© *Investigaciones Regionales. 14 – Páginas 5 a 26*
Sección ARTÍCULOS

Investigaciones Regionales

Tourist satisfaction indices. A critical approach

Joaquín Alegre and Jaume Garau*

ABSTRACT: In literature, analyses can be found of the competitiveness of international tourist destinations, based on tourist satisfaction with different attributes. However, most of these analyses do not use one single measure to make a global assessment, which makes it difficult to compare destinations. The aim of this paper is twofold. First, some alternatives that can be used as a synthetic index of tourist satisfaction are discussed. Second, the indices that are proposed are used to analyse a group of rival destinations for the European sun and sand tourism market. From the results that are obtained, the advantages of each of the proposed indices are discussed.

JEL classification: L83, C43.

Key words: Tourist satisfaction; destination competitiveness, tourist satisfaction index.

Índices de satisfacción turística. Una aproximación crítica

RESUMEN: El análisis de la competitividad entre destinos internacionales basándose en la satisfacción que los turistas hacen de diferentes atributos ha sido desarrollada anteriormente en la literatura. Sin embargo, la mayoría de estos análisis no emplean una única medida de valoración global, lo que dificulta la comparación entre destinos. El objetivo del presente trabajo es, en primer lugar, discutir algunas de las alternativas que pueden utilizarse como índice sintético de satisfacción de los turistas. En segundo lugar, los índices propuestos son empleados en un grupo de destinos competidores en el turismo europeo de sol y playa. A partir de los resultados obtenidos se discuten las ventajas de cada uno de los índices de satisfacción propuestos.

Clasificación JEL: L83, C43.

Palabras clave: Satisfacción turística, destinos competitivos, índice de satisfacción turística.

* *Dirección para correspondencia:* University of the Balearic Islands, Department of Applied Economics. Gaspar Melchor de Jovellanos. Cra. De Valldemossa, km 7.5- 07122 Palma (Illes Balears). E-mail: joaquin.alegre@uib.es.

Joaquín Alegre and Jaume Garau acknowledge financial support from SEJ2007-65255 and SEJ2004-06649 projects, respectively. The authors thank Dr. Llorenç Pou for his helpful comments

Recibido: 4 de junio de 2008 | Aceptado: 27 de enero de 2009.

1. Introduction

In literature on tourism, a wide range of factors are acknowledged to contribute toward destination competitiveness, including price-related factors (Dwyer, Forsyth, & Rao, 2000; Papatheodorou, 2002; Mangion, Durbarry, & Sinclair, 2005) and others not related with prices (Crouch & Ritchie, 1999; Dwyer & Kim, 2003). Unlike most other products, a tourist destination is a mixture of products and experiences that combine to create a unique experience (Murphy, Pritchald, & Smith, 2000). That is why some authors use tourist assessments of a destination, either overall assessments or assessments of its different attributes or characteristics, as a basis to measure competitiveness (Zairi, 1996; Kozak, 2004). These assessments can easily be obtained by conducting surveys. Although tourist satisfaction is a personal judgement, it does provide crucial direct information about a destination's performance.

An analysis of the competitiveness of international destinations, based on tourist assessments of different attributes (measured according to the tourists' level of satisfaction, for instance), has been made by Goodrich (1978), Haahti and Yavas (1983), Haahti (1986), Pearce (1997), Kozak and Rimmington (1999), Huang, Beaman, and Shelby (2002), Kozak (2003, 2004) and Enright and Newton (2005). However, in these studies, no single global index of assessment was used, which makes it difficult to compare destinations. The aim of this paper is, firstly, to discuss some alternatives that can be used as a synthetic index of tourist satisfaction. Although asking direct questions on the global satisfaction of the consumers is a quicker and easier method, it also has an inconvenience: the loss of information about the partial attributes of the destination. Whereas indexes that include information about the different aspects of the destination must be synthesised. The problem is what criterion is used when weighing up the importance of the attributes: Direct information given explicitly by the tourist or information obtained implicitly? A priori, neither of the options is clear enough for us to decide on one or the other.

Secondly, the indices that are proposed are applied to analyze a group of rival destinations for the European sun and sand tourism market. The destinations that were compared all compete with the Balearic Islands, one of the Mediterranean's leading sun and sand destinations.

The rest of the paper is organized as follows. Firstly, some satisfaction indices that facilitate a comparison of rival destinations' performances are discussed. Secondly, a description is made of the procedure that was used to compile information to draw up the indices and to identify the destinations that compete with the Balearic Islands for the European sun and sand tourism market. Thirdly, a summary and discussion of the results of the proposed indices is presented, highlighting their advantages and disadvantages. Lastly, an outline is made of the main conclusions.

2. Satisfaction indices

The main aim of this section is to outline some alternatives that can be used to synthesize information on tourist satisfaction taken from tourist surveys. Basically, sur-

veys of tourist satisfaction measure overall satisfaction and satisfaction with a set of attributes that represent the main characteristics of a destination. The most common way of obtaining this kind of information is to use an ordinal scale as a means of rating satisfaction levels.

2.1. Overall satisfaction index

A basic satisfaction index can be defined by using tourists' declared overall satisfaction, rated on an ordinal scale. In this case, an index can be estimated for a destination almost immediately, since all that is needed is to obtain the sample mean out of the values given by the interviewees. In the surveys, a Likert scale is usually used to define this variable, taking values that range from 1 (not at all satisfied) to 5 (very satisfied). By estimating the mean value of this variable for a set of rival destinations, it should be possible to ascertain each one's relative competitive position.

The main advantage of drawing up an overall satisfaction index is the ease with which it can be estimated. Nonetheless, this option involves ignoring partial assessments of the destination's set of attributes. Its efficiency is therefore dependent on the validity of the following hypotheses: (1) overall satisfaction is successful in summarizing the performance of a destination's joint set of products and services and/or (2) what is truly relevant for a destination is the overall satisfaction that is generated (Yüksel & Rimmington, 1998). From the available empirical evidence (see, among others, Oh, 2001; Fuchs & Weiermair, 2004; Enright & Newton, 2004, 2005; Füller, Matzler, & Faullant, 2006), overall satisfaction is not evenly related with satisfaction with different attributes. In this respect, the data that overall satisfaction with a destination offers does not substitute the more detailed data regarding satisfaction with the destination's attributes.

2.2. Weighted satisfaction indices

Some authors (Kozak, 2003, 2004; Kozak & Rimmington, 1999, 2000) have analysed destination competitiveness by comparing satisfaction ratings of a set of factors relating to the destinations. This alternative is not without problems. Firstly, it is hard to make a comparison when the number of destinations and attributes under consideration is high. Secondly, not all attributes have the same importance for tourists and, by extension, the same impact on their overall assessment of the product. An alternative is to use one single measure of satisfaction by weighting partial satisfaction ratings. More specifically, this index could take mean values to weight the attributes according to their importance. In order to use this index not only are satisfaction ratings required for each attribute, but also an assessment of each attribute's importance. Depending on the weights used, two possible indices have been proposed (Chu, 2006).

