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CRUISE PORTS STRATEGY: THE CASE OF EUROPEAN PORTS IN THE NORTHERN MEDITERRANEAN RANGE

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ABSTRACT

Cruise ship calls can be important sources of revenue and generate many direct and indirect jobs. However, these calls are accompanied by externalities now qualified as environmentally and socially negative. Consequently, cruise ports must strive to maximize the economic benefits of ocean liner calls, while ensuring their social, scientific and regulatory acceptability. To shed light on what these ports claim to have designed and implemented as action plans in the face of such a challenge, a study was conducted on a sample of 36 European ports located on the northern coast of the Mediterranean. Results show that ports report much more systematically and more widely on their commercial and operational assets likely to attract cruising companies and their passengers, than on leading significant sets of actions to reduce the social and environmental impacts of cruiseship calls. However, a review of a non-academic literature highlights that several ports in the sampled geographical area are engaged in a structured, and for some already long-standing, process of reducing the negative externalities of cruiseship calls.

Keywords: Cruise ports, cruise port strategy, cruise line strategy, cruisetourism.

INTRODUCTION

Seaports welcome a wide variety of ships: liquid or solid bulk carriers, container ships, car carriers, fishing boats or passenger ships. The latter category is itself composed of several types of vessels, such as ferries, coastal passenger boats, island service ships, as well as cruise ships. More specifically, for a port, its city, or even its region, cruise ship calls can be important sources of revenue and generate many direct and indirect jobs in the tourism, retail and transport sectors. However, in a context where the societal and environmental impacts of port activities are more and more systematically considered, these calls are accompanied by externalities now qualified as negative; among others: emission of harmful gases, massive landing of waste, tourist sites overcrowding.

As a result, cruise ports must strive to maximize the economic benefits of ocean liner calls, while ensuring their social, scientific and regulatory acceptability. To shed light on what these ports claim to have designed and implemented as action plans in the face of such a challenge, a study was conducted on a sample of 36 European ports located on the northern coast of the Mediterranean, one of the regions in the world most frequented by cruise ships; Their institutional sites were consulted as well as additional sources of information concerning them.

After a brief review of the academic literature on cruise ports, particularly in Europe, the results of the study will be presented, followed by some additional remarks.

ACADEMIC LITERATURE REVIEW

The academic literature of the last ten years (2013 to 2023) largely echoes the dilemma "maximizing the economic benefits of calls vs. minimizing their negative externalities" that cruise ports face.

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Overall, the articles are divided into three groups: those devoted to the analysis and/or evaluation of the economic benefits of cruise activity, those dealing with the various sources of negative externality of stopovers, and those dealing with both aspects together.

focus on economic benefits

If several authors make a general presentation of the subject (Chen *et al.,* 2019; Artal-Tur *et al.,* 2021), including to say that the benefits are often negligible or even zero (Moscovici 2017; MacNeill and Wozniak 2018), most of the articles adopt a specific angle of study.

The most used is the measure of expenses made by cruise passengers during a stopover, either on site (Brida *et al.,* 2015; Marksel *et al.,* 2017; Domenech and Gutiérrez 2020) or on an excursion (Lee and Lee 2017; Lopes and Dredge 2018; Sun and Ni 2018), while some authors are interested in more indirect spin-offs, such as the impact of pre- / post-navigation stays (Hefner *et al.,* 2014) or the valorization of local / regional products (Sdoukopoulos *et al.,* 2021). In addition, articles are more frequently based on the case study of a particular port (Troumpetas *et al.,* 2015; Gargano and Grasso 2016; Gouveia and Eusébio 2019; Jugović *et al.,* 2020) rather than on a set of ports (Adams 2017; Wang *et al.,* 2020).

focus on negative externalities

The majority of researches concerns the impact of stopovers on air quality, through the evaluation (Maragkogianni and Papaefthimiou 2015; De Melo Rodríguez *et al.,* 2017), the analysis (Dragović *et al.,* 2018; Abreu *et al.,* 2022), or even the estimation (Ruiz-Guerra *et al.,* 2019) of harmful gases emissions by cruise ships; this study of air pollution is extended by some to the land transport of passengers, whether in the city or for excursions (Rosa-Jiménez *et al.,* 2018; Sakib *et al.,* 2018).

