Opportunities, challenges, and future of cruise ship tourism: Beyond COVID-19
with ubiquitous information sharing and decision-making

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Abstract

This paper aimed to assess the external environment and resource base of the cruise ship tourism sector in the Asia Pacific region Following this, an analytical framework with key themes was developed, with implications for further research focusing on seamlessly connected global market perspectives A desk research approach was used with the PESTEL and RBV–SWOT analyses of current cruise ship tourism focusing on information seeking, information sharing, and co-value creation based on ubiquitous network perspectives.

From the study, three recommendations were developed: (1) strategic market expansion in Asia, based on information sharing and analysis; (2) implementation of the ubiquitous customer relationship management; and (3) communicating sustainability and risk management during the current COVID-19 pandemic. It is strongly recommended to engage relevant stakeholders in designing future cruise tourism strategies in line with the global responsibility of sustainable business behavior based on ubiquitous information sharing and seamless decision-making.

Keywords: cruise ship tourism, ubiquitous information sharing, decision-making, post COVID-19, new normal

1 Introduction

1.1 An outline of the cruise ship tourism industry

Cruise is one of the fastest growing tourism sectors, with a growing speed of nearly 7% annually from 1990 to 2020 (Sun et al., 2014; Polat 2015; Cruise Market Watch 2020a). According to Cruise Lines International Association (CLIA) (2019), 28,5 million people traveled on cruises in 2018. This number is projected to increase to 30 million in 2019 (up 6% from 2018). This fast growth has been strengthened by an increase in the number of ports, destinations and ships operating globally (Lebrun 2014). Until 2018, 314 cruise ships were operated across the world by international cruise companies (Cruise Market Watch 2020a), with more ships already projected to be added in the next five years. The market potential in the Asian region has attracted researchers and stakeholders from business sectors as the number of travelers/passengers and the length of travel from the Asian Pacific region has decreased despite an increase in household expenses in the last decade, especially in China (Marques, 2020; Singh, 2000).

Since the World Health Organisation (WHO) announced the coronavirus disease 2019 (COVID-19) pandemic on 11 March 2020, the tourism industry has been fatally affected, and reviving strategies focusing on post-COVID-19 tourism are essential to sustain businesses in this sector. CLIA (2020a) reported that the industrial associations and businesses have been working closely with local and national governments and leading health authorities across the wider cruise community to discuss and coordinate measures to find the best solutions during the ongoing suspension of worldwide cruise operations. Mizumoto et al. (2020) warned that

the outbreak of COVID-19 on the Diamond Princess cruise ship in Japan damaged the industry's reputation. Furthermore, the current COVID-19 pandemic has revealed the importance of public health in the closed environment of the cruise ship, which should be further discussed to establish prevention measures beyond the current situation (Rocklöv et al., 2020).

1.2 Problem statement and aim of this essay

Despite the progress of cruise businesses, the key themes and challenges remain and, in order to support sustainable business performance, these need to be investigated. Much research has been conducted on cruise tourism, mainly focusing on the development of destinations and innovative cruise tourism, which can enhance the economic effect on the related market and stakeholders. Although the Asia Pacific region is acknowledged as one of the most potential markets, for both passengers' origins and destinations with rich cultural attractions, the current research remains limited. Now is the time to further explore current research outcomes to provide more holistic suggestions and actionable agendas to sustain businesses in the region, focusing on the post-COVID-19 era as the "new normal".

2. Literature review

2.1 Overview of the cruise tourism market and future perspectives

2.1.1 Overall academic discussions

Cruise ship tourism has attracted researchers in the field of tourism, hospitality, and regional development (Klein, 2011; Hung et al., 2019), and the academic discussion can be summarized with their key research themes.

For instance, Butler (2010) and Weeden et al. (2011) studied the market trends, summarizing key themes that encouraged more active research: recent academic discussions

are more focused on the integrated model exploring the relational impact on societal and economical stakeholders (Huang, 2019; Vega-Muñoz, 2019; Lau & Yip, 2020; Liu et al., 2020).

2.1.2 Key areas for academic discussions on cruise tourism

Although the Asian Pacific market's potential has been discussed, the rich accumulation of knowledge and the actionable recommendations have been made mainly for the Caribbean cruise tourism market, which has provided a business model with spill-over effect into the destination areas. Wood (2000) provided a conceptual framework with a clear research agenda with three major themes—the restructuring of the industry in the global competitive market, capital mobility, and labor migration. Since then, various research has been conducted to discuss how the sector expanded in line with globalization (Honey, 2019).

As Caribbean cruise has been a champion of the sector, sub-themes have been developed with actionable implications. For instance, Lester and Weeden (2004) discussed the future of the cruise industry in the context of environmental sustainability, and Brida and Zapata (2019) deepened the discussions regarding the economic, socio-cultural, and environmental impact of cruise tourism. Moreover, one of the key conclusions from the accumulated research in this field is how cruise tourism impacted on the stakeholders and destinations by adding the economic influence (Chen et al., 2019; Perelló & Betancourt, 2019; Wang et al., 2020).

2.2 Regional development/impact on the destination economy

As noted in the previous section, one of the contributions of research in the field of cruise tourism has been a development in the economic impact of the industry from various perspectives, such as from stakeholders' relations, residents' perspectives for cruise visitors, and positive and negative influences on the destination regions, including damage to local heritage assets by passengers visiting the area (Seidl et al., 2006; Bresson & Logossah, 2011;

Jordan & Vogt, 2017; Papathanassis, 2017; Chen et al., 2019). Papathanassis (2017) discussed in more detail the multiple opportunities cruise tourism can generate on the related areas and stakeholders, based on the intra-organisational synergies and economies of scale. In order to do so, information sharing and decision-making is critical.

The impact on historical and local heritage assets is another topic of focus for researchers (Sharpley, 2019; Sun et al., 2019; Wilkins and Honey, 2019; Andrade & Costa, 2020; Bruno et al., 2020), and spill-over economic impact on the regional community should be explored from the perspective of business opportunities. Cruise ship business analysis from a macro-economic perspective remains a research vacancy in the tourism study (Klein, 2017).

2.3 Potential of the Asian Pacific market

Although initial demand came from North America, cruise tourism is now becoming a growing travelling concept in Europe, Australia and, more recently, Asia (CLIA 2019; 2020a). In Asia, the market has potential; however, passenger numbers are relatively less than American and European markets (**Figure 1**). As Figure 1 demonstrates, the average age and the travel length of Asian passengers are lower than those of passengers from other regions, which might be due to lifestyle and cultural perspectives.

