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# A competitive study of two tourism destinations through the application of conjoint analysis techniques: the case of the Canary Islands ${ }^{1}$ 

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#### Abstract

Resumen: La aspiración de conocer y corresponder las expectativas de los consumidores, supone un continuo objetivo en la gran mayoría de las empresas, así como un tema central de análisis y debate a lo largo y ancho de la literatura. Existe un amplio consenso sobre la importancia que la orientación al cliente tiene para la competitividad de las empresas actuales. Este hecho se acentúa aún más si cabe en las empresas del sector turístico. En este trabajo tratamos de profundizar en el conocimiento de las ventajas competitivas del sector hotelero de dos destinos turísticos a través del estudio de la utilidad que aportan a la demanda los diferentes productos ofertados. Mediante la aplicación de técnicas estadísticas de análisis conjunto y de simulación hemos obtenidos un modelo de aplicación en la toma de decisiones empresariales, y que permite reconocer no sólo el producto que, entre los ofertados, mayor valor aporta a la demanda de cada destino turístico sino la existencia de diferencias significativas entre destinos.


Palabras clave: Orientación al cliente; Ventaja competitiva; Productos hoteleros; Destino turístico; Análisis de conjunto


#### Abstract

The aspiration to know and to correspond to consumer expectations, supposes a continuous challenge that companies must confront and has become a central issue in an extant literature. There is ample agreement about the importance of consumer orientation for the competitiveness of companies. Businesses are faced with the need to satisfy customers today and to develop new products for the future. These requirements are accentuated in the tourist sector because they have a particular dependence on "tourist preferences". The aim of this paper is to contribute to this debate with the results of an analysis that seeks to deepen the knowledge of competitive advantages in the hotel sector of two tourism destinations by studying the utility that the different products offered provides to demand. By means of the application of the statistical techniques of conjoint analysis and simulation, we have obtained a model to apply to entrepreneurial decision-making that enables us to recognise the product that, among those supplied, most value provides to the demand of each tourism destination, as well as the observation of significant differences between those destinations.


Keywords: Customer orientation; Competitive advantage; Hotel products; Tourism destination; Conjoint analysis

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## Introduction

Aspiring to discover and correspond to consumer expectations is an on-going challenge faced by many present-day firms in their search for competitiveness. This capacity to offer and increase value for the customer is a critical factor, which is accentuated even more in firms within the hotel sector, where customer loyalty shows dynamic and volatile characteristics that require continuous, in-depth study of their expectations, motivations and preferences.

Slater and Narver (19982; 19993) point out differences between market-orientation and customer orientation, distinguishing between those businesses whose activities are entirely directed towards current demands (customer-led), and those whose activities focus entirely upon the future (market-led). In this regard, Connor (1999) ${ }^{4}$ argues that firms are always in the shortand long-term at the same time as they must survive in the short-term to ensure a long-term, and that it is inappropriate to think in terms of choice between customer and market orientation. Both approaches seek to provide an strategic alignment of organizations with the external environment.

The heart of much of the strategic management literature engages to strive for competitive advantage. The essence of strategy entails an attempt by a firm to achieve and sustain competitive advantage over other firms. This is why different approaches have developed around the concept of competitive advantage within the field of strategic analysis. The "Strategy Theory" (Andrews, 1971; Ansoff, 1980, Selznick, 1957) is concerned with the distinctive competencies in strategic processes, particularly in their relationship with the generation of competitive advantages and competitiveness. From this perspective, the competitiveness of the company will depend on the way in which it adjusts its resources to environmental conditions and on the strengths and weaknesses that it shows in connection with competition (Wernerfelt, 1984; Rumelt, 1991; Hunt, 1995). (See Figure 1)

The traditional industry analysis approach points that there are two compo-
nents to distinguish in every competitive strategy: the structure of the industry in which the firm evolves and the position of the enterprise within the industry (Porter 1980). The resource-based view of the firm points to the firm's unique resources, core competencies, and dynamic capabilities in a rapidly changing market as the real justifications of the differences in results in the same activity (Hansen and Wernerfelt, 1989; Rumelt, 1991; Wernerfelt and Montgomery, 1988; Barney, 1991 ; Prahalad y Hamel, 1990 ; Teece et al., 1997 ). While resources are the source of a firm's capabilities, these are the main source of its competitive advantage. Core Competencies evolve over time as the firm adapts to new circumstances and opportunities. (See Figure 2).

