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Key Factors Driving the Demand for Cruising and Challenges Facing the Cruise Industry in the Future

Abstract

Cruises were the fastest growing sector in the travel industry. The rapid growth in demand was created originally by demand from North America, more recently Europe, and finally the rest of the world, China and Australia in particular. One of the main reasons for the rapid development and growth in popularity of cruises is that the cruise lines were successfully adapting to new travel trends delivering cruise ships with facilities and experiences tailored to the needs of travellers from all market segments. The corona crisis hit the cruise industry heavily and disrupted all plans, schedules and forecasts. This paper aims to analyze which factors were driving the demand for cruising on the world's leading source markets and the challenges facing the industry in a post-pandemic world. The findings show that the rapid growth in demand of cruise tourism was due to several factors, including the long-term growth in consumers' disposable income, the adaptation of products to the requirements of new source markets and different market segments, more cruise capacity in new regions, and the development of national cruise brands.

Keywords: cruise industry, source markets, cruising trends, cruise industry challenges, safe cruise experience

1. Introduction

Cruise tourism was one of the fastest-growing segments of the tourism market. Until the COVID crisis, cruise lines faced challenges of continuing to build demand for an increasing number of available ships on the market and deliver new attractive itineraries and diverse travel experiences both onboard and ashore. According to Cruise Line International Association (CLIA, 2020), there were 30 million cruise passengers in the world in 2019. The most popular cruise regions were the Caribbean, with almost 40% of the world market share, and the Mediterranean, with almost 15%. In recent years the biggest growth in the cruise sector has come from Asia, from 8% in 2013 to 12% in 2019. Expansion of the cruise market in Australia is also noted (Cruise Industry News, 2020a; Cruise Industry News, 2021). In the world cruise fleet, more than 45% are mega-ships of over 100,000 GT, and three large corporations dominate the cruise market; they account for about 75% of the world market share (Peručić, 2020). Until the suspension of all cruises in mid-March 2020, the main characteristics of the sector were: rapid growth, business consolidation, expansion of the cruise fleet (investments in the construction of new and larger ships), product development, product differentiation, development of new sailing regions and new source markets, growing demand for expedition cruises, and focus on responsible tourism and environmental sustainability.

The global COVID crisis strongly impacted the cruise industry and disrupted all plans, schedules, and forecasts. There is no doubt that cruise tourism will be the last to recover. In mid-March, cruise companies suspended cruise passenger sailings worldwide due to the emergence of the COVID-19 public health crisis. All the companies worldwide have been suffering multimillion-dollar financial losses since March 2020 and are struggling to survive while trying to keep current ship maintenance costs to a minimum. Recovery will

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certainly take a long time, and the nature of this recovery remains questionable. Will the pandemic provide new opportunities, and how will industry demand develop in the future? Is this the end of the industry as we know it - the end of the cruise model set in the 1970s?

This article aims to analyze the factors that were driving the demand for cruising on the world's leading source markets and analyze the current situation and challenges facing the cruise industry in a post-pandemic world.

2. Literature overview

A limited number of studies focused on attributes driving the demand for cruising on the world's leading source markets. Although a few studies have been conducted in this sphere, they neither cover all of the important issues nor include better insight into the key factors that affected tourist demand for cruising. This study will analyze and define the most important factors that influenced the development of demand. The results can serve as a basis for predicting future trends in demand and better managing the growth in demand on source markets, especially on new, developing markets.

Some researchers argue that strategies developed by cruise lines were driving the demand for cruising. Clancy (2017) noted that cruise lines became powerful and wealthy as a result of a long, vibrant market within the global tourism industry, combined with loose regulation of international shipping and specific firm strategies. Peručić (2006) investigated marketing contributions to sea cruise development in the second half of the 20th century. The research showed that the high rate of demand for cruises was the result of the well-developed and implemented marketing strategies of cruise companies, adaptation to new market trends, a good understanding of target markets, and successful fulfilment of the needs and requirements of travelers. The continued annual growth encouraged cruise companies to build new and bigger ships. The growing economies of scale, global economic restructuring, the deterritorialization of tourist destinations, increased capital, and a mobile labour force enabled cruise companies to make cruising affordable for the average consumer (Peručić, 2009). The main factor leading to this evolution is technological progress that has allowed, on the one hand, the reduction of exploitation costs, and, thus, of prices (sometimes by 50%), and, on the other hand, diversification of vessel production (capacity, comfort, safety) (Nedelcu et al., 2015). More importantly, Peručić (2020) emphasized that business consolidation brought numerous benefits to cruise lines, such as access to finances, technology and information, entrance to international markets/distant regions, the possibility of diversification by adding different brands, and expansion of growth trajectory.

