



SELECTED PROCEEDINGS

PLANNING AND OPERATION OF NEW CRUISE CONNECTIONS: THE CASE OF ADRIATIC-IONIAN SEA

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ABSTRACT

The cruise industry is considered as a significant part of tourism sector and concurrently a considerable economic growth factor worldwide, affecting the economic growth not only on specific regions but on a whole area that a cruise ship serves. Although the Caribbean area remains the major destination of cruise ships, a significant shift towards different destinations, that combine the opportunity for relaxing vacations with the visit to historical sites and the multicultural environment, has been noticed. The region of Adriatic and Ionian Sea is characterized by both these opportunities: crystal clear beaches, landscape natural

beauty and numerous archaeological sites. The scope of the paper is the development of a methodological framework consisting of technical, operational, financial and other relevant characteristics for the assessment of the viability to establish new cruise connections in the Adriatic-Ionian region. The proposed logical framework consists of several steps presented in detail as well as an application in the Adriatic-Ionian region. The paper aims to provide the interested stakeholders, mainly the cruise companies, a detailed description of the factors and the way they are synthesized regarding the introduction of new ports in an area with an existing network of cruise lines.

Keywords: Cruises, methodological framework, Adriatic Sea, Ionian Sea

INTRODUCTION

The cruise industry is considered a major part of the tourism sector and concurrently a significant economic growth factor for the regions and countries served by cruise ships. On the other hand, the cruise industry has observed a continuous growth, despite the economic crisis of recent years (World Tourism Organization, 2003). In addition, the new type of tourism generated by cruise ships passengers, with their visits to nearby destinations, brings considerable added value to the respective regions (World Tourism Organization, 2003). To this end, the attraction of cruise ships is of great significance for the ports and their relevant hinterland areas.

The cruise sector has faced a continuous expansion, reaching the level on an average 8.5% annual growth in the last 20 years with a trend that shows no sign of slowing. More specifically, in recent years, 12.6, 13 and 13.5 million passengers are carried by cruise ships in 2007, 2008 and 2009, respectively. Regarding the growth of cruise industry after the recent financial crisis, it has not been affected, as the number of cruise passengers globally are estimated at 19.1 million in 2011 (Cruise Line Association, 2011).

On the other hand, the cruise industry is considered as a good example of a multinational and multicultural type of mode. This is the result of the increasing number of ports of call and destinations offered around the world and its multinational clientele as well as the offered unique environment of a luxurious hotel on board.

Regarding the Adriatic region, it is considered as one of the most attractive regions for cruise tourism mainly due to its attractive location, close to Central Europe, the prevailing good weather conditions and its closeness to several destinations that enhance the multicultural environment that the cruise passengers seek. More specifically, 45 cruise lines are established in Adriatic region with 188 cruise ships operating and 5.000.000 passengers movements recorded in 2012 (Adriatic Sea Tourism Report, 2013). These facts indicate the significance of this sector of tourism for the whole area, while the cruise passengers increase from 2008 to 2009 of 12.1% confirms the expectations for further growth of this sector.

Although the elements presented above indicate that the cruise industry is a well established industry with increasing share of the tourism sector around the world, a new approach would be more than welcome in order to face future challenges, such as the

demand choices of passengers and the potential increase of cost. The introduction of new ports is considered by both the cruise companies and the passengers as the key solution that could offer to the cruise industry the desired boost that is required for its future development.

The present paper focuses on the potential introduction of new cruise ports and destinations in existing cruise itineraries. An appropriate methodology, describing step by step the overall required process is presented in this paper. It constitutes a useful tool for cruise operators, ports, and relevant stakeholders. Finally, an application of the methodology for the Adriatic-Ionian area is presented to illustrate the application of the methodology for a specific case.

STATE OF THE ART

The cruise industry has initially been developed in the decade of 1970 in the North America and progressively was expanded to Europe and Asia, being a continuously expanding market (Kamery, 2004). Nowadays, the Caribbean area constitutes the major cruise destination, with a 44% share of the global market, followed by the Mediterranean area, with a share of 12.1% and Alaska with a share equal to 7.9% (Lekakou et al., 2009).