Finally, the marketing concept says that a firm's purpose is to discover needs and wants in its target markets and to satisfy those needs more effectively and efficiently than competitors. What establishes a firm's competitive advantage, and has therefore become a critical factor for its long term success, is the ability to serve customers' present and future needs; it is the firm's awareness and fulfilment of customers' evolving needs that nurture and validate their ongoing relationship with the customer (Kandampully and Duddy, 1999:51). This is especially important in the hotel sector, where customer loyalty shows dynamic and volatile characteristics, which demands an on-going, in-depth study of their expectations.

The adjustment between supply and demand in the hotel sector increases in complexity owing to the fact that some components of what is perceived and expected by the customer as the product are not merely one but the combination of a variety of products, partly outside the hotel's control. The value of an accommodation service is also influenced by facilities and attractions offered by the tourism destination in which the hotel is located, which are a part of customer expectations and experiences. Therefore, the need arises for a systematic approach, which includes a group of interrelated elements where some properties of the system are additions of an individual nature, while others are holistic,
a result of the relation between the parts
(Oreja, 2000) (See Figure 3).


Figure 1. Schematic of the Resource-Advantage Theory of Competition Source: Adapted from Hunt(1995)


Figure 2. The Relationship between the resources and capacities of the firm and competitive advantage. Source: Adapted from Barney (1991).

## The Hospitality sector in the Canary Islands

With just over $2,000 \mathrm{~km}^{2}$, Tenerife is the largest of the Canary Islands and is internationally known as the island of eternal spring, owing to its climate of mild all-year-round temperatures, especially in the coastal area where the tourist resorts are located. The island economy is fundamentally based on the services sector, and tourism is considered to be the driving force behind the economy. The Tourism contribute of over $76.7 \%$ the Gross Added Value (GVA) in 1996 in the Canary Islands. There is a fixed population of around 730,000 inhabitants, but Tenerife receives a large number of tour-
ists every year: in the year 2000, there were $4,730,425$ visitors (see Graph 1 ).

Throughout its history, Tenerife has been a destination for travellers and visitors, but it was mainly in the 1960's that tourism began to play a significant economic and quantitative role.

At first, tourism was located mainly in the north of the island (Puerto de la Cruz), but in the 1980's the south of the island gained ground with the development of the necessary infrastructures (see Graph 2).

More recently, Tenerife has been confronted with increased competitiveness in tourism products and destinations, a
change in visitor expectations and habits, along with the concentration and restructuring processes to which the tourism business sector is being subjected. In particular within the hotel industry, the need has arisen for the analysis and awareness
of these trends, in order to adequately anticipate and respond to them. This may lead to an eventual reorientation of policies undertaken by both public and private institutions in relation to tourism development and management.


Figure 3. The Marketing Concept and his purpose to discover needs and wants in its target markets and to satisfy those needs more effectively and efficiently than competitors in the Hospitality Sector. Source: Own elaboration


GRAPH 1. Evolution of total number of tourists accommodated on the island of Tenerife. Source: Cabildo Insular de Tenerife (Tenerife Island Council). Receptive Tourism Statistics.


GRAPH 2. North zone South zone Island Total. Source: Cabildo Insular de Tenerife (Tenerife Island Council). Receptive Tourism Statistics. (*) The island is divided into 4 tourism zones.

## Research Methodology

This study applied a model of competitive analysis for tourism destinations and, in particular, for the hotel sector of these destinations, developed from the work of Oreja, 1998 and 2000; Melchior, Ramos and Jiménez, 2000; and Melchior, Parra and Ramos, 2000.

The research objective was to establish a model based on techniques of multivariant analysis with which to simulate the dynamic relations that occur between supply and demand in the hotel sector. The aim is to recognise and predict the product that contributes most utility to the demand of each destination analysed, and to discover the existence of significant differences in the competitive position of these tourist destinations, North zone and South zone of Tenerife. This study has been applied to two welldifferentiated tourism destinations on the island of Tenerife (Oreja, 1995; Melchior and Gutiérrez, 1995; Melchior, 1998).

The research was guided by two hypotheses:

- Hypothesis no. 1: The conjoint analysis technique enables us to observe the competitiveness of tourism destinations by studying the fit between the product offered and demand expectations.
- Hypothesis no. 2: The analytical model proposed enables the utilities from the different hotel products to be distinguished, and, with that, the competitive differences between and within tourism destinations.


## Methodology

In order to reach the objective put forward, we have used a group of statistical techniques denominated "Conjoint Analysis". This methodology allows us to calculate the structure of individual preferences or of a group of potential customers, bearing in mind that the consumer considers the product as a set of attributes (Green and Srinivasan, 1978). Hence, from the results, we can measure the extent to which the customer is prepared to sacrifice any of the attributes, in order to gain more benefits from another.

