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Comparative analysis of chartering in nautical tourism in the Republic of Croatia and competitive countries of the European Union

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ABSTRACT

The aim of this paper is to compare the nautical tourism of the Republic of Croatia and selected countries of the European Union, with special attention to the nautical charter, in order to gain insight into the current state of the market and identify advantages and disadvantages of charter tourism to enable the further development of the Republic of Croatia in the above-mentioned field. Through the collected statistical data the prices and quality of the nautical charter service in Croatia and competing countries of the European Union, the results were compared and analyzed. Considering the affordability of renting motor and sailing yachts, the competitiveness of the Republic of Croatia on the European market is undeniable. However, this work also examines whether the existing infrastructure and superstructure can support the potential development of nautical charter in the Republic of Croatia.

1 Introduction

Nautical tourism represents an important economic and recreational sector for the Mediterranean countries of the European Union. Croatia, France, Greece, Italy and Spain are some of the countries fighting for a prominent place in this lucrative industry. According to data from the State Bureau of Statistics, in 2022, nautical tourism ports in the Republic of Croatia achieved a total of HRK 1.1 billion in revenue excluding VAT, which is 14.4% more than in 2021. The largest share in the total income was the income from the rental of moorings, as much as 70.0%, which is 12.5% [1] more compared to 2021. Despite the abundance of natural beauty, the extremely indented coast with numerous islands and favorable climatic conditions, nautical tourism in Croatia still fails to realize its full potential and cannot compete with the leading European nautical centers in many service segments. [11, 16, 23, 25]

Having worked in the charter industry, one of the authors has identified several problems, including fleet

homogeneity, the need for better-trained personnel as well as charter companies in need of skippers, stewardesses, engineers, etc. having difficulties finding them, in particular during peak seasons. [39] This study aims to compare the nautical tourism sector in Croatia with selected European Union countries, focusing on the nautical charter segment, to gain insight into the current market state and identify the advantages and disadvantages of charter tourism. This study employed a multifaceted approach to analyze and compare the nautical tourism charter sector in the Republic of Croatia with selected countries of the European Union. The methodologies utilized included secondary data analysis, where statistical data was collected from the State Bureau of Statistics, Yacht Rent, and other relevant industry reports for 2022 and 2023, covering aspects such as revenue, rental prices, and fleet size. A thorough literature review was conducted, examining existing studies on nautical tourism and chartering. Additionally, price benchmarking involved a detailed comparison of weekly boat rental prices across different countries.

Customer satisfaction surveys provided insights into various service elements, while revenue analysis assessed the economic impact of the nautical charter sector on Croatia's tourism revenue.

The structure of this paper includes an overview of the current state of nautical tourism, a comparative analysis of charter services, and a discussion on future development strategies for Croatia in relation to its Mediterranean competitors. This comprehensive approach aims to provide insights into how Croatia can enhance its position in the nautical tourism sector by 2030.

2 Nautical charter as a segment of nautical tourism

Nautical tourism is a subset of the wider tourism industry and has developed as an independent aspect of tourism. [2] It is an economic activity that is based on content related to touristic and recreational sailing on the sea, rivers and lakes. [3] Nautical tourism is a multidisciplinary tourism activity, which means that it deals with seafaring, geology, geography, sociology, pedagogy, but primarily economics. [4] In the international discussion, the English term "yachting tourism" is used more and more often in relation to "nautical tourism" or "maritime tourism", because yachting is increasingly associated with luxury sea trips and strongly connects nautical tourism with the tourist industry than with maritime activities. This contributes to a more precise demarcation of the concept of nautical tourism as a part of tourism, not maritime activities. Nautical tourism is a

phenomenon that in the past three decades has recorded one of the highest development rates known in the European and Croatian economy. [4] Currently, the nautical sector is very dynamic in promoting related activities, such as the construction of pleasure craft, services, and coastal urban development. [40] The basic division of nautical tourism is shown in Figure 1.

Nautical tourism can refer to two types of tourism: recreational and sports activities and cruise tourism. Whereas the first is motivated by aquatic activities, the second is closely related to the ship itself. [41] The essential difference between nautical tourism and other forms of tourism is the sailing itself, i.e. the great mobility of tourist-nautical tourists, which implies frequent, and often daily, changes of place of residence. To determine the degree of development of nautical tourism, it is necessary to look at the position, development and equipment of the port of nautical tourism with the associated facilities of infrastructure and superstructure. [5] Charter activity implies renting a vessel or providing accommodation services on a vessel in internal sea waters and territorial sea. Charter includes business with ships or vessels, in the sense of renting them to sailors.

Several types of charters are offered: [6]

- daily – as a supplement to hotel accommodation,
- local – vessels that have their own port with a mooring in the area of their round trip,
- weekly – sailboats or motor boats 7-15 m long,
- the most represented, international – includes more luxurious and newer vessels equipped like luxury cruise ships.

