MEASURING THE QUALITY OF THE TOURIST EXPERIENCE: THE CASE STUDY OF THE AZORES

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Resumo:

Por um desenvolvimento sustentável da actividade turística entende-se aquele que permite aumentar a qualidade de vida da população residente, promover a melhoria da qualidade da experiência turística, maximizar a rentabilidade das empresas locais e os efeitos multiplicadores do turismo e optimizar os impactes do turismo, assegurando um equilíbrio entre os benefícios económicos e os custos ambientais e socioculturais. Neste trabalho de investigação avalia-se uma das vertentes do conceito de sustentabilidade do turismo para o caso do destino turístico Açores: a qualidade da experiência turística. Atendendo à natureza subjectiva da qualidade do produto turístico, foi implementado um questionário a uma amostra de 400 turistas à saída da Região, durante a época alta (Verão), para se determinar a importância atribuída a um conjunto de vinte e cinco atributos na escolha do destino turístico Açores (expectativas), bem como a satisfação obtida na visita (percepções) perante esses mesmos atributos, de modo a avaliar o desempenho do destino turístico. A paisagem e a natureza foram os atributos considerados mais importantes na escolha do destino turístico, sendo igualmente aqueles que mais contribuíram para a satisfação com a visita. A satisfação média excedeu a importância média atribuída a todos os atributos e foram encontradas diferenças significativas em onze atributos. Através da aplicação da análise factorial, foram identificados seis factores subjacentes à escolha do destino turístico e cinco factores subjacentes à satisfação com a visita. A análise de clusters hierárquica permitiu revelar a presença de três grupos distintos de turistas com base na satisfação obtida na visita: os Encantados (37,5%), os Descobridores (47,7%) e os Sociáveis (14,8%). A qualidade da experiência turística influencia a intenção de regresso e a recomendação do destino.

Palavras-chave: sustentabilidade do turismo; qualidade da experiência turística; análise de expectativas/percepções; satisfação com a visita; Açores (Portugal); ilhas de pequena dimensão.

Códigos JEL: L83

Abstract:

This paper investigates one of the underlying dimensions of the sustainable tourism concept in the case of the Azores: the overall quality of the tourist experience. An exit questionnaire was given to a sample of 400 tourists during the high season (summer). Twenty-five attributes were evaluated to determine the relative importance in destination choice (expectations) and tourist satisfaction (perceptions), in order to measure destination performance. Scenery and nature received the highest mean scores in attribute importance and satisfaction. Average satisfaction exceeded average importance for all the attributes and significant differences were found in eleven attributes. Six relevant factors in destination choice and five relevant factors in destination performance were identified using factor analysis. Cluster analysis on the satisfaction factors revealed the presence of three distinct groups: the Delighted (37,5%), the Discoverers (47,7%) and Socializers (14,8%). Tourist satisfaction contributes to repeat visits and to the recommendation of the tourist destination to others.

Keywords: sustainable tourism; tourist experience; expectations/perceptions analysis; tourist satisfaction clusters; Azores (Portugal); small islands.

JEL Codes: L83: Sports; Gambling; Recreation; Tourism.

Tourism in the Azores

The archipelago of the Azores is formed by nine small and disperse islands of volcanic origin, located off the coast of the Iberian Peninsula, in the North Atlantic Ocean. The archipelago has a total area of 2,330 sq. km. and a population of approximately 242,000 inhabitants according to the last census from the year 2001 (SREA, 2002). This is an autonomous region of Portugal since 1976 and one of the seven ultra-peripheral regions of the European Union. Since political and administrative autonomy was given, development strategies have been based on the strong agricultural and fishing traditions, leading to a specialization in milk production. Nevertheless, limits to growth imposed at this kind of production within European countries forced a diversification in economic activity. Tourism emerged as a strategic alternative. Natural and cultural attractions offer good opportunities to follow development trends in tourism and to develop new forms of tourism, especially those related to nature, wildlife, rural areas and culture.

The pressures for tourism development in the Azores must also be understood within the context of the global growth in tourism, much of which focuses on small island and coastal destinations. Tourism was one of the major economic and social phenomena of the twentieth century and is expected to continue to grow in the future due to population growth, improved living standards, improvement and expansion of transportation systems, increasing free time along with other factors. According to forecasts by the World Tourism Organization, international tourist arrivals are likely to almost triple over the next two decades, with nearly 1,6 billion tourists visiting foreign countries by the year 2020. This will lead to significant growth potential for those destinations which can provide the desired products (WTO, 2001).

According to the official data published by the Azorean Regional Service of Statistics (Serviço Regional de Estatística dos Açores), from 1990 to 1995, the number of guest nights in hotels and similar establishments, in the Azores, grew at an average annual rate of 2,7%, while total receipts in those establishments had an average annual growth rate of 10,5%, at current prices (1,2% per year, at constant prices of 2003). From 1995 to 2000, tourist demand increased at a rate of 8,9% per year, while accommodation revenues increased at 10,2%, at current prices (7,2% per year, at constant prices of 2003). From 2000 to 2004, the annual increase rate was 16,7% for tourist demand and 16,7% for hotels revenues (11% per year, at constant prices of 2003). In 2004, the total number of guest nights was approximately 1 million. In 1990, the islands could accommodate 3,283 tourists in hotels and similar establishments; in June, 2005, total accommodation capacity was 8,393 beds.

