

The structural relationships of destination image, satisfaction, expenditure and loyalty in the context of fishing tourism

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ABSTRACT

The importance of fishing tourism for destinations is often analysed through the expenditure levels of tourists, with image, satisfaction and loyalty being under-researched areas. This article empirically tests a structural equation model to assess the relationship between the satisfaction, expenditure and loyalty of fishing tourists. Two dimensions were considered in each case: 1) overall and catch-related satisfaction, 2) expenditure on tourist and fishery products and services, and 3) behavioural and attitudinal loyalty. The study also examines destination attributes that are relevant in explaining the overall satisfaction of fishing tourists. By using data collected from 482 anglers visiting the Canary Islands (Spain) and Cape Verde, the study finds that overall satisfaction increases with the perception of a healthier and less polluted environment at destinations. This was found to be a dominant factor in the context of other attributes that also impact anglers' satisfaction. Besides, satisfaction was found to be an antecedent of spending, but only on the components of the destination's nautical offer. Finally, satisfaction with the catch was the only factor with a direct and positive relationship to loyalty. The study provides recommendations aimed at being useful in planning the sustainable development of fishing tourism at several destinations.

KEYWORDS

Fishing tourism; satisfaction; expenditure; loyalty; destination management

Introduction

In Europe, it is estimated that there is a total population of about 9 million recreational anglers, with direct expenditure calculated at almost 6 billion euros a year (Hyder et al., 2018). In the name of economic development, many coastal destinations focus on the promotion of fishing tourism because it provides an opportunity for diversification (Borch et al., 2011). Fishing tourism, defined as anglers travelling outside their place of residence to go fishing (Ditton et al., 2002), is known as an elitist activity, with the expenditure level of anglers being higher than that of residents and the average tourist (Hunt et al., 2017). This could be the reason why authors are mostly focused on analysing the profile of fishing tourists (FTs) – who spend the most (Roberts et al., 2017) – and pay

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less attention to other areas intervening on the decision-making processes of this segment.

In tourism literature, satisfaction is widely known to be dependent on the image tourists have of a destination (Bigné et al., 2001), and at the same time as a major antecedent of tourist expenditure (Brida et al., 2014) and loyalty (Eusébio & Vieira, 2013). However, no previous empirical evidence can be found on these relationships in the context of fishing tourism (Golden et al., 2019). Thus, the main aim of this research is to study the relationships between FTs' satisfaction, loyalty, and on-site expenditure at tourist destinations. In this attempt, two dimensions of satisfaction (overall and catch-related), on-site expenditure (on tourist and nautical products and services), and loyalty (behavioural and attitudinal) are considered.

The results are of great importance for destination marketing and management, as they provide evidence on the attributes that are relevant for explaining FTs' satisfaction on the one hand, and on the role of satisfaction (overall and catch-related) for explaining loyalty and expenditure decisions of these tourists during their visit on the other hand. Thus, this information can be useful in planning the development of fishing tourism at several coastal destinations seeking to utilise the promotion of this segment as a key driver for tourism competitiveness and positioning improvement.

The evidence is obtained from two well-known destinations for fishing tourism in Europe: Cape Verde and the Canary Islands (Spain). Their strategic position in the middle Atlantic region and the natural conditions enhance the attractiveness of the activity (Hyder et al., 2018). With this knowledge, the recommendations to plan the future management actions for other coastal destinations can be improved.

In a nutshell, the novelties of the paper are, on the one hand, to provide empirical evidence on the complex relationships between destination image, satisfaction, expenditure, and loyalty in the context of fishing tourism. In this sense, some of the fundamental determinants of tourists' decision-making processes have been verified, for the first time, in this segment. On the other hand, the study proves a theoretical framework that can easily be adapted to other destinations for fishing tourism (i.e. Mediterranean, Caribbean, etc.), and shed light on research areas on which to focus in the near future.

The paper is structured as follows: the theoretical background section summarises the literature on the study of tourist satisfaction, expenditure and loyalty, with special emphasis on some under-investigated areas related to the fishing tourism segment. The third section describes the model, the variables used, and their measurement. It also presents the fieldwork, the research instrument utilised for data collection and the sample construction. Section four discusses the results of the model, and finally, section five is dedicated to the conclusions of the research and offers additional remarks.

Conceptual framework

Fishing tourism

There is relatively little written about fishing tourism (Morales-Nin et al., 2015). Overall, the literature provides evidence that the venturing of anglers outside of their place of residence to go fishing is far more motivated by general factors than it is catch related (Roberts et al., 2017). For example, travel to an "exotic" wilderness destination is highly

motivating for FTs, which is common to many other forms of outdoor recreation, which also tend to seek out natural, calm and social environments (Golden et al., 2019). On the other hand, the predator-prey interaction of FTs with the marine environment has been a significant matter of concern (Golden et al., 2019). The studied impacts that have been associated with the intensification of this tourist activity are i) the benthos, oil spills, eutrophication, plastic and marine pollution (Lloret et al., 2014), ii) the mortality rate of the fish due to large competitions (Alós et al., 2009; Pita & Freire, 2016), and iii) the reduction in fish body sizes in Atlantic and the Mediterranean waters (Alós et al., 2016; Font et al., 2018). Certainly, these pressures can undermine the full potential of the activity for tourist destinations (European Commission, 2020).

Another research stream is dedicated to providing insights to the cultural characteristics and fishing behaviour that differentiate FTs from resident anglers (Hyder et al., 2018). However, recommendations are not satisfactory as, for several destinations, the strategies to promote the sustainable management of fishing communities are at odds with efforts to promote fishing tourism (Ditton et al., 2002). It is undeniable that there is a need to balance the conservation goals and the economic, cultural and social benefits of fishing tourism development, which still remains a challenge for many regions in Europe (Pita et al., 2020; Roberts et al., 2017).