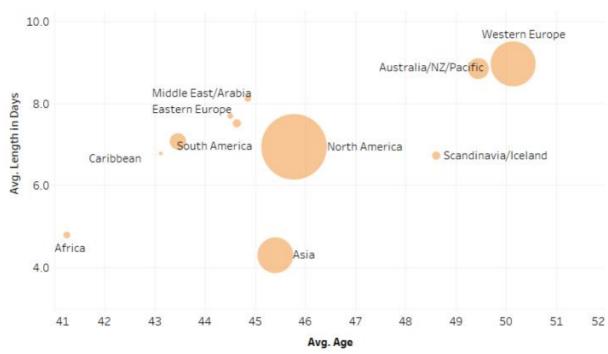


Figure 1: Average age and duration of travel per passenger. Adapted from CLIA (2018, p. 5).

The Asian Pacific cruise tourism industry is still in its infancy. Strategies for growth rely on global expansion speed, ship diversification, capacity to cater to different customer segmentations, ports and destinations sailed to, on-board activities to satisfy the increasing demand of guests, and partnering with travel agents. Some potential agendas for regional businesses include how to expand the global market share, how to adapt to new demand and new customers, and how to adapt to the global requirements of sustainability implementations (Pakbeen, 2018; Hatipoglu et al., 2019; Tonazzini et al., 2019; Bianchi & de Man, 2020).

2.4 Sustainable directions during COVID-19 and beyond

As discussed by Johnson (2002), how to develop environmentally sustainable cruise tourism has been on the research agenda in recent years; however, the industry suffered a major setback caused by COVID-19 in early 2020. Gössling et al. (2020) highlighted the need for open

discussions on preparations for future pandemics from a risk management perspective. Furthermore, Higgins-Desbiolles (2020) emphasized that the issue should be discussed from the point of view of social tourism, focusing on the societal and ecological impact of global socio-economical activities. Crossley (2020) suggested that another aspect of the pandemic to consider is its effect on passengers' mental health, including those from environmental distress. Other environmental issues, such as climate change and contamination of nature, have also influenced people's mentality and overall perceptions of the side-impact of cruise tourism. To understand passengers' psychological behaviors and design effective interactive marketing strategies, ubiquitous customer relationship management should be implemented based on the innovative business effort.

2.5 Key takeaways from the literature review

Key takeaways from discussions on a framework for sustainable cruise tourism in the Asian Pacific area are demonstrated in **Figure 2**. Following the developed dimensions, the cruise tourism business will be discussed in detail in the next section.

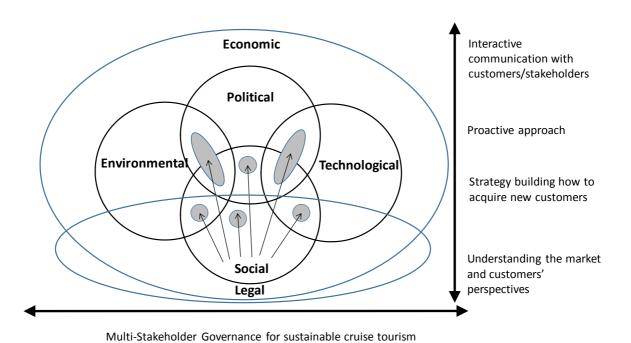


Figure 2: Key dimensions for discussion agenda based on ubiquitous network in the seamlessly connected context. Inspired by Westall (2007) and arranged by the authors.

3. Methodology

3.1 Approach

To obtain robust discussion perspectives for the essay, a term-based search method was applied, which analyzed the literature of peer-reviewed articles in English-language journals in the field of cruise tourism and relevant professional articles available from online databases (Groß, 2014). Based on the desk research, a literature review of articles related to this essay was carried out to develop key topics for the cruise tourism business, which revealed challenges and future potential. From this process, specific analysis of a targeted cruise tourism sector was carried out to develop actionable recommendations for how to sustain business, especially in the Asia Pacific region. competences and consumer behaviour (Webster & Watson, 2002; Baumeister, 2013).

Analysis in this research was based on the PESTEL framework, the resources-based view (RBV) and SWOT analysis. The PESTEL framework is used to examine changes in macro-environment, including six factors: political, economic, social, technological, ecological and legal. By using PESTEL analysis, the essay identifies potential opportunities and threats to enable the company to make further assessments for strategies to either take advantage of the opportunity or avoid the threat. RBV analysis was performed after these opportunities and threats were identified to assess whether the company is able to take advantage of or handle risk within its current resources and capabilities. RBV analysis is combined with SWOT analysis to create the foundation for strategic recommendations.

3.2 Data sources and study selections

The published articles were identified through searches in the EBSCO and ScienceDirect databases during the period from 2000 to 2020. Keywords, titles and abstract information were checked and selected (Levy & Ellis, 2006). The main search terms were categorized in three groups: (1) "cruise tourism" ("business strategy*" or challenge*), (2) "cruise tourism" ("Asia Pacific*"), and (3) "cruise tourism" ("opportunities" or challenges*). The * symbol was used to identify all possible words with these three key categorized terms; for instance, "strategy*" was used to search strategy, strategies, strategic, strategize, and strategise. Professional materials, such as industry reports, news articles from newspapers, and other relevant Asian online materials from non-academic resources were also searched.

Only English articles were considered. Book chapters and studies published in non-peer-reviewed journals were also considered because the main aim of this research was to make an exploratory discussion as a pilot study before conducting a precise systematic review. A manual selection of the title information from the identified resources revealed 217 articles, which were further reviewed as the basis for developing research outcomes with actionable implications for the contemporary market situation. The authors attempted to focus more on recent publications so that the critical discussions could be focused on recent topics and issues in the cruise tourism market.

4. Analysis and discussions

4.1 Macro-environment analysis

Despite the threats faced by the cruise industry, companies are still able to prepare for the future and take advantages of emerging new trends.

Political: Historically, cruise ships have been targets for terrorism because of their luxury (Greenberg et al., 2007). A serious attack occurred in 1985 when four hijackers killed a

passenger on the Achille Lauro cruise ship. Since then, many additional security check procedures have been introduced to prevent such an incident. However, due to the nature of cruise travel, with stops made several times during the itinerary, threats to security remain a likelihood (Fevrier 2019).