The first option is based on tourists' self-stated importance with the attributes. The declared importance that tourists lend the different attributes is defined in literature as explicit importance. By conducting a survey, the interviewees can be asked to rate (on an ordinal scale) the importance that each attribute has in helping them choose a holi-

day destination. A weighted index, where the explicit importance of each attribute is used to weight satisfaction can be defined as (Bhote, 1998; Chu, 2006):

$$\frac{\sum_{j=1}^{J}\left(I_j \cdot S_j\right)}{\sum_{j=1}^{J}\left(I_j \cdot Máx_j\right)} \cdot 100\% \qquad [1]$$

where J represents the number of attributes; I_j is the importance that is given to the *j-th* attribute; S_j is satisfaction with attribute *j*; and $Máx_j$ is the highest possible value on the scale used to rate satisfaction. The index therefore measures the level of satisfaction that is achieved when the attributes are assessed, expressed as a percentage of the maximum possible value.

A second option is to use as a weighting system a measure of derived importance (Anton, 1996; Chu, 2006). This is obtained by assessing the impact that satisfaction with an attribute has on an objective variable, such as the likelihood of a return visit by the tourist or overall satisfaction with the stay. For the latter, the values of the weightings are the partial correlation coefficients or the *beta* coefficients of the impact of satisfaction with an attribute on overall satisfaction. Usually, the coefficients are obtained by estimating the standardized coefficients of a regression model with declared overall satisfaction as the endogenous variable. Consequently, the index can be defined as:

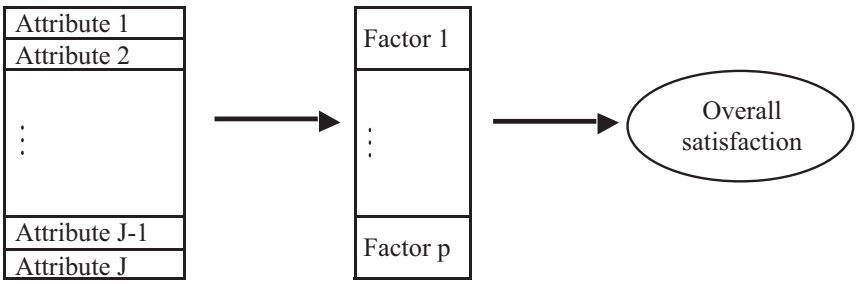
$$\frac{\sum_{j=1}^{J}\left(\beta_j \cdot S_j\right)}{\sum_{j=1}^{J}\left(\beta_j \cdot Máx_j\right)} \cdot 100\% \qquad [2]$$

where the $beta_j$ values correspond to the estimations of the standardized coefficients of the *j* attributes.

In practice, given the probable existence of superfluous data when information is gathered on the destinations' different attributes, the original variables are combined (by means of a factor or principal components analysis) to reduce the number of variables. With this method, it is therefore necessary to detect a limited number of factors that are common to the satisfaction ratings. The weighting coefficients are obtained by performing a regression between overall satisfaction and the factors or principal components retained (see Figure 1). Alternative, assessments of satisfaction with the attributes correlated with the same factor can be averaged and included as predictor variables in the regression model.

Notice that if these indices are to be used to compare different destinations, identical weightings must be used for all of them so that the (implicit or explicit) importance that is lent to the attributes is the same for all destinations. As a result, any variance in the results of the index can only be attributed to the satisfaction ratings of the different attributes and destinations.

Figure 1. Derived-importance approach



2.3. Index of predominance

An alternative that has not been considered to date is an index that summarizes a destination's superior (or inferior) position when the mean values of satisfaction with the different attributes are compared. This index is based on comparing the satisfaction ratings of different attributes. A comparison is made between each destination and its rivals, counting the number of times that the reference destination achieves a higher (or lower) average rating for each attribute. For each destination, the index summarizes comparisons of its mean values with those of the rest of destinations. If we consider n destinations, for each attribute j the mean values can be compared on n-1 occasions. When two destinations are compared, one of them can achieve better (or worse) results on a maximum of J occasions. This information can be summarized for each destination by estimating the following index:

$$\frac{(A - C)}{(n - 1)} \cdot 100\ \% \qquad [3]$$

where A represents the number of comparisons in which the destination does better (i.e. the number of attributes for which it obtains a higher mean satisfaction rating), C represents the number of comparisons where the destination does worse (i.e. it achieves a lower mean satisfaction rating), n represents the number of destinations and J is the number of attributes that are compared. Consequently, the denominator of the index shows the total number of comparisons that are made, while the numerator shows the final balance of all the comparisons (those where it does better and those where it does worse). The index ranges in value from –100 (meaning that, in all comparisons, the destination achieves a lower mean rating) to 100 (meaning that, in all comparisons, the destination achieves a higher mean rating). In the case of the intermediate value, 0, the destination would do better and worse on an equal number of occasions.

To prevent small differences in the mean ratings from affecting the index, it is advisable for only statistically significant differences to be included. For this regard, equality tests of the mean ratings can be performed for each of the attributes that are assessed, taking the destinations in pairs. The sequence of the null hypotheses that are

tested would be as follows, taking as an example attribute *j* and a comparison of the Balearic Islands with all the other destinations:

$$\begin{aligned} &H_0 : \mu_{j,Balearics} = \mu_{j,Spain} \;;\; H_A : \mu_{j,Balearics} \neq \mu_{j,Spain} \\ &H_0 : \mu_{j,Balearics} = \mu_{j,\text{Canary islands}} \;;\; H_A : \mu_{j,Balearics} \neq \mu_{j,\text{Canary island}} \\ &\vdots \\ &H_0 : \mu_{j,Balearics} = \mu_{j,Caribbean} \;;\; H_A : \mu_{j,Balearics} \neq \mu_{j,Caribbean} \end{aligned} \quad [4]$$

When the index is calculated, none of the comparisons in which the hypothesis of equal means is not rejected is included in it. In this version, a statistic with a value close to zero would indicate that the ratings for the destination are not significantly different from those of its rivals.

3. Data

3.1. The survey

One of the aims of this paper is to compare the competitive position of destinations that compete with the Balearic Islands for the same segment of the European sun and sand market. To determine which destinations should be included as rivals, European tourists who had just completed a holiday in the Balearic Islands were taken as a reference. The data analyzed was obtained from interviews with German, British and Spanish tourists at the end of their holiday in the Balearic Islands. These three nationalities account for 81% of tourism to the Balearics (Govern de les Illes Balears, 2006). The surveys were conducted at Palma Airport between July 15th and August 25th 2006 at the boarding gate while the tourists were waiting to catch their flight. The selection process for the sample was a random one, based on information about departures and boarding gates for all flights scheduled to take off during the period the survey was carried out as notified by the airport authorities. A maximum of three interviews was conducted for each flight. In the end, 2,247 tourists were interviewed. Several filters were applied to the data set. Firstly, observations from tourists owning their own villa or apartment in the Balearics were excluded, since their answers could seriously condition the results. Secondly, in order to avoid other atypical forms of tourism, tourists who declared a very low per capita daily expenditure (i.e., below the 0.5th percentile) or very high expenditure (i.e., above the 99.5th percentile) were also eliminated. The sample that was finally used comprised a total of 1,786 tourists.