Another concern related to the arrival of ocean liners and addressed by the literature is that of the management of the waste produced by the ships (Sanches *et al.,* 2020) and by their passengers (Slišković *et*

al., 2018). The overcrowding of tourist sites is a subject of increasing interest on the part of the authors, dealt with in a general way (Navarro-Ruiz *et al.,* 2020) or on the basis of typical instances (González 2018), and from the perspective of both the cruise passengers (Sanz-Blas *et al.,* 2019) and the local population (Brandajs and Russo 2019).

This is also the case with the impact of cruise tourism development on the health of residents, be it physical health (Lloret *et al.,* 2021; Salgado-Gómez *et al.,* 2022) or mental health (Jordan and Vogt 2017). Beyond characterizing the problems, several authors have looked at different existing or potential ways to solve them: implementation of legislative (Svaetichin and Inkinen 2017; Yu and Shao2021) or regulatory (Nikčević 2019; Sun *et al.,* 2020) provisions, investment in dedicated infrastructure (Balliniand Bozzo 2015; Yıldırım Pekşen and Alkan 2018) or equipment (Pallis *et al.,* 2017), and/or promotion, not always easy (London and Lohmann 2014; Kim *et al.,* 2021), of collaborative approaches between stakeholders (Garay *et al.,* 2014; Satta *et al.,* 2015; Wang *et al.,* 2015).

joint approach of both aspects:

It most often consists in collecting and analyzing the reactions of local populations to the launching or development by the port of a cruise activity. Almost all the articles built on such an approach are about European ports on the Mediterranean coast; all report nuanced reactions, rather positive in terms of economic benefits and rather negative in terms of social and environmental impacts (Asero and Skonieczny 2018; Pallis *et al.,* 2022); in the case both of a large port (Vaya *et al.,* 2018) and of small and medium-sized ports (McCarthy 2018).

Depending on the context, convergence may occur (Brida *et al.,* 2014; Tovar *et al.,* 2022) or, on the contrary, and more frequently, divergence (Castillo-Manzano *et al.,* 2015; Del Chiappa and Abbate 2016; Del Chiappa *et al.,* 2018), between the surveyed population categories. Several other papers, this time rather prescriptive, provide a measure of the capacity of a port and its surrounding urban area to sustainably accommodate a cruise activity (Stefanidaki and Lekakou 2014; Paoli *et al.,* 2017), or identify the topics to be considered to drive a sustainable development of the cruise activity (Carciotti *et al.,* 2019; Pallis and Vaggelas 2019; Urbanyi-Popiołek 2019).

Globally, the literature gives a good account of the various socio-economic and environmental impacts that cruise ships and their passengers can have on the port, city, or even region, that host them. The following section describes what ports put forward in terms of attractiveness, investment and/or regulation, to make the best possible economic benefit from cruise ship calls while ensuring sufficient social and environmental acceptability.

RESULTS OF THE STUDY

The 36 ports of the sample are located in Spain, France, Italy, Greece or on the Adriatic coast (Croatia, Slovenia, Montenegro). Only ports that expressly communicate on their cruise activity have been selected; for example, Greek ports such as Corfu or Heraklion do not appear in the panel, their communication focusing on their tourist attractiveness only in general.

Each of the ports' websites was analyzed through a two-part grid: one devoted to the collection of information showing the port's willingness to maximize the economic benefits of the cruise activity; the other intended to characterize the port's actions to minimize the negative externalities of this activity.