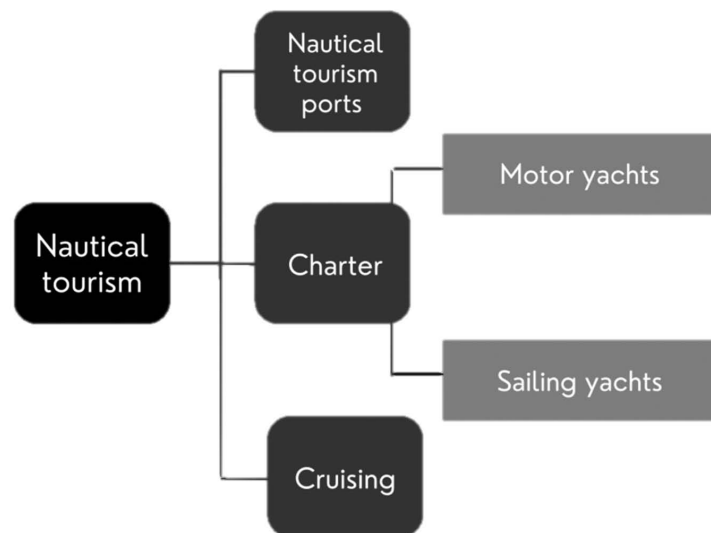


Figure 1 Classification model of basic factors of nautical activity

3 Development of charter activities in Croatia

Charter as a nautical activity is the youngest activity in the nautical tourism offer, and is defined as a service in nautical tourism that includes the following: [5]

- rental of moorings in nautical tourism ports for the accommodation of vessels and boating tourists who stay on them,
- rental of vessels with or without a crew, with or without the provision of accommodation, for vacation, recreation and cruising of boating tourists (charter, cruise),
- boat management services for boating tourists, reception, guarding and maintenance of boats at sea and dry docks, supply services for boating tourists (water, fuel, provisions, spare parts, equipment),
- arrangement and preparation of vessels,
- providing various information to boating tourists (weather forecast, nautical guides) i
- other services for the needs of nautical tourism.

The boat rental service in nautical tourism can be performed by natural and legal persons if they obtain a decision that the minimum technical conditions for the provision of tourist boat rental services are met. These conditions are defined by the Ordinance on the conditions for renting out vessels with or without a crew and providing guest accommodation services on the vessel (Official Gazette 42/2017), which was adopted on April 28, 2017 [7] and must be met by the navigable object and the natural or legal person performing the activity of renting out vessels. Nautical charter represents a very profitable business, where it is assumed that the return on invested capital is 3-5 years. [7] Nautical tourism, including chartering as one of its activities, occupies a significant share in the overall world tourism and as such represents an important factor in the development of the world maritime and economic system. Its interdependence stems from the general connection between tourism and other activities related to tourism in the economy of a country. Nautical tourism, chartering, appeared in Croatia in the 19th century, which is almost a century later than in the world, where it developed al-

ready at the end of the 17th and the beginning of the 18th century. What is more important is that its development in the rest of the world developed very quickly from the middle of the 19th century, while in Croatia its development proceeded very slowly until the beginning of the 80s of the 20th century. Most of today's marinas and boating associations are founded 80s of the last century, which significantly increases the popularity of nautical tourism. So, its more intensive development can be traced in the last 15 years. [7] Although it is becoming more and more important in Croatian tourism, the realization of adequate material profit is still not commensurate with its potential, so that its real development is, in fact, still to be expected. Croatia currently occupies as much as 40 percent of the total world charter market and with its 4,500 vessels it forms one of the largest charter fleets in the world, of which about 70 percent are located in the Split area. It has an infrastructure of over 70 marinas and a total of 17,000 berths. Last year, more than 3.6 million overnight stays were realized in the nautical charter, which is 1% more than in 2021, but also 2 percent more than the record year of 2019, reports the Croatian Tourist Board. [8]

4 Comparative analysis of the price, quality and offer of nautical charter in Croatia with other members of the European Union

Choosing the ideal nautical charter can be a challenging task as charter prices and quality vary around the world. the development of the nautical sector depends on numerous factors: predominantly, the price of vessels, the availability of adequate facilities, income levels, and the legal and fiscal frameworks [42] which all can affect the decisions when planning and selecting the itinerary.

Table 1 shows the average price of a weekly boat rental in euros (€) by category, classified according to the type of boat, i.e. sailboats, catamarans and motor boats. Furthermore, they are classified according to the size and number of cabins in order to make it easier to see the differences in prices, according to the latest data from July 2023. All information is taken from the Yacht-

Table 1 Comparison of boat rental prices in July 2023 (€)

CABIN NUMBER	Sailboats						Motor boats		
	2	4	5-6	4	5-6	7-9	3	4	5-6
Croatia	272	3055	4910	5561	5739	9711	7920	15773	23051
Greece	341	3429	4427	5849	6478	14180	14016	22623	24337
Italy	344	3418	4352	5273	7264	13118	7700	12309	27264
France	287	2876	3477	10794	5678	14762	8900	12800	28709
Spain	582	3922	3935	5498	7237	12093	18540	20584	29340

Source: Edited by the author according to Yacht Rent's vessel rental statistics from 2023

Rent website, [19] a company that rents boats not only in Croatia but also in the rest of the Mediterranean. In table 1, among the countries where Yacht-Rent offers boats for rent, Croatia, Greece, France, Italy and Spain are selected as samples for comparative analysis. Statistically processed data are based on a fleet of 6334 vessels, of which 3391 are located in Croatia, 2123 in Greece, 531 in Italy, 171 in France and 118 in Spain.