This methodology is applied by following a process that includes defining the problem to be solved, identification of the reference population, sample and questionnaire design, market simulation and conclusions.
THE MODEL: The model for the $\mathrm{r}_{\mathrm{i}}$ response for the $\mathrm{i}^{- \text {th }}$ card of a tourist is:

$$
r_{i}=\beta_{0}+\sum_{j=1}^{p} u_{j k_{j i}}
$$

Where $u_{j k}$ is the partial utility associated with the $\mathrm{k}_{\mathrm{ji}}$-th level of the j -th factor in the $i$-th card.

The competitive analysis was performed on two aggregation levels: first, the basic units for analysing the offer and, second, including the preferences and utilities experienced by demand in relation to the product received ${ }^{5}$.
COMPONENTS OF OFFER ANALYSIS:

- Accommodation and Services: This study is centred on the hotel offer on the island of Tenerife, the weight and distribution of which can be observed in Table 1. The island is statistically divided into four tourism areas, two of which are clearly outstanding (South zone and North zone) and which will be the object of our study.
- Price of the product/service: the study of prices is based on the price scale for restaurant services in a sample of hotels in Tenerife. The data is provided by the Cabildo Insular de Tenerife (Tenerife Island Council) and the Ministry of Tourism and Transport of the

Government of the Canaries (see Table 2). Price classification is a result of the interquartilic intervals of the series of prices offered in Tenerife.

- External Services: The standard offered by these services has been done by applying an analysis of the principal components to the data provided by the Ministry of Tourism and Transport of the Government of the Canaries, concerning the number of bars, restaurants and cafeterias existing in the different boroughs of Tenerife. Table 3 shows a classification of those affected by this study.
- Holiday Environment: while the South zone under study offers an almost exclusively beach environment, the North zone is not typically associated with beach tourism, but has the attraction of a much more varied landscape.

| Type of accommodation | Total Island (*) | North zone | South zone |
| :---: | ---: | ---: | ---: |
| $5^{*}$ | 5.174 | 1.052 | 3.545 |
| $4^{*}$ | 40.563 | 12.799 | 27.634 |
| $3^{*}$ | 23.727 | 4.595 | 17.996 |
| $2^{*}$ | 1.911 | 699 | 357 |
| $1^{*}$ | 946 | 311 | 388 |
| Total hotel places | 72.321 | 19.456 | 49.920 |
| Total non-hotel places | 94.521 | 13.051 | 79.447 |

TABLE 1. Distribution of the hotel offer on the island of Tenerife. (*) Total 4 tourism areas. Source: Cabildo Insular de Tenerife (Tenerife Island Council). Receptive Tourism Statistics 2001. Places referring to 01/01/2001

| Hotel Category | Breakfast Cost | Cost Half-board | Cost full board |
| :---: | :---: | :---: | :---: |
| $1^{*}$ | - | - | - |
| $2^{*}$ | Low | Low | Low |
| $3^{*}$ | Low | Low | Low |
| $4^{*}$ | High | High | High |
| $5^{*}$ | High | High | High |

TABLE 2. Hotel prices according to category Source: Cabildo Insular de Tenerife (Tenerife Island Council). Receptive Tourism Statistics 2001 and own elaboration.

| Borough | Area | No. <br> bares | No. <br> cafeterias | No. <br> restaurants | Factorial <br> score | External Services |
| :--- | :---: | :---: | :---: | :---: | :---: | ---: |
| LOS REALEJOS |  | 146 | 12 | 63 | $-0,07166$ | full |
| LA OROTAVA | North | 208 | 13 | 61 | 0,03823 | full |
| PUERTO DE LA CRUZ |  | 304 | 94 | 217 | 1,86372 | full |
| ARONA | South | 503 | 71 | 465 | 2,74385 | full |
| ADEJE | 217 | 68 | 308 | 1,67783 | full |  |
| SANTIAGO DEL TEIDE |  | 65 | 13 | 78 | $-0,13999$ | full |

TABLE 3. External services in the different boroughs of the island of Tenerife. Source: ISTAC (2001). Chart: Own elaboration.

| 2001 | Total island $\left(^{*}\right)$ | North zone | South zone |
| :--- | ---: | ---: | ---: |
| GERMANY | 818.564 | 238.662 | 453.199 |
| UNITED KINGDOM | 1.548 .065 | 93.668 | 1.496 .196 |
| SPAIN | 1.026 .009 | 478.979 | 343.736 |
| ITALY | 122.972 | 7.938 | 108.920 |
| FRANCE | 166.992 | 27.661 | 147.419 |
| OTHER COUNTRIES | 959.202 | 136.510 | 888.991 |
| TOTAL | 4.641 .804 | 983.418 | 3.438 .461 |