The questionnaire was divided into four parts. The first part contained thirteen questions about the tourists' socio-demographic characteristics and certain features of the trip. Likewise, they were asked which sun and sand destinations they had spent their summer holidays at during the last three years (2004, 2005 and 2006). The answers to this last question were used to define the set of rival destinations that compete with the Balearic Islands. In the second part of the survey, the tourists were asked about their motivations in choosing the sun and sand destinations they had cited. The

interviewees were asked to rate the importance of a total of 24 (tangible and intangible) attributes of sun and sand destinations as motivations in choosing a destination. These attributes were rated on a 5-point Likert scale ranging from 1 ("not at all important") to 5 ("very important"). In the third part of the survey, the tourists were asked to rate their satisfaction with the same 24 attributes for their recent holiday in the Balearic Islands and for each of the sun and sand destinations they had visited in the two summers prior to that. The 24 factors were rated on a scale ranging from 1 ("not at all satisfied") to 5 ("very satisfied")[1]. Using the same scale, the interviewees were asked to rate their overall satisfaction with the destinations visited. Lastly, a final question in the survey asked them which destinations they were most likely to spend their holidays at during the next two or three summers (citing up to a maximum of 3 alternatives). A brief description of some of the socio-demographic characteristics and features of the trip declared by the tourists is given in Table 1.

Table 1. Selected characteristics of the survey respondents

Nationality	**%**	**Education**	**%**
German	39.88	No completed studies	1.16
British	41.39	Primary school education	3.60
Spanish	18.74	Secondary school education	38.05
Total	100	Non-university post-school studies	22.12
		University studies	31.55
Age		Not known/No answer	3.52
18- 29	20.45	Total	100
30-44	34.88		
45 – 59	34.88	**Accommodation**	
60 or over	9.80	Hotel	70.39
Total	100	Rented apartment/villa	11.00
		Own apartment/villa	5.34
Income		Home of friends/relatives	8.55
No income	8.06	Rural tourism	1.78
Less than 12000 euros	4.50	Another	2.94
12000 – 21000	10.55	Total	100
21000 – 30000	13.54		
30000 – 39000	17.76		
39000 – 48000	13.18	**Package holiday**	
Over 48000 euros	14.65	Yes	68.90
Not known/No answer	17.76	No	31.10
Total	100	Total	100

3.2. Rival destinations

As Enright and Newton point out (2004, 2005), tourist destinations are not competitive or non-competitive in the abstract, but only in relation to other destinations. The

[1] The Cronbach's Alpha statistic has been calculated as a measure of reliability of the satisfaction items. The statistic has been calculated individually for each of the destinations. All of the values obtained are over 0,89, with the exception of Morocco, with a resulting value of 0,7.

concept of evoked set (Howard, 1963; Howard & Sheth, 1969) refers to the brands that become alternatives to the buyer's choice decision. In the context of tourism, the evoked set is defined as the destinations which a traveler is considering as probable destinations within some period of time (Um & Crompton, 2000). Potential tourists choose from a limited number of destinations (Kozak & Rimmington, 1999; Sirakaya & Woodside, 2005; Um & Crompton, 1990, 2000).

From the survey, it is possible to ascertain which sun and sand destinations compete with the Balearic Islands. Two questions were used for this purpose. The first is the question that asked which holiday destinations they had visited during the last three years[2]. The second question is the one in which the interviewees were asked to say which holiday destinations they would very probably visit during the next two or three summers.

Table 2 shows the percentage-based answers to the two previous questions. The main coastal destinations that the tourists had visited during the last three years (in addition to the Balearics) were mainland Spain, the Canaries, the Italian coast, France, Greece, Turkey and the Caribbean. It could easily be assumed that these destinations would also be chosen as holiday destinations in the next two or three years. From the answers to the second question, however, the main differences were the inclusion of Egypt in this probable set and a reduction in the percentage of interviewees who chose France as a future holiday destination.

In the empirical analysis that was performed in continuation, only those destinations whose relative weight guaranteed the representativeness of the data were chosen. As a result, as well the Balearic Islands, the following sun and sand destinations were selected: mainland Spain, the Canaries, France, Italy, Greece, Turkey and the Caribbean.

Table 2. Rival destinations

	Destinations in 2004-2006 (excluding the Balearics)			*Future destinations in 2007-2009*	
	Whole sample	*First-time visitors*		*Whole sample*	*First-time visitors*
			Balearics	22.91	16.57
Mainland Spain	26.04	26.75	Mainland Spain	10.10	9.86
Canaries	19.24	20.52	Canaries	10.29	9.74
France	10.54	11.86	France	4.51	4.25
Italy	10.85	12.90	Italy	7.76	7.76
Croatia	2.26	2.51	Croatia	1.69	1.91
Greece	10.18	9.18	Greece	8.93	9.74
Tunisia	2.82	1.82	Tunisia	1.69	2.53
Turkey	6.10	2.94	Turkey	3.17	3.51
Egypt	2.78	2.16	Egypt	4.81	7.46
Morocco	0.42	0.35	Morocco	0.55	0.74
Bulgaria	2.22	1.65	Bulgaria	0.93	0.86
Caribbean	6.55	7.36	Caribbean	9.75	12.20
Total	100.00	100.00	Others	11.71	11.52
			None	1.20	1.36
			Total	100.00	100.00

[2] As commented above, the interviewees were then required to rate their satisfaction with these destinations.

4. Results

4.1. Overall satisfaction index

As commented above, this index is the sample mean of the tourists' overall satisfaction with their stay. In the survey that was conducted, the scale for this variable ranged from 1 (not at all satisfied) to 5 (very satisfied). To make it easier to compare this index with the other indices, the scale for this variable was modified to take values ranging from 1 to 100:

$$99\left[\frac{S-MIN}{MÁX-MIN}\right]+1 \qquad [5]$$

where *S* is the rating for overall satisfaction, *MIN* is the minimum value that this variable takes for all the interviewees and *MAX* is the highest value for the variable.