Economic: The cruise industry has enjoyed significant growth over the last decade. From 2009 to 2018, the number of ocean cruise passengers has increased more than 150% (CLIA 2019). The industry has created 1,1 million jobs and contributed \$134 billion in total output worldwide (CLIA 2019). Economic challenges for the cruise industry include fuel prices and seasonal demand. The industry gained many economic benefits as a result of the drop in price of crude oil—the main fuel since 2016. However, the price has been gradually increasing and fluctuating, making budgeting difficult and negatively affecting operating profit (Figure 3). Cruise tourism seasonality is similar to the seasonal concentration of the tourism industry in general: demands are significantly higher in peak season (Fernández-Morales & Cisneros-Martínez, 2018). In contrast, a large number of rooms remain un-booked in off-peak season.

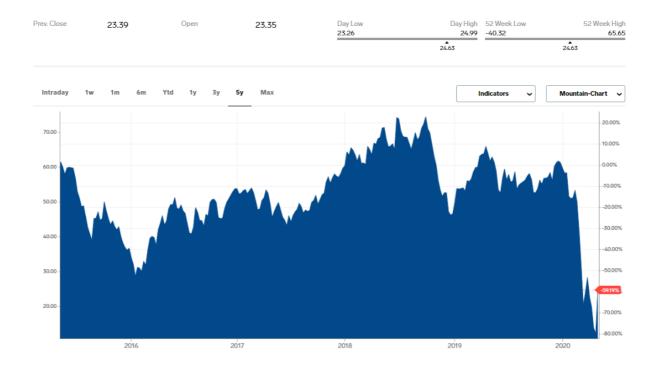
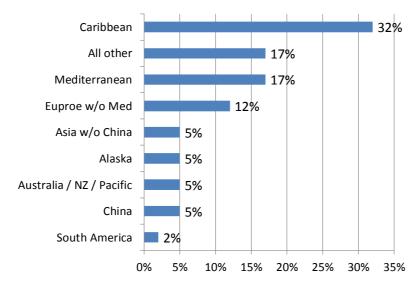


Figure 3: Price trend of crude oil for five-year span. Adapted from https://markets.businessinsider.com/commodities/oil-price?type=wti [Accessed 10 May 2020].

Social: Customers are now travelling in a more conscious and mindful way (CLIA 2019). They care more about sustainability—including environmental footprint—and protection of local historical and cultural values. The cruise industry, therefore, needs to act more responsibly, working with local destinations to ensure suitable responses to the public's concerns. Methods to reduce negative impacts on the environment have become one of the strategically concerning topics for travel companies. In terms of opportunities, demand from the Asian market, particularly in China, has been growing noticeably (Hung et al., 2019). Most of the revenue still comes from North America; however, since 2016, China has surpassed Germany to become the nation with second highest number of cruise-goers (Figure 4).

Chinese travelers are also among the top spending outbound cruise-goers (142 million outbound Chinese travelers spent nearly \$258 billion (United Nation World Tourism Organisation). CLIA forecasted that by 2025, the number of Chinese cruise-goers will increase from 8 to 10 million annually (The Economist 2019).



Percent of Share: Data 08/21/2019

Figure 4: Cruise line deployment by regions. Adapted from CLIA (2020b, p. 15).

Figure 5 indicates the geographical distribution of passenger origins. It demonstrates that the Asia Pacific region is the biggest region after North America. Statistical analysis indicates that this area has good potential as the origin of passengers.



Passengers in Millions 2018, Source: CLIA ONE Source

Figure 5: Passenger origins. Adapted from CLIA (2020b, p. 16).

Another change in the social factors that warrants attention is the increasing number of Generation X Passengers. At the moment, Generation Y is the group contributing to the majority of bookings. Their tastes have been reported as luxury- and premium-inclined (Han & Hyun, 2018; Kan et al., 2020). They enjoy experiences more than material items, and this is what companies are trying to incorporate into cruise experiences for their passengers. However, Generation Z, now accounting for a smaller proportion of the whole industry, is forecasted to become the largest consumer generation by the year 2020 (CLIA 2019). Their preferences are significantly different from those of Generation Y (**Figure 6**).

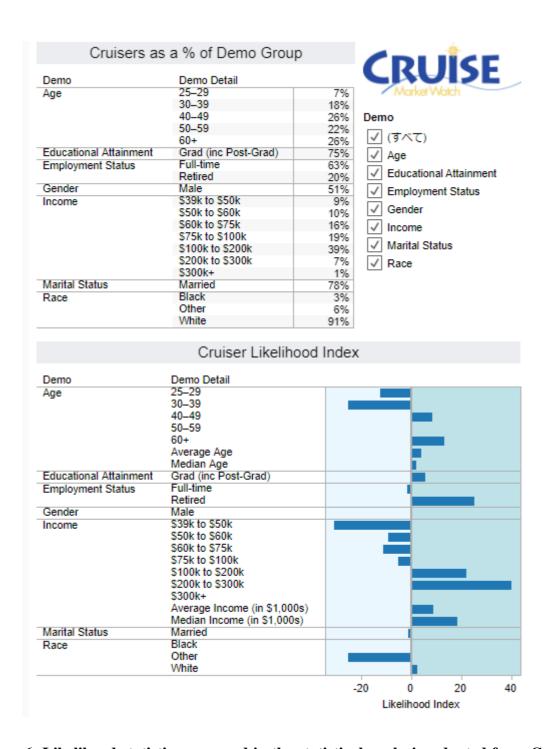


Figure 6: Likelihood statistics arranged in the statistical analysis, adapted from Cruise Market Watch (2020b)

Technological: Almost everyone uses technology in their daily lives. People use technology for work and entertainment and expect it to be available when they are on holiday (Johnson, 2020). Technology offers a more convenient booking process by managing customers'

information and providing more opportunities for personalized on-board experiences. Some large cruise companies have adopted the use of keychains, necklaces, bracelets, apps, and more. Technology provides opportunities for companies to communicate interactively with potential customers (Rodden & Hritz, 2019). Although cruise ship tourism needs to utilize advanced technology to enable innovative operation (Katsoni & Spyriadis, 2020), high technological use increases the threat of cyber-attacks. This presents a challenge since the passenger information stored in the system should be secure from a privacy and security perspective (Gao et al., 2019).