TABLE 4. Number of tourists per main nationality and tourism area. Source: Cabildo Insular de Tenerife (Tenerife Island Council). Receptive Tourism Statistics 2001

| Nationality | Maximum estimation error | $\begin{gathered} \text { No. Tourists } \\ \text { Sept 98-Aug } 99 \\ \hline \end{gathered}$ | Sample Size | Months | Sample Size |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Spanish | $\pm 3.81 \%$ | 963.073 | 160 | December | 33 |
|  |  |  |  | April | 49 |
|  |  |  |  | August | 78 |
| British | $\pm 3.69 \%$ | 1.531 .775 | 144 | December | 45 |
|  |  |  |  | April | 45 |
|  |  |  |  | August | 54 |
| German | $\pm 3.43 \%$ | 712.559 | 171 | December | 67 |
|  |  |  |  | April | 62 |
|  |  |  |  | August | 42 |
| French | $\pm 4.49 \%$ | 174.523 | 121 | December | 24 |
|  |  |  |  | April | 58 |
|  |  |  |  | August | 39 |
| Italian | $\pm 4.51 \%$ | 115.972 | 115 | December | 30 |
|  |  |  |  | April | 34 |
|  |  |  |  | August | 51 |
| Rest | $\pm 4.8 \%$ | 100.1956 | 86 | December | 44 |
|  |  |  |  | April | 27 |
|  |  |  |  | August | 15 |

TABLE 5. Sample of tourists interviewed (technical card)Source: Own elaboration.

COMPONENTS OF DEMAND ANALYSIS:

The reference population considered for this study is composed of tourists visiting the island of Tenerife. Table 4 shows the nationalities and areas studied.

Sample Design: the data collection process was undertaken with a sample of 797 tourists interviewed on their departure from the island, at the departure terminal of the Tenerife South International Airport (see Table 5).

The information collected through the survey included personal characteristics of the tourists interviewed and the product consumed, in addition to an ordered preference structure of the different op-
tions presented, ranging from 1 for the preferred option to 9 for the least preferred. The option design provided was the result of an orthogonal design based on the four factors considered as most determinant of the tourism product in Tenerife (see Table 6), with three levels for each.

These four factors are the result of applying a analysis of principal components to the 24 group characteristics considered by the Tenerife Island Council as representative of the products and services offered to tourists visiting the island (Jiménez and Ramos, 1995).

| Variable | COMP1 | COMP2 | COMP3 | COMP4 | COMP5 | Determining Factor | Eigenvalues | \% va- <br> riance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| QUALITY ACCOMMODATION | 0.79 | 0.06 | 0.15 | 0.08 | 0.10 |  | 3.607 | 15.029 |
| ACCOMMODATION TREATMENT | 0.75 | 0.31 | 0.06 | 0.05 | 0.02 |  | 3.607 | 15.029 |
| FOOD QUALITY | 0.69 | -0.03 | 0.15 | 0.19 | 0.13 | Accommodation and services | 3.607 | 15.029 |
| SERVICE ATTENTION | 0.66 | 0.39 | 0.09 | 0.10 | 0.01 |  | 3.607 | 15.029 |
| SATISFACTION/PRICES | 0.63 | 0.20 | 0.38 | 0.13 | 0.15 |  | 3.607 | 15.029 |
| OVERALL | 0.61 | 0.34 | 0.13 | 0.29 | 0.15 |  | 3.607 | 15.029 |
| SAFETY | 0.40 | 0.67 | 0.12 | -0.04 | -0.05 |  | 2.992 | 12.466 |
| LANDSCAPE | -0.02 | 0.65 | 0.05 | 0.21 | 0.08 |  | 2.992 | 12.466 |
| TOWN PLANNING | 0.15 | 0.64 | 0.12 | 0.41 | 0.10 | Holiday environment | 2.992 | 12.466 |
| TRANQUILLITY | 0.34 | 0.63 | 0.11 | -0.12 | -0.08 |  | 2.992 | 12.466 |
| PUBLIC HYGIENE | 0.20 | 0.61 | 0.13 | 0.10 | -0.09 |  | 2.992 | 12.466 |
| BEACH | 0.04 | 0.43 | 0.18 | 0.36 | 0.17 |  | 2.992 | 12.466 |
| INSTALLATION PRICES | 0.05 | 0.23 | 0.76 | 0.17 | 0.07 |  | 2.868 | 11.948 |
| BAR PRICES | 0.02 | 0.12 | 0.76 | 0.25 | 0.06 | Price | 2.868 | 11.948 |
| MEAL PRICES | 0.27 | 0.03 | 0.72 | 0.14 | 0.08 | Product | 2.868 | 11.948 |
| ACCOMMODATION PRICES | 0.40 | 0.07 | 0.66 | 0.07 | 0.12 | service | 2.868 | 11.948 |
| QUALITY TRANSPORT | 0.10 | 0.32 | 0.33 | 0.29 | 0.05 |  | 2.868 | 11.948 |
| NUMBER DISCOS | 0.12 | 0.01 | 0.16 | 0.83 | 0.02 |  | 2.589 | 10.787 |
| NUMBER BARS | 0.15 | 0.13 | 0.14 | 0.81 | 0.07 | External Services | 2.589 | 10.787 |
| QUALITY BARS | 0.17 | 0.25 | 0.36 | 0.59 | 0.02 |  | 2.589 | 10.787 |
| QUALITY INSTALLATIONS | 0.24 | 0.31 | 0.37 | 0.43 | 0.07 |  | 2.589 | 10.787 |
| CLIMATE | 0.11 | 0.08 | 0.11 | 0.07 | 0.90 |  | 2.572 | 10.716 |
| SUN | 0.11 | -0.08 | 0.07 | 0.05 | 0.88 | Climatic conditions | 2.572 | 10.716 |
| TEMPERATURE | 0.11 | 0.03 | 0.09 | 0.05 | 0.90 |  | 2.572 | 10.716 |

