

## Website Quality of Entities Managing Nautical-Sports Facilities as a Leisure and Active Tourism Alternative

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### Abstract

The quality of use of websites of entities managing nautical facilities was explored with the main objective of knowing its ability to attract potential users in the field of active tourism in nature. This activity is increasingly on the rise and has a significant impact on the economy. 304 websites were evaluated using the multipurpose model 2QCV3Q. It obtained these spaces have a good quality or even above average quality above average reference entities with a value of 3.55 ( $\pm 0.7$ ) in the Overall Evaluation. The best results were for the dimensions of Identity, Location, and Maintenance, identified as spearheading factors for good ratings. There was significance ( $p < 0.05$ ) between the Regions that were on the coast and those that were not, with the former performing better. Their websites can serve as reference models for those who want to position themselves in the sector through digital marketing. This was not the case when differentiating between island and mainland entities due to the great weight of mainland coastal institutions in the market. Furthermore, there is a quantity and quality predominance of Yacht Clubs, opposed to Companies, Schools and other types of entities, with more lucrative form of organisation. 'These Yacht Clubs' values position them as reference entities for the rest. The research's added value comprises that, in order to attract potential users, the elements on which web communication efforts should be focused are those related to brand identity, technical and maintenance aspects, and those related to interaction, communication with the user, and positioning in social networks. Selling the uniqueness of the natural space where the activity is carried out and the richness of its biodiversity can position the entity against others in the network through a strong brand identity.

**Key Words:** 2QCV3Q Model, Natura 2000 Network, digital marketing, nautical activities, sport management

**JEL Classification:** Q01; P57; Z29; Z31; Z32

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### 1. Introduction

The Leisure and active tourism are an activity that focuses on physical and sporting activities in natural and cultural environments. In Spain, it has acquired great importance in recent years due to its potential to attract an increasingly diverse and demanding public. Some of its most popular activities in Spain are hiking, cycling, climbing, paragliding, skiing, snowboarding, and nautical activities such as rafting, kayaking, surfing, windsurfing, and sailing, among others (Sendra Mascarell, 2022).

These activities take place in beautiful natural settings, such as natural parks, mountains, beaches and rivers, and offer a unique and unforgettable experience for consumers. This activity, as a leisure and active tourism alternative, has grown significantly in Spain in recent years thanks to the large number of natural and cultural resources the country has to offer. Along these lines, the country has developed an important interest in the conservation and protection of its natural and cultural heritage, as this type of consumer is sensitive to the conservation of the environment and local culture (Magaz Molina, 2021). Moreover, leisure and active tourism also has a positive impact on the local economy, as it fosters the development of small and medium-sized enterprises dedicated to the organisation of activities and services related to the sector. This is why it has become an attractive alternative to sun and beach tourism, which has traditionally been the main driving force for tourism in Spain (Sánchez et al., 2022).

Along these lines, nautical activities are an example of a sustainable model of tourist exploitation of these areas. They allow the creation of a balanced economic activity and the enjoyment of the surroundings without damaging the environment. They also help to raise awareness that the practice of sustainable activities in natural areas will allow us to continue to enjoy nature endlessly (Caparros-Martinez et al., 2022).

But it's not enough to have good models that are appealing to consumers and are sustainable (Ogutu, 2023). It's also necessary to make them visible and advertise their strengths properly. A solid strategy allows reaching travellers who would otherwise not be aware of the product and destination (Chacko, 1996). Additionally, it enables directing marketing efforts quickly and effectively towards specific audiences interested in nature-based tourism (Magaz Molina, 2021). In this context, digital marketing plays a fundamental role as a distinguished ally today. Through digital content marketing, articles, videos, and other media can be created to highlight the beauty and unique experiences of your natural destination. All of this in an interactive manner, remaining very true to the consumer's reality. Moreover, this marketing provides tools to measure the impact of the seller's efforts. Website traffic, conversion rates, the quality of the space and services offered from the consumer's point of view, as well as other key indicators, can be tracked (Jiménez-Barreto et al., 2020). In this regard, showcasing the strengths of the type of activity and the environment where it takes place through these visual, clear, immediate, and effective strategies increases the likelihood of attracting relevant visitors (Reynolds & Braithwaite, 2001).

This study evaluated the quality of website spaces managed by entities that provide nautical activities services as a leisure and active tourism alternative. Likewise, it aimed to analyse the classification of the habitat in the natural environment where these entities were located. It is one of the most highly regarded elements by consumers of this type of product. For that reason, it was intended to understand the potential, it can have as a tool for digital marketing value (Meng et al., 2016). Furthermore, the study took into consideration other variables such as the location where the entities carried out their main activity and the type of entity, as these are considered determining factors in the type of activity offered (Lam-González et al., 2019).

The theoretical framework defines nautical activities within active tourism in Spain, the managing entities of these products and their facilities and the evolution of technology and digital marketing applied to these entities. It defines too the added value of environmental interest for consumers of this type of active tourism. Next, the methodology section describes the study's sample, the utilized instrument, the measured variables, and the employed procedure. Given that there are qualitative variables added to the website quality measurement instrument, the results section is

presented in various subsections to identify these variables separately and visually present them through maps and graphs. The discussion section emphasizes the importance of evaluating website quality and understanding the type of entity, the natural environment where the activities take place, and the geographical location. This enables the comparison of those entities achieving lower results with those achieving better results, in order to make precise managerial decisions and address appropriate marketing strategies. Finally, conclusions are provided, highlighting the main findings and limitations for consideration in future research. Delving deeper into aspects related to the economics of the analysed entities and their marketing strategies undertaken prior to the conducted analysis would add significant value.

The organizational structure of the article is as follows. First, the theoretical foundations of the review of scientific sources are established. Next, the method used in the research is established. The next part of the article highlights the results. Finally, the discussion, conclusions and limitations of the study are presented.

## 2. Literature review

### 2.1 The role of nautical activities in active tourism in Spain

Spain is surrounded by the Mediterranean Sea and the Atlantic Ocean, which allows it to offer a wide variety of water activities. It also has an important river network. The country has a wide range of options for lovers of the sea and water sports. From the Mediterranean coast (with sandy beaches and crystal-clear waters) to the north coast (with big waves ideal for surfing) and inland areas, the possibilities for the water sports consumer are manifold over relatively small distances. Nautical activities are one of the main tourist and leisure attractions in Spain, as many people seek contact with nature and the excitement and adventure offered by the sea (Sendra Mascarell, 2022). On the other hand, Spain's Mediterranean climate (with warm summers and pleasant temperatures all year round) means that nautical activities can be practised throughout most of the year. This allows the offer to be deseasonalised. Nautical leisure and tourism has an important economic impact on the country, as it generates employment and wealth, mainly in coastal regions (Caparros-Martinez et al., 2022; Martínez-Vázquez et al., 2022). But the supply of nautical activities can be further improved, boosting the country's international competitiveness and attracting tourists from other nautical destinations. Moreover, nautical leisure and tourism has great potential for growth in Spain. According to the Spanish Federation of Associations of Nautical Activities Companies (SFANA), this represents 7% of the total number of tourists visiting Spain, but it is estimated that it can grow up to 15% in the coming years (Araújo et al., 2021). On the other hand, nautical activities also promote sport and a healthy lifestyle, which can be a source of inspiration and motivation for tourists looking for attractive alternatives in their leisure time (Shpak et al., 2022). Furthermore, this activity promotes sustainability, as its consumers have a higher level of environmental awareness and awareness of the protection of the sea and its ecosystems. In this sense, nautical activities provide a balanced and sustainable tool for access and contact with the different natural spaces where they are carried out (Lam-González et al., 2019).