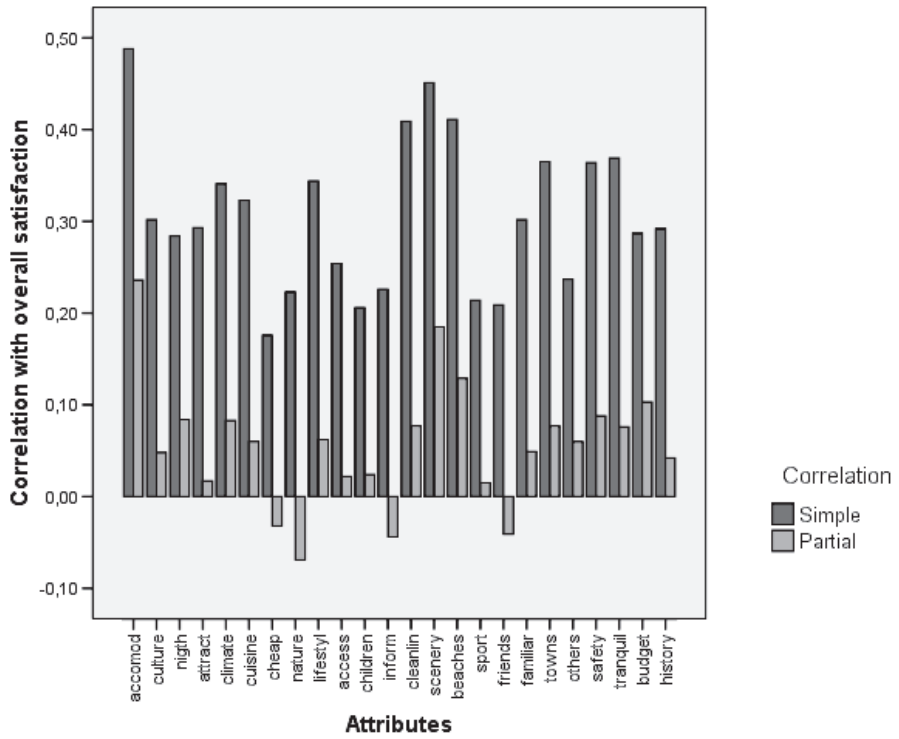
The results of the survey are shown in Table 3. As complementary information, the table also shows the frequency distributions of the satisfaction ratings for each destination. The results show that the Caribbean is the destination that achieves the highest value on this index, followed by the Balearic Islands and then France and Italy, Greece, the Canaries, and mainland Spain. The lowest value corresponds to Turkey.

Table 3. Overall satisfaction index

Destination	*Mean overall satisfaction (%)*	*Asymmetry coefficient*	*Frequency distribution for overall satisfaction (% row)*					
			1	*2*	*3*	*4*	*5*	*Counts*
Balearic Islands	81%	-0.91	0.5%	0.7%	8.9%	53.9%	35.9%	2,121
Mainland Spain (coast)	75%	-0.86	1.6%	1.1%	19.3%	49.6%	28.3%	559
Canaries	76%	-0.45	.0 %	1.6%	18.5%	55.1%	24.7%	498
France (Mediterranean coast)	78%	-0.82	.8%	1.2%	13.1%	55.8%	29.1%	253
Italy (coast)	78%	-0.43	.0 %	1.7%	15.1%	52.5%	30.8%	299
Greece	77%	-0.87	1.2%	2.7%	16.2%	47.7%	32.3%	262
Turkey	71%	-0.83	2.1%	3.4%	21.9%	52.1%	20.5%	147
Caribbean	89%	-2	1.1%	1.1%	8.2%	19.8%	69.8%	183
Total	79%	-0.86	.7%	1.2%	12.9%	51.6%	33.6%	

This index has some drawbacks. Firstly, as previously mentioned, empirical evidence shows that overall satisfaction is not evenly related with satisfaction with different attributes. Figure 2 shows the simple and partial correlation coefficients between overall satisfaction and satisfaction with each attribute, estimated using the answers for the whole set of destinations. The results show that the simple correlation coefficients are relatively low, with a maximum coefficient of 0.49 and a mean coefficient

Figure 2. Simple and partial correlation coefficients between overall satisfaction and satisfaction with attributes



of 0.31. In the case of the partial correlation coefficients, the maximum value is 0.24, with a mean value of 0.06. Consequently, information about overall satisfaction with a destination does not substitute information about particular satisfaction with its attributes. In fact, the coefficient of determination of the regression of overall satisfaction on satisfaction with the 24 attributes is only 47%.

The second drawback to using overall satisfaction as a measure is the fact that, when a high personal component is involved (as is the case of a holiday), there tends to be a clear negative asymmetry. Assessments of overall satisfaction with a destination tend to be conditioned by the activity that is carried out during the holiday, and considerable personal effort is made to ensure that a holiday is a success. In this sense, it is hard to know (1) to what extent a tourist's rating is attributable to the destination's good performance or to the personal effort they have invested in making the holiday a success, and (2) how the feeling of wellbeing that is associated with holiday and leisure time might bias the answer positively. Ryan (1996, 1997) has emphasized that tourists being motivated to have a "good time", will adopt strategies to achieve that goal. As the frequency distributions in Table 3 show, the highest frequencies for all the destinations correspond to high levels of satisfaction. The same table

shows the estimated asymmetry coefficients for the different destinations, all with negative values. Peterson and Wilson (1992) argue that given a skewed distribution, the arithmetic mean is no longer an appropriate measure of central tendency, since excludes considerable information about satisfaction. When the aforementioned data was used to obtain an index that compares the destinations' competitive positions, this asymmetric effect tends to reduce the index's discriminatory potential.

4.2. Explicit importance index

As indicated previously, to estimate the index, the following expression (2) was applied:

$$\frac{\sum_{j=1}^{J}\left(I_j \cdot S_j\right)}{\sum_{j=1}^{J}\left(I_j \cdot Máx_j\right)} \cdot 100\% \qquad [6]$$

weighting each assessment of satisfaction with an attribute according to its explicit importance. The results that were obtained are shown in Table 4. The index's highest mean value corresponds to the Caribbean (82%), followed by the Balearic Islands (80%). With the exception of Turkey, which obtained the lowest value (72%), the remaining destinations achieved similar values.