TABLE 6. Factors that determine the tourism product of Tenerife Source: Own elaboration

Kozak and Rimmington (1998) proposed a model grouping the most relevant characteristics of a tourism destination in the following components:

Attractions: environment, landscape, natural resources, climate, history, culture.

- Facilities and services: accommodation, restaurants and bars, transport, complementary leisure, commerce, etc.
- Infrastructure: water, energy, communication networks, health, safety, road, airport and maritime infrastructure, etc.
- Hospitality: courtesy, willingness to lend aid and assistance, attending complaints, etc.
- Costs: quality/price ratio for accommodation, restaurants, transports, shops.
In its survey, the Tenerife Island
Council identifies the components mentioned above through the twenty four variables shown in the first column in Table 6.

We should bear in mind that the relation between the variable and the different factors and their levels is explained by the following models (Ramos 1999): Table 7.

## Results

Table 8 shows the estimations of the partial utilities of each type of the four factors considered most determinant.

Measuring the level of the goodness-offit reached with the estimated model and the confidence in the results obtained was done with Pearson's r coefficients and Kendall's $\tau .{ }^{6}$ In both cases, significantly high correlation levels are reached between the data observed and the data derived from the estimated model. This can be understood as a high level of confidence in the inferences made from these models (see Table 9).

If we consider the factors as a whole, both the models obtained point to "accommodation and services" as being the most important for both tourism destinations, with a level of $34.84 \%$ and $37.75 \%$, respectively, followed in second place by the factor "holiday environment", with $29.97 \%$ and $27.10 \%$. In relation to the last two factors ("Price product/service" and "external services"), there are differences between both destinations (see Table 8 Importance box).

As for each of the factors and their types, the analysis produces the following results (see Table 8 Utilities box):
Holiday Environment: demand in the South zone shows a higher estimated preference for an exclusively beaching environment, as opposed to visitors to the North zone, who opt for a holiday environment of countryside and beach.

| O | HOLIDAY ENVIRONMENT | DISCRETE FACTOR |
| :--- | :--- | :--- |
| o | Accommodation and services | Positive linear factor |
| o | Price of the product/service | Negative linear factor |
| o | External services | Positive linear factor |

TABLE 7. Explanatory models of the relation between the different factors and their levels and the response variable. Source: Own elaboration.