Many authors have explored motivations and overall satisfaction with cruise experiences as significant factors that stimulate demand for cruising. Research on motivations influencing cruise tourists' decisions has focused on areas in which the cruise industry is developed, i.e. North America, Northern Europe, the Mediterranean, Australia and China (Petric et al., 2017; Hou & Lau, 2021; Jones, 2011). For cruise line management, understanding passengers' motives, specifically which segments have different motives, is extremely important in engineering appropriate onboard experiences and marketing efforts (Petric et al., 2017). For example, Andriotis and Agiomirgianakis (2010) identify that "exploration" and "escape" are among the main motivations of visitors, and "product and services" as well as "tour pace" are significant dimensions in shaping overall satisfaction levels in a Mediterranean Port of Call. Various experiences of cruise passengers and levels of satisfaction have been documented in the literature. Baker (2014) reveals that the "environment factor" has the most influence on cruise passengers' experience, while sun, sea and sand - the best beaches in the world and clean unpolluted environments are the most influential variables on cruise passengers' satisfaction in the Western Caribbean. Perceived value and service quality aboard the ship are key determinants of willingness to recommend a cruise to someone else, and the quality of the food aboard the ship and the degree to which cruisers found the destinations to be relaxing are also significant indicators (Baker & Fulford, 2016). According to Brida et al. (2010), overall satisfaction positively influences customers' loyalty. Loyalty is also positively influenced by prices, whereas negatively by an unsafe perception. Finally, loyalty positively affects both the probability of return as land tourists and recommend, though with a different magnitude.

Studies of passenger and crew expenditures in national and regional markets, the economic, environmental and socio-cultural impact of the industry on the site, and residents' perceptions and attitudes towards cruise tourism development through community case studies are widespread in the literature (Stewart et al., 2011; Brida et al., 2012; Peručić & Puh, 2012; Tano et al., 2014; Jordan & Vogt, 2017; Lučić et al., 2017; MacNeill & Wozniak, 2018; McCaughey et al., 2018; Tovar et al., 2020; Vukić et al., 2021). These common themes in the literature are fundamental for the development of sustainable cruise tourism. Since the COVID-19 outbreak, cruise sustainability has been a topic of debate among many researchers. There is a consensus that cruise travel's economic and environmental sustainability is of high importance to international policymakers, national governments, and industry officials. Some sites are actively instituting administrative and regulatory mechanisms to enhance sustainability and ensure the long-term integrity of socioecological systems (Cerveny et al., 2020). European institutions have also expressed an interest in encouraging the involvement of stakeholders in promoting an integrated approach among cruise shipping, port, and coastal tourism stakeholders for cruise tourism at the local, regional, national and European level and in the decision-making process (Pallis & Vaggelas, 2019). In the study, Sustainable Cruise Tourism Development Strategies, Tackling the Challenges in Itinerary Design in South-East Asia (World Tourism Organization, 2016), it was pointed out that destinations should consider a strategic approach to cruise tourism when implementing best practices for sustainable development. According to CLIA (2020), the cruise industry continued to lead the way in sustainable tourism management in 2020, setting an example for how city authorities, industry and local communities can work together with a common purpose.

Radić et al. (2020) identified that previous crises demonstrated that the cruise industry has a reactive approach to crisis management. Thus, the COVID-19 pandemic with government measures, such as coercive lockdowns, social distancing, and mobility restriction, caught the cruise industry without any comprehensive plans for dealing with infectious disease outbreaks, which led to an unprecedented cruise tourism crisis. Ito et al. (2020) argue that the impact of COVID-19 on the cruise industry will be much stronger than any of the past difficulties. In their opinion, the cruise industry will grow again and overcome any difficulties with a new supply-driven strategy. Now is the opportunity for regulators, tourism planners and councils to plan for a sustainable (re)growth of the tourism industry post-COVID-19 for the benefits of the industry, tourists, host communities and the environment (Luck et al., 2021).

3. Research design and findings

For the purpose of this article, a study was conducted to analyze which factors were present and to which extent they influenced the growth of demand for cruising in the five most developed world source markets between 2013 and 2019. Regression and correlation analysis were used to analyze the interdependence of economic trends and demand for cruises. The influence of other factors on the development of cruise demand was also evaluated. The current situation and challenges facing the cruise industry in a post-pandemic world were also considered and analyzed.

3.1. Interdependence of economic trends and demand for cruising on the world's leading source markets

During the period 1980 to 2017, demand for cruising rose by an annual growth rate of 7.5%, while mainly land-based tourism increased by 4.3% (Peručić, 2020). The leading source region was North America, with 51% of the market share in 2019. Although the number of cruise passengers from North America increased over the years, the region's relative share of the total market declined considerably. The second most important

region was Europe, with a market share of 26% in 2019. The largest changes in the period between 2013 and 2019 were recorded in Asia, where the market share increased from 6% in 2013 to 12% in 2019.

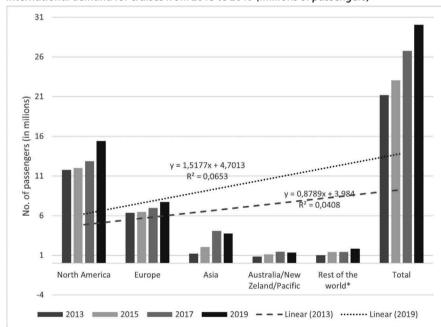
Table 1
International demand for cruises from 2013 to 2019 (millions of passengers)

	2013		2015		2017		2019	
	No. pax	% share						
North America	11.75	55	12.00	52	12.87	48	15.41	51
Europe	6.36	30	6.46	28	6.96	26	7.71	26
Asia	1.21	6	2.06	9	4.06	15	3.74	12
Australia/New Zeland/Pacific	0.84	4	1.13	5	1.44	5.5	1.35	5
Rest of the world	1.02	5	1.42	6	1.43	5.5	1.83	6.1
Total	21.18	100.00	23.06	100.00	26.75	100.00	30.04	100.00

Note: Data retrieved from CLIA (2018); CLIA (2021).