Like other destinations worldwide, residents of the Azores are concerned about their future and anxious to take advantage of the benefits which tourism development can bring while avoiding negative impacts on their community. Regional government authorities established tourism development policies and related marketing strategies through dialogue and cooperation with the private sector associations and are currently preparing new planning and management tools, adopting a long-term perspective (Plano de Ordenamento Turístico dos Açores and Plano Sectorial do Turismo), aiming to achieve sustainability.

Theoretical background

Definitions of sustainable tourism emphasize three important features: quality, continuity and balance. Sustainable tourism provides a quality experience for visitors, while improving the quality of life of the host community and protecting the quality of the environment. It ensures the continuity of the natural resources upon which it is based and the continuity of the culture of the host community with satisfying experiences for visitors. It balances the needs of the tourism industry, supporters of the environment and the local community. It emphasizes the mutual goals and cooperation among visitors, host community, and destination in contrast to more traditional approaches to tourism, which emphasize their diverse and conflicting needs (Gee e Fayos-Solá, 1999).

Success can no longer be measured purely by increasing numbers, whether they are visitor arrivals, tourist revenues, or marketing expenditures. It must be measured by its contributions to the quality of life and the integrity of the physical environment. The issues of quality upon which the future of tourism depends lie at the heart of sustainability. Quality is essential across all the elements of tourism – transportation, hospitality and lodging, attractions,

and services. Tourists expect a complete experience of these elements characterized by high quality (Gee e Fayos-Solá, 1999).

To help the managers of tourism companies and destinations, and other stakeholders, to make better decisions regarding tourism, it is fundamental to have information and tools that bring practical assistance to identify emerging problems, to evaluate the impacts of sustainable tourism policies and to measure the results of actions taken, in order to allow preventive and corrective measures, when needed. Since 1992, the World Tourism Organization (WTO) has been active in the effort to develop and implement indicators which help in the sustainable development of tourism at different destinations (WTO, 1992; WTO, 1993; WTO, 1996; WTO, 1998; WTO, 2004). However, the implementation of such approaches in the Azores as a tourist destination has, so far, been limited.

Tourist satisfaction is central to determine if tourists will return, recommend the destination to others or conversely advise others to stay away. It is therefore a leading indicator of the longer-term sustainability of a destination. Tourist satisfaction is based on many different factors, including the range of attractions of a destination, its market positioning, the quality of services, the expectations of tourists, and the experience of each tourist during his/her stay. Many of the elements which affect tourist satisfaction (e.g., cleanliness of accommodation, water and food safety, friendliness of hospitality) are at least in part within management control of the industry and destination managers. Others (e.g., weather, crime, acts of hostility) are less so (WTO, 2004).

Study purpose, research objectives and hypothesis

The purpose of this study is to measure the quality of the tourist experience in the Azores, by analysing the expectations of tourists on the destination choice process and the perceptions after the visit, in order to evaluate destination performance level (satisfaction).

Research objectives are: (i) measuring destination's attribute importance and attribute satisfaction; (ii) identifying the underlying factors of destination choice and the underlying factors of destination performance or tourist satisfaction; and (iii) identifying and profiling the tourist satisfaction clusters in the case of the Azores, based on the perceived quality of the tourist experience.

The following hypotheses were established: Hypothesis 1 – Average attribute satisfaction levels exceed average attribute importance levels; Hypothesis 2 – Significant differences among tourists can be found on the importance level of underlying factors of destination choice based on socio-demographic characteristics and the visit experience; Hypothesis 3 – Homogeneous groups of tourists can be found based upon the identified satisfaction factors with the tourist experience in the Azores.

Instrument

An interviewer-completed questionnaire (face-to-face interviews) was used to assess tourists' satisfaction during their visit to the Azores. The survey was conducted in three languages: Portuguese, English and Swedish. The questionnaire contained four sections: demographic profile; attribute importance in destination choice; attribute performance and tourist satisfaction; and intention to revisit and recommend the destination to others and overall satisfaction with the visit. The study drew on the attributes used in previous research to measure tourist destination choice (Jenkins, 1999; Hu and Ritchie, 1993) and destination performance (Zins, 2002). The respondents were asked to evaluate the level of importance of each attribute when they made their choice of the Azores as a holiday destination and to evaluate the level of satisfaction with each of the same attributes after visiting, using a five-point Likert-type scale. Importance scale ranged from 1 (very low importance) to 5 (very high importance) and satisfaction scale ranged from 1 (very low satisfaction) to 5 (very high satisfaction). Overall satisfaction with the visit was also rated using the same type of scale, ranging from 1 (very dissatisfied) to 5 (very satisfied). A pilot study was conducted with 60 tourists during July, 2003, in order to determine the effectiveness of the tool and its implementation, as well as the suitability of the measures for analysis. Reliability analysis (Cronbach's alpha) was performed to test the reliability and internal consistency of the 25 attributes. The pilot study results were not incorporated into the analysis.