### 2.2 Nautical sports facilities and their managing bodies (NSFs)

NSFs offer a set of activities and services carried out by one or more organisations that meet the needs related to the use of boats, whether for purely sporting or recreational purposes (Gomez-Martin, 2006). These NSFs develop different nautical and sporting practices that are integrated and classified in their corresponding typology of nautical leisure and tourism. Nowadays, there are different

types of NSFs. The entities that direct and manage these NSFs are the ones that can determine the types of products to offer, as each of them offers different types of services depending on their objectives. Among the different types of management and direction of the NSFs, we can find nautical schools, nautical services companies, nautical clubs, marinas, etc. (Araújo et al., 2021).

Spain is considered to be one of the main destinations for leisure and nautical tourism at present. The location of its NSFs plays a fundamental role in the offer of all kinds of nautical sports and recreational activities. These NSFs, in addition to covering the main activity demanded by potential consumers of this type of leisure and active tourism, provide (or at least have within reach in their vicinity) another series of basic services (such as accommodation, restaurants, transport, etc.). This makes it possible to work with many options to diversify the business bet and feed back into the sector (Lam-González et al., 2019). However, a common problem has been found in many of these NSFs. This is the lack of awareness among non-regular consumers of the products and services offered by the entities that run the NSFs. This sector does not initially attract new customers because it is perceived as exclusive, expensive and for a very select audience, and privatisation of access to its facilities is common (Carrasco-Santos et al., 2023). But in reality, the range of options is quite wide and with measures adapted to many publics. Ignorance of the product can generate a certain intimidation or discomfort when considering the consumption of a nautical service (Meckling & Nahm, 2019). This is why it is interesting to develop strategic models to provide their managers with solutions to this major obstacle for this type of tourism offer today (González-Morales et al., 2021; Trstenjak et al., 2020). This is mainly because there is a clear deficit in the knowledge of the state of the sector and the marketing policies in charge of customer segmentation (González-Morales et al., 2021; Alsharif et al., 2022).

### 2.3 The evolution of technology in tourism as a marketing tool applied to NSFs

An example of this development is the Global Distribution System (GDS), which provided travel agencies in their early days with a more globalised system of service provision (Drosos et al., 2017). In its beginnings, this tool improved the offers of the tourism sector, applying mainly to the hotel sector, but in its evolution, it was adapted to all sectors. This, coinciding with the period of expansion of the Internet, was considered as the revolution of the sector, since it completely improved both its offer and its demand. Among its main advantages was the large source of tourism offers made available to the end customer. It favoured direct contact with suppliers of different hotel chains, companies dedicated to transport and transfer services, catering services or those offering specific service and entertainment packages within leisure and active tourism (Munar & Jacobsen, 2014).

Nowadays, web-based communication has become the main method of use for marketing and sales strategies for services and products (Roudposhti et al., 2018). It plays a key role because of the speed, ease and effectiveness of a user receiving information about the type and quality of services to be consumed in their leisure time (Kolny, 2021). However, SMEs' digital transformation and digital literacy activities might differ depending on firm-level characteristics (Krajčák et al., 2023). For this reason, it transferred to the entities that manage the NSFs, has its added difficulty. Consumers of nautical products and services are a difficult audience to reach through traditional mass communication tools. These are customers who rely mostly on their closest sources such as boating communities, people involved in boating as a whole or trusted potential partners. In different studies it was found that these boating businesses can use websites as the main resource of their facilities to prioritise their global marketing (Dodds & Ramsay, 2017; Shiffman & Hammerschlag, 2014; Tarafdar & Zhang, 2005). As a solution to these problems, the creation of tools for measuring and evaluating the offers of leisure activities and technical services has been proposed (Benevolo & Spinelli, 2018b), including services not only on water but also on land (Lam-González et al., 2019) and offering the possibility of customer participation in order to assess their satisfaction (Alsharif et al., 2023).



These websites are now taking precedence over the outdated forms of advertising that can be found in port directories or nautical magazines. These sites are far greater in their degree of communication, interaction, sales, distribution and promotion of their activities, and are increasingly being used by the large international audience they generate (Benevolo & Spinelli, 2018a).

## 2.4 The added value for active tourism of the environmental interest of the NSF environment

The rapid expansion of tourist destinations has important environmental, climate change, and socioeconomic impacts on countries (Streimikiene, 2023). Sustainable tourism is a challenge for current and future generations in the effort to develop it with the spirit of maintaining a balance between its basic pillars: economic, social and environmental (Matijová et al., 2023). Seas, oceans and rivers are considered a valuable common good in which numerous NSFs are located. In 1992, the Treaty of the European Union on the Habitats Directive was approved, the main objective of which is to guarantee biodiversity in all EU member states by conserving the wild fauna and flora of their habitats. This is when the Natura 2000 Network was created. Each Member State proposes a series of Sites of Community Interest (SCI), drawn up by a commission according to the total surface that these areas can cover in their national territories, their state of conservation and the possibility of restoration (Popescu et al., 2014). When approved, these areas must be classified as Special Area of Conservation (SAC) or Special Protection Areas for Birds (SPA). These areas have a management plan and measures in place to assess the repercussions that may affect them, prevent their deterioration, monitor their state of conservation and constantly draw up evaluation reports (Zielinska, 2014).

The nautical activities sector is related to the Natura 2000 network and its areas of special ecological value through the inclusion of projects such as Nautica 2000, which aims to promote green entrepreneurship opportunities through the development of new nautical ecotourism business lines. This encourages the movement of the economy and job creation in the sector through the marketing of innovative products that integrate environmental sustainability as a business factor and differential competitiveness compared to other markets (Meng et al., 2016). To carry out quality services, spaces in a perfect state of conservation are needed, and this is especially reflected when the activities are carried out in natural environments. An adequate quality of the products offered and proper preservation of the environment translates into a prosperous future in economic terms for the NSF (Benevolo & Spinelli, 2019). It is therefore important to prepare the professionals who design and implement activity programmes in these environments, with the aim of preserving their area of influence through actions and the offer of sustainable services and products. It is also important to make clients aware of the importance of caring for the environments where the activities are carried out and to encourage them to give value to these activities, in order to continue enjoying quality active tourism and the essence of natural spaces (Mandziuk et al., 2020).

On the basis of the above, this study tries to answer the following interrelated research questions:

- What is the quality and the ability to attract potential users of the websites of the NSF management bodies in Spain?
- Is there a difference in quality between the websites of NSF management entities in Spain and the websites of internationally recognized management models?
- What is the classification of habitats in the natural environments where the NSF management entities in Spain operate, and what differences exist in the quality of these?
- What are the types of management entities for NSF in Spain, and what differences exist in their quality?
- Does the geographical location of the entities influence the quality of their websites?

### 3. Methods

The present study was a descriptive non-experimental cross-sectional study to determine the quality of communication of the web spaces of the different entities managing active leisure and nautical tourism NSF's in Spain, as well as the relationship of this quality with the qualification of their habitat or natural environment of location, the type of entity and certain variables indicating their geographical location.

#### 3.1 Sample and procedure

It is not easy to collect data in this type of industry as there is no professional association to collect, process, unify and research the data and thus promote its development (Kizielewicz & Luković, 2013). The selection process consisted of randomly identifying, through Google Maps, at least 10 NSF management entities per Autonomous Community that offered leisure and active tourism services in the nautical sector. As criteria for including entities, the keywords that were entered in the Google Maps search engine were applied. These were "nautical tourism + name of the Autonomous Community" for each region. As an exclusion criterion, the companies were used to engage in pleasure boat charter activities. The search was thus focused on light nautical activities. The first 20 entities offered by the search engine for each Region were selected for evaluation. But this was only possible for the Autonomous Communities of the coast, since for the inland ones, with the exception of Madrid, the maximum number that could be evaluated because the search with the keywords did not return more results was 15 or even 10 entities for smaller regions. In some places, it was not even possible to reach 5 entities due to their reduced offer. This was due to the fact that some of the websites analysed belonged to places with a very small geographical area. This was the case of places like Melilla, Ceuta and La Rioja.

