

Research note

The segmentation of canary island tourism markets by expenditure: implications for tourism policy[☆]

F.M. Díaz-Pérez^{*}, M. Bethencourt-Cejas, J.A. Álvarez-González

Universidad de La Laguna, C/ Molinos de Agua, s/n, 38071 La Laguna, Spain

Abstract

The Canary Islands have an indisputable comparative and competitive edge within the European Union as regards their tourism products. The present study takes a segmented market approach to study the Canary Islands tourism market, featuring a range of tourism products, each of which satisfies to a greater or lesser extent the needs of one segment of demand. It has two objectives: firstly, to ascertain which segments of demand are currently acquired at destination and secondly, to identify within these segments the niches associated with the highest expenditure. This will enable us to draw up guidelines for a regional policy on product innovation that focuses on these niches and thus generates higher levels of local development.

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1. Introduction

In Spain, the seven Canary Islands—two larger and five lesser ones—still maintain their undisputable comparative and competitive edge within the European Union as regards their tourism products. The centrality of tourism to the economy of the Canaries¹ has led the local authorities to explore ways to maintain and improve the competitiveness of the Islands' products on national and international markets.

The present study takes a segmented market approach. It seeks to fulfil a two-fold objective: firstly, to ascertain which segments of demand are currently acquired at destination and, secondly, to identify within these segments the niches associated with the highest expenditure. The results will help in drawing up guidelines for a regional policy on product innovation that

focuses on the said niches and thus generate higher levels of local development.

With regard to Spanish holiday destinations, a number of studies have examined the aggregate tourist demand (Espasa, Gomez-Churruca, & Jareño, 1990; Aguiló & Juaneda, 2000). Ours, however, is the first to apply the specific criterion of segmentation by expenditure to a traditional Spanish holiday destination (the Canary Islands). The data were obtained from an empirical study carried out during 1999–2000.

2. Background

One criterion for tourism market segmentation is tourist expenditure. Various attempts have been made to segment the tourism market into different expenditure groups and to determine the characteristics of each group (Pizam & Reichel, 1979; Raaij & Francken, 1984; Woodside, Cook, & Mindak, 1987; Legohérel, 1998; Mok & Iverson, 2000; among others). Mok and Iverson, for example, segmented United States tourism to the Pacific island of Guam and found that tourists could be

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^{*}Corresponding author. Tel.: +34-922-31-70-84.

E-mail address: fdiazp@ull.es (F.M. Díaz-Pérez).

¹10,137,202 tourists holidayed in the Islands in 2001 (Canarian Institute for Statistics), five times the size of the population of the Canaries.

Table 1
Chi-square for the decision-tree levels

<i>First level</i>
<i>P-value:</i> 0.005
<i>Chi-square:</i> 6.9801
<i>Second level</i>
<i>P-value:</i> 0.005
<i>Chi-square:</i> 0.4219
<i>Third level</i>
<i>P-value:</i> 0.005
<i>Chi-square:</i> 1.0123

classified under three categories according to the level of expenditure. Indeed, the highest-spending group could be differentiated from the others in terms of age, party size, length of stay, purpose of trip, means of travel and spending pattern.

3. Empirical analysis

The sample size consisted of 795 interviews, with an error of $\pm 3.05\%$ and 95.5% reliability. The survey was conducted on the Spanish islands of Tenerife, Gran Canaria, La Palma, Fuerteventura and Lanzarote during 1999 and 2000. These are the archipelago's two most important islands and three of the lesser ones. Between them they account for virtually all tourism to the Canaries².

Sampling was conducted on two separate occasions (high and low season) in order to avoid the seasonality effect. On each, stratified sampling was carried out with random selection in each stratum. The type of accommodation and nationality were used as the stratification criteria in each stratum.

As has already been indicated above, the aim of the research is to find which of the sample's characteristic variables most accurately predict expenditure on the islands (expenditure at destination).

To this end, the variable "daily expenditure per tourist in destination" was chosen and subsequently divided into two, the mathematical average of the sample representing the dividing line. This gives a variable with two values (high and low spending) that can be predicted using nominal dependent variables.

Data in the study were analysed using decision-tree methodology and the CHAID program (Chi-squared Automatic Interaction Detection, Kass, 1980). This technique enables the relationship between a *criterion* variable and several predictor variables to be analysed.

²The difference between most important and lesser islands is based essentially on the major differences between the seven Canary Islands as regards population size and services available. The two most important (Tenerife and Gran Canaria) account for the vast majority of both categories.

The model uses chi-squared as a division criterion (Table 1).

This method is different to that used by Mok and Iverson (2000), referred to above, in order to segment United States tourism to the Pacific island of Guam. In our case, no nationality was pre-selected in order to verify the decisive role of the variable. The *criterion variable* chosen was the average daily expenditure of inbound tourists, while the *predictor variables* were nationality, island, gender, age, occupation, travelling alone or in company, plans to return for a holiday in the islands, type of accommodation and season.