Sampling

The target population of this study was the total number of tourists who visited the Azores. Due to the lack of information about these figures, the total number of outbound departures at the Azorean airports, during 2002, was used to determine the size of the sample. A sample of 400 tourists was selected on the base of rules of thumb (Hill and Hill, 2002). Quota sampling was used to determine the number of respondents needed for each of the top inbound tourist markets, based on the number of guest nights in hotels and similar establishments, during 2002 (SREA, 2003) and based on the programmed regular and charter departure flights for August 2003, by airport of departure (unpublished data from ANA, Aeroportos de Portugal, S. A. – Direcção dos Aeroportos dos Açores and from Aerogare Civil das Lajes).

The questionnaire was implemented from August 8 to August 14, 2003, to the tourists that were waiting for departure at the Azorean airports of João Paulo II (S. Miguel Island), Aerogare Civil das Lajes (Terceira Island) and Horta (Faial Island).

Data analysis and results

In order to test Hypothesis 1, two steps were taken.

First, descriptive statistics were performed to determine the importance mean and standard deviation of each attribute of destination choice and the satisfaction mean and standard deviation of each attribute of destination performance. Tables 1 and 2 list these scores.

Scenery/landscape and nature/fauna and flora/ volcanic nature of the islands yielded the highest mean scores in attribute importance, indicating that the sampled tourists as a whole were nature seekers.

TABLE 1

Destination choice attributes (descending importance mean order)

Attributes 1 = "Very low importance"; 5 = "Very high importance"	Mean	Standard Deviation	N
Scenery, landscape	4,6	0,64	391
Nature, fauna and flora, volcanic nature of the islands	4,53	0,71	390
Originality/uniqueness of destination	4,24	0,83	386
Safety and security	4,23	0,83	388
Peacefulness, tranquillity, pace of life	4,21	0,91	391
Hospitality/friendliness of the local people	4,07	0,95	390
Availability/quality of the accommodation	3,89	0,93	384
Climate	3,87	0,91	389
Gastronomy	3,85	1,04	390
Quality of service	3,74	0,99	386
Ocean, beaches and other water activities	3,7	1,15	383
Historic and architectural heritage, monuments	3,6	1,13	386
Available information	3,56	1,02	386
Value for Money	3,45	1,08	392
Accessibility of the Azores	3,37	1,03	386
Availability/quality of local transportation	3,37	1,16	373
Cultural attractions, festivals, special events	3,33	1,23	381
Package tours	3,27	1,19	370
Isolation/remoteness of the region	3,23	1,16	381
Contact with friends and relatives	3,1	1,67	364
Shopping facilities	2,86	1,21	389
Entertainment, night life	2,84	1,4	379
Sports facilities and activities (golf, tennis, etc.)	2,75	1,42	374
Activities for families with children	2,75	1,6	356
Religious attractions, religious events	2,49	1,32	370
Sample mean	**3,57**		

TABLE 2

Destination performance attributes (descending satisfaction mean order)

Attributes 1 = "Very low satisfaction"; 5 = "Very high satisfaction"	Mean	Standard Deviation	N
Scenery, landscape	4,71	0,54	396
Nature, fauna and flora, volcanic nature of the islands	4,58	0,68	395
Peacefulness, tranquility, pace of life	4,4	0,73	392
Safety and security	4,34	0,72	395
Hospitality/friendliness of the local people	4,33	0,76	392
Originality/uniqueness of destination	4,31	0,77	389
Gastronomy	4	0,94	391
Availability/quality of the accommodation	3,99	0,85	390
Climate	3,95	0,87	396
Historic and architectural heritage, monuments, museums	3,78	1,02	384
Quality of service	3,77	0,91	389
Ocean, beaches and other water activities	3,76	1,03	377
Available information	3,68	0,91	390
Accessibility of the Azores	3,62	0,93	393
Package tours	3,62	1,05	361
Contact with friends and relatives	3,61	1,51	338
Cultural attractions, festivals, special events	3,6	1,09	371
Isolation/remoteness of the region	3,6	0,98	381
Availability/quality of local transportation	3,49	1,02	369
Value for money	3,48	1,06	393
Entertainment, night life	3,27	1,22	361
Activities for families with children	3,22	1,39	317
Shopping facilities	3,15	1,04	386
Sports facilities and activities (golf, tennis, etc.)	3,14	1,28	333
Religious attractions, religious events	3,03	1,27	325
Sample mean	**3,8**		

Overall mean importance score was 3,57. The attributes with relatively high importance mean scores were twelve. The six highest mean scores (*M* >4,00) were scenery/landscape, nature/fauna and flora, originality/uniqueness of destination, safety and security, peacefulness/tranquillity and hospitality/ friendliness of local people. The standard deviation scores ranging from 0,64 to 0,95 suggested that there was no great disagreement among respondents on these importance attributes. The attributes with relatively low importance mean scores were thirteen. The five lowest mean scores (*M* <3,00) were shopping facilities, entertainment/night life, sports facilities and activities, activities for families with children and religious attractions/religious events. The variation of respondents' opinions was large regarding contact with friends and relatives, activities for family with children, sports facilities and activities and entertainment/night life, as the standard deviation was relatively high.