The first part of the grid is composed of two sets: one is about commercial attractiveness: visits, attractions, shopping, passenger reception, and possible extension of economic benefits to the region; the other set relates to operational attractiveness: ship accommodation as well as the availability of mobility means for in-town, inland and pre-/post-navigation transportation. The second part of the grid is also structured into two sub-parts: the first deals with environmental protection: energy transition of cruise-dedicated infrastructure, ship and passenger waste management, air pollution reduction; The second analyzes the protection of populations: city and tourist site crowding limitation, sharing spaces between cruise passengers and residents. Both parts are also accounting for possible collaborations between relevant stakeholders, respectively to improve economic benefits or to reduce environmental and social nuisances.

regarding the commercial attractiveness (Table1)

Table 1: commercial attractiveness

	Visits	Attractions	Shops	Passenger reception	Extension to the region
ADRIATIC	0,60	0,20	0,00	0,40	0,00
SPAIN	1,00	0,56	0,00	1,00	0,22
FRANCE	0,60	0,20	0,00	1,00	0,20
GREECE	0,67	0,33	0,00	1,00	0,00
ITALY	0,82	0,27	0,09	0,82	0,18
TOTAL	0,78	0,33	0,03	0,86	0,14

Quite naturally, the ports insist above all on the possibilities of visits (78%), or even attractions (33%), offered to cruise passengers, and on how well these are welcomed (86%), especially in their dedicated terminals. From one port to another, this trend is all the more advanced as the interest in cruise tourism, relative to other activities, is greater and older: in the ports of Spain, Greece and Italy rather more than in the ports of France or the Adriatic region.

On the other hand, the virtual absence of promotion of local business (3%) suggests that ports do not explicitly focus on the opportunities for economic benefits provided by calls; similarly, they do not appear to seek to highlight the potential impact of cruise activity on the regional economy (14%).

regarding the operational attractiveness (Table 2)

Table 2: operational attractiveness

	Ship reception	Transport means
ADRIATIC	1,00	0,40
SPAIN	0,78	0,56
FRANCE	0,80	0,80
GREECE	0,83	0,67
ITALY	0,91	0,73
TOTAL	0,86	0,64

In addition to passengers, ports must also be attractive to shipping lines; to this end, and this time with little difference between countries (86%), the sampled ports report on their existing infrastructure and their current and future investments, dedicated in whole or in part to the reception of cruise ships.

Also in order to maximize the economic benefits of the cruise activity, some ports may have the ambition to be selected by shipping companies as a home port, or at least as a turn-around port where it is possible to join / leave the cruise.

With this in mind, they put forward the available transport resources for pre-boarding and/or disembarked passengers (64%): close proximity to an international airport, local connections to long-distance rail lines, urban / peri-urban transport network, etc. Depending on the port, the variety and capacity of such resources may differ, among other reasons because of its geographical location and/or of the transport infrastructure development in its region: rather higher for the ports of France, Greece and Italy than for those of Spain and the Adriatic region.

regarding the environment protection (Table 3)

Table 3: environment protection

	Energy transition of cruise infrastructure	Stopover waste management	Reduction of stopover emissions
ADRIATIC	0,00	0,60	0,00
SPAIN	0,22	0,44	0,22
FRANCE	0,00	0,40	0,60
GREECE	0,00	0,33	0,33
ITALY	0,00	0,55	0,55
TOTAL	0,06	0,47	0,36

With two exceptions (6%), the ports in the sample do not indicate that they have made any investments to improve the energy performance of their cruise terminals (LED lighting, photovoltaic panels, etc.).

Even if this is done respectively by less than half (47%) and by hardly more than a third (36%) of these ports, the actions relate rather to reducing the environmental impact of cruise ship calls linked to the production of waste and the emission of harmful gases. From one country to another, the differences are not significant; at most, the ports of France and Italy seem more inclined to communicate on the subject than, for example, the ports of the Adriatic region.

regarding the protection of populations (Table 4)

Table 4: protection of populations

	Limiting site overcrowding	Sharing spaces
ADRIATIC	0,20	0,00
SPAIN	0,00	0,22
FRANCE	0,20	0,00
GREECE	0,00	0,00
ITALY	0,09	0,00
TOTAL	0,08	0,06