Once the entities had been identified, a spreadsheet was prepared for data collection, reflecting all the variables to be measured. A group of 3 experts in the field was selected to evaluate the websites under the same analysis criteria. Finally, data were collected from a total of  $n=304$  NSF websites distributed throughout the country. Regarding the qualitative variables, a drop-down menu was generated with all the possible response options for the experts to select while carrying out each of the measurements and data collection. On the other hand, regarding the quantitative variables of the multipurpose model, the evaluation and data collection was carried out following the criteria established in the following section.

#### 3.2 Instrument

The 2QCV3Q model was used for the evaluation (Mich et al., 2003), adapted and validated in English for the nautical sector (Benevolo & Spinelli, 2018a). It is a tool to measure the quality of websites from the user's and the owner's point of view. Based on the ISO/IEC 9126 standard (Jung et al., 2004), the tool offers seven factors to analyse (Mich et al., 2003):

- Identity. Capacity of the web space to leave a mark on the user of the entity's identity signal.
- Usability. Capacity and user-friendliness for web space users. The most important are menus and maps, easy search functions and mobile versions, as this is the most up to date.
- Content. Completeness, correctness and accuracy of content, consistent with the objectives of the site and the needs of users.
- Services. Website functions that help both the user and the service provider.
- Location. Accessibility and possibility for the user to interact through the web space with other users and with the company performing the function.

- Maintenance. Evaluation of site performance and operability.
- Overall Evaluation (OE). Overall assessment of all the above.

Each dimension offered is scored according to the presence and quality of the website's features. The score is converted into an overall score. The questions corresponding to each dimension have been adapted to the nautical sector, as can be seen in the table added in the appendix (Benevolo & Spinelli, 2018a, 2018b, 2019).

In addition, some variables considered of interest were measured, such as the classification of the natural habitat where each NSF was located, the type of management entity of the NSF and its geographical location, as these could influence the choice of the product offered by the potential user for final consumption. The added variables are detailed with their response option below:

- Cataloguing of the area where the activity is carried out according to the European Environment Agency. The Natura 2000 Network establishes the following areas: special protection areas for birds (SPA), areas of community interest (SCI or SAC) or a combination of both (SPA+SCI). The website <https://natura2000.eea.europa.eu/#> was consulted for this purpose.

In relation to the places of transit, timetables and dates for carrying out leisure and nautical tourism activities, this could represent a limitation in supply and therefore in demand. There will be areas where the activity cannot be carried out (such as passage or navigation areas, prohibited anchoring or beaching areas or even areas with restrictions on the number of passers-by and boats or the time that can be spent in them). There will also be restrictions for sensitive times of the year due to the nesting of birds or endangered or endemic species that require special care, etc. There may even be areas that require a special access permit, such as the Cíes Islands or Cabrera. All this can be cumbersome and a handicap for the consumer. But, on the contrary, it can be an attraction to be taken into account due to the environmental interest that the implementation of this activity awakens in these environments and the exclusivity of its access (Rocchi et al., 2020).

- Type of NSF managing entity. The aims, interests and objectives of the proposed activities may differ from one entity to another. The following can be found: nautical clubs (with more sporting aims, offering occasional leisure and nautical tourism activities), schools (with more educational aims, offering occasional leisure and nautical tourism activities), service companies (with more lucrative aims, offering varied multi-adventure packages) or other types of entities different from the previous three, less structured organisations (such as municipal associations, neighbourhood associations, multi-sports clubs, training clubs, etc.) (Araújo et al., 2021).
- Geographical location of the NSFs. The following variables were measured:
  - Place where it is carried out. Autonomous Community where the NSF is located (Region). The province was also specified.
  - Belonging to an island or not due to the singularity of carrying out the activity in an island area (for communications, activity mainly aimed at tourism in the summer season, etc.).
  - Aquatic environment where it is carried out. This refers to whether the NSF is located in the Atlantic, the Mediterranean or in an inland river area.

### 3.3 Analysis

Prior to the respective analysis, in order to determine the reliability of the 2QCV3Q model, Cronbach's alpha coefficient was obtained. A coefficient of  $0.80 \leq \alpha < 0.90$  ( $\alpha=0.887$ ) was obtained, which implied a good internal consistency of the measurement instrument in the sample under study.

Data analysis was carried out with the statistical packages SPSS from IBM (version 26.0), RStudio in its latest free and stable version and Jamovi (version 2.3.21). The normal distribution of the sample was tested using the Kolmogorov-Smirnov test, where it turned out to be non-normal for all variables ( $p < 0.05$ ). A series of descriptive statistics were obtained. A bivariate test was performed between the factors that make up the 2QCV3Q model. An analysis of independent sample means by geographical location groups was also performed. As a consequence of the non-normal distribution, Spearman's Rho and Mann-Whitney U non-parametric tests were used to establish the relationship between the different variables under study. In addition, GPower 3.1 was used to determine the effect size and statistical power when there was significance ( $p < 0.05$ ). This analysis will serve as a starting point for the directors of NSF management entities in Spain that carry out active leisure and nautical tourism activities to find out the quality status of their websites and their relationship with geographical variables, the type of habitat where they are located and the type of entity. This will make it possible to establish marketing strategies and attract future leisure and nautical tourism consumers.

## 4. Results

### 4.1 General descriptions of the 2QCV3Q model of the websites of the NSF management entities in Spain

Table 1 shows the average score (with standard deviations) for each of the factors of the 2QCV3Q model, used to determine the quality of the websites of organisations that carry out leisure and nautical tourism activities in Spain. In addition, it shows the average values of the websites by subgroup of OE.

Table 1. Overall descriptive statistics and by sub-groups of OE of the 2QCV3Q model in websites of NSF managing entities

	N	Identity	Usability	Content	Services	Location	Maintenance	OE
Mean	304	$3.83 \pm 0.88$	$3.4 \pm 0.74$	$3.33 \pm 0.91$	$3.09 \pm 1.08$	$3.72 \pm 0.78$	$3.78 \pm 0.99$	$3.55 \pm 0.7$
Skewness	304	$-0.85 \pm 0.14$	$-0.61 \pm 0.14$	$-0.5 \pm 0.14$	$-0.39 \pm 0.14$	$-0.97 \pm 0.14$	$-0.75 \pm 0.14$	$-0.3 \pm 0.14$
Kurtosis	304	$0.74 \pm 0.27$	$1.75 \pm 0.27$	$0.05 \pm 0.27$	$0.25 \pm 0.27$	$1.62 \pm 0.27$	$0.22 \pm 0.27$	$3.68 \pm 0.27$
Values by sub-group of OE								
OE < 3	68	$2.96 \pm 0.11$	$2.76 \pm 0.08$	$2.16 \pm 0.08$	$2.02 \pm 0.1$	$2.99 \pm 0.1$	$2.67 \pm 0.12$	$2.6 \pm 0.06$
$3 \leq \text{OE} < 4$	154	$3.83 \pm 0.05$	$3.4 \pm 0.04$	$3.39 \pm 0.04$	$3 \pm 0.06$	$3.73 \pm 0.04$	$3.84 \pm 0.05$	$3.55 \pm 0.02$
OE $\geq 4$	82	$4.5 \pm 0.04$	$3.92 \pm 0.06$	$4.18 \pm 0.05$	$4.13 \pm 0.06$	$4.33 \pm 0.04$	$4.57 \pm 0.05$	$4.3 \pm 0.02$
OE: Overall Evaluation.								