Table 4. Index weighted by explicit importance

Destination	*Mean*	*Median*	*Minimum*	*Maximum*
Balearic Islands	80%	81%	29%	100%
Mainland Spain (coast)	77%	78%	27%	100%
Canaries	77%	78%	45%	97%
France (Mediterranean coast)	78%	80%	43%	97%
Italy (coast)	77%	78%	28%	100%
Greece	76%	77%	42%	95%
Turkey	72%	73%	20%	98%
Caribbean	82%	85%	40%	100%

The results show that this index also fails in clearly discriminating the destinations' different competitive positions. In fact, to a certain extent, the index shares the same drawback as the index of overall satisfaction since it is based on partial indices which have a negative asymmetry in many cases. Further, this index can be criticized because it uses a variable (explicit importance) as a weighting that is highly correlated with satisfaction (Oh, 2001, p. 622; Yüksel & Rimmington, 1998, p.64). In this regard, the mean values, standard deviations and asymmetry coefficients of the satisfaction ratings and importance of the 24 attributes are shown in Table 5. The attributes that achieve the highest satisfaction and importance values are virtually the same

Table 5. Descriptive statistics of the satisfaction ratings and importance of the 24 attributes

Attributes	*Satisfaction*			*Importance*			*Correlation*
	Mean	*Standard deviation*	*Asymm.*	*Mean*	*Standard deviation*	*Asymm.*	
Accommodation	4.13	0.90	–1.02	4.23	0.92	–1.29	0.14
Cultural activities	3.53	0.94	–0.31	3.02	1.18	–0.27	0.34
Nightlife	3.68	1.02	–0.38	3.20	1.31	–0.33	0.41
Tourist/leisure attractions	3.51	0.91	–0.25	2.98	1.18	–0.26	0.39
Climate	4.35	0.81	–1.31	4.44	0.79	–1.72	0.22
Local cuisine	3.80	0.93	–0.59	3.67	1.04	–0.63	0.28
Cheaper destination	3.68	0.89	–0.32	3.30	1.10	–0.43	0.26
Contact with nature	3.45	0.94	–0.28	2.96	1.30	–0.20	0.45
Local lifestyle	3.56	0.88	–0.64	3.31	1.06	–0.46	0.25
Easy access	3.97	0.89	–0.75	3.81	1.03	–0.86	0.23
Facilities children/elderly	3.44	0.88	–0.75	2.82	1.49	0.04	0.41
Easy access info./easy holiday to arrange	4.09	0.92	–0.76	3.66	1.21	–0.72	0.38
Cleanliness & hygiene	4.06	0.86	–0.87	4.32	0.83	–1.14	0.13
Scenery	4.19	0.82	–0.96	4.36	0.81	–1.35	0.20
Beaches	4.11	0.95	–1.02	4.49	0.79	–1.84	0.19
Sports	3.38	0.84	–0.02	2.98	1.19	–0.18	0.37
Friends & relatives	3.43	1.00	–0.28	2.86	1.41	–0.00	0.45
Familiar destination	3.58	0.99	–0.51	2.97	1.37	–0.16	0.38
Interesting towns/villages	3.77	0.93	–0.56	3.64	1.02	–0.81	0.30
Getting to know other tourists	3.46	0.96	–0.31	3.01	1.24	–0.20	0.45
Safety	4.07	0.90	–0.95	4.31	0.83	–1.29	0.24
Tranquility	4.01	0.91	–0.85	4.09	0.97	–1.02	0.27
Prices in line with budget	3.94	0.82	–0.63	3.92	1.00	–0.82	0.25
Visits to historic sites	3.58	0.93	–0.37	3.24	1.18	–0.49	0.41

ones: accommodation, the climate, cleanliness and hygiene, the scenery, beaches, safety and tranquillity. Only easy access to information/an easy holiday to arrange has a high satisfaction value and an intermediate importance value. The correlation coefficients between the satisfaction and importance ratings are all different from zero, with a minimum value of 0.13 (cleanliness and hygiene) and maximum value of 0.45 (getting to know other tourists).

4.3. Implicit importance index

To draw up this index, firstly an analysis of the dimensionality of the data was needed. To do this, a principal components analysis was performed on the correlation matrix of satisfaction with the 24 attributes. Six principal components with an eigenvalue greater than one were retained, explaining 52.8% of the variance. A quartimax rotation was performed on these components. The correlation coefficients between

the variables and components with a value above 0.40 are shown in Table 6. As well as the variance explained by each component, *alpha* statistics for the variables with the highest correlation with each component are also presented. The first component is related to the main attributes that define a sun and sand product: cleanliness and hygiene, beaches, the climate, safety, accommodation, tranquillity and the scenery. The second component is related to social and leisure motivations, the third to cultural activities at the holiday destination and enjoyment of nature, the fourth to variables associated with accessibility and how easy the holiday is to arrange, the fifth to economic attributes, and, finally, the sixth to the cuisine and local lifestyle.

Table 6. Principal components

	Component					
	1	*2*	*3*	*4*	*5*	*6*
Cleanliness & hygiene	.640					
Beaches	.639					
Climate	.622					
Safety	.600					
Accommodation	.598					
Tranquillity	.587					
Scenery	.575					
Friends & relatives		.714				
Getting to know other tourists		.655				
Nightlife		.616				
Familiar destination		.520				
Sport		.518				
Tourism/leisure attractions		.513				
Visiting historic sites			.782			
Cultural activities			.687			
Interesting towns/villages			.644			
Contact with nature			.617			
Easy access				.693		
Facilities for children/elderly				.580		
Easy access to info./easy holiday to arrange				.579		
Prices in line with budget					.788	
Cheaper destination					.723	
Local cuisine						.693
Local lifestyle						.528
% EXPLAINED VARIANCE	12.90	11.00	10.80	6.67	5.74	5.72
ALPHA	0.762	0.785	0.752	0.673	0.62	0.61

From the detected structure of the principal components, six variables were defined. The new variables average out those attributes with a higher level of association with each of the components. Using these six new variables as exogenous variables, a regression was estimated with declared overall satisfaction as the endogenous variable. All the variables were previously rescaled as percentages of the highest possible

value (Chu, 2006). The coefficient of determination indicates a goodness of fit of 43%. As shown in Table 7 only the fourth average (associated with easy access and whether the holiday is easy to arrange) does not play a significant role in determining overall satisfaction. The rest of averages are highly significant, with the first average, associated with attributes characteristic of sun and sand destinations, having the greater effect on overall satisfaction.

Table 7. Beta standardized coefficients and significant levels

Variable	*beta*	*Sign.*
1	0.511	0.000
2	0.092	0.000
3	0.069	0.000
4	-0.010	0.470
5	0.052	0.000
6	0.093	0.000

From the above results, a weighted satisfaction index for each observation in the sample was constructed, and then the mean value of the index for each destination was calculated. The index for the six averaged values is:

$$\frac{\sum_{j=1}^{6} \hat{\beta}_j \cdot variable_j}{\sum_{j=1}^{6} \hat{\beta}_j \cdot Máx_j} \cdot 100\% \qquad [7]$$

where beta is the estimated standardized coefficient of the regression. Table 8 shows the values of the six variables for each destination (as a percentage of the highest possible value) and the value of the final weighted index, using the *beta* coefficients from Table 6 as weightings.