Thus, the research effort should increase, since destination and fisheries managers require a better understanding of FTs' behaviour in order to ensure the appropriate management of the activity, fish stocks, and conflicts between FTs and residents, as well as other users of the marine environment (Blicharska & Rönnbäck, 2018; Pita et al., 2020).

Satisfaction

The importance of studying satisfaction with destinations is attributed to its influence on tourists' decision-making (Do Valle et al., 2006), spending and loyalty (Eusébio & Vieira, 2013), and future intentions (Bigné et al., 2001). In tourism literature, satisfaction is influenced by the opinion tourists have of a destination's attributes (Bigné et al., 2001) and the perceived quality of the products and services that companies offer (Chan et al., 2015). It is also argued that tourists' intensive (repetition) and extensive (multiple activities) use of the destination influences their opinions about the tourist sites, which is relevant for explaining satisfaction (Palacio et al., 2017). From this group, destination attributes have the greatest potential to explain the variance in overall satisfaction with destinations (Eusébio & Vieira, 2013).

In coastal and maritime tourism, there are specific attributes that are widely known as determinants of tourist satisfaction, such as the climate, beaches and natural environment (Bafaluy et al., 2014), security (Hall et al., 2012) and socio-political stability (Gržetić et al., 2013a), and the exoticism and cultural value of the destination (Beardmore et al., 2015). All of these have been analysed for the great majority of tourism segments with some relation to the sea and found to be antecedents of a satisfactory travel experience, yet few studies have verified their relevance for fishing tourism.

In the recreational fishing literature, the study of satisfaction has paid greater attention to aspects related to the catch (Arlinghaus, 2006) and the fishing avidity or commitment (Magee et al., 2018). In summary, these studies have demonstrated that i) the possibility of getting a catch, ii) higher catch rates, and iii) high-quality catches or trophy-sized fish are

required to increase anglers' satisfaction. This applies to all specialisation levels and species (Pitman et al., 2019), although the relevance of each aspect can vary among anglers according to their catch orientation and commitment (Beardmore et al., 2015).

When referring to fishing tourism, there is no consensus in regard the role of catch-related aspects to explain higher levels of satisfaction for FTs (Golden et al., 2019). While some studies affirm that anglers' satisfaction remains mainly catch-dependent when travelling abroad (Arlinghaus, 2006), others have proven that there exist other factors that prevail. The latter authors affirm that the distance travelled, trip duration, the perception of crowding, competition, the social and cultural environment, exoticism, and service quality are the main determinants of FTs' satisfaction (Beardmore et al., 2015; Lee et al., 2010). There is an apparent contradiction that can only be clarified if a bi-dimensional analysis of satisfaction is undertaken, differentiating satisfaction with the catch and overall satisfaction with the travel experience. This paper addresses this gap by proposing a multidimensional model, explaining the overall satisfaction of FTs.

Loyalty

Loyalty has received special attention in tourism marketing literature, since loyal tourists represent not only a stable source of income for destinations, but also act as a channel of information that informally connects networks of friends and other potential travellers. Repeating tourists are also less sensitive to prices, showing a greater willingness to pay. In addition, the cost of serving this type of tourist is lower (Lau & McKercher, 2004).

Tourism loyalty is a construct that has been tackled in a very homogeneous way, generally adopting three main conceptual approaches: behavioural (number of visits), attitudinal (willingness to revisit), and an approach that integrates both attitude and behaviour (Rundle-Thiele, 2005).

In fishing tourism, there has been a trend toward emphasising specific catch-related goals (amount, size and weight) or catching fish "prey" as the primary drivers of repetition and future intentions of fishermen towards destinations (Beardmore et al., 2015; Johnson & Carpenter, 1994). These studies are mostly applied to the context of competitions and fishing events. Moreover, the opportunity to fish a rich variety of species has been found to have a direct relationship with the repeated visits of FTs to the same destination (Shrestha et al., 2002).

There are other studies proving that FTs rarely fish in the same place twice, but instead move among a variety of expensive, remote, and specialised fisheries for unusual fish (Golden et al., 2019). This suggests low levels of destination loyalty within the segment, which could be explained by the fact that anglers (as is the case for surfers) tend to be loyal to those marine environments that offer the best experience (Barbieri & Sotomayor, 2013).

However, the relationship between satisfaction and loyalty in its behavioural and attitudinal dimensions has been insufficiently addressed for the case of fishing tourism (Lee et al., 2010), although satisfaction is a major antecedent of loyalty for many tourism segments (Eusébio & Vieira, 2013).

Expenditure

Regarding expenditure, the literature affirms that the daily and total expenditure levels of FTs are higher than those of residents (Bilgic et al., 2008). Authors are mostly focused on

identifying the socio-demographic profiles of anglers that spend the most (Butler et al., 2009; Roberts et al., 2017). The characteristics of the trip (number of fishing days, length of stay, travel party, distance and mode of transportation) have also been studied in relation to spending. The main conclusions are that boat rental, vehicle fuel and accommodation are the largest expenses for a FT (Borch et al., 2011; Hunt et al., 2017).

It has been found that the accumulated experience in the sport, as well as the “abundance of catches”, has a positive effect on the expenditure of FTs at destinations (Blicharska & Rönnbäck, 2018; Morales-Nin et al., 2015). The fishing modality is another aspect with a direct impact on expenditure; for example, the practice of “squid jigging” and angling from ports entails significantly greater expenditure. Besides, anglers owning boats usually spend more when practicing highly specialised types of fishing, such as spear fishing and deep sea fishing, which require specialised equipment (Morales-Nin et al., 2015). In relation to loyalty, previous visits have been found to have a negative impact on daily expenditure (Seidl & Moraes, 1997).