Table 2 Average boat rental price in July 2023 (€)

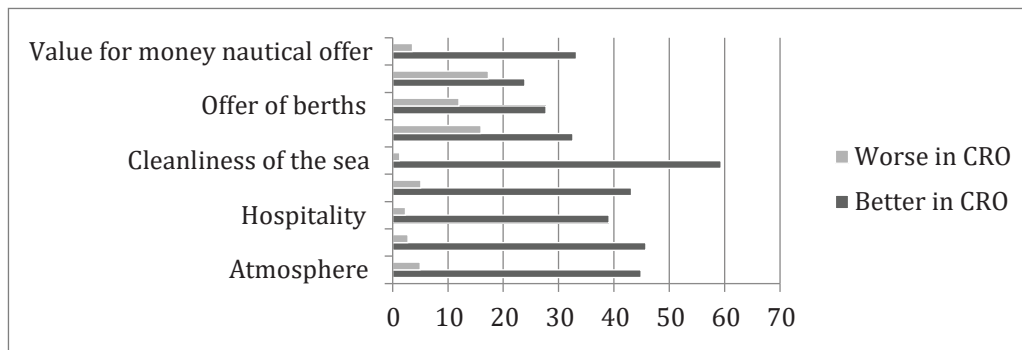
	Average boat rental price in July 2023 (€)
Croatia	8443.56
Greece	10631,11
Italy	9004.67
France	9809.22
Spain	11303.44

Source: Edited by the author according to Yacht Rent’s vessel rental statistics from 2023

According to the data presented in Table 1, the average of all highlighted weekly boat rental prices was calculated, and the results are shown in Table 2. According to the data, it is clear that despite the increase in prices,

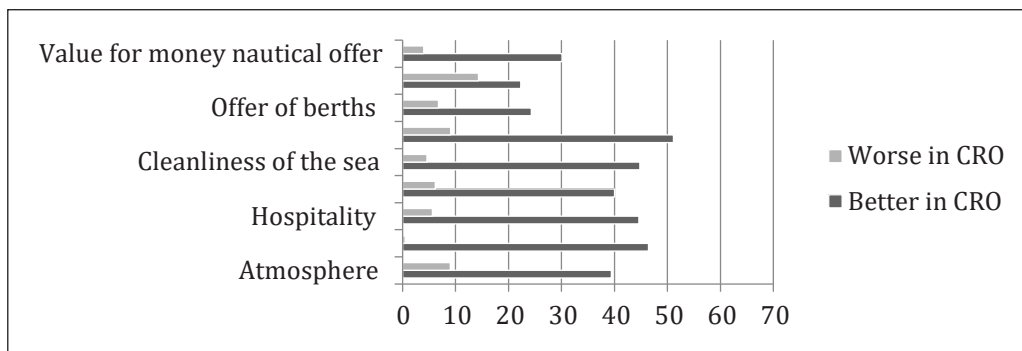
Croatia is still the cheapest destination among the selected Mediterranean competitors. Prices are competitive compared to France and Italy, while Spain and Greece are visibly more expensive destinations for users of charter services than Croatia. This data provides an insight into the dynamics of the yacht charter market in the Mediterranean and helps potential buyers to better understand the price differences between destinations. Croatia remains an attractive option for those looking for more affordable options, while Spain and Greece may attract those willing to pay more for their nautical vacation.

According to TOMAS nautical research [20] from the year 2022, on the attitudes and consumption of boaters in Croatia, Graph 1, Graph 2 and Graph 3 were made and displayed, on which the assessment of the elements of the offer in Croatia compared to competing countries is highlighted. The respondents included in the research are 2,508 sailors from 14 emitting countries who used boat rental services in Croatia and Italy, Greece or Spain. Respondents answered the given elements of the offer comparing the two destinations with “better in Croatia” or “worse in Croatia”. The elements examined are: value for money of the nautical offer, marina equipment, offer of berths, catering offer, cleanliness of the sea, environ-



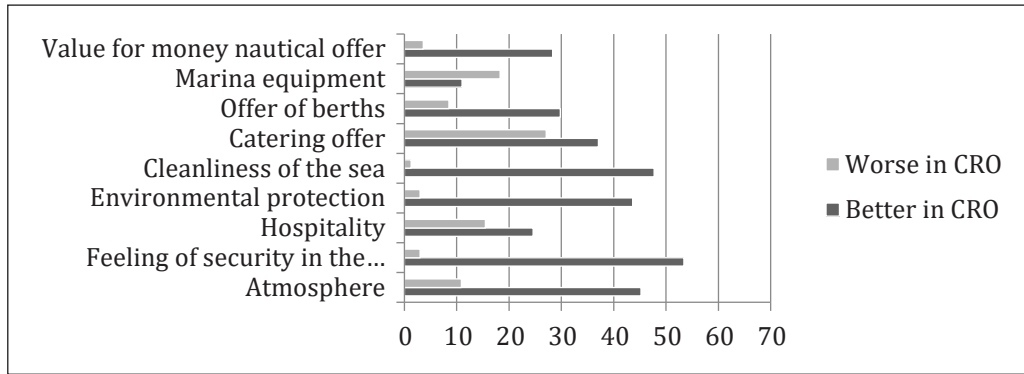
Graph 1 Evaluation of the elements of the offer in Croatia in relation to Italy

Source: Edited by the author according to “TOMAS NAUTIKA 2022: Stavovi i potrošnja nautičara u Hrvatskoj”



Graph 2 Evaluation of the elements of the offer in Croatia compared to Greece

Source: Edited by the author according to “TOMAS NAUTIKA 2022: Stavovi i potrošnja nautičara u Hrvatskoj”



Graph 3 Evaluation of the elements of the offer in Croatia compared to Spain

Source: Edited by the author according to "TOMAS NAUTIKA 2022: Stavovi i potrošnja nautičara u Hrvatskoj"