When be it only one cruise ship calls at a port with its thousands of passengers, it often happens that the places of visit and attraction are overcrowded; the same applies to recreational areas and means of transportation. However, apart from three of them (8%) to fight against tourist overcrowding, and two (6%) to safeguard the sharing of spaces, overall the 36 ports do not bother to assert their possible actions intended to protect local populations during cruise ship calls.
2.5 -regarding the collaboration between stakeholders (Table 5)

Table 5: stakeholder collaboration

	Stakeholder collaboration-economic benefits	Stakeholder collaboration-societal/environmental issues
ADRIATIC	0,00	0,20
SPAIN	0,44	0,11
FRANCE	0,00	0,00
GREECE	0,33	0,00
ITALY	0,27	0,45
TOTAL	0,25	0,19

Port authorities, public bodies, as well as organizations from the private and non-profit sectors, are called upon to collaborate in order to maximize the economic benefits of a local cruise activity and/or minimize its negative socio-environmental externalities. A significant proportion of ports in Spain (44%) and Italy (45%) cite the existence of such approaches, on the economic side in Spain and on the social and environmental sides in Italy.

The same is not true for the ports of other countries, which make no (France, 0%) or hardly no(Greece, 17%; Adriatic region, 10%) reference to a collaborative approach to either of the two issues associated with the reception of cruise ships. On the whole, the study shows that few European cruise ports in the Northern Mediterranean range mention leading a significant set of actions to reduce the social and environmental impacts of cruise ship calls.

Without explicitly highlighting the economic contribution of the cruise business in terms of revenue and employment, they report much more systematically and more widely on their commercial and operational assets likely to attract cruising companies and their passengers. The results of the study have been supplemented by a literature review, this time non-academic, which leads to some additional remarks.

ADDITIONAL REMARKS

With USD18 billion in revenue and more than one million jobs supported globally in 2022 (Grucela, 2023), the cruise industry is a source of appreciable economic benefits. For the Balearic Islands alone, cruise ship calls brought more than €500 million in revenue in 2022 and supported around 4,000 jobs (Serrano, 2023).

However, the impression felt is that the attention of the players in the cruise industry, both public and private, is now predominantly focused on the management of the negative externalities of their activity; whether it is an end in itself or with the ultimate aim of minimizing the impact on economic added value. Initiatives in this direction are taken by shipping companies, port institutions and public authorities; separately but also jointly.

initiatives by shipping companies

In parallel with the search for new destinations to diversify their cruise offer, shipping companies are investing heavily in the field of energy transition, be it through the conversion of their existing fleet or when ordering new vessels: 40% of existing ships can already connect to an on-shore power supply; 61% of new ships use liquefied natural gas (LNG) as an energy source for their primary propulsion; more than 15% of the ships that will be launched in the next 5 years will be equipped with batteries or fuel cells (CLIA, 2022).

initiatives by port institutions

A survey conducted by the European Sea Ports Organization (ESPO) among 92 ports points out to their main environmental concerns: global warming, air pollution and energy efficiency; the actions envisaged primarily by these ports therefore focus on the reduction of greenhouse gas (GHG) emissions and more generally on the fight against air, water and noise pollution, as well as on waste management (ESPO, 2022).

These actions take various forms:

- tariff reductions, for example in Barcelona for LNG-powered ships and in Civitavecchia for ships that are less polluting or treat at least partially their waste.
- certification acquisition: ISO 14000 (ISO), PERS (Port Environmental Review System, ESPO) and/or EMAS (Eco-Management and Audit Scheme, EU).
- on-shore (e.g. Livorno, Patras) or afloat (e.g. Barcelona, Marseille) LNG refueling services and/or on-shore power supply (e.g.: Valencia, Toulon, Genoa).
- restrictions applied to the duration of stopovers (e.g. taxation of passengers staying more than 12 hours in Barcelona), to the size of ships(e.g. combined with new offshore mooring sites in Venice), to the number of simultaneous stopovers or even to the number of disembarking cruise passengers(e.g. a maximum of three cruise ships at the same time, including only one with more than 5,000 passengers in Palma de Mallorca). In addition to these individual initiatives, there are collective actions:
- The International Association of Ports and Harbors (IAPH) has developed an Environmental Ship Index (ESI) tool which, applied among others to cruise ships, can serve as a reference for the delivery of financial benefits once a given performance threshold has been passed (IAPH, 2021).
- creation of green corridors associating ports that are environmentally efficient and therefore attractive to shipping companies that would organize their cruises along these corridors.

