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The Sustainability of Yachting Tourism: A Case Study on Greece

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Abstract: *Yachting tourism is an emerging industry in coastal regions, particularly in the Mediterranean countries. The increasing success of yachting tourism has resulted in a significant boom in its relevant business segments. As a specific type of leisure tourism, yachting tourism exerts a positive economic impact on coastal regions, and provides a substantial contribution to the local economy. Greece has many (potential) advantages to enable it to acquire a dominant position in developing a yachting tourism industry, such as authentic local attractions, natural coastal resources, etc. However, since the global financial crisis in 2008, the yachting tourism industry in this country has experienced a clear downturn, while the implementation of some austerity measures has aggravated the economic prospects. Meanwhile, the intense yachting competition from some neighbouring countries presents a big challenge for the sustainability of the Greek yachting tourism industry.*

The main objective of the present study is to map out the background and the force field of this unfortunate situation. First, we compare the Greek yachting tourism sector with that in other competitive Mediterranean countries, in order to identify the problems inherent in strategic policymaking in this field. Secondly, we conduct extensive field research on yacht users and other stakeholders, in order to analyze the factors relevant for a sustainable development of this sector. To achieve the above-mentioned aims, both theoretical research on the sustainability of the yachting sector and empirical research on the Greek yachting tourism industry will be undertaken.

The regression results of our study demonstrate that prevailing industry policies have influenced the sustainability of the Greek yachting sector negatively; our comparative study also provides new knowledge to guide the development of Greek yachting tourism in a more sustainable direction as seen from the perspective of other countries' strategies. Furthermore,our field survey of yacht users and other stakeholders allows us to identify the relevant drivers of sustainability in the Greek yachting tourism industry. In addition, our study also sheds new light on the emerging research field of the yachting tourism economy, and serves to enrich traditional tourism research. While our empirical research focusses in particular on the Greek yachting sector, our findings also provide practical guidance for its development in the long run.

Keywords: *yachting; tourism; sustainability; Greece*

1. Introduction

Yachting refers to a maritime leisure activity in which travelers use yachts for pleasure, and a yacht is a vessel used for leisure purposes. The term originates from the Dutch word *jacht* (hunt), and was originally defined as a light fast sailing vessel used by the Dutch navy to combat pirates and other transgressors. It was no until the rise of the steamboat and other types of powerboat that, sailing yachts became recreational vessels. There are many different types of yachts depending on their use and size, viz. motor yachts, sailing yachts, mega yachts, etc. The length of commercial yachts or private yachts ranges from 10 metres to dozens of metres. In general, a yacht is smaller than 12 metres long, and has a maximum of 36 passengers, while a mega yacht refers to a vessel exceeding 50 metres in length.

Most yachts are sailing yachts which are the most popular type of chartered vessel, but they are confronted with fierce competition in the tourism field. Yachting tourism is based on these vessels to provide entertainment, accommodation, catering, and other leisure-related services on islands and in coastal areas. It differs from cruise tourism by not having regular routes between ports, and it uses marinas as service providers, which can be regarded as the main infrastructure of yachting tourism (Sariisik et al., 2011). This type of tourism used to be a comparatively luxury and exclusive form of consumption, but in recent years it has gradually become part of the general marine tourism sector.

With the establishment of the Greek Tourism Organization (GTO) in 1960, yachting-related construction activities and services, such as refueling with both fuel and water, were operated in 85 geographical Greek locations. In 1961, simplified working procedures and further tax-free incentives for chandlery and fuel were introduced. In1976, Greece implemented a legal framework for companies operating yachting-related business, while the Greek yachting tourism market developed after the 1970s. With respect to the direct employment in yachting tourism, there are approximately 2,500 full-time employees, 1,500 part-time ones, and 500 self-employed ship owners. In addition, there are many related indirect jobs, such as catering, trading, and travel agencies, with a total number of employees of up to 120,000 workers.