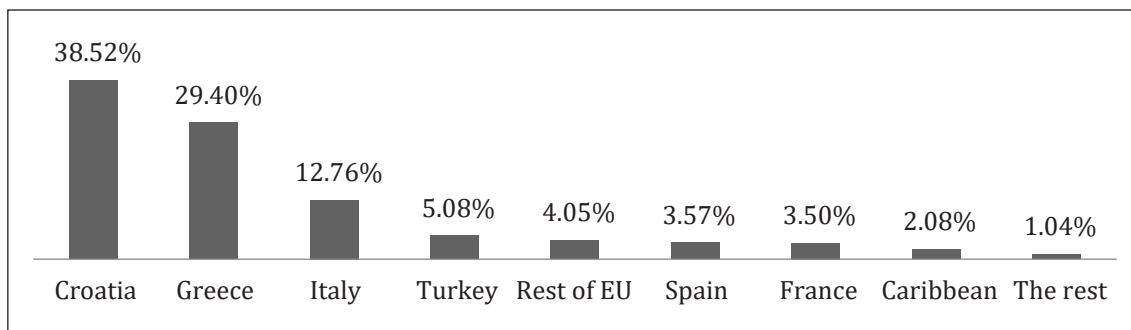
mental protection, hospitality, feeling of security in the country and atmosphere. Graph 1 shows that Croatia dominates in all segments compared to Italy. The only element over which Croatia does not have complete dominance is the "marina equipment".

Graph 2 shows the evaluation of the elements of the offer in Croatia compared to Greece, and almost the same data as when comparing Croatia and Italy are repeated, that is, sailors evaluate Croatia as better in all elements. Again, the element that is the most competitive is "marina equipment", and the biggest difference in user satisfaction can be observed in the element "feeling of security in the country".

Analyzing Graph 3, which shows the evaluation of the elements of the offer in Croatia in relation to Spain, it is evident that the evaluations are very similar to those shown in Graph 1 and Graph 2, but according to the results presented, sailors believe that Spain is better in terms of marina equipment compared to Croatia. At the same time, the element "marina equipment" in the comparison between Croatia and Spain is the only element in all three graphs that is rated higher in a country other than Croatia. It is also important to mention that in Graph 3 the element "hospitality offer" stands out.

Of all the mentioned elements, Croatia was chosen by the respondents as a more favorable choice in each segment, regardless of the country with which it was compared, especially standing out in the segments "feeling of security in the country" and "cleanliness of the sea", where more than 40% of the respondents preferred Croatia as their selection. TOMAS nautika also conducted the aforementioned research in 2017. [20] but then the results were slightly different, respondents did not choose Croatia in equal numbers, moreover in the segments "value for money nautical offer", "marina equipment" and "catering offer" Croatia was worse than both Italy and Spain. Therefore, comparing the results of the analysis of the satisfaction of the consumers themselves from 2017 and 2022, it can be concluded that Croatia is progressing in the offer and quality of the same.

By analyzing Graph 4 according to Sail Croatia statistics [21] from 2022, which shows the most popular nautical charter destinations, and after analyzing the prices and elements of boater satisfaction, it is not surprising that Croatia is the convincing leader in boat rental destinations for the summer of 2022 with an impressive 38.52% share.



Graph 4 The most popular nautical charter destinations according to data from 2022

Source: Edited by the author according to <https://www.sail-croatia.com/resources/yacht-charter-statistics>

Croatia has also invested in its nautical infrastructure, including modern marinas and boat rental services, which improves the overall visitor experience. [1] While Croatia's dominance in the boat rental market is evident, [37] such growth also brings challenges such as mass tourism. The high demand for boat rentals in Croatia can lead to a deterioration in the quality of services due to excessive tourism, especially in popular areas. Sustainable management of the influx of tourists and price corrections to maintain exclusivity are key in moments of such growth in nautical tourism. Of course, Croatia will have to continue investing in its nautical infrastructure in order to adapt to the increasing number of visitors and at the same time preserve the environment. This concern is echoed in other research studies on nautical tourism. For instance, the study on nautical tourism in Portugal emphasizes the importance of a sustainability marketing approach to project a destination image that balances growth and environmental preservation. [44] Another study highlights the critical role of effective management and planning in ensuring the sustainability of water tourism, indicating that inadequate infrastructure and poor service quality can detract from the tourist experience and damage the destination's reputation. [43] Furthermore, research on sustainable tourism development points out that over-tourism can strain local resources and infrastructure, underscoring the need for careful planning and investment in sustainable practices. [45] The research findings of foreign authors whose research focuses on nautical tourism in other coastal states [43, 44, 45] are in line with the challenges facing Croatian nautical tourism and emphasise the importance of strategic management and investment in infrastructure for sustainable, long-term growth while protecting the environment.

5 Comparison of development strategies for nautical tourism in Italy, France, Greece and Croatia

Nautical tourism is becoming an increasingly important contribution to the economies of various Mediterranean countries, among the prominent nations competing for part of this lucrative market, Croatia, Italy, Greece and France stood out as competing countries, each with a unique approach to the development of both nautical tourism and the chartering part. [13, 22, 23, 24, 25] These states, which boast a diverse coastline, history and culture, represent an intriguing area for examining the strategies that have led to their success in the growing sector and for analyzing their future development strategies. In this chapter, the segments of the plans of the tourist boards of the mentioned countries are highlighted, on the basis of which it is possible to gain an insight into the different and divided views of the countries in the field of nautical tourism. By re-

searching the strategies, it will be seen which trump cards are used by these Mediterranean nations in their efforts to use the potential of nautical tourism while sharing a common sea, the Adriatic and the Mediterranean, and similar aspirations to attract users of nautical services. The strategies of Croatia, Italy, Greece and France reveal different cultural, economic and political considerations that influenced their paths in the development of nautical tourism and thus reveal the direction they expect the future to take.