Table 8. Index weighted by implicit importance

Destination	*Variable means*						*Satisfaction index*
	1	2	3	4	5	6	
Balearic Islands	81%	64%	64%	73%	71%	68%	76%
Mainland Spain (coast)	76%	62%	63%	72%	69%	67%	72%
Canaries	78%	61%	61%	70%	69%	64%	72%
France (Mediterranean coast)	76%	62%	71%	71%	65%	69%	72%
Italy (coast)	76%	60%	70%	68%	65%	73%	73%
Greece	77%	59%	65%	67%	69%	68%	72%
Turkey	70%	56%	57%	59%	75%	59%	66%
Caribbean	86%	72%	73%	73%	70%	66%	80%

The results once again show the leading position held by the Caribbean, followed by the Balearics. The remaining destinations hold similar positions. As occurred previously, this index also shows a certain difficulty in clearly discriminating the performance of the different destinations.

The implicit importance index has certain drawbacks. Firstly, the quality of the index is dependent on factors of statistical goodness of fit, which varies according to the data that is used. For instance, the values of the alpha consistency statistics can invalidate the dimensionality reduction process. A second drawback is revealed by the low coefficient of determination of the regression from which the weighting coefficients are obtained. This is a typical result in this type of analysis, attributable to the limited explanatory capacity that the destination's attributes have in accounting for overall satisfaction. Literature on tourist satisfaction shows that numerous factors influence overall satisfaction, from tourist motivations to emotional issues like place attachment (Stokowski, 2002; Williams, Patterson, Roggenbuck, & Watson, 1992). This type of index is therefore more closely associated with the characteristics of the destination. However, it must be remembered that it can be relatively far removed from a measure of overall tourist satisfaction.

4.4. Index of predominance

The index of predominance compares the mean values of satisfaction with attributes, taking pairs of destinations. Although the index could be constructed without performing prior equality tests, the index must have a higher discriminatory power if only statistically significant differences are included. The tests that were used were standard *t* tests for equal means, taking as a reference a 5% significance level. A priori, this alternative (particularly when a test for equal means is used) can offset the asymmetrical tendency of the distribution of the ratings by making a direct destination-by-destination comparison.

Tests were performed for the j=1,...,24 motivations, comparing n=8 destinations. Table 9 shows the results of this analysis for the main rival destinations. In the first row of the table, the Balearic Islands can be seen to have achieved 9 higher ratings compared with mainland Spain, 10 compared with the Canaries, and just 3 compared with the Caribbean. A vertical reading of the table shows the number of times a destination achieves lower values when compared with the rest. For instance, mainland Spain and the Canaries do not achieve any rating that is higher than the Balearics, but the Balearics fail when compared with the Caribbean on 13 occasions.

The information shown in Table 9 was summarized for each destination by estimating the following index:

$$\frac{(A - C)\cdot 100}{(n-1)\cdot J} \qquad [8]$$

The numerator shows the final number of comparisons in which the destination did better (A) or worse (C), whilst the denominator shows the total number of compari-

Table 9. Number of attributes (out of a total of 24) for which a destination achieves a higher mean satisfaction value (row) than all the remaining destinations (column). Significant differences up to a 5% significance level in the test for equal means were taken into consideration.

	Balearic Islands	*Mainland Spain*	*Canaries*	*France*	*Italy*	*Greece*	*Turkey*	*Caribbean*	*Total*
Balearic Islands	-	9	10	6	10	7	16	3	61
Mainland Spain	0	-	0	2	3	2	12	0	19
Canaries	0	1	-	1	2	1	11	0	16
France	3	3	4	-	0	3	14	0	27
Italy	4	5	6	1	-	1	11	0	28
Greece	0	0	2	1	1	-	6	1	11
Turkey	1	1	1	2	1	1	-	0	7
Caribbean	13	15	16	12	13	13	20	-	102
Total	21	34	39	25	30	28	90	4	

sons that were made. In our case, 8 destinations were compared and 24 attributes. As we have already indicated, this index takes a range of possible values from -100 (in all comparisons, the destination achieves statistically lower mean values) to 100 (in all comparisons, the destination achieves higher mean values). The index's intermediate value, 0, indicates that the destination achieves an equal number of higher or lower mean values or it achieves the same value as its rival in all comparisons.

Table 10 shows the results when the index was estimated. The Caribbean, with an index value of 58.33%, is the most competitive destination, followed by the Balearic Islands (23.81%). Italy and France both achieve a value close to zero. The remaining destinations have negative values (mainland Spain, –8.93%; Greece, –10.12%; the Canaries, –13.69%, and Turkey –49.40%).

From the numerical results that were obtained, the destinations can be seen to have relative positions that are very similar to those of the previous indices. Nonetheless, the numerical values are, in themselves, more illustrative than the previous ones because they have a clear comparative significance.

Table 10. Index of predominance

Destination	$\frac{A \cdot 100}{(n-1) \cdot J}$	$\frac{C \cdot 100}{(n-1) \cdot J}$	$\frac{(A - C \cdot 100}{(n-1) \cdot J}$
Balearic Islands	36.31%	12.50%	23.81%
Mainland Spain	11.31%	20.24%	–8.93%
Canaries	9.52%	23.21%	–13.69%
France	16.07%	14.88%	1.19%
Italy	16.67%	17.86%	–1.19%
Greece	6.55%	16.67%	-10.12%
Turkey	4.17%	53.57%	-49.40%
Caribbean	60.71%	2.38%	58.33%

4.5. Discussion

Table 11. Indices of satisfaction

Destination	*Overall satisfaction*	*Explicit weighting*	*Implicit weighting*	*Index of predominance*
Balearic Islands	81%	80%	76%	23.81%
Mainland Spain (coast)	75%	77%	72%	–8.93%
Canaries	76%	77%	72%	–13.69%
France (Mediterranean coast)	78%	78%	72%	1.19%
Italy (coast)	78%	77%	73%	–1.19%
Greece	77%	76%	72%	–10.12%
Turkey	71%	72%	66%	–49.40%
Caribbean	89%	82%	80%	58.33%

Table 11 summarizes the four indices of satisfaction. Although the indices use different methodologies, similar relative positions were achieved. Certain conclusions can be drawn from the results regarding the advantages and disadvantages of the different indices:

1. A satisfaction index that takes into account assessments of different attributes will be closer to measuring a destination's performance than an index of overall satisfaction, since a higher number of variables that are not controlled by decision-makers at destinations are involved in overall satisfaction.
2. Satisfaction indices that use explicit tourist motivations as weightings are problematical in that they use a weighting variable that may be correlated with the ratings being weighted, making the weighting process reiterative and/or superfluous.
3. It is also possible to weight the attributes by using an objective variable related to the destination, in our case overall satisfaction. The advantage of indices that use implicit importance as weightings is the fact that they avoid a weigh-

ting system associated with the variable. In this respect, although the index averages out assessments of a set of attributes, it incorporates more information by associating each attribute with its influence on overall satisfaction.