It should be noted that yachting tourism in Greece contributes to about 4.5% of its GDP, while total tourism provides 18%.Yachtingis expected to experience continuous growth in Greece in the medium-term future, following a series of initiatives to upgrade the Greek image abroad (Diakomihalis and Lagos, 2011). However, as a result of a combination of discouraging policy measures[a], the demand for yachting tourism in the domestic market in Greece has declined in recent years. Moreover, the number of foreign tourists in Greece has decreased because of the intense competition from neighboring countries. Therefore, an upgraded quality service and a more simplified legal framework in yachting tourism are needed.

The main problems of yachting tourism in Greece concern specific procedures and the taxation system when yachts dock in marinas, especially for non-EU vessels. Another major bottleneck in the Greek yachting tourism sector is the comparatively small number of professional yachting companies, some of which were forced to leave the market during the economic depression. Our research aims to unravel the existing situation of Greek yachting tourism as compared with that of other competing Mediterranean countries, in order to trace the factors that influence its development. Our methodology starts from a comparative qualitative analysis, using field work to investigate the views of yacht users and other stakeholders, followed by a statistical factor analysis and an econometric modeling experiment to provide guidance for the sustainability of yachting tourism in Greece.

2. RESEARCH BACKGROUND

2.1. The Global Yachting Tourism Markets

Yachting tourism has many forms, such as fishing, sightseeing, and leisure sailing, and its demand for berths exceeds by far the current supply in the global markets. In the world, America has the most developed yachting tourism industry, followed by countries in the Mediterranean coastal regions. Table 1 shows that there are around 222,600 berths in France, 130,555 in Spain, 13,416 in Croatia, 130,000 in Italy, and 8,924 in Greece. Compared with other Mediterranean countries, Greece has the lowest average density of berths: namely, only 0.56 berths per kilometer of coastline. The corresponding average for the Mediterranean countries is as high as 9.00, while in France it amounts to 35.24 (see Table 1).

Table1. *The Number of Yacht Berths in Greece and other Mediterranean Countries*

countries	number of berths	coastline (km)	average berths/km
Greece	8,924	16,040	0.56
France	222,600	6,316	35.24
Croatia	13,416	8,032	1.67
Italy	130,000	9,532	13.64
Spain	130,555	6,882	18.97
Turkey	8,659	9,827	0.88
Malta	1,108	197	5.62
Montenegro	837	293	2.86
Slovenia	1,475	1,381	1.07
Total	517,574	58,500	9.00

Source: *Hellenic Chamber of Shipping and University of Piraeus (2012).*

[a]For instance, the heavy taxation in the yachting industry in Greece.

It is worth noting that there is a growing competition among the Mediterranean countries in recent years, in particular on marine tourism (Pardali et al., 2007). As far as the yachting sector is concerned, the Mediterranean region can be divided into two areas, viz. the western coast (mainly France, Spain, and Italy) and the eastern coast (Greece, Croatia, and Turkey). In terms of the number of yachts, the most important European countries are Sweden, France, Finland, Norway, Britain, Germany, and Italy (see Figure1). In these developed countries, the development of yachting tourism is linked to their flourishing shipbuilding industry and the growth of public water sports. It should be noted that Croatia has built more than 56 well-organized marinas, while the total number of yachts exceeds 13,416, although its population is only one-third of that in Greece.