5.1 Italy

"Operational CBC nautical tourism development plan" is a nautical tourism development strategy that includes Italy. Interreg Europe [27] is an interregional cooperation program co-financed by the European Union, through which they strive to reduce differences in levels of development, growth and quality of life within and between European regions. The program is in effect from 2021 to 2027, and the Italian intervention area of the plan includes the regions of Puglia and Molise. Throughout different historical periods, Puglia has played an important role in the Mediterranean, representing the bridge between East and West and the gateway to the Balkans. Despite this, the use of its extraordinary natural and historical heritage for the purpose of nautical tourism is very modest, especially compared to the rest of Italy. The current offer of services in ports is lacking both quantitatively and qualitatively. According to data from the Italian Ministry of Transport from 2020, the number of nautical tourism facilities in Puglia is low compared to the national average. The total number of berths is 14,068, which is 8.87% of the national total. [23]

Regarding the Italian region, the region of Puglia, in collaboration with operators in the sector, local authorities, associations, unions, stakeholders, MIBACT (Ministry of Culture), [23] local opinion, universities and LAGs (local action groups), implemented the strategic tourism plan "Puglia365" for the period from 2016 to 2025. The plan identifies the strategic interventions that the Puglia region is actively implementing in order to promote tourism and qualify the offer with diversity and increase the number of visitors by promoting the perspective of off-season tourism. Among the objectives are the growth of the competitiveness of the Puglia destination in Italy and abroad, the increase of the flow of national and international tourists through nautical tourism and the depersonalization of tourism in order to help the Puglia territories to organize themselves for tourism throughout the year. With the mentioned Plan [24] is covered:

- modernization and reconstruction of marinas,
- revitalization of shipbuilding,
- promotion of maritime sports activities (sailing, rowing, sport fishing, diving, etc.) and nautical charter.

Strategic areas include topics: [24]

- Valorization
- Promotions
- Communications
- Innovations
- Products

The strategy plan for the development of nautical tourism in Italy also pays great attention to the digital environment, understanding that the role of technology is crucial in the context of improving tourism, especially with the emergence of new ways of marketing promotion to tourists. Great attention is also paid to further data collection and consumer profiling

5.2 Greece

The SETE-INSETE Institute is a non-profit organization founded in early 2013 by the initiative of the Greek Tourist Confederation (SETE). In 2019, the Institute published a strategy called “Greek Tourism 2030 Action Plans” in which existing data were analyzed in detail and development plans that should be realized by 2030 were described. It explores ways through detailed action plans to further develop the Greek tourist offer and products in terms of destinations and clusters throughout the country. [22] Briefly, the content of the study includes the following:

- current trends and challenges for the global tourism industry,
- current trends by tourist product,
- analysis of key international markets,
- SWOT analysis, strategy for Greek tourism,
- proposed horizontal strategic guidelines / actions by strategic area-domain, quantitative goals for Greek tourism and
- prerequisites for achieving the plan.

In the development of nautical tourism in Greece, great attention is paid to the improvement of distribution channels. The most common distribution channels of ship charters in Greece are: [22]

- Direct bookings through boat rental companies (charter agency)
- Specialized OTAs and agents (eg Sailogy, Sunsail)
- Thematic platforms (eg Tourradar, Travelopia)
- Economic sharing platforms (e.g. Borrow a Boat and Click & Boat)

As the main strength of Greece’s nautical tourism, it was pointed out that marinas and tourist ports are able to support the demand for nautical charterers during the season, with the possibility of mooring large yachts (Attica, South Aegean, Western Greece, Ionian Islands) being particularly highlighted. However, it is unques-

tionable that further improvements are needed given that although Greece is one of the main European destinations in the nautical tourism sector, the demand for nautical tourism has had the lowest growth rate compared to other primary tourism products in the last four years (CAGR 6.2%). [22] In connection with this, there is also a need to update the institutional framework, improve management and upgrade, and develop the infrastructure of nautical tourism (yachting, cruises). After analyzing the needs of local tourism, a development tourism strategy was created, which consists of four parts: upgrade and creation of port infrastructure and services, improvement and promotion of the tourist product, digital upgrade and transformation, and environmental protection and sustainability. The rest of the text lists the parts of the strategic plan that in whole or in fragments refer to nautical tourism. Upgrading and creating port infrastructure and services (e.g. destination marinas, new and innovative services, superyacht infrastructure, use of digital technology, sustainable design) to improve customer experience and meet the needs of specific ships (e.g. large cruise ships) is one of the provision that is given the most attention precisely because of the income that Greece achieves from recreational sailing. Then the design and implementation of a combined transport system (road network, airports, ports and alternative means such as seaplanes, water taxis, but also regular routes by private buses) where the goal is to improve connectivity and accessibility for destinations where access is difficult and/or long lasting.