Since 2000, the cruise industry in Asia has been rapidly developing in terms of the number of cruisers, the ports of call, the size of cruise ships, and the scale of cruise ports (Lau & Yip, 2020). With more capacity in the region, cruise trips have become available to a larger number of consumer segments as they have become more affordable.

Figure 1
International demand for cruises from 2013 to 2019 (millions of passengers)



The five leading source markets between 2013 and 2019 were the USA, the UK, Germany, China and Australia. The leading source market was the USA. The second most developed source market globally and the first in Europe was the U.K. until 2014 when Germany took over as the first in Europe and second in the world. In 2016 China emerged in second place, Germany in the third, making the U.K. fall fourth. The development of China as a source market and cruise destination mainly for Chinese customers is a very recent phenomenon. According to Mondou and Taunay (2012), the Chinese government played a major role in allowing foreign cruise companies to enter the market, especially within a framework of economic development.

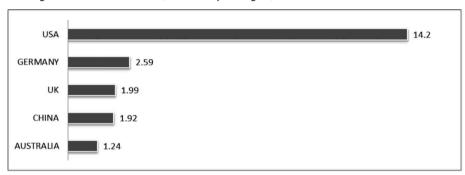
Table 2
International demand for cruises from 5 leading source markets from 2013 to 2019 (millions of passengers)

-	USA	China	Germany	UK.	Australia
2013	10.710	0.467	1.687	1.726	0.784
2014	11.330	0.703	1.771	1.644	0.923
2015	11.280	1.053	1.813	1.789	1.059
2016	11.392	2.101	2.081	1.960	1.281
2017	11.944	2.397	2.169	1.971	1.333
2018	13.091	2.357	2.233	2.009	1.345
2019	14.199	1.919	2.587	1.992	1.241

Note: Data retrieved from Business Research & Economic Advisors (2015, November); Business Re-search & Economic Advisors (2016, November); CLIA (2019a); CLIA (2021).

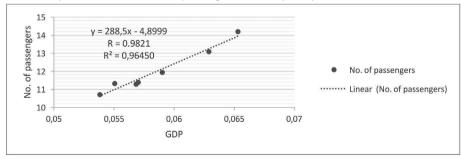
The market share of the five leading world source markets in 2019 was 74%. Almost half of the cruise passengers were from the U.S. (48%). According to the number of passengers, the second market was Germany with a market share of 9%, followed by the U.K. with 7%, China with 6%, and Australia with 4%.

Figure 2
Leading source markets in 2019 (millions of passengers)



Regression and correlation analysis were used to assess the relationship between two variables, i.e., economic trends and demand for cruises. Using a scatter plot, the nature of the relationship between the observed phenomena, Gross domestic product (GDP) per capita (x-variable), and the number of cruise passengers (y-variable) was observed.

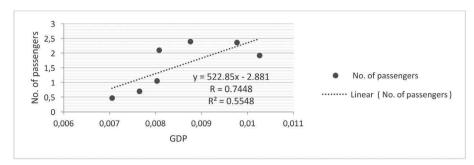
Figure 3
Relationship between the number of passengers and GDP per capita on the U.S. source market (2013 – 2019)



Note: GDP data retrieved from Macrotrends (n.d.a).

In the United States, the relationship between GDP per capita and cruise passengers is strong, as evidenced by the high value of the correlation coefficient R = 0.9821 and the coefficient of determination $R^2 = 0.9645$.

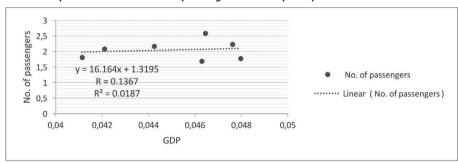
Figure 4
Relationship between the number of passengers and GDP per capita on the Chinese source market (2013 – 2019)



Note: GDP data retrieved from Macrotrends (n.d.b).

In China, the relationship between GDP per capita and cruise passengers is strong, as evidenced by the high value of the correlation coefficient R = 0.7448 and the coefficient of determination $R^2 = 0.5548$.

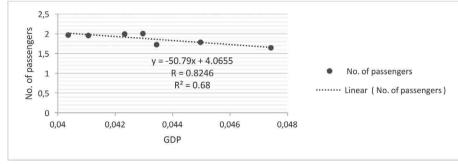
Figure 5
Relationship between the number of passengers and GDP per capita on the German source market (2013 – 2019)



Note: GDP data retrieved from Macrotrends (n.d.c).

The interdependence of GDP per capita and the number of cruise passengers in Germany is weak, which is confirmed by the values of the correlation coefficient R = 0.1367 and the coefficient of determination $R^2 = 0.0187$.