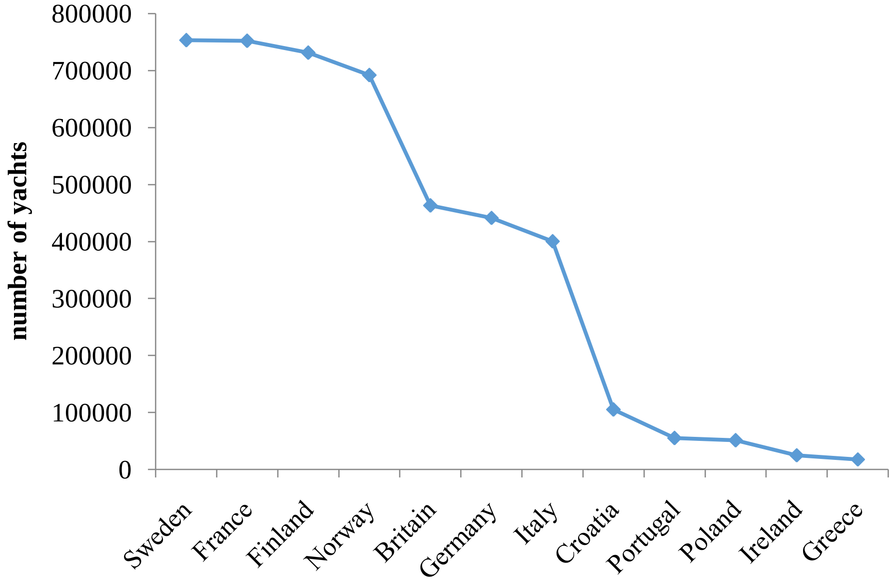

Figure1. *The Number of Yachts in European Countries*

Source: *Hellenic Chamber of Shipping and University of Piraeus (2012).*

Our analysis finds that the global yachting tourism markets are led by America, Sweden, France, Finland, Norway, Britain, German, and Italy, which all attract a significant number of yachts. It is estimated that the northwestern Mediterranean countries (France, Italy, and Spain) absorb 80% of the total demand for yachting tourism in the Mediterranean. The northeast Mediterranean countries (Greece, Croatia, and Turkey) meet 14% of the total Mediterranean demand, and the remaining 6% is met by Algeria, Morocco, Cyprus, and Egypt. Therefore, the competition of Greek yachting tourism comes mainly from the northwestern and northeastern Mediterranean countries, viz. France, Italy, and Croatia.

2.2. The Greek Yachting Tourism Market

Yachting is a booming tourism activity all over the world. The general impression is that it is an ‘elitist’ tourist product, and that holidays with leisure craft mean high costs. But this impression needs to be considered with caution, since the yacht function is both as means of transport and as accommodation for passengers. Chartering a yacht is an affordable solution for consumers with middle incomes, and is, therefore, aimed at young and middle-aged tourists with an adventurous character (‘sea adventure holidays’).

According to data from the Ministry of Mercantile Marine (MMM), compared with all Mediterranean countries, Greece has the largest recreation fleet in terms of its number of yachts, which ranges from 5,800 to 6,300, though they are mainly used by their owners for private recreation. Since the 1990s, the number of active commercial yachts has declined from 4,500 to 2,500. Figure 2 shows the decline in the number of active commercial vessels between 1995 and 2015.

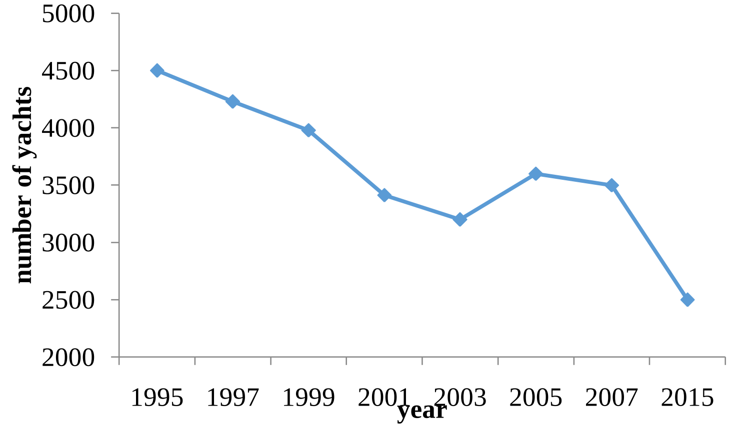

Figure2. *Number of Active Commercial Yachts in Greece*

Source: *Ministry of Shipping and Island Policy (Diakomihalis, 2009)*

Based on the data of GTO and the Union of Marinas in Greece, the number of yachting berths in Attica is 4,075, and these provide 178 related jobs. Meanwhile, it is estimated that there are 8,924 berths in the remaining marinas, which generate 389 direct jobs. In total, there are 55 marinas, but only 22 of them sufficiently meet the legal requirements and have adequate infrastructure to operate in the yachting market. In terms of its length of coastline, Greece has much fewer yachting berths and high quality marinas than the competing countries in the Mediterranean. Particularly in summer, there is a big shortage of berths for mega yachts in Greece. Pallis and Lekakou (2004) found that the dynamic market demand has a positive influence on restructuring infrastructure in maritime ports. Therefore, the big gap between demand and supply of yachting berths in Greek marinas could be a good stimulus for improving the infrastructure. Figure 3 shows the capacity of 22 marinas in Greece.