Also, one of the essential goals of the Greek tourism development strategy is to develop regional destination management organizations (DMOs) for each of the 13 Greek regions and integrate tourism stakeholders into the DMOs (properly diversifying depending on the special features of each destination) and then develop strategic planning for tourism promotion of Greek regions and a comprehensive, cohesive and targeted tourism promotion and advertising program for each region (identification of USPs for each region/destination, appropriate promotion and advertising channels, messages, targeted incoming tourist markets and clientele segments, use of modern digital tools, etc.) There is a growing need for the development of a digital info point at key gateways (airports, ports, border crossings) and at central tourist sites of interest for each destination with detailed information on the tourist product and resources of each destination, public services, work store hours, public transport and the like, 3D interactive maps and appropriate printed literature. In view of the increasing digitalization, the creation of an information mechanism and an intelligent central tourism platform (National Data Hub) for the collection, storage, processing and analysis of statistical data, the creation of visuals and the sharing of data and information related to figures in tourism, forecasts of tourist demand in Greece, early diagnosis of ongoing tourism development

and monitoring of basic infrastructure that supports tourism growth (energy, water supply, connectivity, transport infrastructure, waste water and municipal waste management, security, health, cultural and natural resources, etc.)

5.3 France

According to the French sustainable development strategy 2030, recreational sailing with 9 million permanent and occasional users is the main sector of the maritime economy and nautical tourism. [9] In France, there are more than 5,000 companies with 50,000 jobs and generate an annual turnover of more than 5 billion euros. [25] Structured around four main interdependent and complementary sectors: a network of nautical bases along the entire coast and inland waterways, 570 marinas with 160,000 berths, federations and associations that promote the nautical sports industry, and the world's leading industry in the field of sailing and water sports and 4. in the production of motor boats, the French nautical sector is a vector of growth and employment essential for the coastal areas and the growth of their economy. The sector of nautical tourism, especially due to the emergence of the so-called collaborative activities, has been going through a significant transformation for several years, especially in terms of sustainable development to strengthen the sector. The state must support the same and implement appropriate policies in line with the desired goals. [10]

Recreational sailing is also in the process of ecological and economic transition. Shipbuilding applies environmental construction standards and establishes a ship recycling industry, i.e. expands producer responsibility. Marinas are reducing their footprint by managing locations and services – quality logistics, especially with regard to the environment, replacing purely quantitative logistics. There is a need for continued support within the framework of calls for “exemplary marinas” projects, which promote the development of reception capacities through the approach of sustainable development. France is the only nation in the world that, with its standards agency (AFNOR), has established a European environmental certificate specific to marinas: “Clean Ports or Clean Harbor Guidelines” (CWA 16387) European certificate. These investments must be strengthened and continued and must be accompanied by raising awareness among the users of recreational boating. France, the world's leading tourist destination recreational sailing, owes a lot to the attractiveness of its coast, landscape and maritime heritage. The opportunity to access the sea and enjoy sailing and recreation by the sea for everyone rests on a fragile ecosystem and an economic balance that needs to be preserved. Under this condition, the market offer can be developed and diversified, which often has coastal areas as its main re-

source and which continues to create jobs. It is necessary to deepen the synergy between the tourism, fishing and aquaculture sectors. France's development strategy is thus based on a new approach to science, sustainable tourism and, in general, sustainable development in which the stakeholders must also be optimized.

“Development of the sustainable blue economy” data on maritime and coastal economy IFREMER [26] (National Institute of Marine Science) estimated 460,000 jobs and an added value of 30 billion euros in 2011, or about 1.5% of French GDP. The sector is growing – OECD [28] estimated in its May 2016 report that it would double to \$3 trillion by 2030. In terms of social progress, the European Commission's Regional Social Progress Index project (February 2016) shows that the coastal regions of continental France are within the national average. However, in comparison with the countries of Northern Europe, which are ranked higher, such data is not satisfactory, which shows that there is a margin for possible progress of the French regions. The development of the blue economy must be a source of added value, especially for the coastal population, it must ensure the strategic functions of the national economy in terms of the supply of raw materials, energy, transport and communications. The aim is to integrate a high level of safety and security related to all maritime activities. The promotion of transport and maritime services, as well as the competitiveness of commercial ports, is a large part of strategic development, and by 2030 special attention will be paid to the development of the shipbuilding and ship repair industry, the upgrading of maritime infrastructure with a focus on the attractiveness of French ports, technological innovation and environmental efficiency. [25]

5.4 Croatia

Nautical tourism represents one of the most recognizable and most successfully positioned tourist products in Croatia. An extremely attractive coast, favorable conditions for sailing and sailing during most of the year, a well-developed tourist infrastructure and a long history are some of the key factors that contribute to the development and attractiveness of this form of tourism. In the period from 2009 to 2019, the number of ports for nautical tourism has grown significantly, increasing from 98 ports in 2009 to 167 ports in 2019. [11] It is important to note that this growth is to some extent a consequence of changes in the way of recording statistical data on the number of ports, and part of this growth occurred in the period between 2018 and 2019. Also, the number of moorings for ships increased from 16,848 in 2009 to 18,179 moorings in 2019, which indicates an average annual growth of 0.7%. [12] In accordance with market requirements, a growth in the number of moorings for vessels longer than 12 meters

is especially noted. With regard to the increasing development of nautical tourism, it becomes necessary to establish regulatory measures for anchoring in order to avoid and mitigate negative impacts on marine habitats and the coastal area. [13]