Environmental: Cruises have attracted bad publicity due to its fuel usage and sewage, which can seriously harm the environment. Ye et al. (2019) explored the ecological impact of cruise ship tourism by focusing on a Chinese cruise ship company. The International Maritime Organization (IMO) implemented new regulations that require vessels to switch to cleaner fuel with a lower sulfur content by 2020 (Wang et al., 2019). Furthermore, Deling et al. (2020) analyzed the impact of the regulatory framework on the global environment. Various countries have imposed regulations requiring the cruise industry to pay fines for damaging the environment. Moreover, protests by local people against cruise ships due to the damage they cause to the environment (the most recent protest is in Venice, Italy) cause trips to be canceled (Paiano et al., 2020; Tovar & Tichavska, 2019). In line with the increased awareness of the issues caused by an over tourism, how to cope with the unexpected outcomes of excess the capacity of destinations and avoid conflicts with the local residents and communities has become a critical topic for the tourism stakeholders (Jacobsen et al., 2019).

In the context of a COVID-19 pandemic, hygiene issues on a cruise ship have been revealed with an infection in the Diamond Princess, which were calling at Yokohama Port in Japan, which implied critical discussions how to cope with pandemic and other unexpected incidents during and after cruise ship travels (Yamagishi net al., 2020). In the context of

seamless connected tourism network, it is essential for the tourism sector to consider and prepare pre-measures to avoid spreading infections over the destination areas to provide safe touring opportunities by cruising (Rocklöv et al., 2020).

Legal: Since they operate internationally via a variety of countries, cruise companies face the risk of increasing their income tax levels. In addition, as noted in the context of the ecological aspect, changes in environmental regulations can cause companies millions of dollars (Nanda, 2018; Nikčević, 2019). Not only legal requirements regarding the taxation, all the businesses are required to meet the destination countries' regulatory framework such as hygienic regulations: some critical external factors such as COVID-19 pandemic requires all the business sectors including cruise tourism to implement measures to secure passengers' safety. Flexible and swift responses are needed to provide a safe service to the customers with legal requirements from the relevant public sectors while delivering cruise ship services (Liu and Chang, 2020).

Based on the analysis above, some factors are life-long concerns for a business, such as security, fuel, or income tax. Others, such as an increasing demand for cruise travel, expansion opportunities in the Asian market, potential customer demographics, or new environmental regulations, are new changes whose impact requires careful assessment (Shi et al., 2018).

Figure 7 summarizes the research outcome of the PESTEL analysis regarding the cruise tourism market. In the next section, the internal resources are reviewed to see if the cruise business can handle such changes and whether more should be implemented.

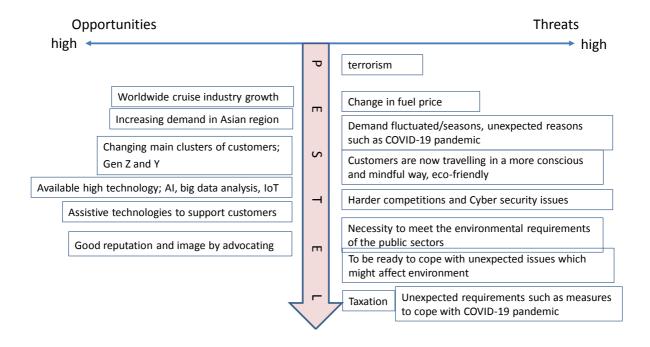


Figure 7: PESTEL analytics and key themes for cruise ship tourism

4.2 Internal resource assessment: RBV-SW analysis

To obtain a closer analytical output, Carnival Corporation and Plc. (CCP) was used as a case study, and a discussion regarding the internal resources and capabilities was conducted. A resource and capability analysis were performed based on the resource-based view introduced by Jay Barney (1987). As Valentine (2019) and Vlados and Chatzinikolaou (2019) suggested, the analytical approach which combined the SW (Strength – Weakness) dimensions and RBV is practical and useful to attain an overview of the company's internal condition in details (Table 1). For instance, during and after the COVID-19 pandemic, decision-making of how to implement required safety measures to ensure safety of passengers and staff on board should be critical themes for sustaining cruise ship businesses; detailed analysis in enhancing effective decision-making and review process based on the clear strategy of decision management, facilitation with group decision support systems is critical (Reuck et al., 2002).

| | Resources | Strength | Weakness |
|-----------|---|--|--|
| Physical | -More than 100 ships under nine worlds' lading Cruise brands -Business operation in more than 700 ports worldwide | -The larger Cruise company in the world, sailing 48% worlds' cruise passengers -On-board activities are diversified for each cruise brand to adapt to changing demands of passengers | China is the potential market but until now the number of ships operating in the area is still limited. This has left the room for competitors cruise grow in China market |
| Financial | Revenue, financial ratios | Revenue keeps going up in recent years, the earning on invested capital (ROIC) reached double internationally fund its capital investment | Earning per share sometimes is affected by currency rate fluctuation |
| Human | Management, experience in cruising businesses Flexible and innovative human resource training and knowledge management | -Good level of service delivery on ships, and stable level of customer satisfaction -Loyalty management -Strategic marketing strategies including celebrity endorsement -Data collection and analysis-based research to increase loyal customers | -Coping with the unexpected issues such as COVID-19 pandemic -Collaborative attitudes to sustain the whole sector in the difficult environment -Learning and preparing the measures to ensure hygienic level -Risk management views and planning |

Table 1 The outcome of the RBV-SW assessment (Adopted from Carnival (2020);

Rodrigue and Wang, 2020; Wang et al., 2019)

4.3 Conceptualization: A proposition of key factors for the agenda

By assessing both the external and internal environment of CCP, this essay identified three main directions that would play important roles in sustaining the future of the business. **Figure 8** demonstrates an analytical framework based on the PESTEL and S-W frameworks, leading to recommendations for cruise tourism, such as the expansion into the Asian markets, targeting younger customers, and communicating sustainability.

The first recommendation involves the potentiality of an emerging Asian market, which is growing quickly, although the competition has not been saturated. More specifically, exploiting the untouched Chinese and Southeast Asian markets can help the tourism industry to ensure the future sustainability of the business. The second recommendation suggests that the industry targets Generation Z, providing comparable services when this generation becomes the dominant group of customers in the market. Finally, it is inevitable for the industry to act strategically. Aligning with the sustainable requirements while communicating sustainability to the stakeholders should be a key topic on the agenda.