An important limitation of these studies is that they analyse the total expenditure per trip or per year (Hunt et al., 2017; Roberts et al., 2017; Seidl & Moraes, 1997) without differentiating the percentage of the travel costs incurred only during the visit to a destination, which support more accurate recommendations to destination managers. Besides, the relationship between satisfaction and expenditure has received very scarce attention, with satisfaction being a major antecedent of expenditure for many tourism segments (Brida et al., 2014). In response, the present study provides empirical evidence for the way satisfaction could be an antecedent of FTs’ on-site expenditure, differentiating the expenditure on nautical and tourist services and analysing only the costs incurred during the visit to the destination.

Method

In order to assess the relationships between FTs’ satisfaction, destination image, loyalty and on-site expenditure, various hypotheses were formulated. The model focused on tourists’ overall satisfaction (SAT) when the purpose of his or her trip is mainly to carry out recreational or sport fishing activities. It also refers to the satisfaction with the catch (SATc), and two loyalty variables: i) the number of previous visits to the destination (VISIT), and ii) the willingness to repeat the fishing trip (REVI). The model also includes the individual expenditure on nautical and fishery (EXPf) and tourist (EXPt) products and services during the visit. As far as we know, there are no previous studies analysing FTs’ expenditure decisions in relation to loyalty and satisfaction in a multidimensional way.

Hypotheses and model

The hypotheses were studied utilising a system of structural equations, where overall satisfaction is defined as the evaluation tourists give to the destination and the travel experience (SAT), which is expected to condition their on-site expenditure on both components: nautical or fishery, and tourist products and services (EXPf and EXPt). It was also expected that tourists’ satisfaction levels would influence their future intentions to revisit the destination (REVI). Additionally, the model proposes that previous visits (VISIT), as well as satisfaction with the catch (SATc), influence FTs’ overall satisfaction (SAT).

The model considers some key attributes of the destination image (ATRIB) that may also influence the satisfaction of FTs (SAT). Table 1 shows the description of all the variables used in the model and the attribute dimensions (ATRIB) that were selected, along with the references of previous studies from which these constructs were identified. All the ATRIB dimensions have great importance in explaining the decision-making processes in other forms of coastal and marine tourism, yet their relevance for explaining the satisfaction of FTs has not been verified.

The first hypotheses to consider focused on the relevance of destination attributes (ATRIB) for explaining the overall satisfaction of FTs (SAT). There is a growing body concluding that people care about the environment and prefer more sustainable options and activities (Goodwin & Francis, 2003; Hall et al., 2012). However, its application is scarce in the context of fishing tourism. Thus, it can be explored if the perception of proper environmental management at destinations influences the satisfaction of FTs:

H1. FTs perceiving greater environmental management and a less polluted environment (ATRIB1) have a higher level of satisfaction with the destination and the travel experience (SAT).

Security and socio-political stability have always been a subject of great concern for tourists (Mawby, 2000), and especially for those who own a boat, stay in marinas or undertake maritime activities (Gržetić et al., 2013b, p. 88; Trist, 1999). Thus, the following hypothesis was established:

H2. FTs perceiving greater security and socio-political stability (ATRIB2) have greater overall satisfaction (SAT).

Table 1. Description of the variables in the model, and references supporting the attribute dimensions proposed.

Nom.	Description
SAT	Construct- overall satisfaction with the destination and the travel experience
SATc	1–5 level of tourist satisfaction with the catch; 1= not satisfied; 5= very satisfied.
EXPf	Continuous variable- individual expenditure on nautical and fishing products and services during the visit, declared by the tourist
EXPt	Continuous variable- individual expenditure on tourist products and services during the visit, declared by the tourist
VISIT	Continuous variable- number of previous visits for fishing activities
REVI	Dummy variable that takes the value 1 if the tourist has positive intentions to repeat the visit, and zero otherwise.
ATRIB	Constructs measuring cognitive evaluation of several aspects of the destination image (1= totally disagree; 5= totally agree).
ATRIB1	Good environmental management and less polluted waterways <i>Coastal tourism: tourists care about the environment and prefer more sustainable options and services (Hall et al., 2012; Goodwin & Francis, 2003)</i>
ATRIB 2	Security and socio-political stability <i>Marine tourism: yachtsmen give high importance to security and socio-political stability when choosing and evaluating destinations (Mawby, 2000; Gržetić et al., 2013a, p. 88).</i>
ATRIB 3	Peaceful and exotic fishing experience <i>Fishing tourism: exoticism and wilderness, and the possibility to catch diverse species in a peaceful fishing environment influence an angler's satisfaction (Beardmore et al., 2015)</i>
ATRIB 4	Outstanding cultural value and activities <i>Cruise tourism, marine tourism: the perceived value of the cultural environment influences tourists' satisfaction (Chang et al., 2016; Gržetić et al., 2013b, p. 50).</i>
ATRIB 5	Good weather, beaches and tourist services <i>Nautical tourism: the climatic conditions, beaches and tourist services influence overall destination image and satisfaction (Bafaluy et al., 2014; Barbieri & Sotomayor, 2013; Gržetić et al., 2013b, p. 75)</i>

Following guidance from previous research, exoticism and wilderness, and the possibility to catch diverse species in a peaceful fishing environment (Beardmore et al., 2015) are considered factors that influence an angler's satisfaction, leading to H3:

H3. FTs perceiving a more peaceful and exotic fishing experience (ATRIB3) have higher levels of overall satisfaction (SAT).

Finally, as destinations appeal to tourists for many other reasons - the climate, cultural heritage, reputation, hospitality, among other things - and their relevance varies from one destination to another and between market niches (Gössling et al., 2012). This article proposes two more hypotheses. They are based on previous research into factors that affect the tourist experience value of "sun, sea and sand" tourism (De Freitas, 2015).