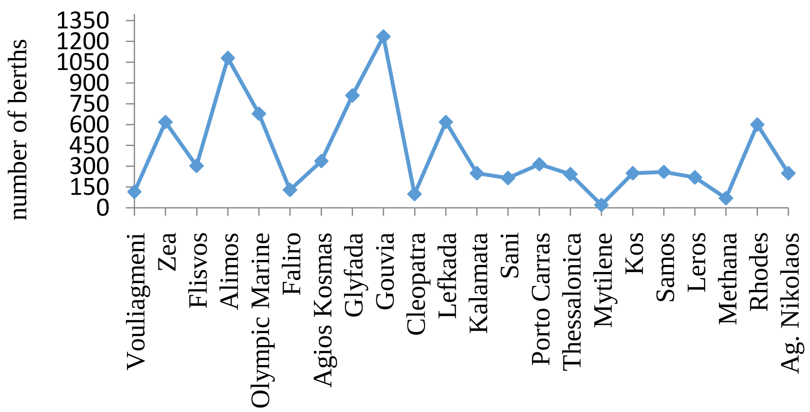

Figure3. *Capacity of Yachting Marinas in Greece*

Source: *Hellenic Chamber of Shipping and University of Piraeus (2012).*

The demand for yachting tourism stems mainly from other foreign European countries, with approximately 95% of the market share originating from German, Italian, and French tourists. In addition, Turkey attracts many customers to take the sea routes to the Greek islands, and the tourists choosing a yachting service in Greece are also high-income foreign tourists (Diakomihalis, 2007).

Because of the economic crisis in recent years, the demand for yachts has declined in Greece, although there is a significant increase of yachting tourism worldwide (Hall, 2001). Obviously, yachting is directly related to the disposable income of consumers, the existing infrastructure, the number of marinas, and the dock costs. Nevertheless, yachting tourism plays a significant role in employment creation, and its sustainable development could help the local economy to recover from the economic depression.

3. Methodology and Application

To study the determinants of the Greek yachting tourism market, we first apply a SWOT analysis, followed by a statistical econometric experiment to identify the relevant practical success factors for this market.

3.1. SWOT Analyses of Greek Yachting Tourism

In order to unravel the strengths, weaknesses, opportunities, and risks of yachting tourism in Greece, our research first used a SWOT analysis. This qualitative comparative analysis summarises the strength, weakness, opportunity and threat factors of yachting tourism in Greece (Table 2).

Table2. *SWOT Analyses of Yachting Tourism in Greece*

Strengths	*Weaknesses*
many islands	high port costs
diverse coastline	lack of legislative incentives
unique views	inadequate infrastructure
pleasant warm climate	Insufficient advertising
stable existence of yachting tourism	shortage of trained workforce
Opportunities	*Threats*
demand from home and abroad markets	domestic economic depression
the growth of yachting tourism in Central and Eastern Europe	unsustainable coastal development planning
combination with mass tourism	competition from neighboring countries
connection with different destinations	aggressive pricing in international markets

It is known that islands are among the most visited tourism destinations in the world (Fotiou et al., 2002), and this is the biggest strength for developing yachting tourism in Greece. However, the results of SWOT analyses that Greece has significant shortcomings that hinder the development of Greek yachting tourism, due to the lack of organized marinas and focused incentives in Greece, while it is observing a 'migration' of marine tourism to countries such as Croatia and Turkey (Sariisik et al., 2011).Therefore, our research identifies some strategies for the sustainable development of Greek yachting tourism: diverse yachting products, low port costs, incentive legislations, workforce training, strong advertising in home and abroad markets, island development, etc.