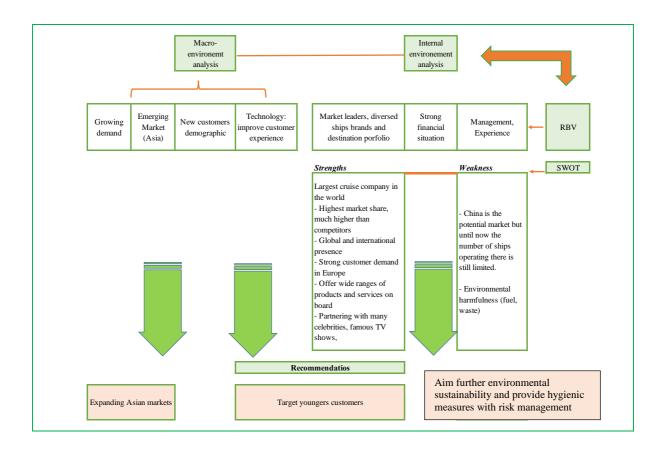


Figure 8: Conceptualizations for the recommendations

5. Conclusion

5.1 Implications and recommendations

Park (2011) indicates that tourism plays a significant socio-economic role, especially in the Asian regions that contain various cultures and traditions with attractive tourism assets. Regarding the destinations and passengers' places of origin, the Asian market presents considerable potential that should be brought to the surface. This will result in the economic development of the destinations, as well as the sustainability of cruise tourism businesses.

Contributing enhancing sustainability both to the environment and business profitability has been often discussed in the context of trad-off; however, the result of the PESTEL and SW-RVB analyses of the study suggest potential in sustaining both societal and economic values through cruise ship businesses. Especially in the era when Sustainable Developing Goals are required, the cruise ship sector needs to act strategically in enhancing the business sustainability with the ethical aims and goals (Pakbeen, 2018; Zhen et al., 2020). The research outcome of this study presents three key themes for further consideration.

Expansion into the Asian markets

Because of the mature and intense competition in traditional markets, such as North America or Europe, the implementation of a strategy involving the expansion of the young Asian markets with the current impressive growth rate could become essential in successfully attaining further global market share. Since China still accounts for the majority of Asian markets, the first stage of this strategy should be implemented in this country. Although China can provide more customers with higher spending habits during their travel, this market has not been adequately explored yet. There are two ways to implement this strategy:

First, direct investment can bring more of the brand value of the cruise ship tourism to serve Chinese customers. The benefit of this approach is that the cruise tourism sector can enhance the lifestyles of Chinese customers by providing new experiential opportunities, sustaining the new Asian Pacific market. Second, a decision regarding the form of entry mode should be made based on a critical analysis of the market research and the perspectives of consumers to enable sustainable business behavior. Furthermore, to cope with the cultural gap in the new markets, building robust relationships with local stakeholders and partners is critical. Moreover, as Basile and Faraci (2013) discussed, a decision-making process how to collaborate with local companies or expertise to integrate internal and external activities as one coordinated business body should be carefully designed and evaluated in the new market.

Nonetheless, seeking critical information to aid in the decision regarding strategy design is essential. As such, a ubiquitous approach to the perspectives of potential consumers, and market research is inevitable for the sector.

Targeting younger customers based on close customer relationship management

As noted, Generation Z represents the dominating customer market of the future. As indicated by the PESTEL analysis in the previous section, Generation Z has different tastes and preferences than older customers. To implement interactive customer relationship management, innovative attitudes are also essential. As discussed, the ubiquitous approach in communicating with current and future customers should be reflected in the strategy design. To enable businesses to acquire new customers, market research that investigates the behavior and perceptions of consumers is inevitable.

It is essential to understand what this group wants. Research regarding demographic behavior should be performed first to identify their requirements. Based on such research,

detailed initiatives can be gathered and tested on current cruise ships, the impact of which can be carefully observed and analyzed to formulate the final strategic plan.

Communicating sustainability and risk management

Environmental issues have presented continued challenges not only for the cruise tourism sector but also for other stakeholders. Environmental and sustainability issues are getting more important than ever before considering the implementation requirements of the sustainability goals (Larsen & Wolff, 2019; Liu et al., 2020; UN 2018). Enhancing Corporate Social Responsibility (CSR) behavior can improve a company's public image (Font et al., 2017; Schumacher et al., 2020).

As a contemporary issue, all businesses and sectors have been hit by the COVID-19 pandemic, and especially with the incident happened on board of Diamond Princess in Japan, COVID infections require urgent measures to ensure the hygienic scheme to save customers and service providing staff. This topic should be also considered in the context of risk management which will be on the agenda for the cruise ship sector to deliver secured touring services for the customers globally. Aiming further environmental sustainability with provision of hygienic measures as the key factor of risk management is critical and essential (Mouchtouri et al., 2020).

Therefore, since this is a long-term aim for all business sectors, the strategy needs to be implemented and amended occasionally as new changes occur. This is especially evident in the uncertain situation created by COVID-19, and how to sustain cruise tourism businesses beyond the disaster is on the agenda of the stakeholders and the researchers (CLIA, 2020a). Communicating sustainability with stakeholders is essential in the tourism industry (Iazzi et al., 2020; Sivapalan et al., 2017). As Font et al. (2017) stated, tourism marketing has been

considered as abusive and hedonistic consumption, as well as a luxury service (Ioana-Daniela et al., 2018).

Therefore, sustainability and safety considerations are inevitable when designing a marketing strategy for cruise tourism businesses, such as cruise ships with innovative procedures and operational processes. The close communication with the stakeholders and the proactive innovation to change business operations enable the cruise tourism industry to pursue sustainability goals in the global market. This is further accomplished via communication with potential customers by emphasizing that safe and secure services are provided for the duration of the cruise according to the post-COVID-19 "new normal" operational procedures.

5. 2 Limitations and further research opportunities

This essay has developed a conceptual framework with a key agenda for future cruise tourism. As discussed, cruise tourism has a substantial impact in a socio-economic context, which includes infrastructure development in the destination ports (London et al., 2017). To develop new cruise lines in the public sea, as well as the requisite procedures, necessitates close communication with the appropriate governmental organizations and other international authorities to coordinate within the harmonized policy framework in a global context. As such, the cruise tourism industry contests political and environmental dimensions to support sustainable business with relational actors in the market. Further exploration is needed on how to coordinate the interests of policymakers, private sectors, passengers, and other NGO/NPOs who aim to protect environmental assets in the coastal areas and the ocean, to manage the conflicts among these parties.