H4. FTs who consider that the destination's cultural or historical value is higher (ATRIB4) have greater overall satisfaction (SAT).

H5. FTs with greater satisfaction with the destination's climatic conditions, beaches and tourist services (ATRIB5) have a higher level of overall satisfaction (SAT).

It is also expected that satisfaction with the catch, referring to the fulfilment of the fishing needs, goals and expectations (Pitman et al., 2019), influence the overall satisfaction of FTs.

H6. FTs with greater satisfaction with the catch (SATc) have a higher level of overall satisfaction (SAT).

Following Golden et al. (2019), in this model we propose that the more peaceful and exotic fishing experience (ATRIB3) also impacts satisfaction with the catch (SATc). Thus, H7 is required:

H7. FTs perceiving a more peaceful and exotic fishing experience (ATRIB3) have higher levels of satisfaction with the catch (SATc).

Following Eusébio and Vieira (2013), it can be expected that FTs with more visits display a higher level of satisfaction (SAT). Furthermore, it is expected that FTs that are more satisfied show more willingness to revisit the destination, leading to H8 and H9.

H8. FTs with more visits (VISIT) have higher overall satisfaction (SAT).

H9. FTs with a higher level of satisfaction (SAT) show more willingness to repeat the visit to the destination.

The next group of hypotheses was related to the FT's individual expenditure at the destination (EXP), which is expected to depend on the overall satisfaction (SAT). Thus, the last two hypotheses were established:

H10. Greater satisfaction (SAT) determines a higher level of on-site expenditure on nautical and fishery products and services (EXPf).

H11. Greater satisfaction (SAT) determines a higher level of on-site individual expenditure on tourist products and services (EXP).

Figure 1 depicts the path diagram, considering all the elements described above and the hypotheses presented. The circles represent constructs (resulting from data processing), while the rectangles represent the observed variables.

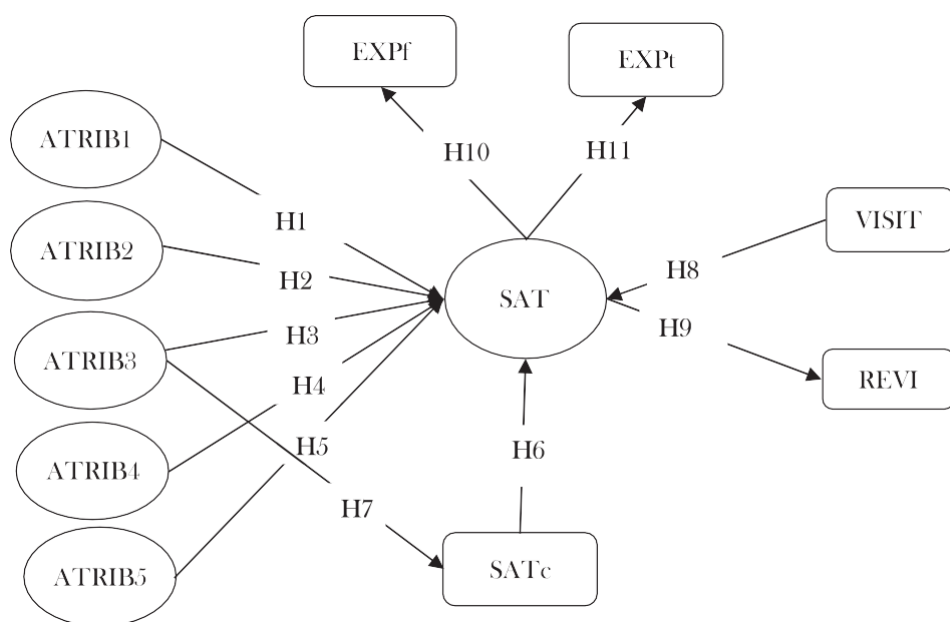


Figure 1. Theoretical model.

Given the necessity of establishing limits on the research, factors influencing satisfaction with catch are not analysed. Similarly, other aspects with potential impact on FTs' expenditure decisions, other than overall satisfaction, are not considered. These are considered weaknesses of the present research.

Study site

The locations chosen for the study were Cape Verde and the Canary Islands (Spain). These archipelagos belong to the group of islands of the Macaronesia region, grouped strategically thanks to their biogeographic and socioeconomic similarities. This region is strongly committed to the promotion of blue growth as a source of wealth for their coasts (Rebollo & Castiñeira, 2010), and because coastal and maritime activities, including nautical and fishing tourism are major sources of jobs and one of the main components of their economic structure (Gordoa et al., 2019; López-Guzmán et al., 2013).

The Macaronesia region possesses excellent natural conditions for nautical and fishing activities, with the absence of extreme weather phenomena. In addition, their strategic location in the Atlantic, being an enclave between the European and American continents, constitutes a remarkable strength, especially for the development of intercontinental navigation (Eusébio & Vieira, 2013).

The Spanish archipelago has a deeply-rooted fishing culture, both recreational and professional (Gordoa et al., 2019). In the case of Cape Verde, in recent times there has been a debate about the need for its renewal based on diversification towards sport fishing and nautical tourism, which is a priority concern within the tourism policy (León González et al., 2014).

Data collection

The target population of this study was defined as tourists visiting the Canary Islands and Cape Verde mainly motivated by recreational or sport fishing. Given the absence of official statistics related to the subject, the objective population was defined as the total population of international tourists visiting these islands motivated by engaging in fishing activities.

Prior to the surveying phase, the questionnaire was translated into four languages, and a focus group was conducted with ten fishermen. The purpose was to ensure that the questions were going to be clearly understood by the respondents. Once the questionnaire was pre-tested and the pertinent corrections made to the items that raised comprehension difficulties, the interviews were conducted in a face-to-face format.