Sample mean satisfaction score was 3,80. Nine attributes had a relatively high satisfaction score. The highest six mean scores (*M* >4,00) were the same, in spite of a slightly difference in mean ranking. The standard deviation scores ranging from 0,54 to 0,77 suggested that there was a great agreement among respondents on these satisfaction attributes.

Second, destination performance was obtained from the gap measurement of perceived and expected attributes: the difference between aggregate scores for evaluation and importance of each destination attribute was calculated. It is immediately apparent that the evaluation score exceeds the importance score in all 25 attributes. Paired-samples *t*-test was performed to determine whether there were any significant differences between satisfaction and importance mean scores. Table 3 shows these results. Significant differences between perception

TABLE 3

Paired-samples *t*-test results for tourists' perceptions and expectations gaps

Importance/Satisfaction Pairs		Paired Differences		t	df	Sig. (2-tailed)
		Mean	Std. Deviation			
Pair 1	Uniqueness of destination	,082	,662	2,414	375	,016
Pair 2	Remoteness of the region	,351	,982	6,905	372	,000
Pair 3	Climate	,070	,920	1,495	384	,136
Pair 4	Accessibility of the Azores	,241	1,033	4,561	380	,000
Pair 5	Package tours	,350	1,058	6,204	350	,000
Pair 6	Available information	,130	,963	2,621	376	,009
Pair 7	Availability of accommodation	,127	,945	2,616	376	,009
Pair 8	Availability of local transportation	,082	1,223	1,262	352	,208
Pair 9	Contact with friends and relatives	,310	1,063	5,292	328	,000
Pair 10	Value for money	,034	1,290	,514	384	,608
Pair 11	Quality of service	,019	1,053	,343	374	,732
Pair 12	Sports facilities and activities	,211	1,113	3,405	321	,001
Pair 13	Scenery, landscape	,111	,656	3,331	386	,001
Pair 14	Gastronomy	,131	,934	2,743	380	,006
Pair 15	Entertainment, nightlife	,307	1,145	5,002	348	,000
Pair 16	Historic and architectural heritage	,158	,809	3,775	372	,000
Pair 17	Nature, fauna and flora	,068	,681	1,945	384	,053
Pair 18	Cultural attractions, festivals	,192	1,014	3,593	358	,000
Pair 19	Ocean, beaches	,025	,860	,548	363	,584
Pair 20	Religious attractions and events	,364	,965	6,678	312	,000
Pair 21	Shopping facilities	,281	1,139	4,791	376	,000
Pair 22	Friendliness of local people	,251	,874	5,611	382	,000
Pair 23	Peacefulness, tranquillity	,115	,964	2,332	382	,020
Pair 24	Safety and security	,112	,756	2,907	382	,004
Pair 25	Activities for families with children	,252	,988	4,456	305	,000

values and expectation values were found in 11 of the total 25 attributes (p <0,002): isolation/remoteness of the region, accessibility of the Azores, package tours, contact with friends and relatives, sports facilities and activities, entertainment/nightlife, historic and architectural heritage, religious attractions/religious events, shopping facilities, hospitality/friendliness of local people and activities for families with children. Positive gaps show that tourist perceived quality of the experience exceeded the tourist expectations.

In order to test Hypothesis 2, two steps were taken.

First, an exploratory factor analysis was used to determine the underlying dimensions of destination choice. The Bartlett test of sphericity with a value of 3436,61 indicated that nonzero correlations exist at a significance level lower than 0,001. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0,89, a result deemed to be good (Pestana e Gageiro, 2000). Principal axis factoring method (in order to maximize the percentage of the total variance

explained by the factors) with a *Direct Oblimin* rotation (with Delta = 0) was used to reduce the 25 importance attributes into six factors, once correlation among the factors exists (Pestana e Gageiro, 2000). The Kaiser criterion was used to select the number of factors retained. In viewing the eigenvalue, factor loadings and interpretation of attributes in each factor, six factors were retained, explaining 55,76% of the common variance (only factor loadings >0,35 were retained and included in the factor identification). The result of reliability analysis showed an alpha coefficient of 0,91 for the 25 importance attributes, that was considered excellent (Hill e Hill, 2002) and alpha coefficients for the six factors ranging from 0,51 to 0,90, all above the minimum acceptable reliability value of 0,50. The results are reported in Table 4.

Factor 1 was labelled "Cultural heritage, family and relaxation"; including ten attributes (see Table 4). Factor 2 was named "Nature and scenery", including three attributes. Factor 3 includes four attributes and was called "Package tours and accessibility". Factor 4 was named "Safety and local atmosphere", since it includes three attributes related with peacefulness, safety and friendliness of local people. Factor 5 was labelled "Value for money" and includes three attributes regarding quality and value for money. Factor 6 was labelled "Climate and remoteness", because it includes these two attributes. Factor loadings for Factor 3 and Factor 4 are all negative, meaning that correlation among items and factor is negative. This must be taken into account when interpreting the results.