initiatives by public authorities

Even if the effort in this direction remains balanced by the desire to derive local or even regional economic benefits, more and more public authorities are willing / have to regulate cruise tourism. This is the case for instance of Valencia, to preserve its social and environmental sustainability as a destination (VisitValencia, 2023); also Marseille, very committed to the greening of stopovers to satisfy the local population, as well as Barcelona, through the involvement of all involved local and regional actors(Barcelona Turisme, 2023).

Several municipalities (e.g. Dubrovnik, Corfu, Heraklion) have been helped by the Global Sustainable Tourism Council (GSTC) in the development of their action plans to make cruise tourism acceptable both from an environmental and societal standpoint, and as a source of significant economic benefits (GSTC, 2022). Incidentally, the convergence of interest by shipping companies, ports and public authorities in the sustainable development of cruise tourism also leads to joint agreements or common approaches in this respect:

- the city of Marseille abandoned a project for a large cruise terminal in favor of a small cruise terminal, and a pool of three shipping companies responded to the call for projects.
- The Cruise Lines Industry Association (CLIA) is setting up partnerships with public bodies and/or port authorities for the sustainable management of stopovers: limiting their number, limiting the number of passengers disembarking, while preserving their positive economic impact (CLIA, 2023).
- shipping companies operating in the Mediterranean have signed with the French Government a set of thirteen provisions regarding speed limits, waste management and emission reductions both in ports and offshore.

In the end, it turns out that many European cruise ports in the northern Mediterranean range are involved, individually, collectively and/or in partnership with shipping companies and public authorities, in a process of preserving the social and environmental acceptability of their activity.

CONCLUSION

The combined results of the study and the two literature reviews, academic and non-academic, highlight two discrepancies. The first appears between academic authors and port institutions, in their respective approaches to cruise activity. While both groups make a nuanced assessment, the academics place more emphasis on characterizing and managing the difficulties related for port-cities to the development of cruise ship calls.

For their part, ports are mainly concerned with being recognized as a destination, embarkation / disembarkation site, or even home port, by cruise lines. The second gap separates what ports institutionally put forward about their promotion of responsible cruise tourism, and what they are actually doing to that end. The study, based on the analysis of the content of their websites, identified very few ports reporting comprehensive action plans dedicated to the protection of the environment and/or the populations: out of 6 types of actions sought, only 6 ports mention 3 types or more, while 13 mention none, for an overall average of just over 1 type.

However, the review of non-academic literature shows that several ports in the sampled geographical area, in and out of the panel, are engaged in a structured, and for some already long-standing, approach to reducing the negative externalities of cruise ship calls. Overall, it seems that it is the cruise industry as a whole, shipping companies, ports and public authorities, that has come to recognize this approach as a necessary condition for the continuation of its economic activity, in the face of pressure from the populations, or even as a source of competitive advantage, in response to the expectations of cruise customers.