Source: compiled by the authors on the basis of the research results

The results showed negative skewness with a curve deviation to the right with respect to the arithmetic mean. In addition, the kurtosis showed the formation of a leptokurtic curve with a high concentration of values. The factors with the highest mean values were Identity ( $3.83 \pm 0.88$ ), Maintenance ( $3.78 \pm 0.99$ ) and Location ( $3.72 \pm 0.78$ ). The lowest average values were Usability ( $3.4 \pm 0.74$ ), Content ( $3.33 \pm 0.91$ ) and Services ( $3.09 \pm 1.08$ ). The OE remained at a mean value between the three highest and lowest scoring factors ( $3.55 \pm 0.7$ ).

Finding the means of the different factors by OE subgroups, depending on whether they were below value 3 (subgroup 1), between 3 and 4 (subgroup 2) or above value 4 (subgroup 3), it was found that the Identity, Maintainability and Location factors still had the highest mean values for subgroup 2



and 3. This was not the case for subgroup 1, where Usability ( $2.76 \pm 0.08$ ) joined Identity ( $2.96 \pm 0.11$ ) and Location ( $2.99 \pm 0.1$ ) in displacing Maintenance ( $2.67 \pm 0.99$ ), although the latter was still slightly above the mean OE value for subgroup 1 ( $2.6 \pm 0.06$ ).

#### 4.2 Descriptive according to the cataloguing of the natural area where the activity is carried out and the type of entity that manages the NSF

Table 2 shows the average score for each of the factors of the 2QCV3Q model by cataloguing of the natural area where the facility is located and the type of management entity.

Table 2. Results of the 2QCV3Q model according to the cataloguing of the natural area and the type of management entity

	N	Identity	Usability	Content	Services	Location	Maintenance	OE
According to the cataloguing of the space where the activity is carried out								
SCI / SAC	160 (52.6%)	$3.85 \pm 0.06$	$3.33 \pm 0.06$	$3.3 \pm 0.07$	$3.11 \pm 0.08$	$3.75 \pm 0.05$	$3.81 \pm 0.07$	$3.56 \pm 0.05$
SPA	62 (20.3%)	$3.83 \pm 0.11$	$3.42 \pm 0.1$	$3.29 \pm 0.12$	$2.97 \pm 0.15$	$3.77 \pm 0.11$	$3.75 \pm 0.13$	$3.52 \pm 0.09$
SPA + SCI	82 (26.9%)	$3.8 \pm 0.1$	$3.51 \pm 0.06$	$3.4 \pm 0.09$	$3.13 \pm 0.11$	$3.64 \pm 0.08$	$3.73 \pm 0.1$	$3.54 \pm 0.07$
According to entity type								
Company	64 (21.1%)	$3.77 \pm 0.12$	$3.34 \pm 0.11$	$3.09 \pm 0.1$	$2.87 \pm 0.15$	$3.6 \pm 0.11$	$3.84 \pm 0.13$	$3.43 \pm 0.09$
School	28 (9.2%)	$3.78 \pm 0.13$	<b><math>3.52 \pm 0.13</math></b>	$3.2 \pm 0.15$	$3.16 \pm 0.17$	$3.73 \pm 0.12$	$3.72 \pm 0.15$	$3.52 \pm 0.09$
Yacht Club	166 (54.6%)	<b><math>3.93 \pm 0.06</math></b>	$3.45 \pm 0.05$	<b><math>3.41 \pm 0.07</math></b>	<b><math>3.17 \pm 0.07</math></b>	$3.75 \pm 0.05$	<b><math>3.81 \pm 0.07</math></b>	<b><math>3.61 \pm 0.05</math></b>
Others	46 (15.1%)	$3.59 \pm 0.14$	$3.21 \pm 0.09$	$3.39 \pm 0.15$	$3.06 \pm 0.18$	<b><math>3.79 \pm 0.12</math></b>	$3.59 \pm 0.15$	$3.48 \pm 0.1$
OE: Overall Evaluation. SPA: Special Protection Area for Birds. SAC or SCI: Special Area of Conservation or Site of Community Interest.								

Source: compiled by the authors on the basis of the research results.

The results showed that most of the entities were categorised within SCI or SAC areas with 52.6% representation. Next in number were entities located in SPA + SCI zones with 26.9% representation. At the tail end were NSFs located in SPA zones with 20.3% representation. For the three habitat type subgroups, the three factors with the highest mean value and very similar values were Identity, Maintenance and Location. Usability, Content and Services had the lowest values. The OE factor was again found to be in the middle of the remaining six factors. Moreover, it maintained very similar values for the three subgroups SCI or SAC ( $3.56 \pm 0.05$ ), SPA + SCI ( $3.54 \pm 0.07$ ) and SPA ( $3.52 \pm 0.09$ ).

According to the entity type, the most represented were the entities that were Yacht Clubs (54.6%), followed by Companies (21.1%), Others (15.1%) and Schools (9.2%). For all of them, as well as for the subgroups according to the classification of the natural space where the NSFs were located, the factors with the highest average values were Identity, Maintenance and Location. Usability, Content and Services repeated at the bottom. Yacht Clubs had the highest mean values for Identity ( $3.93 \pm 0.06$ ), Maintenance ( $3.81 \pm 0.07$ ), OE ( $3.61 \pm 0.05$ ), Content ( $3.41 \pm 0.07$ ) and Services ( $3.17 \pm 0.07$ ). Schools had the highest mean value for Usability ( $3.52 \pm 0.13$ ) and Other entities had the highest mean value for Location ( $3.79 \pm 0.12$ ).

#### 4.3 Descriptive according to the geographical location of the NSFs

Table 3 shows the mean score for each of the factors of the 2QCV3Q model according to the Region where the NSF is located, except for those that did not show results when entering the search terms in Google Maps.

Table 3. Results of the 2QCV3Q model in web spaces of NSF managing entities by Region in Spain

	Identity	Usability	Content	Services	Location	Maintenance	OE
Andalusia	<b>4.08 ± 0.09</b>	3.47 ± 0.07	3.35 ± 0.11	3.19 ± 0.14	3.83 ± 0.1	3.75 ± 0.12	3.61 ± 0.85
Aragon	2.09 ± 0.71	1.97 ± 0.79	1.78 ± 0.58	1.35 ± 0.59	2.9 ± 1.01	2.56 ± 1.02	2.04 ± 0.76
Asturias	3.92 ± 0.59	3.58 ± 0.49	3.23 ± 0.48	<b>3.95 ± 0.72</b>	<b>4.43 ± 0.17</b>	3.62 ± 0.77	<b>3.79 ± 0.5</b>
Balearic Islands	3.86 ± 0.18	3.52 ± 0.19	3.34 ± 0.15	3.23 ± 0.16	3.74 ± 0.12	3.55 ± 0.23	3.58 ± 0.12
Canary Islands	4.1 ± 0.14	<b>3.8 ± 0.19</b>	<b>3.47 ± 0.24</b>	3.2 ± 0.31	4.04 ± 0.18	3.93 ± 0.22	<b>3.76 ± 0.15</b>
Cantabria	3.66 ± 0.25	3.38 ± 0.16	3.4 ± 0.22	3.13 ± 0.29	3.67 ± 0.15	4.08 ± 0.25	3.55 ± 0.15
Castilla la Mancha	3.66 ± 0.45	3.23 ± 0.17	2.65 ± 0.26	1.88 ± 0.4	3.46 ± 0.36	3.7 ± 0.46	3.09 ± 0.21
Castilla and León	2.99 ± 0.25	3.02 ± 0.19	3.11 ± 0.12	2.88 ± 0.3	3.44 ± 0.13	3.47 ± 0.15	3.21 ± 0.11
Catalonia	3.94 ± 0.14	<b>3.83 ± 0.12</b>	3.5 ± 0.16	3.34 ± 0.15	3.74 ± 0.15	4.08 ± 0.14	<b>3.74 ± 0.09</b>
Valencian Community	3.89 ± 0.1	3.31 ± 0.12	<b>3.48 ± 0.11</b>	3.12 ± 0.14	3.79 ± 0.08	4.11 ± 0.11	3.61 ± 0.08
Extremadura	2.28 ± 1.38	2.34 ± 1.65	2.07 ± 1.19	1.9 ± 1.1	1.67 ± 0.67	2.02 ± 1.47	2.05 ± 1.24
Galicia	4.01 ± 0.2	3.75 ± 0.16	3.15 ± 0.22	3.05 ± 0.23	3.83 ± 0.24	4.07 ± 0.38	<b>3.71 ± 0.23</b>
Madrid	3.85 ± 0.18	2.98 ± 0.13	3.37 ± 0.22	3.14 ± 0.25	4.1 ± 0.17	3.63 ± 0.11	3.49 ± 0.1
Melilla	3.83 ± 0.49	3.3 ± 0.3	3.62 ± 0.57	3.54 ± 0.7	3.57 ± 0.97	4 ± 0.5	3.45 ± 0.59
Murcia	3.55 ± 0.18	3.37 ± 0.09	3.22 ± 0.17	2.9 ± 0.16	3.52 ± 0.12	3.45 ± 0.22	3.33 ± 0.11
Navarre	3.66 ± 0.69	2.61 ± 0.17	3.29 ± 0.43	2.53 ± 0.63	3.73 ± 0.39	<b>4.33 ± 0.33</b>	3.36 ± 0.36
Basque Country	<b>4.08 ± 0.22</b>	3.32 ± 0.16	2.82 ± 0.3	2.95 ± 0.27	3.4 ± 0.19	3.03 ± 0.28	3.26 ± 0.16