The Mediterranean area, which is distinguished in two major submarkets the Western and Eastern Mediterranean, offers a variety of significant historical and cultural sites in combination with the major scope of cruise trips: fun-sun-sea (Lekakou et al., 2009). In addition, as Rodrigue and Notteboom (2012) have indicated: “The adjacency of the Mediterranean to Europe provides the advantage of a large pool of customers with discretionary spending”. Although the major homeports are located in the West Mediterranean, the East Mediterranean has exhibited recently a considerable increase in attracting cruise ships, with Greece acting as the leader in this process (Wild et al., 2010). This fact is also confirmed by the location of the major homeports in the Mediterranean Sea, three homeports in West Mediterranean: Barcelona, Civitavecchia and Palma Majorca against two homeports in East Mediterranean: Venice and Piraeus (Bharat, 2007). Considering that the Italian Peninsula consists of the physical border among the two regions, the Adriatic Sea is treated and examined as part of the East Mediterranean.

Regarding the cruise industry in East Mediterranean, as it is already mentioned, Greece is considered as a lead partner concerning the development of cruise industry in the area, having the most attractive destinations. The unique landscape of Greece, with the thousands of islands and the extent coastline, constitutes the major advantage for the development of cruise industry while the ideal climate conditions during the whole year contributes to the further expansion of it. Several ports, either on the mainland or on the islands, are selected as ports of call from the majority of cruise companies. Today only the port of Piraeus is a homeport for several cruise trips. Table 1 presents the number of cruise ships and the number of cruise passengers visiting the major Greek ports, for 2011 and 2012 (ELIME, 2012).

Table 1- Visits of cruise ships and passengers in Greek ports

Destinations	Season 2011		Season 2012	
	Number of cruise ships	Number of cruise passengers	Number of cruise ships	Number of cruise passengers
Piraeus	936	2,515,191	763	2,066,925
Santorini	962	938,291	718	838,875
Mikonos	684	782,365	585	657,511
Patmos	481	176,212	286	110,678
Corfu	453	584,228	485	624,179
Katakolo	429	819,943	337	749,892
Irakleio	209	221,562	156	215,700
Chania	72	158,118	54	129,087
Volos	61	72,796	21	11,926
Kos	48	23,473	64	41,171
Milos	42	12,342	27	6,272
Thessaloniki	19	11,519	11	8,014
Kavala	10	2,708	10	4,323
Patra	3	2,287	3	374
Igoumenitsa	1	156	4	1,827
Alexandroupoli	1	242	0	0
Lavrio	14	14,670	19	17,339

According to Table 1, Santorini and Piraeus are the most significant cruise ports in Greece. The ports of Patra and Igoumenitsa do not attract until now significant number of cruise ships, compared to other Greek destinations. However, especially for the port of Igoumenitsa, a significant growth rate has been observed from year 2011 to year 2012, indicating its potential.

The selection of ports by the cruise companies is crucial for the successful establishment and operation of the cruise trips and consequently for the financial viability of the company. The ports included in a cruise itinerary are distinguished in two main categories: the ports acting as “homeports” and the “ports of call”. The homeports operate as the origin and destination of the cruise trips, usually cyclic trips, while the ports of call are the intermediate destinations within the itinerary. Regarding the characteristics that determine a port as a “homeport”, they are related to: the site characteristics, such as the port services, the port infrastructure and the port management, and the location characteristics, such as the

attractive touristic areas, the existence of intermodal transport network (especially a close-by airport) and the proximity to cruise passengers markets (Marti, 1990).

The site and location of ports are also considered as considerable factors concerning the identification of ports of call (McCalla, 1998). More specifically, the ports and cruise ship services (site factor) and the regional attractions accessible during day trips from the port (location factor) have been determined as the major factors affecting the identification of a port as a “port of call” (McCalla, 1998). In addition, the optimization of itinerary, the passengers’ demands in combination with their feedback and the cost/ port charges have also identified as factors influencing the selection of “ports of call” by cruise companies (Cruise Gateway North Sea, 2012). Furthermore, available historical data, past experience, possible internal market research and the future prognosis are factors determining the selection “ports of call” (Cruise Gateway North Sea, 2012).

Although the criteria for the selection of both homeports and ports of call by cruise companies are well presented and analysed, the process of introducing new ports, as ports of call in existing cruise ships’ itineraries, already operating in a specific region, has not been examined yet. The objective of this paper is to develop a methodology regarding the introduction of new ports and destinations, in existing cruise itineraries, setting up the criteria that the ports and the selected itineraries should fulfil. In addition, the application of the developed methodology on the Adriatic-Ionian Region is presented within this paper, to illustrate the outputs of the proposed methodology.