3.2. Factor Analyses of Greek Yachting Tourism

Yachting tourists are driven by a multiplicity of factors. To study their determinants and satisfaction, a survey of tourists was carried out by means of a questionnaire. The field research was conducted by using a cross-section survey in June and July 2014.The questionnaires were distributed in 10 Greek marinas which meet the legal requirements: Alimos, Flisvos, Glyfada, Elliniko, Vouliagmeni, Faliro, Zea, Gouvia Corfu, Kalamata, and Patras. For the purposes of our survey, in order to obtain a comparative research frame including a contrast sample, we chose another six developing marinas without refuelling services, viz. Porto Rafti, Lavrio, Myrina of Lemnos, Agios Nikolaos, Kea, and Mytilene. The questionnaires were designed particularly for yacht users and yacht stakeholders. The sample comprised 100 respondents who were yacht users and another 100 respondents who were stakeholders, that is, 17 owners of yacht companies, 15 workers in yacht companies, 64 private yacht owners, and 4 public yacht associations. Our research focused on the question whether yacht users and other stakeholders are satisfied with the facilities and services provided by Greek marinas so as to ensure a competitive and sustainable development of yachting tourism in Greece.

Tables 3 shows that the yacht users' satisfaction is significantly correlated with tour activities in a positive way, and that the weakness items influence Greek yachting tourism negatively, though not significantly. It should be noted that the diversity of yachts requires different tour activities.

Table3. *Summary of Bivariate Correlations of Yacht Users*

	1	2	3	4	5	6	7	8
1	1.00							
2	-0.14	1.00						
3	0.02	-0.05	1.00					
4	0.10	-0.13	0.12	1.00				
5	0.03	0.02	0.17	-0.03	1.00			
6	0.20	0.20*	0.03	-0.10	-0.03	1.00		
7	0.05	-0.07	0.14	0.02	0.15	0.04	1.00	
8	-0.18	0.20*	0.17	0.12	0.19	0.06	0.06	1.00

Note: *1=weakness, 2=tour activities, 3=neighboring countries, 4=coastal views, 5=expectation, 6=yachts types, 7=dock charge, 8=satisfaction*

For the other yacht stakeholders, it turns out that their satisfaction is highly correlated with yacht-related business rather than with Greek coastal activities. In addition, some other factors tend to increase the satisfaction of yacht stakeholders. These factors include Greek islands development, dock charge, and adequate infrastructure.

Table4. *Summary of Bivariate Correlations of Yacht Stakeholders*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1.00												
2	0.06	1.00											
3	0.03	0.19	1.00										
4	-0.05	0.07	-0.02	1.00									
5	0.11	-0.21*	-0.01	-0.12	1.00								
6	0.16	-0.01	0.01	0.12	0.09	1.00							
7	-0.09	0.05	-0.00	0.06	-0.05	0.02	1.00						
8	- 0.12	-0.08	-0.13	-0.11	-0.10	0.05	-0.01	1.00					
9	-0.01	-0.11	0.02	0.13	-0.29*	0.06	-0.10	-0.17	1.00				
10	-0.01	0.00	-0.03	-0.21*	0.05	-0.06	0.09	0.08	-0.20*	1.00			
11	0.14	0.00	-0.12	-0.06	0.03	-0.06	0.22	0.00	-0.01	0.07	1.00		
12	0.19	0.18	-0.08	-0.04	0.02	-0.01	0.05	-0.02	-0.03	0.09	0.21*	1.00	
13	-0.02	-0.03	-0.20*	0.16	-0.15	0.17	0.04	-0.02	-0.12	0.20*	-0.06	-0.04	1.00

Notes:*1=marketing, 2=advertising, 3=coastal activities, 4=island development, 5=berths, 6=dock charge, 7=infrastructure, 8=legislation, 9=awareness, 10=related business, 11=incentives, 12=economic crisis, 13=satisfaction.*

In order to understand the effects of different factors on the satisfaction of yacht users and other stakeholders, a complementary econometric regression was applied. The results of the OLS regression analysis show that legislation is the biggest weakness in decreasing the yacht users' satisfaction, while the yachting tour combined with the summer vacation can significantly influence their satisfaction in a positive way.