In 2019, Croatia generated an income of HRK 918 million from nautical tourism (excluding VAT). This income comes from various sources, with 71% of the income coming from mooring rentals, 7.5% from service services, and 21.5% from other sources. Šibenik-Knin County took the leading position with a share of 25.4% in total revenue, followed by Split-Dalmatia County with 22.5%, while Zadar County recorded a share of 19.9%. [11] In recent years, river cruises have grown in popularity in Europe, including Croatia. [17] Currently, international river cruises in Croatia mainly take place on the Danube River, which accounts for about 90% of the total dockings, while the remaining 10% take place on the Drava River. [15] Croatia has natural advantages for the development of nautical tourism, including an indented coastline, clear sea and an attractive archipelago. It also has the largest charter fleet in the world. However, the lack of adequate management and infrastructure limits the realization of the full potential of this tourist product. Considering the high profitability of this sector and a good foundation for further development, the next phase will focus on defining development strategies and their successful implementation until 2030. [11]

According to the semi-annual report of ACI for the period ended on June 30, 2023, during the first half of 2023, the total revenue from sales was realized in the amount of 14 million euros, which represents an increase of 11% compared to the previous year, i.e. additional 1.4 million euros. [30] The most significant increase in revenue is recorded in the annual connection service segment. Considering the increase in development and sustainable business, several strategically important projects were launched. ACI's primary goal is to extend the duration of the concession contracts, which are crucial for the further development of the company, given the imminent expiration of the existing concession contracts. In the coming period, the focus will be on the implementation of the started projects, and in addition, there will be a special emphasis on activities related to the realization of ACI Marina Rijeka. The company ACI GITONE doo, the future concessionaire of the marina, was granted a location permit in May 2023 for the reconstruction of the existing port of Porto Baroš and its conversion into a special purpose port, i.e. a port for nautical tourism. A 30-year concession contract was signed. Furthermore, efforts are being made to reduce the ecological footprint, and activities will continue as part of the "Zero Emission Mobility Corridor – Northern Adriatic" project. The "Northern Adriatic Hydrogen Valley" project represents a special form of

international cooperation, aligned with the Croatian hydrogen strategy until 2050. [30]

Croatia follows global tourism trends and develops various forms of tourism, such as rural, health, cultural, eno-gastronomic, nautical (river and sea), sports, outdoor and others, in order to revitalize less developed areas and the continent and become a less seasonal destination and considering the strong development of nautical tourism and its impact on the environment, a special focus will be on the construction of electric vessels and infrastructure resistant to climate change. Also, the transformation of accommodation capacities with a low or "zero" carbon footprint and the development of specific forms of tourism will be promoted while reducing greenhouse gas emissions. The burden on marine ecosystems and areas due to nautical tourism, together with the growth of waste from tourism, represents a significant challenge that requires attention and sustainable measures. [13]

6 Comparison of countries based on their elements closely related to nautical tourism

In the continuation of the paper, a systematized presentation of the comparison of countries according to various elements that have been identified as important for the development of nautical tourism is presented. The elements include the natural predispositions of the analyzed countries, such as the length of the coast and the number of islands, as well as the available infrastructure visible through the number of marinas and available anchorages. Also, the element of superstructure is covered, i.e. the number of yachts for rent in individual countries. The analyzed elements also include segments of supply and demand, such as the share in the total booking of charter boats, the average boat rental price and the percentage of choosing a particular country as a favorite destination for boat rentals.

Table 3 clearly shows the differences in certain items of nautical tourism. While, for example, there are numerous islands and long coastlines within Greece's territorial jurisdiction, France compensates for this with the number of anchorages, and Italy with the number of marinas. Each individual item in a certain way shapes both nautical tourism and the development of the nautical charter itself, and it is up to the states to notice the shortcomings and use their strengths. It is noticeable that at the moment Greece and Croatia are the leading destinations, but according to the data presented in Table 3, it can be seen that there is still room for improvement, even for the leading countries. Given that there are no relevant statistics for France, the data on the number of yachts for rent were taken from the Yacht charter fleet page, and although they manage the majority of the fleet, there is a possibility that the data deviates from the actual number of yachts for rent in France.

Table 3 Comparison of nautical tourism items of European Union countries leading in nautical charter

Item	State				
	Croatia	Italy	Spain	Greece	France
The length of the coast	5835 km	7600 km	4964 km	13676 km	4853 km
Islands	1246	808	179	6000	1300
Marina	56	253	191	59	124
Anchorage	13416	130000	130555	8924	222600
Anchorage/km of coast	2.29	17,10	26.30	0.65	45.87
Number of yachts for rent	2700	1400	600	1750	914
Number of maritime transport users (annually)	13328	29546	10077	26449	8496
Share in the total booking of charter ships	33%	15%	11%	19%	8%
The percentage of selecting a particular country as a favorite destination for boat rentals	25%	13%	15%	31%	4%
Average boat rental price (weekly charter)	€8,443.56	€9,004.67	€11,303.44	€10,651.11	€9,809.22

Source: Edited by the author according to <https://www.globalfirepower.com/coastline-coverage.php>(16.3.2024); https://ec.europa.eu/eurostat/databrowser/view/tran_r_mapa_nm/default/bar?lang=en&category=reg.reg_tran.reg_otran(16.3.2024); <https://www.theseus.fi/bitstream/handle/10024/790995/Marinos Ioannis.pdf?sequence=2&isAllowed=y>(16.3.2024)