The fieldwork was carried out by a specialised marketing enterprise, and interviewees were approached in fishing and sailing clubs, ports, beaches, and the main sales and rental points of nautical equipment on the islands of Sal and Mindelo (San Vicente island), and Gran Canaria and Lanzarote (Canary Islands). A filtering process was done in two phases. All tourists that agreed to participate were informed of the following aspects in order to screen the target individual:

- 1) The respondents were asked about the purpose of their visit in order to identify those focusing mainly on recreational or sport fishing. If the interviewees had not planned to undertake any fishing activities, the interview was terminated.
- 2) They were asked at which point of their trip they were at - at the time of the interview - and when were they going to leave the archipelago, with the aim of screening travellers who were in the final phase of their visit and had accumulated sufficient experience of the destination. Anglers that were participating in a fishing event were not included. Thus, each tourist surveyed had enjoyed at least 80% of their stay at the destination and was not travelling as part of a tournament. A random sample of 482 FTs was obtained
- 3) Finally, tourists were briefly informed of the structure of the survey and the purpose of the study. The fieldwork was carried out at two different moments: early October and late November 2018. The questionnaire was structured into three groups of questions, which used open, closed and multiple-choice formats. The first group consisted of socioeconomic questions. The second group focused on the characteristics of the trip, asking respondents about previous visits and the individual expenditure on tourist products and services (accommodation, restaurants, shopping, excursions, souvenirs, etc.), and the third group on expenses incurred for fishing needs (fuel, tackle, boat rental, bait, etc.).

Tourists were also asked for the opinion of sixteen aspects of the destination. These items are framed into the five attributes dimensions (ATRIB) shown in [Table 1](#). The specific items were selected through an expert-assisted process pivoting around the concept of FTs' experience value. In this qualitative stage of the research, one focal group was organised with three high level stakeholders of the fishing industry, two practitioners of the regional office of tourism promotion in Canary Islands, and three academics of University of Las Palmas de Gran Canaria (Spain). Finally, a further three

specific questions were dedicated to measuring the FTs' overall satisfaction (SAT) and one more to measuring satisfaction with the catch (SATc).

Data analysis

Frequency analysis was utilised to characterise the general profile of the respondents and the trip. In order to reduce the number of variables, a confirmatory factorial analysis (CFA) was used on the sixteen variables that evaluate the attributes of the destination, and the three variables that measure satisfaction.

In order to make inferences about the research hypotheses formulated previously, a structural equation model (SEM) was employed. This is an appropriate technique for identifying linear regression relationships between several variables at the same time, to be expressed through hierarchical or non-hierarchical structural equations (Eusébio & Vieira, 2013). The theoretical model proposed in Figure 1 was validated in AMOS (AMOS 26), a covariance-based SEM marketed by SPSS (SPSS 26).

Figure 1 illustrates the working of the model. The variables drawn in boxes are actual data collected during the fieldwork. The latent variable constructs (ATTRIB 1 to ATTRIB5) were displayed as circles representing constructs (resulting from data analysis). A two-step process was adopted. First, the factor structure of each of the six constructs of interest was assessed to determine the measurement model fit. Then, the observed factors (EXPf, EXPt, VISIT, REVI, and SATc) were included in one full measurement model. Finally, the complete structural model was examined to determine whether the data fitted the theoretical model, and test the proposed hypotheses.

The R^2 parameter was utilised to evaluate the explanatory power of the variance of the endogenous variables. Also considered were the values of the RMSEA (Root Mean Square Error of Approximation) index - which indicates the degree of adjustment of the theoretical model with the population covariance -, the degrees of freedom (df), the CFI and the CMIN/DF (Chan et al., 2015).

Results

This section is structured in three subsections. The first one corresponds to the characterisation of the general profile of the respondents and their trip, the second shows the results of the factorial analysis and the definition of the constructs for the model, and the third presents the results of the structural model and hypotheses testing.

Sample socioeconomic and travel characteristics

Table 2 shows the socioeconomic profile of the respondents and the characteristics of the trip. For some variables, only the categories that were most frequent are shown.

The sample consists mainly of male subjects with university studies, married or with a partner, representing more than 60% of the total. The most frequent age is approximately 30 years old, and the main nationalities are Portuguese, French, British and German. These results are consistent with research conducted by Gordoia et al. (2019) and Morales-Nin et al. (2015), which reported that angling is primarily a middle-aged, male leisure activity, although the tourists fishing are usually younger.

Table 2. Socio demographic profile and trip description.

Variables	Categories	%
Sex	Male	60.8
	Female	39.2
Age	25–34 years	38.6
	35–44 years	21.6
	45–54 years	15.0
Marital status	single	32.0
	married	38.6
	in couple	24.2
Educational level	secondary/bachelor	30.1
	university	62.7
Nationality	French	37.3
	Portuguese	35.0
	Britain	11.0
	German	11.7
Number of visits (VISIT)	> 3 visits	29.2
	2 ≤ visits ≤ 3	19.7
	1 visit	22.8
	first timers (0 visits)	28.3
On-site expenditure by tourist (EXP)*	Fuel, boat rental, bait, etc.	1100€
	Accommodation, shopping, restaurants, souvenirs, etc.	1500€
Revisit intentions (REVI)	Yes	58.5
	No	41.5

* average expenditure by tourist during the visit at the destination (the length of stay was about 5 nights).

With regards to travel planning, it can be observed that a great proportion of FTs (29%) have visited the islands more than three times, and furthermore, more than 50% stated positive intentions to revisit. Regarding expenditure, findings are coherent with previous research by Hunt et al. (2017), although our study only refers to on-site expenditure and excludes services already paid in the countries of origin.