REFERENCES

AbreuH, CardosoV, SantosTA (2022) The effects of operational and environmental conditions in cruise ship emissions in port areas. Trends in Maritime Technology and Engineering 2:3-12

AdamsSA (2017)Sustainable cruise ship employment for the Caribbean region–a conceptual perspective. Worldwide Hospitality and Tourism Themes 9(1):60-69

Artal-TurA, Navarro-AzorínJM, Ramos-ParreñoJM (2021) Estimating the impact of cruise tourism through regional input–output tables. In: Tourism Research in Ibero-America. Routledge, pp70-80

AseroV, SkoniecznyS (2018) Cruise tourism and sustainability in the Mediterranean. Destination Venice. Mobilities, Tourism and Travel Behavior—Contexts and Boundaries. In: Tech Open limited, London, pp 93-106

BalliniF, BozzoR (2015) Air pollution from ships in ports: The socio-economic benefit of cold-ironing technology. Research in Transportation Business and Management 17:92-98

Barcelona Tourism (2023) Barcelona sustainable tourism. https://professional.barcelonaturisme.com/en/corporate/segments/barcelona-sustainable-tourism. Accessed18 May 18 2023

BrandajsF, RussoAP (2019) Whose is that square? Cruise tourists' mobilities and negotiation for public space in Barcelona. Applied Mobilities

BridaJG, BuksteinD, TealdeE (2015) Exploring cruise ship passenger spending patterns in two Uruguayan ports of call. Current Issues in Tourism18(7):684-700

BridaJG, ChiappaGD, MeledduM, PulinaM (2014) A comparison of residents' perceptions in two cruise ports in the Mediterranean Sea. International Journal of Tourism Research16(2):180-190

CarciottiS, MarinA, UkovichW (2019) Smart Cruise Destination: an innovative network governance framework. Portus Plus 8:1-14

Castillo-ManzanoJI, Lopez-ValpuestaL, AlanísFJ (2015) Tourism managers' view of the economic impact of cruise traffic: the case of southern Spain. Current Issues in Tourism18(7): 701-705

ChenJM, PetrickJF, PapathanassisA, LiX (2019) A meta-analysis of the direct economic impacts of cruise tourism on port communities. Tourism Management Perspectives 31:209-218

CLIA (2023) Destination stewardship. https://cruising.org. Accessed 15 May 2023

CLIA (2023) Getting to net zero. Environmental technologies and practices report 2022. https://europe.cruising.org. Accessed 15 May 2023

CLIA (2023) Responsible tourism. https://europe.cruising.org. Accessed 16 May 2023

Del ChiappaG, AbbateT (2016) Island cruise tourism development: a resident's perspective in the context of Italy. Current Issues in Tourism19(13):1372-1385

Del ChiappaG, Lorenzo-RomeroC, GallarzaM (2018) Host community perceptions of cruise tourism in a homeport: A cluster analysis. Journal of Destination Marketing and Management 7:170-181

De Melo RodríguezG, Martin-AlcaldeE, Murcia-GonzálezJC, SauríS (2017) Evaluating air emission inventories and indicators from cruise vessels at ports.WMU Journal of Maritime Affairs 16:405-420

DomenechA, GutiérrezA (2020) Determinants of cruise tourists' expenditure visiting port cities. Tourism Review75(5):793-808

DragovićB, TzannatosE, TselentisV, MeštrovićR, ŠkurićM (2018) Ship emissions and their externalities in cruise ports. Transportation Research Part D: Transport and Environment61:289-300

ESPO (2022) ESPO environmental report 2022. https://www.espo.be/publications/espo-environmental-report-2022.Accessed 17 May 2023

GarayLA, CànovesG, PratJM (2014) Barcelona, a leader destination in cruise-passenger tourism: keys, impacts and facts. International Journal of Tourism Sciences14(1):23-49

GarganoR, GrassoF (2016) Cruise passengers' expenditure in the Messina port: A mixture regression approach. Journal of International Studies 9(2):158-169

GonzálezAT (2018) Venice: The problem of overtourism and the impact of cruises. Investigaciones Regionales = Journal of Regional Research 42:35-51

GouveiaAX, EusébioC (2019) Assessing the direct economic value of cruise tourism in a port of call: The case of Funchal on the island of Madeira. Tourism and Hospitality Research19(4): 422-438

GrucelaA (2023) Cruise Industry: 100+ Statistics, Facts, and Trends [2023]. https://passport-photo.online.Accessed 9 May 2023