On the basis of the results obtained, homogeneous groups of tourists can be differentiated, on the basis of daily expenditure at destination. Broadly speaking, they are identified by the nationality, occupation, type of accommodation, season and island variables.

Using the decision tree obtained through CHAID analysis (see Fig. 1), the first significant segmentation (chi .005) relates to nationality. Two contrasting segments emerge: Britons and Germans, with below-average expenditure, and other nationalities.

The average expenditure at the destination by the tourists in the sample was 40.1 euros. German and British holidaymakers had the lowest daily average, with a frequency of 588 tourists, while the other nationalities (Austrians, Norwegians, Swedes, Italians and Spaniards) presented an above-average expenditure and a frequency of 207.

This Britons–Germans group can be segmented a second time to significant effect, with different segments identified: a higher-spending segment comprising tourists staying in five-star hotels, holiday apartments or residential developments (36.1 euros, and a frequency of 356 interviewees) and a lower-spending segment comprising tourists who opt for lower-grade hotels and have a lower daily average expenditure per tourist (31.8 euros, frequency of 232). Within this Britons–Germans group a third level of segmentation can also be established by dividing the higher-spending group into two segments: high-season and low-season visitors (average spending being lower in the latter). In this third level of classification we can see how the Briton–German segment in lower-grade accommodation is split in turn into two segments: those holidaying on the most important islands (Tenerife and Gran Canaria) and those visiting the smaller islands. This last group presents the lowest average spending of the entire segmentation (28.2 euros). Taking these variables into account, the classification power of the previous segment (Germans and Britons) containing tourists with below-average expenditure, is 91% correct.

When we try to come up with a predictor pattern for the highest spending among the upper expenditure level, the only variables that afford an acceptable level of discrimination are nationality, occupation and

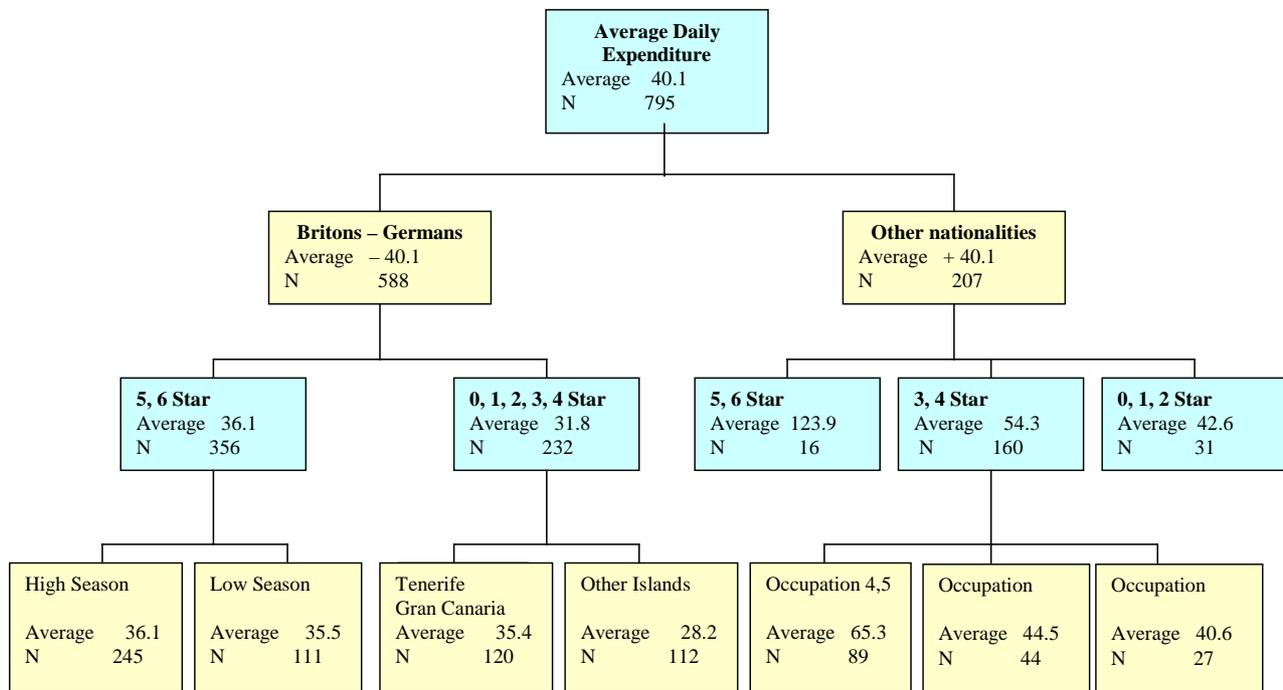


Fig. 1.

type of accommodation. The predictive power for this above-average expenditure segment is not very high, its correct classification power being at best 63%, a figure that diminishes as we move down the branches.