Measurement model

The confirmatory factorial analysis (CFA) resulted in four dimensions. It also confirmed the structure of the explanatory variables proposed in the theoretical path diagram (Figure 1) and allowed the structure and formal definition of the constructs of the model: ATRIB1 to ATRIB 4 and SAT, as shown in Table 3.

The overall fit of the CFA was adequate as $df = 40$ and $RMSEA=0.080$ are in acceptable ranges to confirm a correct adjustment to the data (Chan et al., 2015). To assess the measurement quality, the study examined both validity and reliability of the latent variables.

All the factor coefficients were above 0.52, which indicates a high correlation within the constructs. The values of AVE were excellent, exceeding the .60 threshold. The constructs' internal reliability was evaluated through the Composite and Cronbach's Alpha coefficients, which were greater than .76.

Structural model results

By validating the path diagram of Figure 1, the model proposed two modifications. First, the model indicated that there is a direct effect of the variable VISIT (previous visits) on SATc (satisfaction with the catch). Second, SATc should have a direct effect on REVI (willingness to revisit). After implementing the proposed modifications, the measures of

Table 3. Confirmatory Factor Analysis: Items and loadings.

Constructs and scale items	Standardized loadings*	Skewness	Kurtosis
ATRIB1– Good environmental management and less polluted waterways			
Healthy and less polluted coastal and maritime areas	.71	-1.678	2.400
Conservation programmes of marine ecosystems	.61	-1.743	2.341
ATRIB2- Security and socio-political stability			
A destination offering a high level of safety	.59	.102	-.199
Political and a social stability	.67	-.370	.599
Good infrastructures (airport, roads, etc.).	.57	-.471	.512
ATRIB3– Peaceful and exotic fishing experience			
Environment mostly undisturbed by other anglers	.53	-.020	.207
Natural environment with spanning habitats and fish refuges	.71	-.659	.191
Exotic destination with great wilderness areas	.59	.190	-.676
ATRIB4– Outstanding cultural value and activities			
Interesting cultural activities (festivals, folklore, etc.).	.59	.190	-.676
Remarkable cultural heritage to be visited	.57	-.471	.592
Notable traditions and customs	.60	-.644	.285
ATRIB5– Good weather, beaches and tourist services			
Nice weather	.71	-1.034	1.659
Beautiful beaches	.66	-.655	.385
Good accommodation facilities	.61	-1.743	2.341
Varied gastronomy offer of good quality	.59	.200	.341
Diversity of sport activities (nautical sports, tennis, etc.).	.61	-1.742	2.340
SAT- Satisfaction with the destination and the travel experience			
I am satisfied with my decision to visit this destination for fishing	.60	-1.248	2.207
I am satisfied with the overall trip experience	.55	.600	.907
The destination has met my expectations	.52	.320	.600

*all factor loadings are significant at $p < 0.001$.

AVE: ATRIB 1 (88.29); ATRIB 2 (74.29); ATRIB 3 (80.65); ATRIB 4 (65.27); ATRIB5 (62.24); SAT (72.18).

CA: ATRIB 1 (0.847); ATRIB 2 (0.815); ATRIB 3 (0.798); ATRIB 4 (0.752); ATRIB5 (0.714); SAT (0.745).

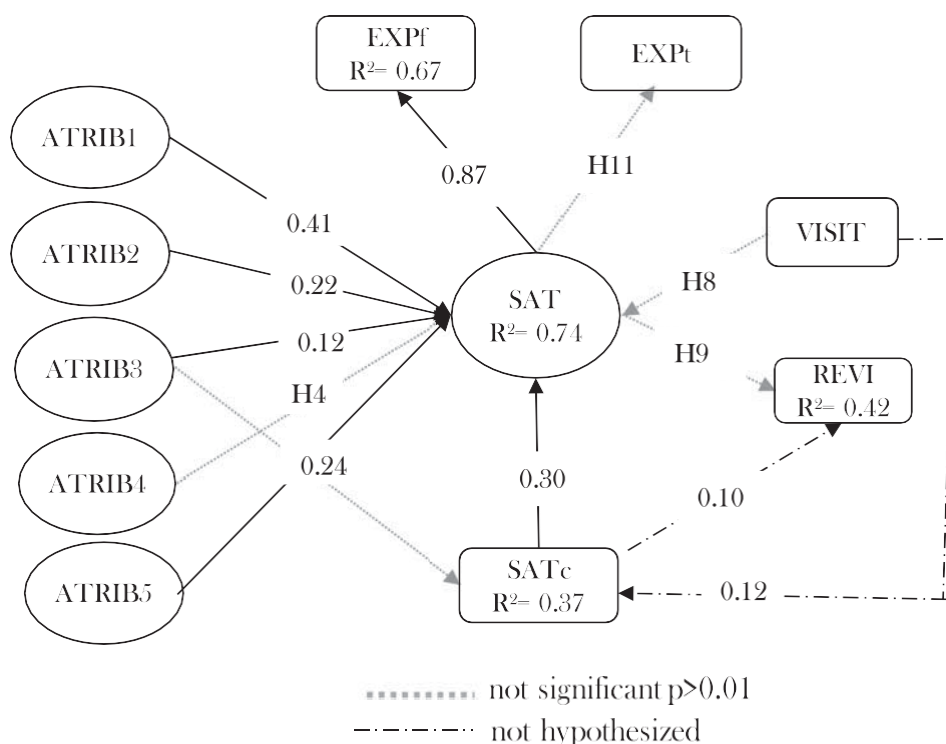
Goodness of fit: $df = 40$; $CMIN/DF = 2.106$; $CFI = 0.908$; $RMSEA = 0.080$.