OE: Overall Evaluation.

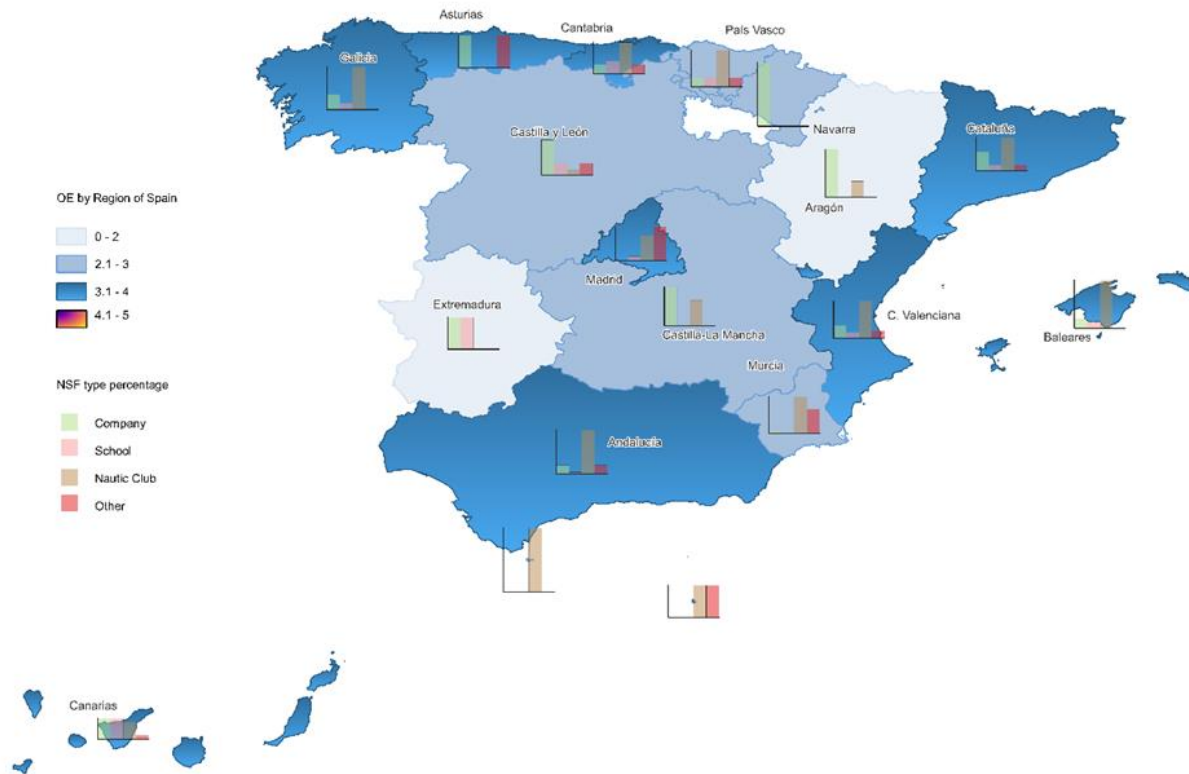
Source: compiled by the authors on the basis of the research results

The regions with the highest values for the Identity of their websites were, with the same mean, Andalusia (4.08 ± 0.09) and the Basque Country (4.08 ± 0.22). The highest means in Usability, with very similar values, were for Catalonia (3.83 ± 0.12) and the Canary Islands (3.8 ± 0.19). For Content, also very similar, the highest means were for Valencian Community (3.48 ± 0.11) and again the Canary Islands (3.47 ± 0.24). The Asturias mean was the highest in the Services factor (3.95 ± 0.72) and in the Location factor (4.43 ± 0.17). In Maintenance the highest mean was that of Navarra (4.33 ± 0.33). In OE there were several Regions that shared the highest means with very similar values. This was the

case in Asturias ( $3.79 \pm 0.5$ ), Canary Islands ( $3.76 \pm 0.15$ ), Catalonia ( $3.74 \pm 0.09$ ) and Galicia ( $3.71 \pm 0.23$ ).

Figure 1 shows a summary of the average value of the OE variable and the percentage of management entity type by Autonomous Community in Spain.

Figure 1. OE and percentage of managing entity type of NSF by Region of Spain (own elaboration)



Source: compiled by the authors on the basis of the research results

Table 4 shows the mean score for each of the factors of the 2QCV3Q model according to island or non-island membership and the aquatic environment where the NSF is located.

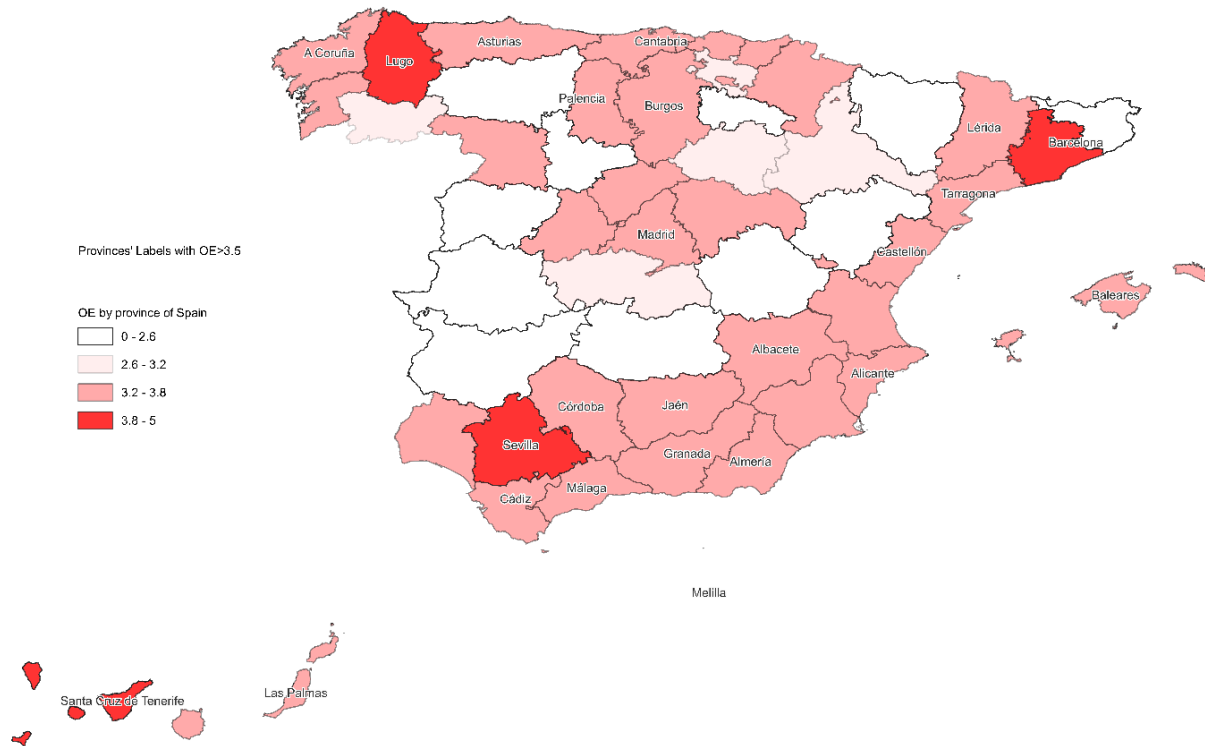
Table 4. Results of the 2QCV3Q model in NSF management entities by island or non-island and aquatic environment