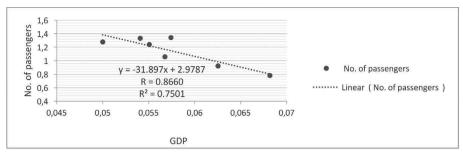
Figure 6
Relationship between the number of passengers and GDP per capita on the U.K. source market (2013 – 2019)



Note: GDP data retrieved from Macrotrends (n.d.d).

The picture shows a decreasing regression line in the U.K. source market. The dependence of GDP per capita and the number of cruise passengers is negative. GDP per capita does not have an influence on the number of cruise passengers. The correlation is negative r = -0.8246.

Figure 7
Relationship between the number of passengers and GDP per capita on the Australian source market (2013 – 2019)



Note: GDP data retrieved from Macrotrends (n.d.e).

The analysis shows a decreasing regression line in the Australian source market. The dependence of GDP per capita and the number of cruise passengers is negative. GDP per capita does not have an influence on the number of cruise passengers. The correlation is negative r = -0.8660. Even though GDP per capita decreased in the period between 2014 and 2016, the number of cruise passengers increased.

The correlation and regression analyses showed that the interdependence between the number of cruise passengers and GDP per capita differs from one source market to another. On the U.S. and Chinese source markets, the interdependence is strong, while on the German source market, it is weak, and it is negative on the U.K. and Australian source markets.

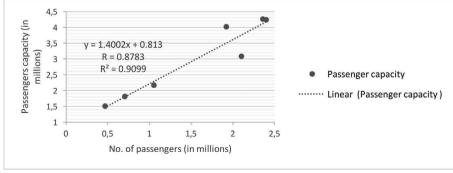
3.2. Other factors driving the demand for cruising

Other factors that influenced cruise demand were: the development of national cruise brands, product development, popularization of cruise vacations in new markets, more ships and ports of embarkation in all regions, especially in developing regions and markets and the development of new sailing regions.

One of the most important factors that impacted the boost in demand for cruises on new markets is the number of cruise ships in the region and the adaptation of products to the needs of new source markets and different market segments.

For the purpose of analyzing the Chinese market, cruise ship capacity in the Asia region was considered. The correlation and regression analyses between capacity in the region and the number of passengers was made. The findings show that there is a strong interdependence between the number of cruise passengers in China and passenger capacity in Asia (R = 0.8783 and $R^2 = 0.9099$), which proves that the increase in capacity in the region significantly influences the demand.

Figure 8
Relationship between the number of passengers and passenger capacity in the Asia region (2013 – 2019)



Note: Data retrieved from CLIA (2019b).

China has seen strong growth in demand since 2013, exceeding one million passengers in 2015. The highspeed increase in demand was driven by the entrance of leading cruise companies on the Chinese market. More ships were relocated to the region, repurposed for China, and even purpose-built for the Chinese market. The slowdown in demand in 2019 demonstrated that the market had entered a transition from high-speed expansion to quality and sustainable development of the whole market in the long term. The major reason for the decline was that the development of sales and promotion channels had lagged behind the fast increase of operators (Wang, 2019). According to Chinese regulations, passengers on international cruises must book tickets through domestic agencies, which separate cruise lines from their core clientele and from the possibility of having a better understanding of their needs and satisfaction. As a result, the per-ticket revenue on the Chinese market ended up significantly lower than on other markets (Sun, 2019). Despite the big expansion of the Chinese cruise market, few studies have been done regarding the Chinese cruise tourists' characteristics and motivations. According to Zou and Petrick (2017), Chinese tourists perceived cruising as a new, relaxing and romantic vacation with great services. They predominantly take cruises within the Asian region (CLIA, 2021). China's expansion as a source market is still in the launch phase, and it will certainly continue to grow in the future, which is in line with the country's economic development and Chinese tourists' strong purchasing power.

Modern cruising was created in the USA in the 1970s, and this market has led to the growth in world demand since then. The majority of the world cruise fleet until the second half of the 1990s was developed according to the requirements and needs of the North American market and its total market share was almost 80% in 1995 (Peisley, 1998). With the stronger development of European source markets in the 1990s and the development of Europe as a cruise region, the cruise industry started to adapt the cruise product to the requirements of other markets more strongly. Today the U.S. market is a mature market with strong potential for further growth given the differentiated product that targets all consumer segments. The growth in demand for cruises on this market is a result of a combination of different factors: long-term growth in disposable income, promotion of cruises as mass tourism, targeting the wider leisure travel market, product differentiation and rapid growth in the supply of new and bigger ships that became destinations which offer a unique experience. Cruises are a mass phenomenon, and the recovery of the cruise industry will largely depend on the speed of recovery of this market. Regardless of the leading position in the world, market penetration is still low, which shows the further great potential of this market (CLIA, 2017). In the case of the U.S. market, the demand is regionally oriented as it is in all other source markets. Americans mainly cruise in the Caribbean, but with the development of new regions, there is an increased demand for cruises to other regions (CLIA 2021).

