the fact that individuals tend to travel to adjacent regions –in fact, we accept hypothesis H.2a, that individuals prefer shorter distances to provinces-, so that by defining destinations in terms of autonomous communities, those that have larger surface areas are necessarily in contact with a greater number of origins and, consequently, receive a greater entry flow. It is possible, therefore that surface area does not really represent the supposed utility for the tourist of a larger surface area, but that it simply reflects a greater propensity to travel to nearby regions (shorter distances). We should not forget that Usach (1998) and Martínez (2002) find, in the case of Spain, a marked tendency to travel to neighbouring communities, whether inland or coastal. This closeness phenomenon is a consequence of the type of tourism realised, which finds its principal motivation is leisure or rest in traditional areas, for which the tourist does not need to make long journeys and which has the advantage of lower transport costs (Usach, 1998). The negative sign of surface area, in the specification by provinces (including the effect of distance and surface area independently), associates greater attraction with smaller provinces, which could be due to the existence of factors other than surface area which are valued by tourists in these provinces. To be precise, six of the traditional Spanish tourist provinces which receive the greatest tourist flows (Alicante, Gerona, Tarragona, Cantabria, Balearic Islands and Pontevedra) are among the smallest. In this sense, the negative sign of surface area only appears to reflect the attraction of tourist areas (which posess other attraction factors such as climate, coast, etc.) which, in the case of Spain, are found in smaller provinces.

In sum, the different signs obtained show, in line with Baxter & Ewing (1981), that the level of aggregation of destinations can influence results.

4.2.1. Determinants of the Choice of Destination Type "Coastal/inland and Village/city"

The identification of the determinants of the choice of destination type (according to their urban/rural and coastal/inland character) in terms of the dimensions of destination prices and motivations to find relaxation and sun, sea and sand implies the maximum likelihood estimation of a Nested Logit Model.

However, it can be shown that when the motivation of sun, sea and sand is included, estimation problems arise when computing the data, which impede the estimation of the model, which led us to finally remove it from modelization. This prevents us from testing hypothesis H5.

This model, whose estimation is found in Table 3, considers two alternative criteria for the formation of nests: in Equation 1 the rural/urban character, with nests of "coastal village and inland village" vs. "coastal city and inland city", while Equation 2 considers the coastal/inland character, with nests of "coastal village and city" vs. "inland village and city". In order to find the optimum nest specification we apply the following criteria, described in the section on methodology: i) *Parameter of non-unitary inclusive value.* In any of the dimensions considered for the formation of nests (the *rural-urban character* of Equation 1 and the *coastal/inland character* of Equation 2), the coefficient of inclusive value is significantly distinct from one: 0.516 (t=3.781; $p<0.001$) and 1.869 (t=1.988; $p<0.05$), respectively. This result indicates that the Nested Logit Model is superior to the Multinomial Logit (remember that the Multinomial is a particular case of the Nested when τ=1), since it includes the internal correlations of the alternatives in each nest.

ii) *Range of the inclusive value parameter.* In accordance with this criterion, we select nest specification 1 (urban/rural character), as its coefficient of 0.516 is within the range (0-1). In contrast, Equation 2 presents a coefficient of 1.869, which is out with the range and implies that in nest specification 2 there is greater correlation between the alternatives of different nests than between the nest alternatives themselves and is, therefore, not an adequate nest proposal. This means that the alternatives "coastal and inland villages" are correlated, as are the alternatives "coastal and inland cities", so they cannot be separated into the nests of "coastal village and city" and "inland village and city", of Equation 2. And iii) *Equality/inequality of the parameters of different nests*. After finding that nest structure 1 is correct for this choice context and in order to make the substitution patterns among the alternatives of these nests more flexible, we estimate a different inclusive value coefficient for each nest (Equation 3). The likelihood ratio test finds a statistic χ_1^2 of 23.74 (p<0.001), which leads us to reject the hypothesis of equality of these coefficients. We find a moderate correlation of 0.274 (1-τ=1-0.726) between the alternatives of nest "coastal and inland village", while the alternatives of nest "coastal and inland city" show a greater correlation of 0.765 (1-τ=1-0.235), which is explained by the existence of a greater number of unobservable attributes common to coastal and inland cities.