METHODOLOGY AND DATA

The introduction of new ports in existing cruise itineraries consists of a critical process for the cruise companies, as it could result to either increase or decrease of the cruise passengers, which is the main objective of the cruise companies along with the profits increase from the operations. Considering the significance of this process, the introduction of new ports in existing itineraries is decided exclusively by the cruise companies, based on technical feasibility and financial viability studies carried out by these same companies.

Within this study, a logical framework, consisting of four steps, has been developed as a tool for the identification of the ports that could potentially introduced, in existing itineraries, as ports of call.

Figure 1 depicts the logical framework, as developed.

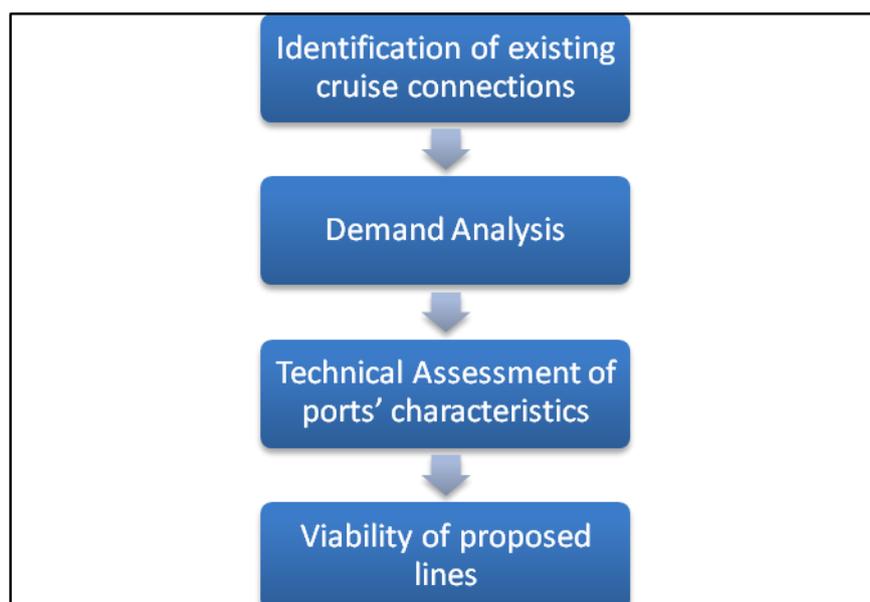


Figure 1: Logical Framework

Step 1: Identification of existing cruise itineraries/ connections operating in the study area

The methodology involves initially the review and analysis of existing transport cruise lines, itineraries and services in the region that could potentially include new ports. A market study is performed on passengers' demands and preferences for the introduction of new ports and the preferred destinations. Concurrently, the identification of the major characteristics of cruise itineraries, such as the length of trips (number of days) and the type of ships, is accomplished within this step.

The length of the trips is essential in order to determine the cruise itineraries that could potentially include new ports, considering that this introduction will have a direct impact on the total length of the cruise trips, resulting in their increase by 1-2 days. Based on the above, it is assumed that the long-lasting trips, with an average length more than 10 days, should be excluded by this investigation as the introduction of new ports will result in the significant change of the total length and costs and consequently to their target passenger groups.

Apart from the length of the cruise trips, the area of operation is crucial in cases that new ports intent to be included in existing itineraries. The proximity of the operating area of the cruise ship's itineraries and the region of port is essential in order the port to be considered as a potential "port of call". Considering that the introduction of new ports results immediately in an increase of costs, due to the extra port charges and fuel cost for the additional miles to be travelled, the cruise companies tend to select ports of call based on their location and their easiness to be reached, and they avoid introduce detours and isolated ports.

The information for the already established and the future cruise trips (itineraries, types of ships, price of packages) could be gathered from the information provided by the cruise companies, easily also accessible through the European Cruise Council web site. A table

presenting the cruise trips operating in the study area and their corresponding length would be the output of this process.