Second, independent sample mean *t*-test and one-way analysis of variance (ANOVA) were used to test whether tourists with different demographic profiles and visit experience gave different levels of

TABLE 4

Importance factors (underlying dimensions) on destination choice

Attributes	Factor Loading						Communalities
	F1	F2	F3	F4	F4	F6	
F1:Cultural heritage, family and relaxation	**F1**						
Entertainment, nightlife	0,795						0,636
Contact with friends and relatives	0,776						0,592
Sports facilities and activities (golf, tennis)	0,753						0,572
Activities for families with children	0,681						0,658
Cultural attractions, festivals, special events	0,661						0,596
Religious attractions, religious events	0,633						0,577
Ocean, beaches and other water activities	0,614						0,509
Historic and architectural heritage	0,506						0,611
Gastronomy	0,464						0,584
Shopping facilities	0,352						0,526
Factor 2: Nature and scenery		**F2**					
Nature, fauna and flora, volcanic nature		0,824					0,695
Scenery, landscape		0,801					0,636
Originality/uniqueness of destination		0,491					0,345
Factor 3: Package tours and accessibility			**F3**				
Package tours			-0,870				0,664
Accessibility of the Azores			-0,580				0,460
Available information			-0,520				0,497
Availability/quality of local transportation			-0,380				0,600
Factor 4: Safety and local atmosphere				**F4**			
Peacefulness, tranquillity, pace of life				-0,680			0,659
Safety and security				-0,660			0,550
Hospitality/friendliness of local people				-0,500			0,500
Factor 5: Value for money					**F5**		
Quality of service					0,566		0,625
Availability/quality of the accommodation					0,544		0,603
Value for money					0,390		0,298
Factor 6: Climate and remoteness						**F6**	
Climate						0,598	0,516
Isolation/remoteness of the region						0,492	0,432
Total Scale Reliability	0,912						
Eigenvalue*	5,971	2,864	3,759	4,029	3,302	2,392	
Cronbach's Alpha	0,904	0,719	0,758	0,766	0,654	0,511	
Number of Attributes (Total = 25)	10	3	4	3	3	2	

* After extraction and rotation

Note: when correlation among the factors exists, the sums of squared loadings can not be added up to give the total variance.

importance to the six factors of destination choice. The dependent variables were the six destination choice factors. The independent variables were sex, age group (15 to 34, 35 to 54, and 55 and older), country of residence (Portugal, Nordic Countries, USA and Canada, and Other Countries), Azorean ascendancy (family living or with roots in the Azores) and number of previous visits to this destination (none, one previous visit, two or more previous visits).

The *t*-test showed that there were no significant differences in the level of importance attributed to the six factors of destination choice between male and female tourists (p <0,008).

Regarding the tourists' age groups, the ANOVA showed that there were significant differences in the level of importance attributed to Factor 1, "Cultural heritage, family and relaxation", across groups (p <0,008). Bonferroni post hoc multiple comparisons tests (equal variances were assumed) showed that older tourists (55 and older) attributed a significantly lower level of importance to "Cultural heritage, family and relaxation" than the other two age groups (15 to 34 and 35 to 54).

The ANOVA based on country of residence showed that there were significant differences between the groups on Factor 1, Factor 4 and Factor 6 (p <0,008). Bonferroni and Games-Howell post hoc tests were further employed to explore any differences between groups with respect to each factor. First, it was found that Nordics attributed a significantly lower level of importance to Factor 1, "Cultural heritage, family and relaxation", than those from other groups, whereas tourists from Other Countries attributed a significantly lower level of importance to this factor than those from Portugal and from the USA and Canada. Second, tourists from Other Countries attributed a significantly higher level of importance to Factor 4, "Safety and local atmosphere", than Portuguese and Nordics, whereas Portuguese and North Americans attributed a significantly higher importance to this factor than the Nordics. Third, tourists from Other Countries attributed a significantly higher importance to Factor 6, "Climate and remoteness", than Portuguese and Nordics, while the level of importance attributed by North Americans to this factor was also significantly higher than the Nordics' level. Portuguese and Nordics have better flight connections to the Azores than the other groups, which can explain the difference found in the level of importance given to this factor.

The *t*-test relating to Azorean ascendancy showed that there was a significant difference in the level of importance attributed to Factor 1, "Cultural heritage, family and relaxation" (p <0,008): tourists with family living or with roots in the Azores attributed a higher level of importance to "Cultural heritage, family and relaxation" in choosing the Azores as a holiday destination than those that do not have.

The ANOVA based on the number of previous visits (none, one previous visit or two or more previous visits) showed that there were significant differences across the three groups of tourists in Factor 1 and in Factor 4 (p <0,008). According to the post hoc tests, tourists that were visiting the Azores for the first time attributed a lower level of importance to Factor 1, "Cultural heritage, family and relaxation", than those who visited the region once or more times before and tourists that were first time visitors gave also a lower level of importance to Factor 4, "Safety and local atmosphere", than the other two groups.