Table 3.
DETERMINANTS OF THE CHOICE OF DESTINATION TYPES "COASTAL/INLAND AND VILLAGE/CITY" WITH NESTED LOGIT MODELS
(Standard Errors in brackets)

Independent Variables	Nested Multinomial Logit with common inclusive value for all nests		Nested Multinomial Logit with different inclusive value for each nest
	Equation 1 (Urban/rural character) Nests {1,3}vs.{2,4}	Equation 2 (coastal/inland character) Nests {1,2}vs.{3,4}	Equation 3 (Urban/rural character) Nests {1,3}vs.{2,4}
Prices (1)*	0.499[a]	0.958[a]	0.440[a]
	(0.069)	(0.157)	(0.057)
Prices (2)	-0.165[a]	-0.305[a]	-0.094
	(0.034)	(0.096)	(0.060)
Prices (3)	0.081	0.115	0.084
	(0.052)	(0.125)	(0.062)
Prices (4)	-0.366[a]	-0.657[a]	-0.169[c]
	(0.073)	(0.113)	(0.083)
Relaxation motivation (1)	2.158[a]	3.945[a]	1.824[a]
	(0.434)	(1.375)	(0.482)
Sun, sea and sand motivation (1)	-	-	-
Relaxation motivation (3)	2.879[a]	5.441[a]	2.656[a]
	(0.434)	(1.403)	(0.434)
Sun, sea and sand motivat (2)	-	-	-
Common inclusive value	0.516[a]	1.869[a]	
	(0.128)	(0.437)	
Nest inclusive value I={1,3}			0.726[a]
			(0.220)
Nest inclusive value II= {2,4}			0.235[c]
			(0.112)
MV(θ)	-1,332.67	-1,331.16	-1,320.80
SIC	-1,343.29	-1,341.78	-1,332.94

a=prob<0.1%; b=prob<1%; c=prob<5%. *Between brackets indicates the destination alternative (1. Coastal village; 2. Coastal city; 3. Inland village; 4. Inland city) in which the variable is included.

In summary, the application of these criteria finds that the Nested Logit Model which best represents the nest structure and underlying substitution patterns is that given by Equation 3. Moreover, this specification presents the largest SIC, which supports its selection.

From the parameters estimated in specification 3, we obtain the following results: Destination prices are only significant in alternatives 1 (coastal village) and 4 (inland city), but with opposite signs; whereas they do not seem to influence the utility of destinations 2 (coastal city) and 3 (inland village). The positive and significant sign for coastal villages indicates the increase in utility brought about by higher prices in these destinations. This allows us to accept hypothesis H.3d for these destinations, in which there is an underlying hedonistic component which associates greater amounts spent with better quality received (Morrison, 1996) in terms of less congestion and closeness to the beach. The negative and significant sign reflects the reduction in utility caused by high prices in inland cities (in which there is urban congestion). This supports hypothesis H.3c in line with Smith (1995), in such a way that tourist demand for inland cities is that of an ordinary good (price increases reduce consumption). Therefore, the tourist is prepared to pay high prices in coastal villages but not in inland cities.

With regard to prices at destinations 2 (coastal city) and 3 (inland village), their parameters are not significant. This can be explained, in the case of Spain, because family tourism within Spain is often affected by decisive elements at the moment of destination choice, which are not covered by prices as they cannot be economically evaluated. Among the most important are the natural or socio-cultural environment, family relationships, the existence of infrastructures to enable popular tourist activities, etc. (Pérez, 1995; Usach, 1999). In any case, we find the previous tendency of signs determined by the urban/rural character of a destination as tourists are more disposed to pay high prices in villages (inland) than in cities (coastal).

Finally, the significance and positive sign of the motivation to look for relaxation shows that its presence favours the choice of “coastal village” and “inland village” destinations, which supports hypothesis H.4. In other words, the desire for relaxation explains the choice of quiet destinations such as villages, either inland or coastal. Therefore, this factor type is determinant in destination choice (Calantone & Johar, 1984; McIntosh & Goeldner, 1984; Hu & Ritchie, 1993; Eymann & Ronning, 1997; De Borja et al., 2002). To summarise, Figure 3 shows the results reached from the tests of the hypotheses on destination choice.