	Identity	Usability	Content	Services	Location	Maintenance	OE
Island	$3.97 \pm 0.05$	$3.64 \pm 0.13$	$3.4 \pm 0.13$	$3.21 \pm 0.16$	$3.87 \pm 0.1$	$3.85 \pm 0.12$	$3.66 \pm 0.09$
Not island	$3.82 \pm 0.05$	$3.37 \pm 0.04$	$3.32 \pm 0.05$	$3.07 \pm 0.06$	$3.71 \pm 0.04$	$3.77 \pm 0.06$	$3.53 \pm 0.04$
Mediterranean Sea	$3.84 \pm 0.06$	$3.44 \pm 0.05$	$3.4 \pm 0.06$	$3.19 \pm 0.07$	$3.75 \pm 0.5$	$3.87 \pm 0.07$	$3.59 \pm 0.04$

Atlantic Ocean	3.96 ± 0.1	3.48 ± 0.07	3.24 ± 0.11	3.14 ± 0.13	3.74 ± 0.09	3.73 ± 0.12	3.55 ± 0.08
Inland	3.65 ± 0.12	3.19 ± 0.1	3.25 ± 0.11	2.76 ± 0.14	3.65 ± 0.12	3.61 ± 0.12	3.44 ± 0.11
OE: Overall Evaluation.							

Source: compiled by the authors on the basis of the research results.

Figure 2. OE by province of Spain (own elaboration)



Source: compiled by the authors on the basis of the research results

Depending on whether the NSF's were located on an island or not, the mean was higher in the first case than in the second for all the factors. The biggest difference between means was in the Usability factor with a value of  $3.64 \pm 0.13$  for the websites of entities on islands compared to a value of  $3.37 \pm 0.04$  for those that were not on islands. This was also the case for the Services factor with a value of  $3.21 \pm 0.16$  for websites of entities on islands compared to  $3.07 \pm 0.06$  for those not on islands. For this geographical location variable, the island province with the highest score in OE was Tenerife with a value of  $4.14 \pm 0.67$ . Similarly, the peninsular province with the highest mean OE score was Sevilla with a value of  $3.84 \pm 0.07$ .

On the other hand, depending on whether the NSF management entity was located in the Mediterranean, Atlantic or inland, the mean was higher in coastal than inland entities for all factors. The mean values for the seven factors were very similar between Mediterranean and Atlantic entities. For the Atlantic, the means were slightly higher for the Identity and Usability factors with values of  $3.96 \pm 0.1$  and  $3.48 \pm 0.07$  respectively. In terms of OE means by province, the Balearic Islands had



the highest value in the Mediterranean ( $3.84 \pm 0.07$ ). In the Atlantic and inland, Tenerife and Seville repeated again when referring to the mean OE value.

In addition, Figure 2 shows a summary of the average value of the OE variable for the provinces with the highest scores in Spain.

**4.4 Bivariate factor analysis of the 2QCV3Q model on the websites of NSF management entities**

Table 5 shows the results obtained from the non-parametric test to establish the bivariate correlation between the factors that make up the 2QCV3Q model applied to the websites of leisure and nautical tourism organisations in Spain. All the factors showed a significant bilateral relationship with each other, at a significance level below  $p < 0.01$ . In addition, an effect size was obtained for all factors with a large result magnitude by obtaining values  $|r| > 0.05$ , which allowed us to provide a good scope of the findings. Similarly, the statistical power obtained for all correlations showed values of  $(1-\beta) > 0.8$ , which allowed us to establish a high probability of detecting an effect when it actually exists in the population. On the other hand, Cronbach's alpha, if each of the factors were removed, obtained for all cases results below the alpha value of the whole instrument ( $\alpha = 0.887$ ), which established the reliability index of the quality of the webs measured by the 2QCV3Q model for the present study.

Table 5. Bivariate correlation between factors of the 2QCV3Q model on websites of NSF managing entities

Spearman's Rho	Identity	Usability	Content	Services	Location	Maintenance	OE	$\alpha$
Identity	R	1						0.875
	<i>p</i>	.						
	<i>r</i>							
	1- $\beta$							
Usability	R	0.520**	1					0.882
	<i>p</i>	0.000						
	<i>r</i>	0.721						
	1- $\beta$	1	.					
Content	R	0.497**	0.465**	1				0.860
	<i>p</i>	0.000	0.000	.				
	<i>r</i>	0.704	0.681					
	1- $\beta$	1	1					
Services	R	0.356**	0.408**	0.575**	1			0.882
	<i>p</i>	0.000	0.000	0.000	.			
	<i>r</i>	0.596	0.638	0.758				
	1- $\beta$	1	1	1				
Location	R	0.431**	0.325**	0.435**	0.418**	1		0.878
	<i>p</i>	0.000	0.000	0.000	0.000	.		
	<i>r</i>	0.656	0.570	0.659	0.646			
	1- $\beta$	1	1	1	1			
Maintenance	R	0.428**	0.308**	0.572**	0.455**	0.388**	1	0.873
	<i>p</i>	0.000	0.000	0.000	0.000	0.000	.	

	$\rho$	0.654	0.554	0.756	0.674	0.622			
	1- $\beta$	1	0.999	1	1	5			
OE	R	0.681**	0.631**	0.824**	0.763**	0.667**	.717**	1	0.842
	$p$	0.000	0.000	0.000	0.000	0.000	0.000	.	
	$\rho$	0.825	0.794	0.907	0.873	0.816	0.846		
	1- $\beta$	1	1	1	1	1	1		

\*\* Correlation significant at the 0.01 level (bilateral). R: Correlation coefficient.  $p$ : bilateral significance.  $|\rho|$ : Effect size. 1- $\beta$ : Statistical power. OE: Overall Evaluation.  $\alpha$ : Cronbach's alpha.

Source: compiled by the authors on the basis of the research results.

#### 4.5 Analysis of means of variables for independent samples according to geographical location

In relation to the variable belonging to a coast (Mediterranean Sea and Atlantic Ocean) or not (rivers, lakes or marshes), there was significance with all the factors of the web space quality measurement instrument, with the exception of the Content and Location factors, where there was no significant correlation ( $p > 0.05$ ). For this measurement, it was assumed as a hypothesis that entities located on the coast presented higher values in the different factors than those located inland, as can be seen in table 6. In addition, the effect sizes calculated using Cohen's d showed medium effects, being  $|\rho| > 0.5$  for all cases.