| Factor | Level |  | lity |  | ance |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | SOUTH | NORTH | SOUTH | NORTH |
| Holiday environment | Beach <br> Countryside and Beach Countryside | $\begin{array}{r} 0.5869 \\ 0.3023 \\ -0.8893 \end{array}$ | 0.0728 0.3474 <br> - 0.4202 | 29.67\% | 27.10 \% |
| Accommodation and Services | $\begin{array}{\|l\|l\|l} \hline \text { 1 Star } \\ \text { 3 Stars } \\ 5 \text { Stars } \\ \hline \end{array}$ | $\begin{aligned} & 0.6459 \\ & 1.9377 \\ & 3.2295 \end{aligned}$ | $\begin{aligned} & \hline 0.7300 \\ & 2.1901 \\ & 3.6502 \\ & \hline \end{aligned}$ | 34.84\% | 37.75 \% |
|  | Coefficient | 0.6459 | 0.7300 |  |  |
| Price Product/Service | Low Medium High | $\begin{aligned} & 0.2630 \\ & 0.5260 \\ & 0.7890 \end{aligned}$ |  | 17.64\% | 17.13 \% |
|  | Coefficient | 0.2630 | -0.0399 |  |  |
| External Services | Minimum <br> Regular <br> Full | $\begin{aligned} & 0.2442 \\ & 0.4884 \\ & 0.7326 \end{aligned}$ | $\begin{aligned} & 0.2770 \\ & 0.5540 \\ & 0.8310 \\ & \hline \end{aligned}$ | 17.55\% | 17.84 \% |
|  | Coefficient | 0.2442 | 0.2770 |  |  |
| Constant |  | 2.0468 | 2.3357 |  |  |

TABLE 8. Estimations of the partial utilities of each of the types of each of the four factors considered to be most determinant. Source: Ramos (1999).

| South Zone |  | North Zone |  |
| :---: | :---: | :---: | :---: |
| Coefficient | Significance | Coefficient | Significance |
| Pearson: 0.983 | 0.0000 | Pearson: 0.975 | 0.0000 |
| Kendall: 0.833 | 0.0009 | Kendall: 0.833 | 0.0009 |

TABLE 9. Correlation between the data observed and the data derived from the estimated model Source: Own elaboration.

Accommodation and services: this factor shows a positive relation with the utility level reached by its types, so that the higher the category of accommodation and services, the higher the resulting utility. This increase in utility when passing from a lower to a higher level is observed to be more pronounced in the North zone.

Price of Product/Service: demand in the South zone reveals a positive relation between the price and utility variables achieved, in that the tourist is apparently willing to pay more for a product that provides better features. Contrary to this, visitors to the North zone are not apparently prepared to pay more and show a preference for lower prices.

External Services: this last factor shows a positive relation with the dependent variable utility in both tourist zones, so that there seems to be a preference for a higher standard of external services offered.

## CONTRAST OF THE RESULTS

At this stage of the research, we decided to discover the level of significance of the estimations of the partial utilities corresponding to each attribute level. With this aim in mind, a variance analysis was performed that compared the four tourist areas found in Tenerife: Puerto de la Cruz, Las Américas-Los Cristianos, Fañabé-Puerto Santiago-Los Gigantes and Costa del Silencio-Ten Bel. The first destination is in the north, while the other three are located in the south.

All the variation sources were significant, while in zone 3 "Fañabé-Puerto Santiago-Los Gigantes" and "Costa del Silencio-Ten Bel", both the price and the external services do not appear to have a significant influence on the variation of the preferences of tourists staying in that area.

In other words, these two factors appear to have much less influence on the preference structure of tourists staying in the two areas mentioned.