Germany was the second most important source market in the world in 2019 and, since 2014, the most important source market in Europe. German passengers predominantly take cruises within the region (Northern Europe and the Mediterranean) (CLIA, 2021). The weak interdependence between GDP per capita and the number of cruise passengers indicates that economic trends in Germany did not play a strong role in the development of demand in the observed period. The German market is a mature leisure travel market, and other factors had a stronger influence on the development of cruise demand, especially the development of the national cruise brands. The growth of demand was greatly influenced by: the German habit of travelling abroad, the development of brands that adapted the cruise product to the requirements of German holiday-makers (e.g. AIDA Cruises), the entry of German tour operators into the cruise sector, an increased supply of mega-ships specially developed according to the needs of this market, further differentiation of the cruise travel product for the German market and the offer of cruise travel to other attractive regions of the world. According to the German Ocean Market Report (2017), German national brands accounted for about 75% of total German passenger volume.

The U.K. market is a mature market that experienced a high rise in demand in the 1990s with the entrance of American companies on the market, the strengthening of the national brand P&O cruises, and the entry of

British tour operators into the cruise sector, which further popularized cruises. The cruise product was adapted to the requirements of the family segment, which was tired of standard sun and sea holiday packages, but still eager to travel in a package deal. It encouraged demand growth, and the number of passengers quadrupled in the 1990s (Peručić, 2013). Thanks to its cultural and linguistic connection with North America, the U.K. was the second most important source market globally for a long time. In the observed period, 2013-2019, the growth in demand stabilized, and cruises became a mass phenomenon. The demand is regionally orientated since passengers from the U.K. market predominantly cruise within the region (Mediterranean and Northern Europe) (CLIA, 2021).

The past ten years have seen dynamic growth in demand for cruises from the Australian market. Demand is regionally oriented, as in other markets. Travelers from Australia mostly cruise the South Pacific and along Australia and New Zealand (CLIA, 2019a). Correlation and regression analyses showed a decreasing regression line and a negative correlation. The reasons for the growth in demand should be looked for elsewhere, primarily in increasing ship capacity in the region and popularizing cruises as a way to spend holidays as well as the adaptation of the cruise product to the requirements of the Australian market. It is a mature tourism market, and with the arrival of more ships in the region and the popularization of cruising, the number of passengers increased regardless of economic trends and GDP per capita.

3.3. Pandemic period

The event that marked this period is the worldwide suspension of all cruise sailings from mid-March 2020. The cruise sector was severely impacted, and there was much negative publicity as many thousands of passengers and crew were trapped on ships around the world. The corona outbreak on ships - Diamond Princess, Grand Princess and Ruby Princess - immediately attracted a lot of media attention and ships were labelled as a source of the spread of infection. By May 2020, a number of countries and ports prevented cruise ships from docking. Consequently, the industry suffered from considerable reputational damage, as many people were left trapped on cruise ships. New cruise ships on order were delayed while some older vessels retired from their fleets (Antonellini, 2021). Cruise companies had to adapt to the new situation that caused huge financial losses, job losses of onboard and shoreside employees and affected other sectors that were dependant on the cruise industry.

Cruises partially resumed sailing on the Mediterranean, in Asia, and the South Pacific from July 2020 with strict protocols and the approval and support of local and regional authorities. The ships are sailing with a reduced capacity at 50 - 70%, calling in ports is in strictly controlled conditions under specific epidemiological measures according to which travellers can visit a destination exclusively on organized trips, not individually.

In December 2020, CLIA estimated that about \$14.1 billion in direct expenditures and \$32.7 billion in total expenditures created by the cruise industry would be lost due to the suspension of voyages by the end of 2020. The job loss would reach 96,500 indirect employment and 254,400 in total employment (CLIA, 2020).

The major cruise companies are announcing the restart of all operations in the second half of 2021 as soon as the epidemiological situation on the main markets improves when worldwide vaccination coverage increases and national and local authorities allow embarkations from their ports. In April 2021, the US Centers for Disease Control and Prevention (CDC) released new guidance that provides encouraging information to cruise operators and brings hope that U.S. cruises could restart by mid-2021. More than anything else, vaccinations will have the greatest impact on the restart of U.S. cruises. With 98% of crew and 95% of passengers vaccinated, the permission to sail will be much easier to obtain (CDC, 2021).

Nevertheless, the interest in cruising remains strong; according to CLIA Survey from December 2020, 74% of cruisers are likely to cruise in the next few years, and two out of three cruisers would be willing to cruise within a year (CLIA, 2020).

The suspension of worldwide cruising had a significant negative impact on destinations, especially small island countries and communities whose economies largely depend on the cruise industry. The crisis showed how important the cruise industry and its economic impact are for many visited destinations' economies.

New technologies continue to play a major role and will become increasingly important for the cruise lines to meet new health measures and regulations and for the whole cruise experience. Companies have long been investing in the availability of different apps for onboard experience, wearable technology that allows cruisers to unlock their stateroom, swipe and pay, order food and drinks, touch screen devices for onboard services, digital concierge services, robotics (bartenders, e.g.), multifunctional bracelets that include a geolocation system, cabin voice recognition devices, facial recognition cameras etc. (CLIA, 2020). Recently, Royal Caribbean announced a new digital app that allows the crew to complete safety drills onboard, while complying with social distancing requirements (Cruise Industry News, 2020b).