Figure 3.
TEST OF THE HYPOTHESES ON DESTINATION CHOICE

Hypothesis		Autonomous Communities		Provinces		Destination Type	
		Accept	Reject	Accept	Reject	Accept	Reject
H.1	*A greater surface area of an intra-country destination is associated with a greater probability of its selection.*	X?			X?		
H.2a	*A greater distance to an intra-country destination is associated with a lower probability of the destination being chosen.*			X			
H.2b	*A greater distance to an intra-country destination is associated with a higher probability of the destination being chosen.*				X		
H.3a	*High intra-country destination prices are associated with a lower probability of being chosen.*	X		X			
H.3b	*High intra-country destination prices are associated with a higher probability of being chosen*		X		X		
H.3c	*High prices for destination types: "coastal/inland" and "village/city" are associated with a lower probability of being chosen*					X	
H.3d	*High prices for destination types: "coastal/inland" and "village/city" are associated with a higher probability of being chosen.*					X	
H.4	*Relaxation as a motivation is associated with a greater probability of choosing a village destination (costal or inland).*					X	
H.5	*Sea, sun and sand as motivations are associated with a greater probability of choosing coastal destinations (village or city).*					-	-

5. CONCLUSIONS

The implication that the choice of intra-country and "coastal/inland and village/city" type tourist destinations is explained by certain destination attributes and personal characteristics of tourists has led us to analyse these phenomena in the context of a Spanish sample of 3,781 individuals. To this end, our study proposes various hypotheses on the impact of surface area, destination distance and prices, and motivations.

The operative formalisation which tests these hypotheses employs Random Coefficients Logit and Nested Logit models, which allow us to overcome the inconveniences of non-compliance of the IIA hypothesis. The empirical application on the sample analysed reaches the following conclusions: Firstly, the influence of distance and prices on the selection of destinations defined by intra-country administrative divisions. In particular, high prices reduce demand for intra-country destinations (autonomous communities and provinces), showing that tourist products behave as ordinary goods. Similarly, distance exerts a dissuasive effect on destination utility (provinces), although a percentage of the sample obtains positive utility from long distances. Therefore, long distances imply more resistance to begin a journey, but the recreational character of tourist journeys also leads certain individuals to find satisfaction in the journey itself.

In terms of destination type –based on urban/rural character and costal/inland position – it can be shown, firstly, that the alternatives "Coastal village", "Coastal city", "Inland village" and "Inland village" are grouped in a tree-like structure with groups of alternatives with similar characteristics found in nests {coastal and inland villages} and {coastal and inland cities}; in other words, a manifestation of the rural/urban dichotomy. Secondly, intra-nest substitution patterns differ internally, with greater correlation between coastal and inland cities than between coastal and inland villages, which can be explained by the existence of a larger number of unobservable attributes common to both coastal and inland cities. Thirdly, inland city destination prices act as a dissuasive factor while coastal village prices increase their utility. Finally, the motivation to find relaxation is determinant when choosing destinations of "coastal village" and "inland village".

In summary and as a general conclusion for the dimensions analyzed in the various contexts of destination choice studied –intra-country administrative units and destination types "coastal/inland and village/city"-, we can highlight the following: i) prices behave as a dissuasive element in general, but their impact differs when we specify destination type; ii) the dissuasive effect of distance is not common to all individuals; and iii) the motivation to find relaxation is determining in the choice of destination type.

As implications to management, we can point out that knowledge of destination attributes and personal motivations allows the tourist industry to better design its Marketing policies and strategies by adapting them to those aspects which are considered to be key dimensions. Public and private entities should encourage price reduction strategies, except in specific quality destinations, such as coastal villages. Distance, as a dissuasive element of destination choice, implies an emphasis on more promotion by public and private entities in neighbouring administrative units (provinces and autonomous communities). Finally, given that the urban/rural character ("coastal and inland villages" versus "coastal and inland cities") constitutes the optimum specification to structure the nests of destination types in terms of prices and motivation to find relaxation, tourism organisations should consider the potentiality of this cognitive choice structure in their Marketing strategies for tourism segments characterized by these dimensions.

Among the limitations of the study are the lack of consideration of the impact of other destination attributes, such as those relating to the infrastructure of tourism (for example, hotel capacity) and natural resources (orogenic characteristics, aesthetic attraction, indigenous flora and fauna, environmental condition, among others); nor of the perceptions of individuals of destination attributes. The lack of this information impedes the inclusion of these dimensions in the empirical study. Similarly, we have not considered the influence of socio-demographic characteristics due to estimation problems derived from the high number of alternatives. Finally, the hypothesis on the impact of the motivation to find sun, sea and sand has not been tested. Perhaps the use of proxy variables would facilitate this task.

As future research possibilities, we can suggest that the results presented here should be supported by studies in other geographical areas in order to make comparisons. Likewise, it would be interesting to test the proposed hypotheses from a longitudinal perspective, which would allow observation of the temporal evolution of the effect of the dimensions studied.

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