| Zone | Source | Sum of type III squared | Degrees of freedom | Quadratic average | Snedecor's F | Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Corrected model | 2302.75 | 8 | 287.84 | 52.54 | 0.00 |
|  | Intersection | 47200.01 | 1 | 47200.01 | 8616.19 | 0.00 |
|  | Price | 84.27 | 2 | 42.14 | 7.69 | 0.00 |
|  | Accommodation | 1919.27 | 2 | 959.63 | 175.18 | 0.00 |
|  | Surroundings | 215.83 | 2 | 107.91 | 19.70 | 0.00 |
|  | Ext. Services. | 83.39 | 2 | 41.69 | 7.61 | 0.00 |
|  | Error | 10304.23 | 1881 | 5.48 |  |  |
|  | Total | 59807.00 | 1890 |  |  |  |
|  | Corrected total | 12606.99 | 1889 |  |  |  |
| 2 | Corrected model | 4551.19 | 8 | 568.90 | 104.37 | 0.00 |
|  | Intersection | 92365.03 | 1 | 92365.03 | 16944.95 | 0.00 |
|  | Price | 71.65 | 2 | 35.82 | 6.57 | 0.00 |
|  | Accommodation | 3308.19 | 2 | 1654.09 | 303.45 | 0.00 |
|  | Surroundings | 957.28 | 2 | 478.64 | 87.81 | 0.00 |
|  | Ext. Services. | 214.08 | 2 | 107.04 | 19.64 | 0.00 |
|  | Error | 20113.78 | 3690 | 5.45 |  |  |
|  | Total | 117030.00 | 3699 |  |  |  |
|  | Corrected total | 24664.97 | 3698 |  |  |  |
| 3 | Corrected model | 1160.18 | 8 | 145.02 | 27.85 | 0.00 |
|  | Intersection | 19115.00 | 1 | 19115.00 | 3670.71 | 0.00 |
|  | Price | 8.80 | 2 | 4.40 | 0.85 | 0.43 |
|  | Accommodation | 975.85 | 2 | 487.92 | 93.70 | 0.00 |
|  | Surroundings | 168.87 | 2 | 84.43 | 16.21 | 0.00 |
|  | Ext. Services. | 6.66 | 2 | 3.33 | 0.64 | 0.53 |
|  | Error | 3936.82 | 756 | 5.21 |  |  |
|  | Total | 24212.00 | 765 |  |  |  |
|  | Corrected total | 5097.00 | 764 |  |  |  |
| 4 | Corrected model | 474.66 | 8 | 59.33 | 10.91 | 0.00 |
|  | Intersection | 9040.04 | 1 | 9040.04 | 1661.89 | 0.00 |
|  | Price | 3.17 | 2 | 1.59 | 0.29 | 0.75 |
|  | Accommodation | 358.11 | 2 | 179.05 | 32.92 | 0.00 |
|  | Surroundings | 104.77 | 2 | 52.39 | 9.63 | 0.00 |
|  | Ext. Services. | 8.61 | 2 | 4.30 | 0.79 | 0.45 |
|  | Error | 1909.30 | 351 | 5.44 |  |  |
|  | Total | 11424.00 | 360 |  |  |  |
|  | Corrected total | 2383.96 | 359 |  |  |  |

Table 10.Level of significance of the estimations of the partial utilities corresponding to each attribute level. Source: Own elaboration.

SIMULATION: Below are the profiles that we have simulated by way of example for each of the zones studied (see Table 11):

Thus, in the case of the North zone, the estimated preference level for this type of offer is $0.3474+2.9201^{-}$ $0.1197+0.5540+2.3757=6.0775$, which
represents an extremely high preference level, especially if compared with the range of scores where the highest value is 7.1643 and the lowest 2.8028. Nonetheless, owing to the fact that tourists staying in this zone showed a higher preference for lower prices, this simulation was
performed with a resulting utility level of 6.1573.

The simulation corresponding to the conditions of the South zone (see Table 10) shows an estimated preference level for this type of offer of $0.5869+2.5836+0.7890+0.7326+2.0468=6$. 7389, which is extremely high, in a scoring range where the highest value is 7.3848 and the lowest 2.799. Satisfaction with the offer in this zone is higher than that registered in the North zone.

CONTRAST OF THE FULFILMENT OF TOURIST EXPECTATIONS ACCORDING TO ACCOMMODATION ZONE

We consider comparing the average preference scoring of each group of tourists, staying in the north and south of the island, with the stimuli provided by the current offer in each of these zones. A higher preference would indicate greater fulfilment of customer expectations, since
customers show a higher degree of preference and, therefore, satisfaction.

$$
\begin{aligned}
& \mathrm{H}_{0}: \mu_{1}=\mu_{2} \\
& \mathrm{H}_{1}: \mu_{1} \neq \mu_{2}
\end{aligned}
$$

A priori, and bearing in mind the sampling data, tourists staying in the south zone of Tenerife reveal a higher average preference level towards the stimulus provided by the current offer in their area than do tourists staying in the north. Following is a table of results of the Variance Analysis. (See Table 13)

We can confirm the existence of significant differences in the average preference levels of the two tourist groups towards the respective offer profiles. Therefore, we may conclude that the south zone meets customer expectations to a greater extent than the north zone, since preference levels show this to be the case.

| SIMULATED PROFILES |  |
| :---: | :---: |
| NORTH ZONE | SOUTH ZONE |
| Environment of countryside and <br> beach | Beach environment |
| Hotel 4* | Hotel 4* |
| High prices | High prices |
| Regular external services | Full external services |

TABLE 11. Simulations for each of the zones studies. Source: Own elaboration.

| Accommodation <br> Zone |  |  |  |
| :--- | ---: | ---: | ---: |
| Average | Stand. Deviation | $\mathrm{N}\left(^{*}\right)$ |  |
| North | 5.69 | 1.86 | 210 |
| South | 6.20 | 2.03 | 587 |
| Total | 6.07 | 2.00 | 797 |