GSTC (2023) GSTC destination criteria. https://www.gstcouncil.org. Accessed 12 May 2023

HefnerF, McLeodB, CrottsJ (2014) Research note: An analysis of cruise ship impact on local hotel demand—An event study in Charleston, South Carolina. Tourism Economics20(5): 1145-1153

IAPH (2023) Environmental Ship Index: The IAPH port industry incentive scheme – ESI. https://www.iaphworldports.org/environmental-ship-index-esi. Accessed 19 May 2023

JordanEJ, VogtCA (2017) Residents' perceptions of stress related to cruise tourism development. Tourism Planning and Development 14(4) : 527-547

JugovićA, MudronjaG, ElzaPutninaK (2020) Port of Rijeka as Cruise Destination. Transactions on maritime science 9(1):63-71

KimSB, MarshallLH, GardinerR, KimDY (2021) Conflicts in communities and residents' attitudes toward the impacts of cruise tourism in the Bahamas. Journal of Travel and Tourism Marketing 38(9) :956-973

LeeG, LeeMK (2017) Estimation of the shore excursion expenditure function during cruise tourism in Korea. Maritime Policy and Management44(4):524-535

LloretJ, CarreñoA, CarićH, SanJ, FlemingLE (2021) Environmental and human health impacts of cruise tourism: A review. Marine pollution bulletin173:112979

LondonWR, LohmannG (2014) Power in the context of cruise destination stakeholders' interrelationships. Research in Transportation Business and Management13:24-35

LopesMJ, DredgeD (2018) Cruise tourism shore excursions: Value for destinations?.Tourism Planning and Development15(6):633-652

MacNeillT, WozniakD (2018) The economic, social, and environmental impacts of cruise tourism. Tourism Management 66:387-404

McCarthyJ (2018) Maximising cruise tourism outcomes in small-medium cruise ports: Lessons from Atlantic Canada. Urban Research and Practice11(4):289-313

MaragkogianniA, PapaefthimiouS (2015) Evaluating the social cost of cruise ships air emissions in major ports of Greece. Transportation Research Part D: Transport and Environment36:10-17

MarkselM, TomincP, BožičnikS(2017)Cruise passengers' expenditures: The case of port of Koper. Tourism Economics23(4):890-897

Marseille Provence Cruise Club (2023)Cruising and energy efficient transition. https://marseille-cruise.com. Accessed 10 May 2023

MoscoviciD (2017) Environmental impacts of cruise ships on island nations. Peace Review29(3):366-373

Navarro-RuizS, Casado-DíazAB, Ivars-BaidalJ (2020) Cruise tourism: the role of shore excursions in the overcrowding of cities. International Journal of Tourism Cities6(1):197-214

NikčevićJ (2019) Strengthening the role of local government to ensure sustainable development of the cruise sector: The case of Kotor. Marine Policy109:103693

PallisAA, VaggelasGK (2019) Cruise shipping and green ports: a strategic challenge. In: Green Ports. Elsevier, pp255-273

PallisAA, PapachristouAA, PlatiasC (2017) Environmental policies and practices in Cruise Ports: Waste reception facilities in the Med. SPOUDAI Journal of Economics and Business67(1):54-70

PallisAA, WilmsmeierG, SattaG (2022) Preparing cruise lines, ports, and destinations for the next day of cruising. Research in Transportation Business and Management100912

PaoliC, VassalloP, DapuetoG, FanciulliG, MassaF, VenturiniS, PoveroP (2017) The economic revenues and the emergy costs of cruise tourism.Journal of Cleaner Production166:1462-1478

Rosa-JiménezC, Perea-MedinaB, AndradeMJ,NebotN (2018) An examination of the territorial imbalance of the cruising activity in the main Mediterranean port destinations: Effects on sustainable transport. Journal of Transport Geography 68:94-101

Ruiz-GuerraI, Molina-MorenoV, Cortés-GarcíaFJ, Núñez-CachoP (2019) Prediction of the impact on air quality of the cities receiving cruise tourism: The case of the Port of Barcelona.Heliyon5(3) : e01280