In order to test Hypothesis 3, four steps were taken.

First, an exploratory factor analysis was used to determine the underlying dimensions of satisfaction with the tourist experience. The Bartlett test of sphericity with a value of 2818,16 indicated that nonzero correlations exist at a significance level lower than 0,001 (Hill e Hill, 2002). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0,90, a result deemed to be good (Pestana e Gageiro, 2000). The principal axis factoring method with a *Direct Oblimin* rotation (with Delta = 0) was used to reduce the 25 satisfaction attributes into five factors. These methods of extraction and rotation were used once correlation among the factors exists (Pestana e Gageiro, 2000). These five dimensions explain 52,71% of the common variance. The result of reliability analysis showed an alpha coefficient of 0,91 for the 25 satisfaction attributes, that was considered excellent (Hill e Hill, 2002) and alpha coefficients for the five factors ranging from 0,67 e 0,88, that was very acceptable. The results are reported in Table 5.

Factor 1 was labelled "Value for money, climate and remoteness". Four attributes were included in this factor (see Table 4). Factor 2 was named "Cultural heritage, family and relaxation" and includes eight attributes. Factor 3 was called "Safety and local atmosphere" and includes four attributes. Factor

4 was termed "Package tours and accessibility" and includes six attributes. Factor 5 includes three attributes and was labelled "Nature and scenery".

Factor loadings for Factor 2 and Factor 4 are all negative, meaning that correlation among items and factor is negative. This must be taken into account when interpreting the results.

Second, Pearson's correlations were calculated to examine the relationship between satisfaction factors and importance factors (using exclude cases listwise option). Twenty-five out of thirty correlation coefficients were significant at the 0,01 level (2-tailed) and three at the 0,05 level (2-tailed). Only two correlation coefficients were not significant. This means that, except for those two cases, there is a relationship among satisfaction factors with the visit to the Azores and importance factors of destination choice: tourists' perceptions and expectations are related with each other and, according to coefficients values, the relationship is stronger in the case of "Cultural heritage, family and relaxation", "Nature and scenery" and "Safety and local atmosphere".

Third, a cluster analysis was used to isolate distinct groupings within the sample by examining common characteristics. The value of this tool is that it takes into account that respondents and their perceptions are not homogeneous. This analysis permits a closer representation of "average" responses to questions by forming distinct groups where the variation within the group is low and variation between the groups is high.

An hierarchical cluster analysis using squared Euclidean distances with Ward's method of

TABLE 5

Satisfaction factors (underlying dimensions) with the tourist experience

Attributes	Factor Loading					Communalities
	F1	F2	F3	F4	F5	
F1: Value for money, climate and remoteness	**F1**					
Value for money	0,550					0,530
Climate	0,458					0,462
Quality of service	0,410					0,358
Isolation/remoteness of the islands	0,372					0,413
F2: Cultural heritage, family and relaxation		**F2**				
Sports facilities and activities		-0,740				0,507
Entertainment, nightlife		-0,720				0,536
Activities for families with children		-0,720				0,723
Cultural attractions, festivals, special events		-0,670				0,538
Religious attractions, religious events		-0,650				0,524
Ocean, beaches and other water activities		-0,650				0,508
Contact with friends and relatives		-0,640				0,582
Historic and architectural heritage, monuments		-0,500				0,532
Factor 3: Safety and local atmosphere			**F3**			
Peacefulness, tranquillity, pace of life			0,707			0,561
Hospitality/friendliness of local people			0,650			0,539
Safety and security			0,588			0,545
Gastronomy			0,417			0,360
Factor 4: Package tours and accessibility				**F4**		
Available information				-0,720		0,646
Package tours				-0,700		0,493
Accessibility of the Azores				-0,690		0,606
Availability/quality of local transportation				-0,450		0,517
Shopping facilities				-0,390		0,503
Availability/quality of accommodation				-0,320		0,330
Factor 5: Nature and scenery					**F5**	
Nature, fauna and flora, volcanic nature					0,778	0,675
Scenery, landscape					0,731	0,628
Originality/uniqueness of destination					0,424	0,562
Total scale reliability	0,905					
Eigenvalue*	3,227	5,231	4,162	4,584	3,397	
Cronbach's Alpha	0,684	0,877	0,674	0,799	0,730	
Number of Attributes (Total = 25)	4	8	4	6	3	

* After extraction and rotation

Note: when correlation among the factors exists, the sums of squared loadings can not be added up to give the total variance.

agglomeration was performed to divide the sample into homogeneous groups of tourists, based upon the identified five satisfaction factors (using exclude cases listwise option). A number of different solutions were examined and a three-cluster solution appeared to be the most appropriate one, giving a good separation among the groups on the dependent variables, acceptable cluster sizes and a consistent interpretation. These clusters represent 37,5%, 47,7% and 14,8% of the sample, respectively.