Table 12. The average preference scoring of each group of tourists staying in the north and south of the island. *N= Number of tourist interviewed. Source: Own elaboration

| Source | Sum of squared | Degree of freedom | Quadratic average | Snedecor's F | Sign. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Corrected model | 40.22 | 1 | 40.22 | 10.18 | 0.00 |
| Intersection | 21863.04 | 1 | 21863.04 | 5534.55 | 0.00 |
| ZONE | 40.22 | 1 | 40.22 | 10.18 | 0.00 |
| Error | 3140.47 | 795 | 3.95 |  |  |
| Total | 32500.08 | 797 |  |  |  |
| Corrected Total | 3180.69 | 796 |  |  |  |

Table 13.Results of the Variance Analysis. Source: Own elaboration

## Conclusions and implications

The empirical evidence available for studying the breach that exists between a tourism destination's supply and demand and their repercussions on the destination's competitiveness are somewhat inconclusive, since most of the studies undertaken are centred on partial theoretical models or experiments at specific tourism destinations. This article aims to analyse the effects of the definition of the tourist product offered by two different tourism destinations on their level of competitiveness as destinations. To this end, a theoretical framework is defined, which enables us to create an empirical model of tourist consumer behaviour at both destinations, by crossing tourist preferences with the product/service characteristics offered by the destination.

The demand at both destinations assessed is evaluated by the level of utility reached by the tourist through the tourism product/service consumption received or likely to be received, by measuring the product through "accommodation and services", "holiday environment", "price" and "external services". The preference structure of tourists visiting each of the destinations considered is calculated by a conjoint methodology, which facilitates the decomposition of the tourism destination's total utility into partial utilities of each attribute and the level of the attributes that define destination profile.

The sign and quantity of the parameters calculated in this model enable us to reach another series of conclusions about the preferred characteristics of the product consumed by tourists, which will subsequently influence the competitiveness of the destination. Specifically, the existence of a positive effect of the destination's accommodation, price and complementary service level category is corroborated over the utility of the tourist lodging in the South zone destination, while these same parameters reveal similarities regarding accommodation and services, but a negative effect where price is concerned. Nevertheless, given the level of importance attributed to price for establishing the utility in both destinations,
here is justification against using a pricing policy as a sole competitive strategy for both the destinations analysed.

From the results obtained, it can be concluded that these are two well differentiated destinations and that they are perceived as such by the demand. The main difference lies in the factors concerning the holiday environment perceived as different (beach in the South zone, beach-countryside in the North zone) and the price, with a preference for low prices in the North zone, as opposed to a willingness to pay higher prices in the South zone. This latter result has negative implications for the competitiveness of the North zone, as opposed to the South of the island, since, though in the first case there is a higher incremental utility of the product as the hotel category increases, the demand for this destination is not willing to pay for it.

This study has aimed to provide an initial approach to the development of a methodology that will facilitate a conjoint analysis for studying the complex adjustment between hotel offer and demand in a tourism destination, with a view to a more extensive, in-depth future study with the inclusion of other variables, which would provide more knowledge about them, thereby facilitating a basis for designing a competitive hotel product at a specific destination.

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## NOTAS

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${ }^{2}$ Slater, S.F. and J.C. Narver (1998): Cos-tumer-led and market-oriented: Let's not confuse the two. Strategic Management Journal, 19: 1001-1006.
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5 The term "card" refers to the format chosen, so as to present the tourists interviewed with the various alternatives of products for them to then place in order of preference. This is as follows: since the method chosen for this stage was the full profile, the card contains a theoretical alternative to the product chosen by the interviewee. Conjoint analysis methodology is a decompositional method, and, unlike other econometric models, is performed on an individual scale. In this way, the number of models obtained to explain the structure of preferences is the same as the number of tourists interviewed. Nevertheless, through a process of calculating the average partial utilities or coefficients of each product attribute type, it is possible to pass from an individual to a group scale, which is less useful and has less value, since it is an average.
${ }^{6}$ The ordinal nature of the measuring scale of the model-dependent variable, the tourist's preference level, obliges us to measure the goodness-of-fit of the actual model with Kendall's $\tau$ coefficient, since this coefficient measures the concordance between the preferences expressed by the tourists interviewed and those predicted by the model.
Pearson's r is always between -1 and +1 , where -1 means a perfect negative, +1 a
perfect positive relationship and 0 means the perfect absence of a relationship. Pearson's $r$ is symmetric. The correlation between x and y is the same as the correlation between y and x . Pearson's r is also referred to as the "bivariate correlation coefficient" or the "zero-order correlation coefficient. Word of caution: The correlation coefficient assumes that the relationship is linear.

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