Table5. *Regression Results of Yacht Satisfaction*

Multi-variables			Coefficient	Std. Err	t-value	P>|t|
Yacht Users	weakness	economic crisis	0.00			
		awareness	-0.32	0.35	-0.91	0.365
		advertising	-0.34	0.34	-1.01	0.318
		dock charge	-0.37	0.33	-1.11	0.270
		legislation	-0.67*	0.33	-2.07	0.042
	tour activity	cultural event	0.00			
		incentives	0.42	0.31	1.37	0.174
		summer vacation	0.44*	0.21	2.12	0.037
		summer house	0.38	0.25	1.53	0.129
	Neighboring countries	Croatia	0.00			
		Turkey	0.27	0.17	1.56	0.122
	Greek views	Sporades	0.00			
		Saronic	0.32	0.30	1.08	0.286
		Cyclades	0.50	0.28	1.80	0.075
	expectation	adequate infrastructure	0.00			
		less dock charge	0.01	0.25	0.05	0.962
		better service	0.28	0.24	1.17	0.244
		More berths	0.28	0.24	1.17	0.244
	yacht types	motor yacht	0.00			
		sailing yacht	0.17	0.21	0.83	0.412
		mega yacht	0.10	0.29	0.36	0.718
		sports/ fishing yacht	0.34	0.22	1.59	0.116
	dock daily charge	<€20	0.00			
		€20--€50	0.05	0.16	0.34	0.738
Yacht Stake holders	different stakeholders	owners of yacht company	0.00			
		workers in yacht company	0.04	0.34	0.13	0.896
		private yacht owners	0.12	0.26	0.44	0.662
		yacht associations	0.16	0.52	0.30	0.762
	domestic economic crisis		-0.05	0.18	-0.29	0.771
	lack of marketing activities		-0.02	0.19	-0.10	0.924

	insufficient targeted advertising	-0.08	0.12	-0.73	0.468
	Greek coastal activities	-0.37*	0.18	-2.00	0.049
	appropriate island development	0.19	0.12	1.57	0.120
	number of berths	-0.24*	0.11	-2.13	0.036
	low dock charge	0.25*	0.12	2.00	0.049
	Adequate infrastructure	-0.01	0.14	-0.10	0.924
	absence of legislation	-0.12	0.11	-1.13	0.263
	awareness consumers	-0.35	0.20	-1.75	0.085
	yacht-related business	0.17*	0.07	2.25	0.027
	national incentives	-0.08	0.13	-0.66	0.512

Notes: *$p < 0.05$.*

For the other four types of yacht stakeholders, the owners of yacht companies appear to have the lowest satisfaction, followed by workers in yacht companies, private yacht owners, and public yacht associations. Obviously, a lower dock charge and yacht-related business can increase stakeholders' satisfaction significantly, while appropriate island development also works, but this is not significant. However, external yacht stakeholders are not satisfied with some important factors, in particular, Greek coastal activities and the number of berths.

4. CONCLUSION AND DISCUSSION

Yachting tourism contributes to the promotion of the Greek islands, brings revenue to the country, and creates jobs. Since 2008, Greek yachting tourism has decreased, and more than 30% of moored yachts have been forced to dock in neighboring countries, such as Croatia and Turkey, mainly because of the worldwide economic crisis and the change of the Greek yachting taxation system. Moreover, yacht users and other stakeholders are not satisfied with the legislation, coastal activities, and the number of berths in Greece. As Corres (2007) found, ship owners' associations play a big role in forming policies, and the Greek yacht associations can be more active in the markets. In addition, the related promotion of Greek yachting tourism is not sufficient; clearly, targeted advertising could help Greece to build up a good image as a yachting tourism destination.

Our research has found that an appropriate exploitation of Greek coastlines and islands could enrich yachting products, and achieve a sustainable growth of yachting tourism in Greece. Meanwhile, the authorities should provide more legislative incentives, the merits of which have been proven by the state-sponsored tourist promotion measures in Turkey (Goymen, 2000). In order to promote the Greek yachting tourism, the related yachting infrastructures should also be improved, in particular, with respect to building up adequate marinas which meet the legal requirements, and extending their capacity. Finally, in order to answer the question whether the Greek yachting tourism industry is affected by changes in government taxation and other legislation negatively; further applied policy research is needed in the future.

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