Fourth, discriminant analysis, with 89,5% of original grouped cases correctly classified, confirmed the clusters identified on the previous step. The results of Wilks' lambda tests of equality of group means for the five satisfaction factors indicated that group differences were significant (p <0,001). The results of Wilks' lambda test of the two canonical discriminant functions used in the analysis (Eigenvalues: Function 1 = 2,397 and Function 2 = 0,676; % of Variance: Function 1 = 77,9 and Function 2 = 22,1) indicated that group means differ (p <0,001).

Cluster differentiation and profiling

The data was further analysed by examining the variation in tourist satisfaction ratings between the clusters. Table 6 gives the mean scores of each satisfaction factor by cluster group and the results of multivariate statistics.

One-way ANOVA indicated that all five factors contributed to differentiating the three satisfaction clusters (p <0,001). In addition, the post hoc tests indicated that there were statistically significant differences between the clusters.

Demographic issues, the visit experience and travel related variables were analysed via cross tabulation and significant differences assessed using Pearson chi-square test (see Table 7). Statistically significant differences were not found between clusters with respect to gender, marital status, occupation, profession and travel companions (p <0,05).

Each category is described below.

Cluster I: The "Delighted". This cluster contained 89 tourists (37,5% of the cases). This cluster was found to have the highest mean scores across all the factors, thus it was labelled as the "Delighted". This cluster reported a significantly higher level of satisfaction than the other two clusters on four satisfaction factors (p <0,001): "Cultural heritage, family and relaxation", "Safety and local atmosphere", "Package tours and accessibility" and "Nature and scenery".

Regarding demographics, the majority were domestic tourists (58,4%), whereas 65% of the tourists coming from the USA and Canada were classified in this group; the age group of 35 to 54 appeared to be dominant; 39% of these respondents had a college or university degree, but 50% of those with lower level of education were classified in this group. As for the purpose of the trip, 67,4% indicated vacation/pleasure and 24,7% visiting friends or relatives; half were first-time visitors and half were repeaters. This cluster was more likely to come in regular flights and to have the highest length of stay in the Azores. Members of this cluster yielded a very high intention to revisit (96,6%). The overall satisfaction level with the visit was significantly higher than for the other two groups (p <0,001).

Cluster II: The "Discoverers". This cluster contained 113 tourists (47,7% of the cases), representing the largest sample of respondents. This group was moderately satisfied with the tourist experience in the Azores, since the level of satisfaction on "Value for money, climate and remoteness", "Nature and scenery", "Package tours and accessibility" and "Safety and local atmosphere" was significantly higher than Cluster III and significantly lower than Cluster I (p <0,001). This cluster had the lowest level of satisfaction on "Cultural heritage, family and relaxation" (p <0,001). The results might be attributed to the fact that foreign visitors without family or roots

TABLE 6

Results of clusters and discriminant analysis for satisfaction factors with the tourist experience

Satisfaction factors	Cluster I (37,5%) The "Delighted"	Cluster II (47,7%) The "Discoverers"	Cluster III (14,8%) The "Socializers"	*F*-value (p <0,001)
Value for money, climate and remoteness	0,280	0,142	-1,169	55,666
Cultural heritage, family and relaxation	-0,786	0,597	0,072	95,274
Safety and local atmosphere	0,771	-0,286	-1,036	127,147
Package tours and accessibility	-0,453	0,067	0,935	38,059
Nature and scenery	0,555	0,025	-1,468	128,809

TABLE 7

Characteristics of tourist satisfaction clusters

Socio-demographics, visit experience and travel characteristics	Total (100%)	Cluster I (37,5%) The "Delighted"	Cluster II (47,7%) The "Discoverers"	Cluster III (14,8%) The "Socializers"
Age				
15 to 34	38,3	36,0	33,3	60*
35 to 54	37,4	49,4*	31,5	25,7
Over 55	24,3	14,6*	35,1*	14,3
Country of residence				
Portugal	43,5	58,4*	21,2*	77,1*
Nordic Countries	28,7	3,4*	54*	11,4*
USA and Canada	11,0	19,1*	6,2*	5,7
Other Countries	16,9	19,1	18,6	5,7
Azorean ascendancy				
Yes	20,3	29,2*	6,2*	42,9*
No	79,7	70,8*	93,8*	57,1*
Education				
Grade 9 or less	22,0	29,2*	14,3*	28,6
Secondary school graduate	32,2	31,5	28,6	45,7
College/University graduate	45,8	39,3	57,1*	25,7*
Primary purpose of the trip				
Vacation/Pleasure	72,2	67,4	83,2*	48,6*
Visiting friends or relatives	17,7	24,7*	6,2*	37,1*
Other purposes	10,1	7,9	10,6	14,3
Type of flight				
Regular	68,4	89,9*	45,1*	88,6*
Charter	31,6	10,1*	54,9*	11,4*
Visit experience				
None (first visit)	63,7	50,6*	80,5*	42,9*
One previous visit	12,7	15,7	8,8	17,1
Two or more previous visits	23,6	33,7*	10,6*	40,0*
Length of stay				
Short (< 10 nights)	48,5	30,3*	61,9*	51,4
Long (> = 10 nights)	51,5	69,7*	38,1*	48,6
Intention to revisit the Azores				
Yes	84,0	96,6*	72,6*	88,6
No	15,2	3,4*	25,7*	11,4
Do not know	0,8	0,0	1,8	0
Overall satisfaction with visit				
Neither dissatisfied nor satisfied	3,8	0,0*	4,4	11,4*
Satisfied	35,0	19,1*	42,5*	51,4*
Very satisfied	61,2	80,9*	53,1*	37,1*

