

## Portuguese nautical tourism sustainability practices

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**Keywords** | Nautical Tourism, Sustainability, Sustainability Practices, Network of Nautical Stations of Portugal

**Objectives** | The general objective of the research is to evaluate the importance of nautical tourism in sustainable practices. The Portuguese network of nautical stations will be used as a case study. Specific objective 1: Analysis of the relationship between the location of the marine resort and the dimensions of sustainability. Hypotheses: H1: There is a relationship between the geographical location of the Nautical Station and the social sustainability indicators; H2: The location of the Nautical Station influences the degree of compliance with the environmental sustainability indicators. Specific objective 2: Assess the relationship between social and environmental sustainability: H3: There is a relationship between environmental and social sustainability indicators. Each of these objectives and the corresponding hypotheses will be statistically analyzed. Each of these objectives and their hypotheses will be statistically analyzed based on the literature review.

**Methodology** | The methodology of this research included an exploratory interview with the coordinator of the Portuguese Network of Nautical Stations and the application of a questionnaire survey addressed to all the National Coordinating Entities of Nautical Stations. The analysis of the quantitative data was carried out by establishing the relationship/association between a set of variables (descriptive statistics), using SPSS.

**Main results and contributions** | This research is a starting point for other studies based on Portugal's nautical stations and the areas of sustainability, the relationship between which has not yet been published in tourism studies. This study, both with the National Coordinator of the Portuguese Nautical Stations Network and with the questionnaire replies from 30 of the 32 Nautical Stations, provides a working basis rich in information and data collection. In future studies, it will be useful to analyze each region individually. This is because the number of stations per region can

vary considerably. We propose to study nautical tourism and sustainable practices in the following regions: Oporto and the North, Central Portugal, Lisbon, Alentejo and Ribatejo, and the Algarve, individually. In addition to a questionnaire survey, it would be interesting to use interviews as a data collection method. This would be based on the coordinators of each of the nautical stations. The answers obtained would be open-ended, allowing those interviewed to develop the themes.

**Limitations** | There is still no consensus on the concept of nautical tourism. There are other similar concepts as well: Yachting tourism, Maritime tourism, Cruise tourism, among others. As far as nautical tourism in Portugal is concerned, there are data published by INE. However, the diversity of indicators is low. Nautical stations in Portugal are still a new concept and there is little literature on the subject, the main sources being the Regulations for the Certification of Nautical Stations, the Nautical Portugal portal and information provided by Turismo de Portugal. Representatives from 30 of the 32 existing nautical stations were included in the survey. Furthermore, the geographical distribution of nautical stations is not homogeneous, due to the size of the territory itself. For example, there are only two nautical stations in the Lisbon region. This compares with eleven in Oporto and the North. At national level, they are unevenly distributed according to region.

**Conclusions** | Environmental sustainability indicators include the fact that nautical stations provide a network of transport services, invest in local public safety, preserve structures, monuments and historical sites, have a social carrying capacity, increase the well-being of host communities and provide access for people with physical disabilities (Wall & Mathieson, 2006; Zhuang et al., 2019; Martins, 2020; Blancas et al., 2016; Fórum Oceano, n.d.; Turismo de Portugal, 2023; Responsible Tourism Partnership, 2018). The regulation for the certification of nautical stations is also fundamental. It adds criteria related to social sustainability. One of these criteria is accessibility, since, according to Fórum Oceano (2023), the nautical station will offer a variety of services, infrastructure, and equipment for the practice of sports, adapted to receive visitors with special needs. It will also promote training initiatives related to accessible tourism, with the aim of increasing the supply of quality products and services combined with accessibility. At the same time, in terms of environmental sustainability, all regions gave the highest level of agreement to the statement 'The nautical station aims to protect valuable natural resources'; also, in terms of the lowest level of agreement, the statement highlighted by all nautical stations was 'The nautical station has a low impact on the environment and local cultures'. According to Kaswan et al. (2019), environmental sustainability seeks to meet the needs of the population without compromising the quality of the environment, and ecosystems must be maintained for the well-being of future generations. Morelli (2013) adds that environmental sustainability is a state of balance and resilience that allows the population to meet its needs without exceeding the capacity

of the supporting ecosystems. Vallance et al. (2011) add to these pillars the need to achieve sufficient quality of life to allow environmental change and the need to preserve socio-cultural characteristics as well as the environment. In fact, statistically significant relationships were observed at both  $p < 0.05$  and  $p < 0.01$ . At  $p < 0.05$ , the relationship between "The nautical station has a low impact on the environment and local culture" and "The nautical station has a social carrying capacity" and "The nautical station provides access for people with physical disabilities"; and between "The nautical station has a low impact on the environment and local culture" and "The nautical station provides a network of transport services". There were also statistically significant positive relationships, with  $p < 0.01$ , between "The nautical station increases the well-being of host communities" and "The nautical station has concerns about energy consumption"; "The nautical station increases the well-being of host communities" and "The nautical station has concerns about water consumption"; "The nautical station provides access for people with physical disabilities" and "The nautical station has concerns about water consumption"; "The nautical station enhances the well-being of host communities" and "The nautical station has concerns about the amount of waste generated"; "The nautical station preserves historic structures, monuments and sites" and "The nautical station has concerns about pollution (noise, air and environmental pollution)". In conclusion, this research has made it possible to identify sustainable nautical activities on the network that can serve as a case of good practice for other businesses.

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