SakibN, AppiottiF, MagniF, MaragnoD, InnocentiA, GissiE, MuscoF (2018) Addressing the passenger transport and accessibility enablers for sustainable development. Sustainability10(4) : 903

Salgado-GómezC, Vega-MuñozA, Salazar-SepúlvedaG, Contreras-BarrazaN, Araya-SilvaL(2022) Perceptions Environmental and Health Impacts of Cruise Activity in the Roatan Ports. Water14(19):3134

SanchesVL, AguiarMRDCM, de FreitasMAV, PachecoEBAV (2020) Management of cruise ship-generated solid waste: A review. Marine pollution bulletin151:110785

Sanz-BlasS, BuzovaD, SchlesingerW (2019) The sustainability of cruise tourism onshore: The impact of crowding on visitors' satisfaction.Sustainability11(6):1510

SattaG, ParolaF, PencoL, PersicoL (2015) Word of mouth and satisfaction in cruise port destinations. Tourism Geographies17(1) 54-75

SdoukopoulosE, PerraVM, BoileM, EfthymiouL, DekoulouE, OrphanidouY (2021) Connecting cruise lines with local supply chains for enhancing customer experience: a platform application in Greece. In: Advances in Mobility-as-a-Service Systems: Proceedings of 5th Conference on Sustainable Urban Mobility, Springer International Publishing, Greece, pp1086-1096

SerranoA (2023) Responsible tourism in Majorca. https://europe.cruising.org/responsible-tourism. Accessed 10 May 2023

SlišковićM, UkićBoljatH, JelaskaI, Jelić MrčelićG (2018) Review of generated waste from cruisers: Dubrovnik, Split, and Zadar Port Case studies. Resources 7(4):72

StefanidakiE, LekakouM (2014) Cruise carrying capacity: A conceptual approach. Research in Transportation Business and Management,13:43-52

SunR, ZhangQ, HongH, HeY, YeX (2020) Research on Environmental Monitoring and Supervision System in Cruise Port Area. Report on the Development of Cruise Industry in China 2019:279-292

SunX, NiR(2018) Shore excursions, activities and relevant resource allocations of international cruise ports. Tourism Tribune33 (7): 63-78

SvaetichinI, InkinenT (2017) Port waste management in the Baltic Sea area: A four port study on the legal requirements, processes and collaboration. Sustainability 9(5):699

TovarB, EspinoR, López-del-PinoF (2022) Residents' perceptions and attitudes towards the cruise tourism impact in Gran Canaria. Research in Transportation Business and Management 45:100586

TroumpetasS, GianniasD, BenekiC, LymperisG (2015) Port authority's cruise revenues determinants and estimation: the port of Heraklion case. In: Econship 2015 Conference Proceedings. p. 154

Urbanyi-PopiołekI (2019) Cruise industry in the Baltic Sea Region, the challenges for ports in the context of sustainable logistics and ecological aspects. Transportation Research Procedia 39:544-553

VayáE, GarciaJR, MurilloJ, RomaníJ,SuriñachJ (2018) Economic impact of cruise activity: The case of Barcelona. Journal of Travel and Tourism Marketing 35(4):479-492

VisitValencia (2023) Sustainable tourism in Valencia. https://www.visitvalencia.com. Accessed 11 May 2023

WangGW, ChangWH, CuiY(2020) Economic impacts and significance of the cruise ports in the USA. International Journal of Shipping and Transport Logistics 12(5):504-519

WangG, PallisAA, NotteboomT (2015) Cooperation and vertical integration in cruise ports. In: International Association of Maritime Economists Annual Conference. Kuala Lumpur, pp24-26

Yıldırım PekşenD, AlkanG (2018) Application of Alternative Maritime Power (AMP) Supply to Cruise Port. Journal of ETA Maritime Science6(4):307-318

YuY, ShaoY(2021) Challenges for cruise sustainable development and its legal response: The case of China. Sustainability 13(11):6118

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