In the second segment corresponding to the highest level of expenditure, the first resulting classification enables three segments of tourists to be distinguished, depending on accommodation type: (a) five-star hotels, holiday apartments or residential developments, (b) three- and four-star hotels and (c) lower-grade accommodation. The average expenditure for these three segments is considerably higher than the average that gave us our first level of classification: specifically, for segment one (top of the range accommodation), 123.6 euros per tourist per day; for segment two 54.3 euros (tourists in middle-range accommodation); and, lastly, 42.6 euros for tourists staying in lower-grade accommodation.

In this respect it is striking to note that, of the three, the lowest-spending segment (42.6 euros), despite staying in low-grade accommodation, these tourists spend more on average than German and British tourists staying in higher-quality accommodation (36.1 euros).

Occupation is the second classification that can be carried out for this highest-average expenditure segment. Three segments can be distinguished: (a) occupations at the upper end of the employment scale and generally offering the highest incomes; (b) occupations in the middle range of the employment scale, tending to offer average levels of income; and (c) occupations at the lower end of the employment scale. In this second level

of classification within the highest-expenditure group, important differences in average spending are also seen, particularly in the case of the first segment (jobs at the upper end of the scale in the country of origin), where average expenditure per tourist in destination is 65.3 euros, compared to 44.5 and 40.6 euros for the other two segments, respectively.

4. Tourism product diversification policy

As stated above, a number of criteria can serve to segment tourism demand. With regard to the characteristics of tourists, the most relevant criteria are nationality and occupation, while on the tourism products side accommodation type is the most relevant. As far as the characteristics of the destination are concerned, the season and the type of island (larger or lesser) are the most important.

In the light of these results, a tourism policy for the Canary Islands should prioritise services representing the core of highest-demand products. At the same time, it should direct tourism offers (and the promotion thereof) increasingly towards tourists other than Britons and Germans, those with a preference for higher-grade accommodation and visitors of higher professional standing.

Our research highlights the need for a study focusing exclusively on nationalities other than Britons and Germans in order to more fully gauge the aspects influencing their expenditure. It is important to identify, for example, the role played by season, in view of the

fact that the bulk of visitors to the Canaries (Germans and Britons) spend least in low season (summer). Put another way, the objective is to target and consolidate a high-spending segment of low-season visitors to the islands. Also, appropriate would be a study centred on the smaller islands, given the lower expenditure found there.

In conclusion, to improve levels of competitiveness in the Canaries' tourism production, continuous research is necessary to indicate which markets should be targeted by promotion campaigns and which image should be projected for the range of available products. Clearly, this market research should then be reflected on the supply side, thus ensuring that the range of tourism services required to cater for the needs of tourists is structured and planned adequately. In short, this research should ideally be along the lines of a system of innovation applied to tourism activity (Alvarez-González & Díaz-Pérez, 1996), all the more so given the tourism industry's major sensitivity to change, be it political, economic and even in latest fashions (Pearce, 2000).

References

- Alvarez-González, J. A., & Díaz-Pérez, F. M. (1996). Technology parks as instruments of regional economic development: Theoretical Basis. *Australasian Journal of Regional Studies*, 2(1), 87–97.
- Aguiló, E., & Juaneda, C. (2000). El gasto turístico en destinos de turismo de masas. *Annals of Tourism Research*, 2(2), 250–263.
- Espasa, A. Gomez-Churruca, R., & Jareño, J. (1990). Un análisis econométrico de los ingresos por turismo en la economía española. *Banco de España, Documento de Trabajo* 9003.
- Kass, G. (1980). An exploratory technique for investigating large quantities of categorical data. *Applied Statistics*, 29(2), 119–127.
- Legoherel, P. (1998). Toward a market segmentation of the tourism trade: Expenditure levels and consumer behavior instability. *Journal of Travel and Tourism Marketing*, 7(3), 19–39.
- Mok, C., & Iverson, T. J. (2000). Expenditure-base segmentation: Taiwanese tourists to Guan. *Tourism Management*, 21, 299–305.
- Pearce, D. G. (2000). Tourism plan review: methodological considerations and issues from Samoa. *Tourism Management*, 21, 191–203.
- Pizam, A., & Reichel, A. (1979). Big spenders and little spenders in US tourism. *Journal of Travel Research*, 18(2), 42.3.
- Raaij, W. V., & Francken, D. A. (1984). Vacation Decisions, Activities and Satisfaction. *Annals of Tourism Research*, 11(1), 101–112.
- Woodside, A. G., Cook, V. J., & Mindak, W. (1987). Profiling the heavy traveller segment. *Journal of Travel Research*, 25(3), 9–14.