$RMSEA = 0.09$, $CMIN/DF = 2.779$ and $CFI = 0.950$ were found to be acceptable to validate the model and its suitability to the data. Even though there are authors who argue that the ideal value of the $RMSEA$ should be less than 0.05, and in the case of small samples - as in this study - values below 0.10 are also considered acceptable (MacCallum & Austin, 2000).

Figure 2 summarises the general results of the model, including the regression weights that were significant to explain the variance of the dependent variables (SAT, SATc, EXPf, EXPt, and REVI). The Figure also presents the values of R^2 for the endogenous variables, which present a high reliability of the measure, explaining more than 42% of the variance in all cases.

Hypotheses testing

Table 4 summarises the general indices of the model fit, as well as all the regression coefficients estimated for the structural relationships, and the test results of the hypotheses. Results indicate that FTs' perceptions and opinions on the environmental management and contamination levels of the destination (ATRIB1) have a direct and positive effect on their overall satisfaction (SAT). That is, FTs perceiving a greater state of conservation of the coastal and marine environments and mitigation efforts present higher levels of satisfaction with the destination and the travel experience. The variable ATRIB1 was also found to be a dominant factor because of its greater regression coefficient compared to the rest of the explanatory variables.



$df = 44$; RMSEA=0.090, CMIN/DF=2.779, CFI= 0.950

Figure 2. Structural model results

Similarly, there is a direct and positive effect of the variables ATRIB2, ATRIB3 and ATRIB5 on tourist satisfaction (SAT). This indicates that the security and socio-political stability (ATRIB2), the exoticism and peace (ATRIB3), and the optimal weather conditions and the diversity and quality of the sporting and tourist offer (ATRIB5) lead to a greater level of satisfaction within the segment. However, FTs' opinions of the heritage, traditions and cultural activities of the destination (ATRIB4) do not have a direct influence on their

Table 4. Path coefficients and hypothesis treatment.

Effects	Standardized Loadings	CR	Sig.	Hypothesis	Results
SAT←ATRIB1	0.41	8.479	.000	H1	Supported
SAT←ATRIB2	0.22	6.579	.010	H2	Supported
SAT←ATRIB3	0.12	2.168	.006	H3	Supported
SAT←ATRIB5	0.24	2.690	.000	H5	Supported
SAT←SATc	0.30	3.666	.000	H6	Supported
EXPf←SAT	0.30	3.666	.000	H10	Supported
SAT←ATRIB4	-3.80	-1.018	.309	H4	Not supported
SATc←ATRIB3	4.50	.743	.458	H7	Not supported
SAT←VISIT	-1.47	-.707	.480	H8	Not supported
REVI←SAT	-2.92	-.707	.480	H9	Not supported
EXPt←SAT	1.30	3.648	.050	H11	Not supported
SATc←VISIT	0.12	2.850	.000		Not hypothesized
REVI←SATc	0.10	2.801	.008		Not hypothesized

$df = 44$; CFI=.805; RMSEA=0.090; CMIN/DF=2.779; CFI=0.950.

overall satisfaction (SAT). Thus, from this group of five constructs, only H4 was not supported.

Satisfaction with the catch (SATc) was found to have a direct and positive effect on the overall satisfaction (SAT), leading to the acceptance of H6. Besides, satisfaction with the catch (SATc) is the only variable in this model with a direct and positive relationship to loyalty in its behavioural (VISIT) and attitudinal (REVI) dimensions, since the effect of overall satisfaction (SAT) turned out not to be significant as it was hypothesised. In other words, the fulfilment of the fishing goals or needs (SATc) leads to higher levels of overall satisfaction with the travel experience (SAT), and a greater disposition of the FTs to repeat the trip (REVI). At the same time, FTs with more visits to the destination (VISIT) declare higher levels of satisfaction with the catch (SATc), confirming that repetition is an indicator of fulfilment of fishing goals or expectations. This is an important conclusion because the final benefits that a loyal tourist brings to a tourist destination are largely motivated by behaviour. Therefore, H8 and H9 were not supported with the empirical data. Additionally, the model indicates that FTs' satisfaction with the catch (SATc) does not depend on the perception tourists have of the peace and exoticism of the destination (ATRIB3), leading to the rejection of H7.

Finally, overall satisfaction (SAT) was found to have a direct and positive relationship with expenditure, but only in its fishing and nautical dimension (EXPf), leading to the acceptance of H10. H11 was not supported as the SAT variable does not have a direct effect on the on-site expenditure of FTs in other tourist services (EXPt). This means that tourists with higher satisfaction levels spend more on those products and services directly linked to the fishing activity (nautical equipment, fuel, bait, etc.).

An important contribution of this study is that it demonstrates that satisfaction (SAT) plays a triple role in the conformation of the FT's travel experience: first, as a measure of tourist opinions on the destination management of the environment, natural resources, emissions, maritime activities, security, beaches and tourist products and services; second, as an indicator of the satisfaction with the catch (SATc); and third, as a mediator between satisfaction with the catch (SATc) and on-site expenditure on nautical and fishery products and services (EXPf). In other words, FTs' expenditure levels at the destination depend, ultimately, on the fulfilment of the fishing expectations, although other factors may intervene. Finally, as the on-site expenditure of FTs on other typical tourist products and services (accommodation, shopping, restaurant) (EXPt) is not directly related to any of the variables analysed, no recommendations can be provided in this area.

Discussion

This paper supports and contrasts earlier findings, and also reveals new insights. The studies of Alberini et al. (2007) and Golden et al. (2019) suggest that FTs' level of environmental concern in regard to endangered species and their conservation is low. However, supporting the evidence of Gordoia et al. (2019), we found that the perception of proper environmental management, mitigation efforts and the existence of programmes for conservation of marine biodiversity are dominant in explaining FTs' overall satisfaction. Although this paper was not able to explain to what extent FTs might be prepared to sacrifice their own fishing goals and preferences in order to protect the environment,

the results are of great importance for most coastal destinations having to cope with greater sustainable management of fishery resources.