4. The main drawback of the implicit weighted index is the fact that its capacity to summarize the base information is dependent on the idiosyncrasy of the data, particularly with regard to whether it is possible to summarize assessments of the different attributes into a limited number of dimensions and do so in a consistent way.
5. The aforementioned satisfaction indices are interpreted in relation to a maximum value that might be obtained if the destination were to achieve maximum satisfaction levels. In contrast, the index of predominance is based on a direct comparison of the destinations. The interpretation of the value of the index provides more information on the destination's position or, at minimum, clearer numerical information on its relative position.
6. The index of predominance shares the two weighted indices' sensitivity to the number of attributes that are included. However, in the first case, its values are directly affected by the set of destinations that are compared, so a rigorous selection procedure must be used to choose the destinations.
7. From the analysis of our data set, the relative positions of the destinations do not change from one index to another. If this were to happen generally, measures of overall satisfaction would seem to be sufficient to compare the performance of different destinations. The validity of this hypothesis is partly dependent on the element of overall satisfaction that is not explained by the attributes behaving in a homogenous way for all destinations.
8. Compared with the index of overall satisfaction, the weighted indices and index of predominance seem more suitable, not just for measuring the competitive position of the destinations but also for obtaining complementary information on their performance.

As for the destinations, the Caribbean is clearly seen to rival Mediterranean destinations. In all the satisfaction indices, its position is obviously superior. The Balearic Islands always remain in second place, albeit clearly ahead of the other destinations. Among the latter, only Turkey stands out because it lags behind in last position in all the indices. Excluding Turkey, the other Mediterranean destinations all seem to be close rivals. However, the Caribbean's position of leadership should make decision makers at Mediterranean destinations reflect on the issue, particularly because the keys to its better performance seem to lie in the components of a classic sun and sand holiday. Although other distance-related comparative advantages benefit destinations that are closer to origin markets, the differences that were found are sufficiently big to cause concern.

5. Conclusions and implications

Finding indicators that can measure the competitiveness of rival tourist destinations is a complex issue, because information concerning multiple variables must be co-

llected. As Dwyer *et al*. (2004) point out, it is the whole tourist experience that counts when it comes to destination competitiveness. Another additional problem is the fact that these indicators must be based on comparable information for all the different destinations. When indices of competitiveness are constructed, carefully defined variables are required that are measured in a uniform way. This is not easy, even when a monetary variable is being compared, like the price of the holiday supply at destinations (see, for instance, Mangion *et al.,* 2005). On other occasions, the variables are difficult to measure due to the strong personal involvement that the consumption of tourist products entails.

In their conclusions, Dwyer *et al*. (2004) point to the need to obtain measurements of competitiveness that incorporate the tourists' point of view. Following Kozak and Rimmington (1999), in this study, tourist assessments were considered to be a valid instrument for measuring competitiveness. These assessments not only include an overall assessment of the holiday, but their opinion of the destinations' different attributes or characteristics. By using a survey conducted at a specific destination, information can be obtained not just about the destination in question but about rival ones where the tourists have spent their holidays in recent years. Information can also be compiled about the tourists' sociodemographic characteristics and their motivations. In this study, from the survey that was conducted, the Balearic Islands' main rival destinations were identified, together with the factors that tourists consider most influential when they choose a sun and sand destination and their assessment of satisfaction with these factors for the destinations they had visited during the last three years.

The first goal of this study was to consider different synthetic satisfaction indices as measures of competitiveness. Although the indices were differently defined, the estimated values situate most of the destinations in very similar relative positions. This would seem to support the use of the simplest index, based on overall satisfaction, since less information or effort is required in its creation than the other options. However, this outcome might be circumstantial, since it could be attributable to the data set that was used. Additionally, there are other more general drawbacks. Firstly, overall satisfaction with a holiday is only partly the result of a destination's good performance or a positive assessment of its different attributes. Ryan and Cessford (2003) emphasize that overall satisfaction can be high even if different aspects of the service do not come up to the tourist's expectations. Secondly, given tourists' strong personal involvement in the holiday experience, the satisfaction ratings tend to present a certain asymmetry. This asymmetry can occur to a lesser extent when the destination's specific attributes are assessed. However, in the survey that was conducted, this asymmetry occurred for most of the attributes and so it cannot be guaranteed that this effect was not also transferred to the weighted indices.

The main advantage of using weighted indices is the fact that they include detailed information on satisfaction with the destination's different attributes. The index that uses explicit importance as a weighting system has the drawback that there could be a positive correlation between importance and satisfaction. This effect was detected in our sample and it therefore invalidates the use of this weighting. Using implicit importance as a weighting is more revealing, because this weighting is independent from satisfaction with the attributes. Its greatest appeal, however, is the fact that du-

ring its creation complementary analyses are required which are interesting in themselves. Although the final goal is the construction of an index, an analysis of the dimensionality of the data or a multiple regression between overall satisfaction and satisfaction with the attributes provides results that help identify which attributes play a key role in competitiveness.

The construction of an index of predominance also involves a process that is interesting in itself. The detailed comparison of all the attributes and destinations can help to detect a destination's weak points. The index is simply a way of summarizing comparisons of destinations' ratings. From the values of the index, relative positions were achieved similar to those of the former indices. Nonetheless, it provides greater variability as well as complementary information. Its main drawback is its overdependence on the need to correctly define which destinations are included in the set of rival destinations.

It must be acknowledged that neither theoretically nor empirically do any of the indices clearly show themselves to be a better indicator of competitiveness. However, given the difficulties that were detected in the index of overall satisfaction and the explicit importance index, the most recommendable ones seem to be the index of predominance and the implicit importance index. The authors consider that the creation of this last index involves an enriching analytical process, although its final quality might depend to a large extent on the nature of the data.

The work has also found limitations. These limitations have arisen and have been taken into consideration during the whole implementation of the investigation. Likewise this leads towards new lines of research that the study has helped to open. The literature about the satisfaction index states that it is possible that the answers given by the tourists concerning the destination, may be influenced by the consumers' characteristics (Pizam and Ellis, 1999; Yu and Golden, 2006). This matter can be especially important when different destinations are compared, because for example, a higher proportion of tourists of a certain nationality in a specific destination, can cause the average opinion of a destination to be bias. For this reason, in the analysis of the data that has been carried out, we checked whether the characteristics of the tourists could influence the assessment of the attributes and also whether the characteristics of the tourists were homogeneous in relation to the destinations. This verification was carried out with ANOVA analysis and x^2 test. The conclusion reached was that the satisfaction level can be influenced by the characteristics of the tourist. Nevertheless, the new calculation of the homogenised indexes for the characteristics of the tourist in each destination did not change the result of the assessments: the evaluation of each of the destinations in the four indexes analysed was hardly any different to that of the earlier calculations. Therefore, it has been proven that the potential bias opinion of the characteristics of the tourist has not lead to significant differences in the results. On the other hand, what has not been verified is the effect of a possible bias opinion concerning the Balearic Islands, because this was the last destination to be visited and was therefore assessed straight after being "enjoyed". This is what could have influenced the judgement of this destination. A way of proving and correcting this possible bias result would be to carry out simultaneous surveys in the

different destinations that are to be examined. Future studies should consider this possibility, even though it is an economically more expensive option.