Moreover, the current uncertain situation surrounding the COVID-19 pandemic has presented a research theme on how to address the epidemiological issues that are unavoidable in a seamless globalized era. Health-related risk management, as a contingency plan, must be

prepared as a safety net to secure the passengers, cruise employees, and relevant stakeholders. As discussed in the analytical section, large cruise ships (e.g. 4000 passengers) calling on small islands or small countries night cause over tourism effect including unexpected pollution and potential conflicts with the local communities. It is recommended to consider the political aspect of PESTEL proactively to cope with these unexpected outcomes of tourism. Further research should focus on the policymakers' endeavors, as well as on how to engage stakeholders in the decision-making process of cruise tourism strategy building. In doing so, ICT-based information sharing, and timely decision-making is essential. To sustain the businesses involved in cruise ship tourism in a post-COVID-19 world requires an innovative approach to operation and marketing strategy building.

Reference

Ahn, J., & Back, K. J. (2019). Cruise brand experience: functional and wellness value creation in tourism business. International Journal of Contemporary Hospitality Management.

Andrade, M. J., & Costa, J. P. (2020). Touristification of European Port-Cities: Impacts on Local Populations and Cultural Heritage. In *European Port Cities in Transition* (pp. 187-204). Springer, Cham.

Basile, A., & Faraci, R. (2013). A decision-making perspective on business integration and inter-firms agreements in biotechnology industry. International Journal of Management and Decision Making, 12(4), 335-350.

Bianchi, R. V., & de Man, F. (2020). Tourism, inclusive growth and decent work: a political economy critique. Journal of Sustainable Tourism, 1-19.

Boston Consultants Group, 2019. *Innovation in Travel Must Put the Traveler First* [online]. Available from: https://www.bcg.com/en-gb/publications/2019/innovation-travel-must-put-traveler-first.aspx [Accessed 13 July 2020].

Bresson, G., & Logossah, K. (2011). Crowding-out effects of cruise tourism on stay-over tourism in the Caribbean: Non-parametric panel data evidence. Tourism Economics, 17(1), 127-158.

Brida, J. G., & Zapata, S. (2010). Cruise tourism: economic, socio-cultural and environmental impacts. International Journal of Leisure and Tourism Marketing, 1(3), 205-226.

Bruno, S. S., Delgado, M., & Madrazo, F. (2020). From HERITAGE to Feritage: How Economic Path Dependencies in the Caribbean Cruise Destinations Are Distorting the Uses of Heritage Architecture and Urban Form. In Adaptive Strategies for Water Heritage (pp. 362-381). Springer, Cham.

Butler, M. (2010). Cruise tourism: Current situation and trends. World Tourism Organization Publications.

Carnival (2020). Carnival, Available from https://www.carnival.com/cruise-ships.aspx
[Accessed 9 September 2020]

Chen, J. M., Petrick, J. F., Papathanassis, A., & Li, X. (2019). A meta-analysis of the direct economic impacts of cruise tourism on port communities. Tourism Management Perspectives, 31, 209-218.

CLIA (2018). 2018 Global Passenger Report. Washington DC: Cruise Line Industry Association. Available from: https://cruising.org/-/media/research-updates/research/clia-global-passenger-report-2018.pdf [Accessed 3 July 2020].

CLIA (2019). 2019 Cruise Travel Trends and State of the Cruise Industry Outlook Report.

Available from: https://cruising.org/news-and-research/press-room/2018/december/2019-cruise-travel-trends-and-state-of-the-cruise-industry-outlook [Accessed 3 July 2020].

CLIA (2020a) Update On Cruise Industry Response To COVID-19, Available at: https://cruising.org/news-and-research/press-room [Accessed at 10 May 2020]

CLIA (2020b), 2020 State of the cruise 2020 industry outlook, Available from: https://cruising.org/-/media/research-updates/research/state-of-the-cruise-industry.pdf [Accessed 8 July 2020]

Crossley, É. (2020). Ecological grief generates desire for environmental healing in tourism after COVID-19. Tourism Geographies, 1-10.

Cruise Market Watch (2020a), Available from: https://cruisemarketwatch.com/ [Accessed 8 July 2020]

Cruise Market watch (2020b), Statistics, Available from: https://cruisemarketwatch.com/market/ [Accessed 8 July 2020]

Deling, W., Yuli, C., Changhai, H., Liang, C., & Changyue, W. (2020). Study on IMO New Requirement: Ship Fuel Oil Consumption Data Collection and Reporting. American Journal of Water Science and Engineering, 6(1), 50-59.

Fernández-Morales, A. and Cisneros-Martínez, J., 2018. Seasonal Concentration Decomposition of Cruise Tourism Demand in Southern Europe. *Journal of Travel Research*, 004728751880209.

Fevrier, V., 2019. *Security Risks to the Caribbean Cruise Industry in 2019* [online]. Intelligence Fusion. Available from: https://www.intelligencefusion.co.uk/blog/security-risks-to-the-caribbean-cruise-industry-in-2019 [Accessed 13 March 2020].

Font, X., Elgammal, I., & Lamond, I. (2017). Greenhushing: the deliberate under communicating of sustainability practices by tourism businesses. Journal of Sustainable Tourism, 25(7), 1007-1023.

Gao, Y., Chen, C., & Qin, X. (2019). Research on Building and Application of China Cruise Terminal Bid Data. In Report on the Development of Cruise Industry in China (2018) (pp. 235-253). Springer, Singapore.

Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. Journal of Sustainable Tourism, 1-20.

Grant, R., 2016. *Contemporary strategy analysis*. Chichester, West Sussex, United Kingdom: John Wiley & Sons Inc.

Greenberg, M., Chalk, P., Willis, H., Khilko, I. and Ortiz, D., 2007. *Maritime Terrorism*. Santa Monica: RAND Corporation.

Grosbois, D., 2015. Corporate social responsibility reporting in the cruise tourism industry: a performance evaluation using a new institutional theory based model. *Journal of Sustainable Tourism*, 24 (2), 245-269.

Han, H., & Hyun, S. S. (2018). Role of motivations for luxury cruise traveling, satisfaction, and involvement in building traveler loyalty. International Journal of Hospitality Management, 70, 75-84.

Hatipoglu, B., Ertuna, B., & Salman, D. (2019). Corporate social responsibility in tourism as a tool for sustainable development. International Journal of Contemporary Hospitality Management.

Higgins-Desbiolles, F. (2020). Socialising tourism for social and ecological justice after COVID-19. Tourism Geographies, 1-14.

Honey, M. (Ed.). (2019). Cruise Tourism in the Caribbean: Selling Sunshine. Routledge.