4. Discussion and conclusion

The findings show that long-term growth in disposable income significantly influenced the growth in demand for cruising. Other significant factors that influenced the demand were: product development, the adaptation of products to the requirements and needs of new source markets and different market segments, more cruise capacity in new regions and the development of new close-to-home ports of embarkation, the development of national cruise brands and successful corporate strategies developed by cruise lines. An essential factor that must be considered when analyzing the demand from a specific source market is the market's maturity regarding cruise demand and travel demand in general. Future research on this topic should consider that the growth in demand for cruise travel is a combination of several factors and that each market has its characteristics. A thorough analysis of the importance of each factor for different source markets would be useful and would help to better understand market trends and manage future growth.

The COVID crisis presents unprecedented challenges for the cruise industry, and there are still many barriers to overcome to resume operations. According to CLIA, the demand for cruises is still strong, and once the ships resume sailing, no problems are expected with bookings. The recovery of the North American market as a leading source market with a 48% market share in the world and the Caribbean as a leading region with almost 40% market share will play a significant role in restarting cruise tourism.

The demand for cruising will be significantly affected by the development of epidemiological conditions in the world, the speed of economic recovery, worldwide vaccination coverage (both for the guest source market and crew source market) and new strategies developed by cruise lines. Companies will have to introduce rigorous measures and protocols (from booking procedures to embarkation and on-board experience) to protect passengers, crew and destinations, and they will sail with a lower capacity which will affect revenue. The number of destinations on the itineraries will likely decrease, and the number of cruises to nowhere and visits to the cruise companies' private islands will increase. The ship is a controlled environment, and so are the companies' private islands.

Modern and new technologies will play an important role in implementing new health measures and regulations and offering a safe cruise experience. All this will lead to changes in the onboard and ashore cruise experience, with safety as the most important issue. The biggest challenge in the near future will be how to make ships a safe environment again, how to offer a safe experience at the destination while maintaining the right balance between fun and safety (health). Safety protocols affect the cruise experience, so an effort should be made to offer a safe, and at the same time high quality, vacation experience.

The suspension of worldwide cruises has also shown the cruise industry's importance for the economies of visited destinations that primarily rely on cruise tourism. Even though the negative social, cultural and environmental

impact of cruise tourism has been discussed, it is undoubtedly that cruise tourism has a significant positive economic impact on visited destinations and that it plays an important role in their tourism development. To be able to bring ships back to destinations and offer a safe experience for cruisers a partnership between the cruise industry, local authorities and policymakers will be extremely important. Adaptability to the new situation and all the changes is inevitable. Anyway, the cruise industry will need to remain focused on its commitment to a more sustainable future and environmental protection.

Small ship cruising is the best way to get off-the-beaten-track and visit some of the world's most remote destinations, and expedition cruises were increasingly in demand even before the crisis. The expedition and luxury market segments will certainly recover more quickly as the ships are smaller and can adapt faster to the new situation, favouring physical distancing, small groups of people, less crowded locations, and more open spaces. It is expected that the demand for those cruises will continue to increase.

This crisis has marked the end of mass tourism in the cruise industry, a change in business models and cruise experiences on the ship and in visited destinations. Mega ships were destinations even before the pandemic, but the visited ports were an important factor when choosing a cruise. Under the new conditions, a reduction in the number of ports of call can be expected, and the ship could become a destination in the true sense of the word. Mega cruisers have always been an attraction because of the features and services they offer and the unique onboard experience. It is to be expected that the demand for cruises on mega-ships will continue to be strong once they resume sailing.

References

- Andriotis, K., & Agiomirgianakis, G.M. (2010) Cruise visitors' experience in a Mediterranean Port of Call. *International Journal of Tourism Research*, 12(4), 390-404. https://doi.org/10.1002/jtr.770
- Antonellini, A. (2021, March 24). *Covid 19 and the cruise industry* [Presentation]. The Future of Adriatic Cruises, Ravena. https://www.researchgate.net/publication/350372372_COVID-19_AND_THE_CRUISE_INDUSTRY#fullTextFileContent
- Baker, D.M.A. (2014). Exploring cruise passengers' demographics, experience, and satisfaction with cruising the western Caribbean. *International Journal of Tourism & Hospitality Reviews, 1*(1), 33-43. https://doi.org/10.18510/ijthr.2014.114
- Baker, D.M.A., & Fulford, M.D. (2016). Cruise passengers' perceived value and willingness to recommend. *Tourism & Management Studies*, 12(1), 74-85. https://doi.org/10.18089/tms.2016.12108
- Brida, J.G., Del Chiappa, G., Meleddu, M., & Pulina, M. (2012). The perceptions of an island community towards cruise tourism: A factor analysis. *Tourism: An International Interdisciplinary Journal, 60*(1), 29-42. https://hrcak.srce.hr/80771
- Brida, J.G., Pulina, M., Riano, E., & Aguire, S.Z. (2010). *Cruise visitors' intention to return as land tourists and recommend a visited destination. A structural equation model* (Working Paper CRENoS 2010/16). https://crenos.unica.it/crenos/node/2924
- Business Research & Economic Advisors. (2015, November). *The global economic contribution of cruise tourism 2014*. Cruise Lines International Association. https://cruising.org/en-gb/news-and-research/research/2014/december/2014-global-economic-impact-study
- Business Research & Economic Advisors. (2016, November). *The global economic contribution of cruise tourism 2015*. Cruise Lines International Association. https://cruising.org/-/media/research-updates/research/global-cruise-impact-analysis---2015.ashx
- Cerveny, L.K., Miller, A., & Gende, S. (2020). Sustainable cruise tourism in marine world heritage sites. Sustainability, 12(2), Article 611. https://doi.org/10.3390/su12020611
- Clancy, M. (2017). Power and profits in the global cruise industry. In R. Dowling & C. Weeden (Eds.), *Cruise ship tourism* (pp. 43-56). CABI. https://doi.org/10.1079/9781780646084.0043