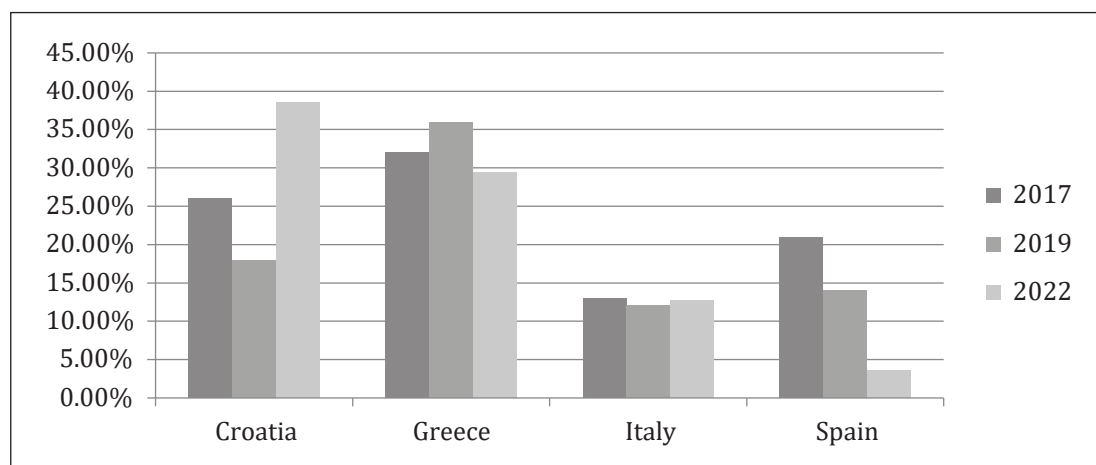
7 Differences in demand and rental of vessels in individual countries before and after the COVID-19 pandemic

Nautical tourism is the largest of all blue-economy sectors, and is a source of employment, investment, and income for many countries. [38] After the outbreak of the pandemic, it is difficult to list the areas of the economy and human life that were not affected. However, tourism is one of the branches that suffered the most consequences. In the first half of 2020 alone, international arrivals in Europe fall by 74%, [18] that data naturally includes nautical tourism and boat rentals.

The COVID-19 pandemic has had a significant impact on nautical tourism. Travel restrictions, border clo-

sures and social distancing measures have led to a decrease in the number of tourists, bookings and activities related to nautical tourism in general. Many marinas, charter companies and related services felt the negative economic consequences. With the gradual easing of measures, the sector is recovering, but the dynamics of tourism still depends on the global course of the pandemic and related restrictions. [18]

In Croatia, nautical tourism has also been significantly affected by the COVID-19 pandemic. Given that Croatia is a popular destination for sailing and nautical tourism, travel restrictions, border closures and epidemiological measures have had a major impact on this sector. The number of foreign tourists, boat reservations and overall activity in marinas has decreased.

**Graph 5** Trends in boat charter bookings before and after the COVID pandemic

Source: Edited by the author according to Sail Croatia and YactSys statistics

Despite this, with the gradual easing of measures, the nautical tourism sector in Croatia is also showing signs of recovery, with the adaptation of business models and compliance with safety protocols.

For many years, Croatia has been among the leading countries in the world in terms of the number of reservations and the number of chartered vessels. A few years ago, the first place was occupied by Greece, which can be seen on Graph 5, which shows the trends of reservations in 2017, 2019 and 2022. The graph was created according to data from Sail Croatia [21] and YachtSys [31] covers the period of the pandemic, which for most countries meant a drop in the number of reservations, but Greece proved to be an exception.

It can be speculated that the anomaly occurred due to the type of measures that were in force in the country, but we also do not have data on how many of these reservations were implemented in Greece in 2019. After the pandemic, Croatia experienced a big jump in the boat rental sector to as much as 38.52%, thus rising to the position of the most desirable boat rental destination in the world.

8 Conclusion

Boat rental prices in the Mediterranean are according to data from July 2023, Croatia stands out as the cheapest destination for boat rental among selected Mediterranean competitors, while Spain and Greece are more expensive destinations. The aforementioned offers a concrete insight into the dynamics of the yacht charter market in the Mediterranean. The Croatian survey on the attitudes and consumption of boaters indicates that in the last few years, Croatia has made progress in its offer and quality of service, especially in the segments “feeling of safety in the country” and “cleanliness of the sea”. This improvement can certainly attract more tourists, especially considering that the popularity of Croatia as a destination according to Sail Croatia statistics from 2022, shows Croatia as the leading destination for boat rentals in the Mediterranean, with an impressive share of 38.52%. This indicates the attractiveness of the Adriatic coast, islands, historic towns and clear sea for tourists who want to explore this region by boat.

Despite Croatia's dominance in the boat rental market, this growth can lead to challenges such as the emergence of mass tourism and a decrease in service quality. Sustainable management and price adjustments are key to addressing such challenges. In the development strategies of all compared countries, the main goals mostly coincide, but the directions of development are different. Italy focuses on the modernization and reconstruction of marinas, Greece on the improvement of distribution channels and digital transformation, while France emphasizes sustainable development and synergy between the tourism, fisheries and aquaculture sectors.

Ultimately, nautical charter as part of nautical tourism in the Mediterranean is growing and bringing significant economic benefits. However, it is very important to monitor changes in the market, to solve sustainability challenges and to continuously improve the offer and quality of service in order to preserve the attractiveness of these destinations. Nautical tourism as a sector contributes to the local economy and employment, opening up new business opportunities, especially for small trades and local businesses. However, in order to ensure the sustainability of nautical charter, it is important to address environmental challenges and join efforts to preserve the marine environment. The future of nautical charter promises innovation, including electric and hybrid boats and digital booking technologies. Despite challenges such as business seasonality and global crises, there are many opportunities for market growth and service improvement.

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