Huang, H. (2019). Research on the Development of Shanghai Cruise Tourism Under the Background of Tourism Integration in the Yangtze River Delta. In Report on the Development of Cruise Industry in China (2018) (pp. 165-179). Springer, Singapore.

Hung, K., Wang, S., Guillet, B. D., & Liu, Z. (2019). An overview of cruise tourism research through comparison of cruise studies published in English and Chinese. International Journal of Hospitality Management, 77, 207-216.

Iazzi, A., Pizzi, S., Iaia, L., & Turco, M. (2020). Communicating the stakeholder engagement process: A cross - country analysis in the tourism sector. Corporate Social Responsibility and Environmental Management,1-11.

Ioana-Daniela, S., Lee, K. H., Kim, I., Kang, S., & Hyun, S. S. (2018). Attitude toward luxury cruise, fantasy, and willingness to pay a price premium. Asia Pacific Journal of Tourism Research, 23(4), 325-343.

Jacobsen, J., Iversen, N. and Hem, L., 2019. Hotspot crowding and over-tourism: Antecedents of destination attractiveness. *Annals of Tourism Research*, 76, 53-66.

Johnson, D. (2002). Environmentally sustainable cruise tourism: a reality check. Marine Policy, 26(4), 261-270.

Johnson, E. M. S. (2020). Exploring the effects of technology and innovation on changing market requirements and the evolving maritime curriculum. Worldwide Hospitality and Tourism Themes.

Johnson, G., Whittington, R., Scholes, K., Angwin, D. and Regner, P., 2017. *Exploring strategy*. Harlow, England: Pearson.

Jordan, E. J., & Vogt, C. A. (2017). Residents' perceptions of stress related to cruise tourism development. Tourism Planning & Development, 14(4), 527-547.

Kang, J., Kwun, D. J., & Hahm, J. J. (2020). Turning Your Customers into Brand Evangelists: Evidence from Cruise Travelers. Journal of Quality Assurance in Hospitality & Tourism, 1-27.

Katsoni, V., & Spyriadis, T. (2020). Cultural and Tourism Innovation in the Digital Era. Springer.

Klein, R. A. (2011). Responsible cruise tourism: Issues of cruise tourism and sustainability. Journal of Hospitality and Tourism Management, 18(1), 107-116.

Klein, R. A. (2017). Adrift at sea: The state of research on cruise tourism and the international cruise industry. Tourism in Marine Environments, 12(3-4), 199-209.

Larsen, S., & Wolff, K. (2019). Aspects of the unsustainability of cruise tourism. In CAUTHE 2019: Sustainability of Tourism, Hospitality & Events in a Disruptive Digital Age: Proceedings of the 29th Annual Conference (p. 574). Central Queensland University, Australia.

Lau, Y. Y., & Yip, T. L. (2020). The Asia cruise tourism industry: current trend and future outlook. The Asian Journal of Shipping and Logistics.

Lester, J. A., & Weeden, C. (2004). Stakeholders, the natural environment and the future of Caribbean cruise tourism. International Journal of Tourism Research, 6(1), 39-50.

Liu, Y., Dong, E., Li, S., & Jie, X. (2020). Cruise Tourism for Sustainability: An Exploration of Value Chain in Shenzhen Shekou Port. Sustainability, 12(7), 3054.

Liu, X., & Chang, Y. C. (2020). An emergency responding mechanism for cruise epidemic prevention—taking COVID-19 as an example. Marine Policy, 119 (In-printing).

Lebrun, A., 2014. Representation of Cruise: Cruisers and Noncruisers Cross Views. *International Journal of Tourism Research*, 17 (5), 511-520.

London, W. R., Moyle, B. D., & Lohmann, G. (2017). Cruise infrastructure development in Auckland, New Zealand: a media discourse analysis (2008–2016). Asia Pacific Journal of Tourism Research, 22(6), 615-633.

MacNeill, T. and Wozniak, D., 2018. The economic, social, and environmental impacts of cruise tourism. *Tourism Management*, 66, 387-404.

Marques, M. (2020). The Cruise Industry in the World. In Managing, Marketing, and Maintaining Maritime and Coastal Tourism (pp. 223-232). IGI Global.

Mizumoto, K., Kagaya, K., Zarebski, A., & Chowell, G. (2020). Estimating the asymptomatic proportion of coronavirus disease 2019 (COVID-19) cases on board the Diamond Princess cruise ship, Yokohama, Japan, 2020. Eurosurveillance, 25(10) (in-printing).

Mouchtouri, V. A., Dirksen-Fischer, M., & Hadjichristodoulou, C. (2020). Health measures to travellers and cruise ships in response to COVID-19. Journal of Travel Medicine, 27(3) (inprinting).

Nanda, V. P. (2018). US Perspective on the Legal Aspects of Cruises. The American Journal of Comparative Law, 66(suppl_1), 213-242.

Nikčević, J. (2019). Strengthening the role of local government to ensure sustainable development of the cruise sector: The case of Kotor. Marine Policy, 109, 103693.

Northcote, J., & Macbeth, J. (2006). Conceptualizing yield: Sustainable tourism management. Annals of Tourism Research, 33(1), 199-220.

Pakbeen, H. (2018). Comparative Study of Leading Cruise Lines' Sustainability Practices and Environmental Stewardship in Contribution to SDGs' Sea and Water Conservation Goal. European Journal of Sustainable Development, 7(3), 507-507.

Paiano, A., Crovella, T., & Lagioia, G. (2020). Managing sustainable practices in cruise tourism: the assessment of carbon footprint and waste of water and beverage packaging. Tourism Management, 77, 104016.

Panko, T. R., & Henthorne, T. L. (2019). Crimes at sea: A review of crime onboard cruise ships. International Journal of Safety and Security in Tourism and Hospitality, (20), 1-23.

Papathanassis, A., (2014). Cruise Sector & 'Glocal' Corporate Citizenship: The 5thInternational Cruise Conference, Bremerhaven, Germany, 24-26 January 2014. *International Journal of Tourism Research*, 16 (4), 415-416.

Papathanassis, A. (2017). Cruise tourism management: state of the art. Tourism Review. 72 (1), 104-119.

Perelló, J. L., & Betancourt, R. (2019). Cuba: A long and mixed engagement with cruise tourism. In Cruise Tourism in the Caribbean (pp. 73-100). Routledge.

Park, S. Y. (2011). Examining potential for cruise business in the American-affiliated pacific islands. Asia Pacific Journal of Tourism Research, 16(1), 1-19.