Step 2: Demand Analysis

The demand analysis constitutes the second step of the proposed methodology, carried out by the cruise companies according to the passengers' preferences. Thus, the demand regarding several destinations is estimated, resulting in the identification of the most attractive destinations. Consequently, the ports of call that will be potentially included in future itineraries are identified.

The passengers that select to travel on cruise ships seek a type of trip that could combine the visit of various destinations with a relaxing, enjoyable and comfortable stay on board with the hotel services provided during a cruise trip. In addition, the majority of the cruise passengers are attracted by the opportunity to visit places that are not included in usual offers by tourist agents, the prestige, that a cruise trip offers, the ease of social interaction and the number of activities, offered during the trip. Finally, the opportunity for family vacations constitutes a significant factor, especially for families that seek a combination of activities planned for adults and kids.

Regarding the selection of the appropriate itinerary, the cruise passengers consider the following characteristics of the trips in order to select cruise trip (Marti, 1992):

- Trip's itinerary
- Length of trips
- Ports of boarding/ disembarking
- Packages/ price of packages/ services included
- Excursions/ Visit of tourist attractions

Regarding the trip itinerary, the preference of the cruise passengers is to visit as more destinations as possible, and spend less day-time at the sea, visiting historical monuments or landscape of natural beauty. With regard to the length of trips, this ranges from few nights (3-4) to even one year, in case of a trip around the world. However, the most popular trips are those of an average length between 1-2 weeks (7-14 days) as they are usually more convenient regarding the available vacation time and cost for cruise passengers. This time length gives ample time to visit several places. Regarding the ports of boarding/ disembarking, the available facilities, concerning the available modes of transport (especially air or rail), the customs procedures and the offered services in the ports, are the factors considered by both passengers and cruise companies.

Apart from the length of trip and the included destinations, a crucial factor affecting the selection of a cruise itinerary is the money that the passenger should pay in order to participate in combination with the offered services. The cruise companies develop an integrated package, including the round trip travel to the port, the accommodation, nutrition and activities on board. It is understood that the prices vary, depending on the level of provided services, such as the type of room, the type of activities, and whether the specific itinerary is on high demand or not. Finally, the organised visits that are scheduled when the ship arrives at a port affect the number of passengers that intend to visit tourist attractions,

such as historical monuments, national parks etc. These organised visits constitute significant revenue for the cruise companies.

Step 3: Technical Assessment of port's characteristics

The technical assessment of port's characteristics concerns those specific technical and navigation requirements that the ports of call should have in order to be able to serve both cruise ships and passengers. To this end, the technical assessment of port's characteristics is carried out in cases of including a port in a trip itinerary. Within this proposed methodology, the characteristics of ports associated with the service of ships and the characteristics of ports associated with the service of passengers will be examined separately.

Regarding the required infrastructure of ports in order to serve the cruise ships, this has to do with the size of berths, their width, depth and length, especially in case of parallel ship berthing. In addition, the existing transport network in the port area, the capacity of ports and their ability to serve concurrently more than one ship are analysed. Concerning the passenger services, they are related to custom and immigration/police procedures, the existence of restaurants and public services in the port area and the accessibility to land and air transport network.

The accessibility to the transport network is also considered as crucial for both the service of ships and passengers. In the case of ships, this service is significant for the refuelling of ship in terms of fuel, disposal of waste, supplies and all other essential products for the smooth operation of the ship. On the other hand, in the case of passengers, the existence of an efficient transport network is necessary for the transfer of passengers to the areas out of port and their transport to tourist attractions in the wider region.

Apart from the technical characteristics of ports, the port's administration is also considered within the process of selecting the ports of call. The existence of a stable and capable administration, dedicated to the establishment of the port as a port of call for cruises, could guarantee the successful introduction of the port in the proposed itineraries.

Step 4: Analysis of viability

The analysis of viability is the final step of the developed methodology and concerns the expected financial and social impacts and benefits of the cruise itinerary operation.

Regarding the introduction of new ports in existing cruise trips the viability analysis is essential in order to evaluate the financial outcome from such operations, which is related to the expected increase of the cost of trip, the expected revenues of the cruise company.

In maritime transport, the costs are usually divided into capital, fixed, and voyage costs (Bull, 1996):

- Capital costs include those of purchasing and depreciating vessels, together with interest payments on investment capital.