- Cruise Industry News. (2020a). 2019 Annual report. https://www.cruiseindustrynews.com/store/product/annual-reports/2019-cruise-industry-news-annual-report/
- Cruise Industry News. (2020b, September 9). *New technology driving Royal Caribbean's return to service*. https://www.cruiseindustrynews.com/cruise-news/23481-new-technology-driving-royal-caribbean-s-return-to-service.html
- Cruise Industry News. (2021). 2020 Annual report.

 https://www.cruiseindustrynews.com/flip/cina2020/mobile/index.html#p=1
- Cruise Line International Association. (2018). Contribution of cruise tourism to the economies of Europe 2017. https://www.cliadeutschland.de/wissenswertes/ECR_2018/1807---CLIA-_Europe_Economic_Impact_Report_2017. pdf?m=1531309853
- Cruise Line International Association. (2019a). 2018 global passenger report. https://cruising.org/en-gb/news-and-research/research/2019/may/2018-global-passenger-report
- Cruise Line International Association. (2019b). *Asia cruise deployment & capacity report*. https://cruising.org/en-gb/news-and-research/research/2019/september/2019-asia-deployment-and-capacity---cruise-industry-report
- Cruise Line International Association. (2020). *State of the cruise industry outlook 2021*. https://cruising.org/en-gb/news-and-research/research/2020/december/state-of-the-cruise-industry-outlook-2021
- Cruise Line International Association. (2021). 2020 Global market report. https://cruising.org/en-gb/news-and-research/research/2021/february/2019-global-market-report
- Cruise Lines International Association. (2017). *Cruise industry ocean source market report Australasia 2017*. https://cruising.org/en-gb/news-and-research/research/2017/december/australia-market-report-2017
- Ito, H., Hanaoka, S., & Hawasaki, T. (2020). The cruise industry and the COVID- 19 outbreak. *Transportation Research Interdisciplinary Perspectives*, *5*, 100-136. https://doi.org/10.1016/j.trip.2020.100136
- Jiao, Y., Hou, Y., & Lau. Y (2021). Segmenting cruise consumers by motivation for emerging market: A case of China. Frontiers in Psychology, 12, 1-15. https://doi.org/10.3389/fpsyg.2021.606785
- Jones, V.R. (2011). Motivations to cruise: An itinerary and cruise experience study. *Journal of Hospitality and Tourism Management*, 18(1), 30-40. https://doi.org/10.1375/jhtm.18.1.30
- Jordan, E., & Vogt, C.A. (2017). Residents' perceptions of stress related to cruise tourism development. *Tourism Planning & Development*, 14(4), 527-547. https://doi.org/10.1080/21568316.2017.1287123
- Lau, Y.Y., & Yip, T.L. (2020). The Asia cruise tourism industry: Current trend and future outlook. *The Asian Journal of Shipping and Logistics*, *36*(4), 202-213. https://doi.org/10.1016/j.ajsl.2020.03.003
- Lück, M., Seeler, S., & Radic, A. (2021). Hitting the reset button for post-COVID-19 cruise tourism: The case of Akaroa, Aotearoa New Zealand. *Academia Letters*, Article 219. 1-9. https://doi.org/10.20935/AL219
- Lučić, I., Sindik, J., & Manojlović, N. (2017). How do Dubrovnik inhabitants perceive the cruise tourism? *Our Sea, 64*(2), 54-60. https://doi.org/10.17818/NM/2017/2.10
- MacNeill, T., & Wozniak, D. (2018). The economic, social, and environmental impacts of cruise tourism. *Tourism Management*, 66, 387-404. https://doi.org/10.1016/j.tourman.2017.11.002
- Macrotrends. (n.d.a). *U.S. GDP per capita 1960-2021*. https://www.macrotrends.net/countries/USA/united-states/gdp-per-capita
- Macrotrends. (n.d.b). *China GDP per capita 1960-2021*. https://www.macrotrends.net/countries/CHN/china/gdp-gross-domestic-product
- Macrotrends. (n.d.c). *Germany GDP per capita 1970-2021*. https://www.macrotrends.net/countries/DEU/germany/gdp-per-capita
- Macrotrends. (n.d.d). *U.K. GDP per capita 1960-2021*. https://www.macrotrends.net/countries/GBR/united-kingdom/gdp-per-capita
- Macrotrends. (n.d.e). *Australia GDP per capita 1960-2021*. https://www.macrotrends.net/countries/AUS/australia/gdp-per-capita