Table 6. T-test for Independent Samples on websites according to whether they belong to the coast or inland

Mann-Whitney U test	Statistical	$p$	$\rho$	Levene's variance homogeneity	
				F	p
Identity	6517	0.031	0.55143	0.4075	0.524
Usability	6336	0.016	0.57500	0.3676	0.545
Content	6914	0.110	0.19980	0.6558	0.419
Services	6125	0.006	0.60247	0.2201	0.639
Location	7650	0.481	0.04391	67.747	0.010
Maintenance	6604	0.040	0.54010	0.5508	0.459
OE	6782	0.045	0.51693	0.0316	0.859

$p$ : bilateral significance.  $|\rho|$ : Effect size. Note:  $H_a \mu_1 > \mu_2$

Source: compiled by the authors on the basis of the research results.

This was not the case when a group relationship was established between the websites of entities belonging to island or non-island areas, where no factor correlated except for Usability ( $p = 0.036$ ), although with an effect size below the minimum effect  $|\rho| = 0.1865$ .

### 5. Discussion

This study measures the quality of websites of active leisure and nautical tourism management organisations in Spain using the 2QCV3Q tool. Table 7 compares the means of the different factors of this study with those of benchmark entities taken as a basis in other studies. It can be seen that the mean for the managing entities of the NSF's in Spain was above the mean of the benchmark entities in the Usability and Location factors. For the rest of the factors (with the exception of Maintenance, which was slightly below all the benchmark values with a value of 3.78), their values were very similar

or close to the highest benchmark values (Benevolo & Spinelli, 2018b) and above the lower benchmarks (Benevolo & Spinelli, 2018a).

Table 7. Dimension mean scores for sample and benchmark entities

	ID	US	CT	SR	LC	MN	OE
Mean benchmark entities (Benevolo & Spinelli, 2018a)	3.4	2.8	2.4	2.4	2.7	3.9	2.9
Mean current study sample	3.83	3.4	3.33	3.09	3.72	3.78	3.55
Mean benchmark entities (Benevolo & Spinelli, 2018b)	4.24	3.19	3.50	3.36	3.56	4.96	3.8

ID: Identity. US: Usability. CT: Content. SR: Services. LC: Location. MN: Maintenance. OE: overall Evaluation.

Source: compiled by the authors on the basis of the research results.

On the other hand, 50.16 % (154) of the websites analysed were found to be in the subgroup of OE between value 3 and 4 on mean, which was well below the 69 % of the sample that did so in previous results by other authors (Benevolo & Spinelli, 2019). However, 26.97 % (82) of the websites were in the sub-group of OE value equal to or higher than 4, which is almost 5 times higher than the 6.2 % that resulted previously for the aforementioned authors. Even so, the total of the sample that represented being equal or higher than value 3 of OE for the present work was 77.13 %, very similar to the 75.2 % of the aforementioned authors (Benevolo & Spinelli, 2019).

The Identity, Location and Maintenance factors carried the most weight as their mean values were above the mean value of the OE factor. Moreover, these three factors were still at the top of the list of the best-rated websites (77.13% of which were above the mean OE value of 3). In this sense, for the sub-group  $3 \leq OE < 4$ , these three factors had mean values above the  $3.55 \pm 0.02$  mean OE value. Likewise, for the sub-group  $OE \geq 4$ , all three factors were on mean above the mean value of  $4.3 \pm 0.02$  mean OE value. This shows that, for organisations aiming to be at the forefront of web space quality, it is important to take care of their identity and brand signal, their interaction and active participation with the visiting community and in social networks, and the maintenance of the website, in line with previous research (Alsulami et al., 2021; Benevolo & Spinelli, 2019).

By cataloguing the entities of the webs analyzed by natural space where they found their NSF and performed their usual activity, they saw that 100% was within the categories set by the Natura 2000 network. The group belonged to the SCI / SAC group dominated over the rest, being the dual representation in respect of the whole sample belonging to the SPA categories SPA and SPA + SCI. The results showed that the values for the different factors measuring the quality of the websites were very similar. The consumer of this type of product is looking for the uniqueness of the protected area, contact with nature and active leisure activities in a sustainable way (Hofman et al., 2022; Martín & Yepes, 2022). In agreement with these authors, the results obtained show that we may be losing a powerful digital marketing tool to offer nautical tourism services with a distinctive identity, unlike what is happening in other areas of recognised interest and image, such as the Cíes Islands and Cabrera in Spain (Tubío et al., 2021) or the Maddalena archipelago and other natural marine parks in the Mediterranean Sea (Scanu et al., 2015).

Similarly, when the entities of the websites were catalogued according to their type, it was found that Yacht Clubs predominated, with a sample representation slightly more than double that of the other types of entity. Given that its main structure is associative and in the three factors identified as spearheads (Identity, Location and Maintenance) it was the entity that obtained the best results, its websites can serve as a mirror where those of Companies and Schools are reflected, both with more purely lucrative than social interests (although the former with procedures more focused on the provision of services and the latter on training).

By geographical location, none of the Regions exceeded the threshold of 4 in OE, although they did so in the spear factors. For Identity, Andalusia ( $4.08 \pm 0.09$ ), the Canary Islands ( $4.01 \pm 0.14$ ), Galicia ( $4.01 \pm 0.2$ ) and the Basque Country ( $4.08 \pm 0.22$ ). For Localisation, Asturias ( $4.43 \pm 0.17$ ), Canary Islands again ( $4.04 \pm 0.18$ ) and Madrid ( $4.1 \pm 0.17$ ). For Maintenance, Cantabria ( $4.08 \pm 0.25$ ), Catalonia ( $4.08 \pm 0.14$ ), Valencia ( $4.11 \pm 0.11$ ), Galicia again ( $4.07 \pm 0.38$ ) and Navarre ( $4.33 \pm 0.33$ ). These Regions, for the most part, coincided with the results of previous studies, where the quality of official tourism websites was measured by Autonomous Communities in Spain (Fernández-Cavia et al., 2013) and the use of digital marketing strategies for the promotion of tourism in Spain's regions (Ramos Vecino et al., 2020). In addition, coinciding with the spear factors, other studies also found that the most highly valued elements of Spanish tourism websites were Branding, Social websites, Interactivity and Technical aspects. The latter included the parameters of Information architecture, Web positioning, Usability and accessibility (which had not been very important in this study) (Fernández-Cavia & Castro, 2015; Fernández-Cavia et al., 2017; Fernández-Cavia et al., 2014).

It was also observed that, with the exception of the Basque Country and Navarre, the aforementioned Regions belonged to the dark blue set in Figure 1 with the highest value in the OE factor, made up of Madrid, the two arcs that bathe the Mediterranean Sea, the two that bathe the Atlantic Ocean and the archipelagos of the Canary and Balearic Islands. Excluding Madrid as the densest Region with the highest concentration of supply and competition, the above statement was corroborated by obtaining significant differences with medium effect sizes through the independent samples mean test. Regions' websites from coastal areas performed better than those from inland areas in all factors except Content and Location. This predominant quality of the services offered by organisations in the active tourism sector in coastal versus inland areas is something that has already been highlighted in other studies (Klein & Osleeb, 2010; Klein et al., 2004). Probably justified by the large supply of these services in these areas (Morales-Baños et al., 2023), mainly in the field of nautical tourism (Taveira et al., 2021), which requires the sector's entities to be in constant renewal and competition with their namesakes (Widianingsih et al., 2023). It should not be forgotten that this sector is one of Spain's driving forces and main source of income (Rodríguez-Pérez de Arenaza et al., 2022), with active coastal tourism having a significant impact on the country's GDP (Chamizo-Nieto et al., 2023).

On the other hand, there was no significance when analysing whether they belonged to an island or not, probably because the non-island group included both inland and coastal areas that belonged to the mainland and had obtained high values, such as Galicia, Asturias, Cantabria, Andalusia, Valencia and Catalonia.

By provinces, Lugo in Galicia, Seville in Andalusia, Tenerife in the Canary Islands and Barcelona in Catalonia stood out above the rest. However, although these were the provinces with the best results, they were not the only ones, as other provinces also stood out, mainly those located on the coast, coinciding with the findings of other authors in previous studies (Míguez-González & Fernández-Cavia, 2015). The heat map they drew (figure 2) confirmed the theory of the weight of tourism activity near the coast of Spain and the significant competition in the sector. This forces the websites of the entities in the sector to be at the forefront of each other in order to obtain the greatest success in the offer made (Cavalcante et al., 2021; Zheng et al., 2023).