- Fixed costs are all those which are incurred when a vessel is put into service (not laid up), and include all areas of insurance and indemnity, stores, surveys, repairs and landside management costs.
- Voyage costs include port charges, crewing wages, fuel costs, voyage-related stores, agency and other landside handling costs.

Within the proposed methodology, the economic impacts from the introduction of the potential ports of call, either positive or negative, are estimated, resulting to the development of a business plan for the cruise company in the study area, based on a cost-benefit analysis, accomplished for each cruise itinerary.

The capital and fixed cost are considered as one category, and they are calculated on an annual basis, while the voyage costs are considered as the operational costs and they are calculated on a trip basis. However, in order to elaborate the cost-benefit analysis both costs should be for the same time period. Hence, the operational costs are calculated on an annual basis, based on the number of trips that are taking place during one year.

Table 2 presents the cost categories of cruise ship operating the cruise itinerary that are taken into account within the analysis of the financial viability.

Table 2-Annual cost

Annual cost
Depreciation
Insurance
Maintenance and repairs
Other cost and contingency
Management cost/ year
Total annual cost/ year (for one ship)
Total of annual cost for all ships operating in the line
Operation cost per trip
Fuel cost
Cost of lubricants
Crew expenses
Port Charges
Cost for supplies
Operation cost per ship
Operation cost for all ships/ year
Total cost for all ships/ year

Regarding the revenues, they are estimated based on the price that the passengers pay for the package in order to participate in the cruise. Other potential sources of revenues are the sales of beverages and souvenirs on board, the payments for the participation in various activities on board, such as entertainment, theatres etc. Another key source of revenue is

the money that passengers pay for the organized tourist visits to the hinterland, which are not included in the total package. The revenues are estimated on a trip basis but they are finally allocated in an annual basis, so the comparison with the estimated costs could be accomplished. Table 3 presents the potential sources of revenues, in case of cruise ships.

Table 3-Annual revenues

Revenue analysis/ trip
Fare per passenger
Revenues from fares
Revenues from sales on board (beverages, souvenirs etc.)
Revenues from activities/ entertainment
Revenues from organized visits to hinterland
Total revenues/ trip
Total of annual revenues

The final step of the analysis concerning the economic viability of cruise trips is the calculation of the annual net income before interest and taxes (EBITDA). A cruise line would be considered as economic viable in case that the EBITDA is positive, indicating that the estimated revenues overcome the estimated costs, resulting in profit for the cruise company operating the trip.

Regarding the introduction of a new port of call, two scenarios are considered, the first scenario with no changes in the itinerary and the second scenario with the additional new port(s) in the itinerary. If the financial results are greater for the second scenario, then the introduction of new port(s) of call are financially viable for the cruise company.

APPLICATION RESULTS

Geographically, the Adriatic Sea, being the study area of the present paper, can be considered as unique region for the analysis of cruise industry. Although it is part of the wider Mediterranean region, the Adriatic has its own specific features and is considered a distinct sub-region. It is a narrow, semi-enclosed sea, formed as a gulf deeply incised into the European mainland, and connected to the rest of the Mediterranean only by the Strait of Otranto.

The Adriatic region was chosen due to a) its geographical location, being considered a significant attraction for tourists, being part of the wider Mediterranean, and b) its dense transportation system regarding the cruise lines and ships operating in the region.

Regarding the application of the developed methodology, the introduction of ports of Igoumenitsa and Patra as “ports of call” in existing cruise trips itineraries, already implemented and operating in the Adriatic-Ionian Sea, will be examined, in order to estimate whether cruise ships could be attracted by these ports.

Initially, the identification of the existing cruise itineraries, operating in the Adriatic region, and their characteristics, such as the length of trips (number of days) and the type of ships, was done. The cruise itineraries of average length 5-8 days were selected as the potential ones to include new ports. The selection of itineraries was based mainly on their area of operation and the proximity of it with the Ionian Sea. This is decided, since the possibility to include new ports in existing cruise itinerary is much higher in case that there is not a significant change in the existing itinerary. To this end, only the cruise trips operating in the Central and Southern Adriatic Sea and the wider region of Greece were identified as potential to include the ports of Igoumenitsa and Patra in their itinerary. Table 4 presents the selected itineraries, their frequency and the maximum number of passengers and crew that are transported by the respectively ships.