Passafaro, P. (2019). Attitudes and Tourists' Sustainable Behavior: An Overview of the Literature and Discussion of Some Theoretical and Methodological Issues. Journal of Travel Research, 0047287519851171.

Polat, N., 2015. Technical Innovations in Cruise Tourism and Results of Sustainability. Procedia - Social and Behavioral Sciences, 195, 438-445.

Reuck, J. D., Schmidenberg, O., & Klass, D. (2002). General decision assurance principles and procedures for strategic planning. International Journal of Management and Decision Making, 3(2), 139-150.

Rocklöv, J., Sjödin, H., & Wilder-Smith, A. (2020). COVID-19 outbreak on the Diamond Princess cruise ship: estimating the epidemic potential and effectiveness of public health countermeasures. Journal of travel medicine (in-printing).

Rodden, S., & Hritz, N. (2019). Millennials' Perceptions of Social Interactions, Memorability, and Satisfaction Onboard Cruise Ships. Tourism in Marine Environments, 14(1-2), 107-116.

Rodrigue, J. P., & Wang, G. W. (2020). Cruise shipping supply chains and the impacts of disruptions: The case of the Caribbean. Research in Transportation Business & Management (in-printing).

Ruhanen, L., Moyle, C. L., & Moyle, B. (2019). New directions in sustainable tourism research. Tourism Review, 74(2), 138-149.

Schumacher, J., Schernewski, G., Karnauskaitė, D., Kataržytė, M., Pakleppa, S., Pape, K., ... & Völzke, M. (2020). Measuring and comparing the sustainability of coastal tourism destinations in Germany, Lithuania, and Indonesia. Environment, Development and Sustainability, 22(3), 2451-2475.

Sivapalan, S., Afsharian, A., Shafiq, N., bin Nuruddin, F., & Sivapalan, M. (2017, November). Communicating Sustainability: Context Matters. In 2017 7th World Engineering Education Forum (WEEF) (pp. 920-924). IEEE.

Seidl, A., Guiliano, F., & Pratt, L. (2006). Cruise tourism and community economic development in Central America and the Caribbean: The case of Costa Rica. PASOS. Revista de Turismo y Patrimonio Cultural, 4(2), 213-224.

Sharpley, R. (2019). Tourism, development and the consumption of tourism. In A Research Agenda for Tourism and Development. Edward Elgar Publishing.

Shi, J., Ye, X., & Mei, J. (2018). The Development and Changes of Cruise Industry in China Over the Decade. In Report on China's Cruise Industry (pp. 91-108). Springer, Singapore.

Simonsen, M., Gössling, S., & Walnum, H. J. (2019). Cruise ship emissions in Norwegian waters: A geographical analysis. Journal of Transport Geography, 78, 87-97.

Singh, A. (2000). The Asia Pacific cruise line industry: current trends, opportunities and future outlook. Tourism Recreation Research, 25(2), 49-61.

Sun, X., Feng, X. and Gauri, D., (2014). The cruise industry in China: Efforts, progress and challenges. International Journal of Hospitality Management, 42, 71-84.

Sun, X., Ni, R., & Hou, Y. (2019). Cruise tourism Integration and regional tourism integration in the Yangtze River Delta. In *Report on the Development of Cruise Industry in China* (2018) (pp. 181-197). Springer, Singapore.

The Economist, 2019. What slumping demand for cruises says about Chinese tourists. [online], 2019. Available from: https://www.economist.com/business/2019/06/08/what-slumping-demand-for-cruises-says-about-chinese-tourists [Accessed 13 April 2020].

Tonazzini, D., Fosse, J., Morales, E., González, A., Klarwein, S., Moukaddem, K., & Louveau, O. (2019). Blue Tourism. Towards a sustainable coastal and maritime tourism in world marine regions. Edited by eco-union. Barcelona.

Tovar, B., & Tichavska, M. (2019). Environmental cost and eco-efficiency from vessel emissions under diverse SOx regulatory frameworks: A special focus on passenger port hubs. Transportation Research Part D: Transport and Environment, 69, 1-12.

Valentin, E. K. (2001). SWOT analysis from a resource-based view. Journal of marketing theory and practice, 9(2), 54-69.

Vega-Muñoz, A., Arjona-Fuentes, J. M., Ariza-Montes, A., Han, H., & Law, R. (2019). In search of 'a research front' in cruise tourism studies. International Journal of Hospitality Management, 102353.

Vlados, C., & Chatzinikolaou, D. (2019). Towards a restructuration of the conventional SWOT analysis, Business and Management Studies, 5(2), 76-84.

Wang, G., Li, K. X., & Xiao, Y. (2019). Measuring marine environmental efficiency of a cruise shipping company considering corporate social responsibility. Marine Policy, 99, 140-147.

Wang, G., Chang, W. H., Cui, Y., Qi, G., & Li, K. X. (2020). Introducing an economic impact platform to navigate cruise value-added chain with environmental considerations. Marine Policy, 112 (in-printing).

Wang, Z., Zhang, H., & Gan, X. (2019, November). Research on Solution of Ship Low Sulphur Fuel based on IMO Sulphur Limitation Regulation. In IOP Conference Series: Earth and Environmental Science (Vol. 401, No. 1, p. 012012). IOP Publishing.

Weeden, C., Lester, J. A., & Thyne, M. (2011). Cruise tourism: Emerging issues and implications for a maturing industry. Journal of Hospitality and Tourism Management, 18(1), 26-29.

Wilkins, J., & Honey, M. (2019). Cruise Tourism Impacts on Historic Cities. In Cruise Tourism in the Caribbean (pp. 52-72). Routledge.

Wood, R. E. (2000). Caribbean cruise tourism: Globalization at sea. Annals of tourism research, 27(2), 345-370.

Yamagishi, T., Kamiya, H., Kakimoto, K., Suzuki, M., & Wakita, T. (2020). Descriptive study of COVID-19 outbreak among passengers and crew on Diamond Princess cruise ship, Yokohama Port, Japan, 20 January to 9 February 2020. Eurosurveillance, 25(23) (in-printing).

Ye, X., Wang, L., Zhy, Z., Du, J., and Sun, R. (2019). Study on the ecological efficiency and its temporal dynamic evolution of China's cruise tourism from the perspective of carbon footprint, Applied Ecology and environmental research, 17(6), 13001-13013.

Zhen, L., Wu, Y., Wang, S., & Laporte, G. (2020). Green technology adoption for fleet deployment in a shipping network. Transportation Research Part B: Methodological, 139, 388-410.