Thus, fishing tourism development may provide environmental benefits, such as the protection of habitat and fish stocks. These efforts can also be a differentiating resource and competitive advantage for destinations because of their effect on FTs' satisfaction and expenditure decisions. This is especially the case in the context of designing fish stocking programmes, where careful considerations need to be given to conservation objectives for preserving wild fish.

On the other hand, this study contrasts with the findings of Lee et al. (2010), by proving that the fulfilment of catch-related expectations do have a direct impact on the overall satisfaction of FTs and their future intentions towards destinations. Meanwhile, other aspects related to massification, exoticism, security, climate, and beaches are also relevant for explaining FTs' satisfaction, but do not have a direct impact on their willingness to revisit the destination. From a policy perspective, the loyalty of FTs can be enhanced only if fishing goals or needs are met. In order to ensure a satisfactory fishing experience, it is necessary to provide accurate, relevant and adequately zoned information, and guide the FTs at the appropriate time to the areas where they can conduct the fishing activities in the best and most peaceful possible conditions, and with the lowest environmental impact.

This research has shown that a positive image of the cultural value and activities on offer at the destination does not have a direct impact on FTs' satisfaction. This evidence contrasts with the earlier findings of Beardmore et al. (2015), and suggest that this does not need to become a priority for the segment. Also, the satisfaction of FTs may be significantly enhanced by focusing on an adequate management of wilderness areas and proper marine spatial planning in regard to both tourists' and residents' activities, thus ensuring a mostly undisturbed environment for FTs, which is in alignment with the discovery of Beardmore et al. (2015).

Finally, this study has proven that loyalty is not directly related to the level of expenditure of FTs. This means that repeating tourists do not necessarily spend more. It is important, however, to note that repeating tourists have an economic impact on destinations, and destination managers should be aware of the importance of identifying the areas that need to be improved in order to promote tourism loyalty.

Conclusions

The main contributions of this paper are that i) it provides a wider understanding of the behaviour of FTs, ii) it identifies destination attributes that are dominant in the satisfaction conformation process of FTs, and iii) it proves the important role of satisfaction, in its two dimensions, in explaining FTs' higher levels of expenditure and greater loyalty.

The novelties of the paper are in the design and validation of a structural regression model that explains the relationships between satisfaction, expenditure, loyalty and destination image of FTs, and which can be easily verified in several destinations and sub-segments. Furthermore, this approach allows the construction of a holistic base of knowledge for better predictions on the behaviour of FTs.

This research has shown that FTs' overall satisfaction may be crucial for increasing their expenditure levels during the visit to the destination. At the same time, the proper

environmental management of the destination was found to be a dominant factor in increasing FTs' overall satisfaction, among other aspects that also intervene, such as security and socio-political stability, exoticism and peace, weather conditions, and the diversity and quality of the sporting and tourist offer.

Therefore, the development of proper strategies for fishing tourism should pay special attention to tourists' awareness of long-term conservation and sustainable use of the oceans and their resources. In other words, managing fishing tourism might be seen as a tool for achieving greater sustainable marine and coastal ecosystems. At the same time, the marketing plans should take advantage of the progress made in this area, thus ensuring a competitive advantage that enhances the visitor's experience and, thus, the economic impact of the segment. This information can be useful in planning the development of fishing tourism in several coastal destinations seeking to utilise the promotion of this segment as a key driver for tourism competitiveness.

The study also highlights the importance of catch-related satisfaction to explain the overall satisfaction and loyalty of FTs. This denotes that the fulfilment of anglers' goals and needs in regard the fishing activity is also important for ensuring economic impact. This evidence is novel and may allow policy makers to embrace useful recommendations for destination management organisations, which can improve the profitability of marketing strategies. It may also be useful for the design of services and experiences. More specifically, tourism managers must be attentive in ensuring an outstanding fishing experience, by facilitating anglers' access to those products and services that meet their specific requirements more closely, guiding them to the right area at the right moment where they can experience the satisfaction of a great catch, and assuring them that the fishing activity can be carried out with the lowest ecological impact. This provides an opportunity to promote knowledge and information, thus ensuring that FTs can make better-informed decisions. In this attempt, it is crucial to use information and communication technologies (ICTs) that are already playing an important role in the promotion of destinations and in the communication of information, but are still less developed in the utilisation of environmental or climate-related content for tourism services.

Limitations and future research

This paper is not free of limitations, which constitute the main avenue for future research directions. First, it is based on island destinations of the Atlantic region, and therefore there is need to consider evidence on other alternative destinations. Second, the small sample analysis requires further evidence with much larger samples in order to definitively prove the robustness of the encountered relationships of the investigated hypotheses. Third, this research has focused on fishing tourists in general, including all possible motivations, trips characteristics, and fishing modalities. Thus, the extrapolation of results to some specific fishing activities needs to be verified.

Furthermore, this research did not analyse factors intervening in the enhancement of the catch-related satisfaction of FTs, which require a more profound and detailed examination. Being that satisfaction with the catch is dependent on anglers' expectations and goals, and these expectations vary among FTs according to the fishing modality and trip characteristics, it is crucial to undertake more segmented studies on satisfaction, which are activity-specific and based on the type of destination chosen for fishing.

Finally, it is difficult to generalise conclusions as regards the loyalty of FTs. This is due to the fact that in our model, catch-related satisfaction was the only variable found with a direct relationship with FTs' repetition and future intentions to revisit, when there might be other factors that also intervene. Thus, understanding the loyalty of FTs remains a key issue, and hence one of the most important avenues of future research.

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