Table 4- Selected cruise trips in Adriatic region

No	Itinerary	Length (No of days)	Number of trips (2012)	Number of passengers and crew
1	Trieste-Ancona-Mykonos-Athens-Corfu-Dubrovnik-Trieste	7	26	2297
2	Trieste-Dubrovnik-Corfu-Valletta-Naples-Savona	5	1	
3	Savona-Katakolon-Athens-Valletta-Tunis-Civitavecchia-Savona	8	1	3928
4	Savona-Naples-Tunis-Katakolon-Athens-Civitavecchia-Savona	8	1	
5	Venice-Bari-Katakolon-Izmir-Istanbul-Dubrovnik-Venice	7	23	4890
6	Venice-Bari-Corfu-Valletta-Naples-Savona	5	1	
7	Athens-Kusadasi-Santorini-Corfu-Dubrovnik-Venice	7	1	1725
8	Civitavecchia-Sorrento-Taormina-Corfu-Dubrovnik-Venice	7	1	
9	Venice-Ancona-Corfu-Santorini-Athens-Argostoli-Kotor-Venice	7	22	2787
10	Venice-Bari-Katakolon-Santorini-Mykonos-Athens-Corfu-Dubrovnik-Venice	7	24	3537
11	Venice-Corfu-Santorini-Mykonos-Izmir-Venice	8	1	n/a
12	Athens-Mykonos-Katakolon-Corfu-Dubrovnik-Koper-Venice	7	1	
13	Venice-Koper-Dubrovnik-Corfu-Katakolon-Mykonos-Athens	7	1	
14	Athens-Kusadasi-Santorini-Katakolon-Corfu-Dubrovnik-Venice	7	2	1155
15	Venice-Bari-Corfu-Mykonos-Athens-Dubrovnik-Venice	7	11	2824
16	Venice-Bari-Corfu-Santorini-Kusadasi-Katakolon-Venice	7	10	
17	Venice-Bari-Athens-Corfu-Dubrovnik-Venice	6	1	
18	Venice-Bari-Corfu-Santorini-Kusadasi-Athens-Katakolon-Venice	8	1	
19	Bari-Corfu-Santorini-Kusadasi-Katakolon-Venice	6	1	
20	Athens-Gythion-Katakolon-Preveza-Dubrovnik-Hvar-Ravenna-Venice	7	5	n/a
21	Venice-Sibenik-Kotor-Corfu-Argostoli-Pylos-Nafplion-Athens	7	5	
22	Athens-Gythion-Katakolon-Preveza-Dubrovnik-Hvar-Ravenna-Venice	7	1	n/a
23	Athens-Monemvasia-Corfu-Kotor-Split-Venice	7	2	

24	Venice-Hvar-Corfu-Itea-Katakolon-Monemvasia-Athens	7	1	
25	Athens-Monemvasia-Corfu-Kotor-Split-Venice	7	1	n/a
26	Venice-Split-Dubrovnik-Kotor-Brindisi-Hvar-Venice	7	1	1110
27	Civitavecchia-Sorrento-Taormina-Kotor-Dubrovnik-Venice	7	1	
28	Venice-Hvar-Split-Dubrovnik-Durres-Rabenna-Venice	7	1	
29	Venice-Dubrovnik-Athens-Izmir-Split-Venice	7	3	3324
30	Athens-Agios Nikolaos-Kusadasi-Santorini-Argostoli-Itea-Civitavecchia	7	1	1199
31	Venice-Split-Naples-Civitavecchia-Livorno-Toulon-Barcelona	7	1	2824
32	Venice-Dubrovnik-Messina-Sorrento-Bonifacio-Monte Carlo	7	2	n/a
33	Venice-Dubrovnik-Messina-Sorrento-Bonifacio-Monte Carlo	7	1	
34	Civitavecchia-Sorrento-Taormina-Kotor-Dubrovnik-Venice	7	1	

Source: Various cruise companies statistics

The demand analysis is carried out by the cruise companies themselves, based on figures collected by them, since the analytical figures are commercially confidential due to the competition among the cruise companies. Most of the data regarding costs and revenues were estimated by the authors based on other relevant studies. Consequently, the application is done to illustrate how the methodology is applied.