* Adjusted residuals > 2, in absolute numbers

in the Azores did not give very much importance to these attributes during their visit. In fact, 90% of the Nordics and 52,5% of the tourists from Other Countries belong to this group; 94% did not have Azorean ascendancy. Since 83% came for vacation/ pleasure and 80% were first time visitors, this cluster was named as the "Discoverers". The older age group (over 55) was dominant; college/university graduates were also dominant. This cluster was more likely to come in charter flights and to have the lowest length of stay in the Azores. There appears to be an important distinction between this group and the other two, for which the intention to revisit is the lowest. This cluster revealed a moderate satisfaction level with the tourist experience; the overall satisfaction level with the visit was significantly lower than for Cluster I (p <0,001).

Cluster III: The "Socializers". This cluster contained 35 tourists, representing the smallest sample of respondents (14,8%). This cluster was found to have significantly lower satisfaction levels across all the factors, except for "Cultural heritage, family and relaxation", which was significantly higher than for the "Discoverers". Tourists of this group were younger and basically domestic visitors (77% were Portuguese);

the average level of education seemed to be dominant. Members of this cluster travelled mostly on regular flights. 57% were repeat visitors, 43% had Azorean ascendancy and 51,4% had motives other than vacation/pleasure. This cluster was named the "Socializers" because they had the second highest mean score on Factor 2, "Cultural heritage, family and relaxation", among the three cluster groups. Members of this cluster reported a significantly lower overall satisfaction level with the visit than the other two groups (p <0,001).

The Pearson chi-square test showed that tourist satisfaction was related to the intention of revisiting (p <0,001). As for the intention to recommend the destination to others, no relationship was found. This result may be due to the fact that 99,3% of the sample would recommend a visit to the Azores.

Conclusions

This research study has highlighted the importance of measuring the quality of the tourist experience as a leading indicator of the long-term sustainability of the Azores as a tourist destination. Tourist satisfaction contributes to repeat visits and to the recommendation of the tourist destination to others. Competitive forces will require that destination planners, managers and operators understand and monitor tourists' expectations and perceptions about the quality of the experience, in order to promote sustainability in their development strategies.

The implementation of a tourist exit questionnaire to determine tourist expectations and perceptions revealed that scenery/landscape and nature/fauna and flora/volcanic nature of the islands received the highest importance mean score in destination choice and the highest satisfaction mean score in destination performance, indicating that the sampled tourists, as a whole, were satisfied nature seekers. These attributes are the strengths of the Azores and ought to be protected and preserved for future benefit.

Average destination attribute performance levels exceeded average attribute importance levels for all the 25 attributes considered. Significant differences between perception values and expectation values were found in 11 of the total 25 attributes: isolation/ remoteness of the region, accessibility of the Azores, package tours, contact with friends and relatives, sports facilities and activities, entertainment/ nightlife, historic and architectural heritage, religious attractions/religious events, shopping facilities, hospitality/friendliness of local people and activities for families with children. Positive gaps show that tourist perceived quality of the experience exceeded the tourist expectations, indicating that, generally, the Azores offers a relatively high quality tourism product and services in relation to these attributes.

Six importance factors in destination choice were identified using a factor analysis: "Cultural heritage, family and relaxation", "Nature and scenery", "Package tours and accessibility", "Safety and local atmosphere", "Value for money" and "Climate and remoteness". Significant differences among tourists were found on importance level of underlying factors of destination choice based on age, country of residence, Azorean ascendancy and the visit experience. Such differences should be explored in segmenting tourist markets for successful marketing strategies in the near future.

Five relevant satisfaction factors with the tourist experience in the Azores were identified using factor analysis: "Value for money, climate and remoteness", "Cultural heritage, family and relaxation", "Safety and local atmosphere", "Package tours and accessibility" and "Nature and scenery". To further advance our knowledge of these core satisfaction factors, a cluster analysis was performed on these five factors and revealed the presence of three distinct groups of tourists: the Delighted (37,5%), the Discoverers (47,7%) and the Socializers (14,8%). This method of analysis demonstrates that the clustering procedure yields meaningful insights into the satisfaction factors with the tourist experience. Significant differences between the clusters were identified based on demographic profile, the visit experience and travel characteristics. This considerable diversity within the sample should be taken into account in planning, marketing and management of Azorean tourism development.

Tourist satisfaction is a type of indicator of sustainable development of tourism that measures the current state of the industry and can provide the ability to anticipate serious negative effects on the destination or on the overall tourist experience. This tool is fundamental for fine tuning the Azorean tourism industry and, as such, should be repeated in order to monitor changing tourist perceptions of quality.

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