In addition, the tool was subjected to a bivariate test, where it was found that all the factors were significantly related to each other, as had been obtained in tests submitted by previous works (Mich et al., 2003). Likewise, with the instrument adapted to the nautical sector (Benevolo & Spinelli, 2018a, 2018b, 2019). These results, together with the fact that the alpha value of each factor suggested the permanence of all the dimensions in the instrument as a whole because it was lower than the alpha value of the whole instrument ( $\alpha=0.887$ ), corroborated the idea of the consistency of the 2Q3QCV model in the sample under study (Cascaes da Silva et al., 2015).



## 6. Conclusion

Therefore, it is concluded that communication through the websites of entities belonging to the active leisure and light nautical tourism sector in Spain has a high level of quality compared to the average of other international reference sites.

It is also concluded that in order to attract potential users who wish to use their services, the elements on which web communication efforts should be focused are those related to brand identity, technical and maintenance aspects and those related to interaction, communication with the user and positioning in social networks.

In addition, those entities that are located in coastal areas show better results than those that are not, and their websites serve as a reference for those entities that show poorer results or that want to open a new path or improve the one, they already have in the sector. On the other hand, this does not occur in the case of island versus mainland institutions, due to the great weight of mainland coastal institutions in the market.

Likewise, there is a clear predominance of Yacht Clubs, as associative forms of organisation, as opposed to Companies, Schools and other types of entities, whose form of organisation is more lucrative. The fact that Yacht Clubs, despite not having a main profit-making objective, maintain high values in the quality analysis of their websites, together with their large numerical representation, positions them as reference entities for the rest.

Finally, there is no difference in the web quality of the NSF management bodies according to the type of Natura 2000 area where they are located. But, an important potential is being lost in terms of identity and branding due to the interest that this type of environment arouses in the practitioner of nature tourism activities.

### 6.1 Academic and practical implications

As academic implications, this work uses as an axis of study the use of web resources to prepare the trip or leisure activity that the consumer of this type of active tourism products is going to carry out. This provides greater knowledge in the field of study. Although there is a lot of literature on the general subject, there are not many studies of the nautical sector, which contributes to establishing knowledge bases in this regard. Furthermore, the little research that exists in the nautical sector focuses on the study of marina websites. Access to the services and activities of marinas is somewhat exclusive and restricted to a certain purchasing power of the potential consumer.

This study is based on previous research on websites of Italian marinas, providing a new perspective, since it opens the range of possibilities to more entities that can reach a larger audience. The study focuses on light nautical activities, which can be carried out in Schools (within ports or on the shore), in Nautical Clubs, by service companies (which use spaces set up in practically any natural environment as facilities) or other entities of various kinds. These do not have as much scope and impact on the terrain's orography as a marina.

Furthermore, compared to other works, the study adds the concept of Red Natura and geographical location of the entity, to analyse and reflect to what extent they can influence the different constructs of the model. In this sense, an added value is that it can be perfectly replicated internationally, highlighting aspects related to the sustainability of the practice of this type of leisure and active tourism.

From a practical point of view, selling the brand identity of the uniqueness of the natural space as well as the prosperity provided by the biodiversity of the place where the activity is carried out, can position the entity on the web compared to others.

The quality of these websites is measured so that the managers of this type of entities can have starting points on which to base themselves. In the same way so that they can know which are the most important constructs and elements in the evaluation of websites. All this with the objective of being able to establish strategies to strengthen and attract effective users for the consumption of light nautical tourism.

## 6.2 Limitations and future research

As a limitation during the work, it was found that the economic capacity of the organisation was unknown. This could be significant, since larger entities with more resources can provide more means and tools to promote their activity. They can also offer better interactive services and work better on digital marketing. It was also questioned how the perception of the end user or consumer of the product could influence the evaluation of the quality of the web space. Furthermore, to know and compare the level of quality of the nautical websites analysed, entities from other studies were used as a reference. But these measurements were made by other evaluators other than those of the present study. This could vary the results despite being measured quantitatively with the same tool. Likewise, previous studies measured the quality of marina web spaces, related more to charter and private recreational sports boats. On the other hand, the present study focused on managing entities of light nautical activities, which entailed a change in the type of activity and the final target audience.

For this reason, future lines of work are proposed in which it will be interesting to establish a relationship between quality evaluation by the consumer and by objective expert evaluators in order to analyse which entities continue to obtain high quality values. Also, to find out whether those entities that obtain more value are those that have large structures, more resources or important turnover volumes as opposed to those that are smaller or single-person managed. Likewise, both evaluators and clients could evaluate the reference entities used in other studies in order to be able to take their quality ratings as a reference starting point to know the status of the websites under study.

### Conflict of interest declaration

The authors declare no conflict of interest.

### Author contributions

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## Appendix

Model 2QCV3Q adapted to the nautical sector (Benevolo & Spinelli, 2018)

Attribute	Weight	Explained item
Identity		
Brand/Logo	0.34	Does the website have a strong brand identity?
Graphics and functionality	0.33	Does the website have a nice and functional graphic layout?
Tale (territory)	0.33	Does the website tell and communicate the port and the local area?
Usability		
Simple and exhaustive menu	0.2	Is the website menu complete and exhaustive but at the same time clear and simple?
Load time	0.1	Is the website load time short enough?
Mobile version	0.2	Is a mobile version of the website available? Alternatively, is the PC version easy to surf with a smartphone or tablet?
Accessibility (disabled people)	0.05	What is the output of the website validation on validator.w3.org?
Search	0.05	Is a search function available? Is it working and easy to find?
Map or navigable menu	0.15	Is a website map available and/or is it possible to view sub-menus?
Languages	0.25	Are versions of the website available in other languages rather than the local one?
Content		
Breadth and depth of the texts	0.15	Are contents exhaustive? Do they provide deep and useful information?
Updated rates	0.15	Does the website show updated seasonal rates?
Information on commercial activities	0.15	Does the website provide relevant information on local commercial activities?
Information on port services	0.15	Does the website provide relevant information on port services?
Information on events and shows	0.1	Does the website provide relevant information on feasts, cultural events, shows, concerts, and other happenings in the local area?
Information on inland locations	0.1	Does the website provide relevant information on inland locations?
Webcam	0.1	Does the website have frequently updated webcam on the port?
Images and multimedia	0.05	Does the website provide images and other multimedia contents?
Links	0.03	Does the website provide useful and easy to reach links to other relevant sites?
Documents	0.02	Is it possible to download from the website relevant documents (brochures, regulations, etc.)?
Services		
Weather forecast	0.2	Does the website provide a reliable and highly visible marine forecast service?
Access (flights, routes, parking)	0.2	Does the website provide information on how to reach the port and parking availability?
Maps	0.2	Does the website provide maps of the port and the local area? Are they interactive?
Booking form	0.2	Is it possible to book a berth from the website?
Online booking and payment	0.2	Is it possible to book and pay completely online?
Location		
Intuitive domain name	0.25	Is the website URL intuitive and easy to remember?
Contact data	0.3	Is it easy to contact the website manager? Are contact data clear and easy to find?
Social networks	0.25	Does the port have a Facebook page and/or a Twitter account? Does



		the website link to these accounts?
Newsletter and guestbook	0.1	Is it possible to subscribe to newsletter or leave a comment in a guestbook?
Interaction among users (community)	0.1	Can website visitors interact with each other?
Maintenance		
Website maintenance	0.5	Is the website maintenance good? Are all the links working? Is the layout appropriate?
Updated information	0.5	Is information updated? Is the last updated date available?

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