Concerning the port of Igoumenitsa, it is considered already as the major gateway of North Greece towards the countries of North and Central Europe, servicing a significant volume of passenger and freight flows among these regions. Its location, at northern Ionian Sea and close to the ports of Croatia and Montenegro, as well as to the port of Corfu, has the potential of attracting a number of cruise trips. Apart from the port's location, the wider region combines all the characteristics that the cruise passengers seek for: sea and beaches, nature, historical sites and traditional villages, within on a short distance, easily reached during a day-trip. Finally, the recently developed road network, and more specifically the construction of the Egnatia motorway, originated at the port of Igoumenitsa, and the existence of airport in a distance of 60kms constitute great advantages, enhancing the intermodality in the port area.

Regarding the port of Patras, it is considered as the western gate of Greece, serving during the last few decades the trade and passenger flows among the west regions of the country and the region of Attica with the countries of North and Central Europe and Italy. Concerning the introduction of the port in existing cruise itineraries, the proximity of it to well known historical sites, such as the area of Ancient Olympia and the Delphi area, constitute its greater advantage. These, combined with the availability of a significant number of beaches close to the port, the close distance to the airport and the existence of both road and rail network, are considered by the cruise companies as advantages.

Consequently, the demand analysis results in a great potential for the ports, considering that the existing itineraries in 2012 (as identified in Table 2) have an annual capacity of 424,298 passengers with 135 itineraries. The demand analysis estimates that 20% of the total could be attracted by the port of Igoumenitsa (85 000 passengers) and 7% of the total by the Port of Patras (30 000 passengers).

Regarding the available infrastructure in ports of Patra and Igoumenitsa, the construction of new berths, designed for the service of cruise ships of any size has been accomplished recently. In addition, the administration of the ports, which is considered as crucial factor by the cruise companies, is dedicated to the implementation of cruise lines connecting the examined ports with the ports of Adriatic Sea. Hence these requirements are fulfilled for both ports.

As for the viability of cruise itineraries, if one of the two ports is included, it produces positive results for the Port of Igoumenitsa, due to the marginal increase of the operating costs. However, for the port of Patras, the results are not so encouraging due to the needed additional distance to be travelled and the limited number of passengers willing to reach the area.

Based on the above, the estimated number of cruise passengers that would visit the port of Igoumenitsa, in the case that is included in existing cruise itineraries, is expected to be 38 cruise ships for the 9-month period (March-November), based on an average cruise ship capacity of 2200 passengers for the estimated demand of 85 000 passengers. As for the port of Patras, the respective number of visits is estimated equal to 13 cruise ships based on an average cruise ship capacity of 2200 passengers for the estimated demand of 30 000 passengers. Hence, the inclusion of the port of Igoumenitsa as a port of call is recommendable. As for the port of Patras, its inclusion is rather marginal.

CONCLUSIONS

The cruise industry constitutes a significant part of the tourist industry and a considerable component of the economy worldwide. The cruise industry tries to expand itself both financially and territorially. Mediterranean area is one of promising ones. One way of accomplishing this expansion is with the introduction of new destinations in the existing itineraries, providing to the cruise passengers the opportunity to visit more countries, destinations and tourist attractions.

This paper presents the process in order to include new destinations, and the corresponding ports, in existing cruise itineraries. More specifically, a logical framework, consisting of several steps was developed in order to evaluate the feasibility of introduction of new ports in existing cruise itineraries. Within this process, the factors that affect the attraction of cruise trips by ports and the parameters that should be considered were determined. The application of the proposed methodology in the Adriatic-Ionian area was examined in order to illustrate the results of the methodology. Within this process, an analysis of the characteristics of the ports of Patras and Igoumenitsa, with regard to cruise trips, was accomplished, as well as the estimation of the potential demand.

The detailed presentation of the entire process, required for the introduction of new ports in existing itineraries, constitutes the major contribution of this paper to the existing bibliography. In addition, the application of the methodology on ports, that seek to attract cruise ships, provides the opportunity to specify in detail and on an actual situation all the critical factors, presented in the methodology. Moreover, the presented application can be regarded as a useful example to transportation experts and stakeholders from different

countries to evaluate whether a new port could be introduced in existing cruise itineraries, taking into consideration the criteria and approach undertaken by the cruise companies. Consequently, the developed methodology and application could be a useful tool for port authorities, by presenting to the cruise companies the most significant factors that affect their consideration to introduce them as “ports of call”.

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