- McCaughey, R., Mao, I., & Dowling, R. (2018). Residents' perceptions towards cruise tourism development: The case of Esperance, Western Australia. *Tourism Recreation Research*, *43*(1), 1-6. https://doi.org/10.1080/02508281.2018.1464098
- Mondou, V., & Taunay, B. (2012). The adaptation strategies of the cruise lines to the Chinese tourists. *Tourism: An International Interdiciplinary Journal, 60*(1), 43-54. https://hrcak.srce.hr/80772
- Nedelcu, A., Popescu, G., & Cioaca, A. (2015). Current diversity of cruise tourism. *Journal of Tourism Challenges and Trends*, 8(1), 27-42. https://journaltct.files.wordpress.com/2008/11/jtct-vol-8-1-cruise-tourism.pdf
- Pallis, A.A., & Vaggelas, G.K. (2019). Cruise shipping and green ports: A strategic challenge. In R. Bergqvist, & J. Monios (Eds.), *Green ports inland and seaside sustainable transportation strategies* (pp. 255-273). Elsevier.
- Peisley, T. (1998). The North American cruise market. Travel & Tourism Analyst, 4, 1-22.
- Peručić, D. (2006). Doprinosi marketinga razvoju pomorskih krstarenja u drugoj polovici 20. stoljeća [The contributions of marketing to the development of maritime cruises in the second half of the 20th century]. *Economic Thought and Practice*, 15(2), 151-172. https://hrcak.srce.hr/10675
- Peručić, D. (2009). Advantages of branding in travel and tourism, the case of cruise industry. *International Journal of Management Cases, 11*(2), 347-355. https://www.circleinternational.co.uk/wp-content/uploads/2021/01/IJMC_11-2-new.pdf
- Peručić, D. (2020). Analysis of the world cruise industry. *DIEM: Dubrovnik International Economic Meeting*, *5*(1), 89-99. https://hrcak.srce.hr/236765
- Peručić, D., & Puh, B. (2012). Attitudes of citizens of Dubrovnik towards the impact of cruise tourism on Dubrovnik. *Tourism and Hospitality Management, 18*(2), 213-228. https://doi.org/10.20867/thm.18.2.4
- Peručić. D. (2013). Cruising-tourism, development, strategies and key stakeholders. University of Dubrovnik.
- Petrick, J., Zou, S.S., & Hung, K. (2017). Motivation and constraints of cruising for the US and Chinese markets. In R. Dowling, & C. Weeden (Eds.), *Cruise ship tourism* (pp. 304-316). CABI. https://doi.org/10.1079/9781780646084.0304
- Radić, A., Law, R., Luck. M., Kang, H., Ariza-Montes, A., Arjona-Fuentes, J.M., & Han. H. (2020). Apocalypse now or overreaction to Coronavirus: The global cruise tourism industry crisis. *Sustainability, 12*(17), Article 6968. https://doi.org/10.3390/su12176968
- Stewart, E.J., Dawson, J., & Draper, D. (2011). Cruise tourism and residents in arctic Canada: Development of a resident attitude typology. *Journal of Hospitality and Tourism Management, 18*(1), 95-106. https://doi.org/10.1375/jhtm.18.1.95
- Sun, L. (2019, November 4). *How China can refloat its cruise industry*. Sixth Tone. https://www.sixthtone.com/news/1004772/how-china-can-refloat-its-cruise-industry
- Tano, D.G., Garau-Vadell, J.B., & Armas, R.J.D. (2014). Residents' perceptions of tourism impacts on island destinations: A comparative analysis. *International Journal of Tourism Research*, *16*(6), 578-585. https://doi.org/10.1002/jtr.1951
- Tovar, B., Espino, R., & López-del-Pino, F. (2020). Residents' perceptions and attitudes towards the cruise tourism impact in Gran Canaria. *Research in Transportation Business & Management*. https://doi.org/10.1016/j.rtbm.2020.100586
- US Centers for Disease Control and Prevention. (2021, April). CDC offers two pathways to US cruising, depending on vaccination. Seatrade Cruise News. https://www.seatrade-cruise.com/
- Vukić, I., Peronja, I., & Mihanović, V. (2021). Attitudes of the local population and business stakeholders on the impact of cruise tourism on destination. *Our Sea*, 68(1), 41-47. https://doi.org/10.17818/NM/2021/1.5
- Wang Y. (2019, January 31). China's cruise industry sails smoothly, making transition from fast to quality growth. Global Times. https://www.globaltimes.cn/content/1137710.shtml
- World Tourism Organization & Asia-Pacific Tourism Exchange Center. (2016). Sustainable cruise tourism development strategies, tackling the challenges in itinerary design in South-east Asia. https://www.e-unwto.org/doi/epdf/10.18111/9789284417292



Zou, S., & Petrick, J. (2017). Tapping the Chinese market: An examination of Chinese tourists' images and constraints towards cruising. Tourism Review International, 21(4), 347-364. https://doi.org/ 10.3727/154427217X15094520591330

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