Bibliography

Anton, J. (1996): *Customer Relationship Management: Making Hard Decisions with Soft Numbers*. Upper Saddle River, NJ: Prentice-Hall.

Bhote, K.R. (1998): *The Customer Loyalty Audit*, Alexandria, VA: Cambridge Strategy Publications.

Crouch, G.I. and Ritchie, J.R.B. (1999): Tourism, competitiveness, and societal prosperity, *Journal of Business Research*, 44(3):137-152.

Chu, R. (2006): Stated-importance versus derived-importance customer satisfaction measurement. *Journal of Services Marketing*, 16(4):285-301.

Dwyer, L., Forsyth, P. and Rao, P. (2000): The price competitiveness of travel and tourism: a comparison of 19 destinations. *Tourism Management*, 21(1):9-22.

Dwyer, L. and Kim, C. (2003): Destination competitiveness: determinants and indicators. *Current Issues in Tourism*, 6(5):369-414.

Dwyer, L., Mellor, R., Livaic, Z., Edwards, D. and Kim, C. (2004): Attributes of destination competitiveness: a factor analysis. *Tourism Analysis*, 9(1-2):91-101.

Enright, M. & Newton, J. (2004): Tourism destination competitiveness: a quantitative approach. *Tourism Management*, 25(6):777-788.

Enright, M. & Newton, J. (2005): Determinants of tourism destination competitiveness in Asia Pacific: comprehensiveness and universality, *Journal of Travel Research*, 43(4):339-350.

Fuchs, M. and Weiermair, K. (2004): Destination benchmarking: an indicator-system's potential for exploring guest satisfaction. *Journal of Travel Research*, 42(3):212-225

Füller, J., Matzler, K. and Faullant, R. (2006): Asymmetric effects in customer satisfaction. *Annals of Tourism Research*, 33(4):1159-1163.

Goodrich, J.N. (1978): The relationship between preferences for and perceptions of vacation destinations: application of a choice model, *Journal of Travel Research*, 17(2):8-13.

Govern de les Illes Balears. (2006): *El turisme a les Illes Balears. Dades informatives 2005*. (www.inestur.es).

Haahti, A.J. (1986): Finland's competitive position as a destination. *Annals of Tourism Research*, 13(1):11-35.

Haahti, A.J. and Yavas, U. (1983): Tourists' perceptions of Finland and selected European countries as travel destinations. *European Journal of Marketing*, 17(2):34-42.

Howard, J.A. (1963): *Marketing Management Analysis and Planning*. Homewood, IL: Irwin.

Howard , J.A. and Sheth, J.N. (1969):*The Theory of Buyer Behavior*. New York: John Wiley & Sons.

Huang, T., Beaman, J. and Shelby, L.B. (2002): Using action-grid in tourism management. *Tourism Management*, 23(3):255-264.

Kozak, M. (2003): Measuring comparative destination performance: a study in Spain and Turkey. *Journal of Tourism and Travel Marketing, 13*(3), 83-110.

Kozak, M. (2004): Measuring comparative performance of vacation destinations: using tourists' self-reported judgements as an alternative approach. In G.I. Crouch, R.R. Perdue, H.P. Timmermans and M. Uysal (Eds.), *Consumer Psychology of Tourism Hospitality and Leisure*, vol. 3 (pp. 285-302). Wallinford, UK: CABI Publishing.

Kozak, M. and M. Rimmington (1999): Measuring destination competitiveness: conceptual considerations and empirical findings. *International Journal of Hospitality Management*, 18(3):273-283.

Kozak, M. and Rimmington, M. (2000): Tourist satisfaction with Mallorca, Spain, as an off-season holiday destination. *Journal of Travel Research*, 38(3):260-269.

Mangion, M.-L., Durbarry, R. and Sinclair, M.T. (2005): Tourism competitiveness: price and quality. *Tourism Economics*, 11(1):45-68.

Murphy, P., Pritchard, M. P. and Smith, B. (2000): The destination product and its impact on traveller perceptions. A means-ends model and synthesis of evidence. *Tourism Management*, 21(1):43-52.

Oh, H. (2001): Revisiting importance-performance analysis. *Tourism Management*, 22(6):617-627.

Papatheodorou, A. (2002): Exploring Competitiveness in Mediterranean Resorts. *Tourism Economics*, 8(2):133-150.

Pearce, D.G. (1997): Competitive destination analysis in Southern Asia. *Journal of Travel Research*, 35(4):16-24.

Peterson, R.A. and Wilson, W.R. (1992): Measuring customer satisfaction: fact or artefact", *Journal of the Academy of Marketing Science,* 20(1):61 -71.

Pizam, A. & Ellis, T. (1999): Customer satisfaction and its measurement in hospitality enterprises. *International Journal of Contemporary Hospitality Management*, 11(7):326-339.

Ryan, C. (1996): Seeking quality in Pacific tourism. In CM. Hall and S.J. Page (Eds.), *Tourism in the Pacific–Issues and Cases* (pp.146-160). London: International Thomson Business Press.

Ryan, C. (1997): *The Tourist Experience–A New Introduction*. London: Cassell.

Ryan, C. and Cessford, G. (2003): Developing a visitor satisfaction monitoring methodology: quality gaps, crowding and some results. *Current Issues in Tourism*, 6(6):457-507.

Sirakaya, E. and Woodside, A.G. (2005): Building and testing theories of decision making by travellers. *Tourism Management*, 26(6):815-832.

Stokowski, P.A. (2002): Languages of place and discourses of power: constructing new senses of place. *Journal of Leisure Research*, 34(4):368-382.

Um, S. and Crompton, J.L. (1990): Attitude determinants in tourism destination choice. *Annals of Tourism Research*, 17(3):432-448.

Um, S. and Crompton, J.L. (2000): The roles of image and perceived constraints at different stages in the tourist's destination. In: A. Pizam and Y. Mansfeld (Eds.), *Consumer Behavior in Travel and Tourism* (pp. 81-102). New York: The Haworth Hospitality Press.

Williams, D.R., Patterson, M.E., Roggenbuck, J.W. and Watson, A.E. (1992): Beyond the commodity metaphor: examining emotional and symbolic attachment to place. *Leisure Sciences*, 14:29-46

Yu, L. and Goulden, M. (2006): A comparative analysis of international tourists' satisfaction in Mongolia. *Tourism Management*, 27:1331-1342.

Yüksel, A. and Rimmington, M. (1998): Customer-satisfaction measurement. The Cornell Hotel and Restaurant Administration Quarterly, December, 39:60-70.

Zairi, M. (1996): *Benchmarking for Best Practice: Continuous Learning through Sustainable Innovation*. Oxford: Butterworth-Heinemann.