Multidisciplinary
SCIENTIFIC JOURNAL
OF MARITIME RESEARCH

University of Rijeka
FACULTY OF MARITIME STUDIES

Multidisciplinarni
znanstveni časopis
POMORSTVO

https://doi.org/10.31217/p.35.1.2

Analysis of crisis situations in nautical tourism

Daniela Gračan, Romina Agbaba

Faculty of Tourism and Hospitality Management, University of Rijeka, Primorska 42, Ika, Croatia, e-mail: danielag@fthm.hr, romina.agbaba@fthm.hr

ABSTRACT

With rapid industrialization, the current social system is facing a variety of crises that deplete resources, pollute the environment and generate large amounts of waste. Excessive destinations dependence on tourism, as a primary economic activity, make them more vulnerable to global crisis situations and their negative effects. The tourism industry is also sensitive to external disasters and the deterioration of the tourism product, and is becoming more exposed to the crisis, which leads to a growing interest in contingency planning. Economic crisis, the crisis in the world shipping economy and political instability represent some of the crisis situations that developed and developing countries are struggling with. The goal of the research is literature review to determine which crisis situations exist in nautical tourism, which ones occur most often and what is the cause of them. Also, by analyzing the content of selected articles, the aim is to present possible solutions to such situations, applying to a greater extent to the principles of sustainable development. This paper analyzes the scientific literature on the crisis situations and their negative effects on nautical tourism, as relatively new multidisciplinary tourism activity. Contrary to the long history of piracy, terrorist attacks, as a one type of crisis situations that occur in the maritime industry are rare. However, high-energy consumption, high water pollution and increased port production, consequently negatively affect the ecological environment. Pollution created by vessels, in addition to disrupting the natural ecological balance, also encourages climate change, therefore, ecological restoration measures can help improve the quality of the environment on land and in water.

ARTICLE INFO

Review article
Received 25 January 2021
Accepted 29 March 2021

Key words:
Crisis situations
Crisis management
Nautical tourism
Literature review

1 Introduction

Nautical tourism is a multidisciplinary tourist activity, which means that it is engaged in maritime science, geology, geography, sociology, pedagogy, but primarily economics. As a whole industry, nautical tourism is primary divided into three main types: nautical tourism ports, charter and cruising (Lukovic, 2013). Changes in its structure, prompted by a number of, primarily market and economic reasons, have influenced the development of smaller markets and the formation of the new ones. Numerous geographical, socio-economic and technical factors, including population mobility, vulnerability to natural disasters and other effects of climate change, national policies and regulations, and international instruments, have influenced the provision of transport services, which is also reflected in nautical tourism. Additional factors include proper vessel management and maintenance, route profitability, existing oil supply (quantity and quality), infrastructure level, technical capacity, proximity to maintenance facilities, as well as mandatory safety and security services.

Maritime transport infrastructure, which includes nautical tourism ports, supports the maritime transport system and is the physical basis for providing all necessary services for the functions of the system. However, in addition to the propulsive development of nautical tourism, arises the question how to avoid crisis situations and effectively implement environmental pollution control and evaluation of green development, while the size and business performance continue to grow rapidly? As one example, the International Port Community (Chengying et al., 2020) has proposed the concept of a green port.

The global ecological crisis, 'the socioecological consequences of the acceleration of human activity from the beginning of the Industrial Revolution of 1750 to the present day', is associated with the maritime heritage crisis, coastal expansion problems and rising sea levels, which still affect indigenous maritime cultural landscapes. Global ecological crises are changing the way of life in the ocean and the nature of the islands, so rising ocean temperatures are affecting the distribution and productivity of fisheries (Fowler, 2017).

The attitudes of potential nautical tourists show a high level of trust in cruise companies, where safety and security stand out as most important during cruising, especially in terms of ship exposure to terrorist attacks and their response to such incident. Large modern cruise ships are a potential target for terrorists. Terrorism is one of the main risk factors that can affect the tourism industry, as are wars, political instability, health problems, natural disasters and crime. As one of the crisis situations in nautical tourism and a consequence of compromised security, maritime terrorism represents an under-explored area in tourism, especially in terms of using scenario planning to understand potential threats to the cruising industry. Bowen et al. (2014) state that the attractiveness of a cruise attack has potential to kill large numbers of people and cause large economic damages, as well as to attract significant media attention, attacking a very visible symbolic target. Terrorist attacks during crises include hijacking, sinking a ship with an explosive device, as well as biological attack on the ship's food or water supply. Other examples of crisis situations in nautical tourism are climate change and the acidification of oceans that change marine ecosystems. The protective functions of the world's coastal habitats are rapidly deteriorating from overdevelopment and climate change. Despite the increased risk to coastal infrastructure from rising sea levels, the human population growth rate is highest in coastal areas (Beck et al., 2017). At the same time, the increase in tourist traffic has a negative impact on the environment.

2 Methodology

Research methodology consist of content analysis of relevant studies related to crisis situations in nautical tourism and the procedures for managing them. It includes articles published in scientific journals and conference papers, indexed in the Web of Science and Scopus databases, in the period from 2014 to 2019.

Key search terms were 'crisis and nautical tourism', 'crisis management' and 'crisis environment'. A total of 14 convenient and relevant studies were analyzed, summarized in an overview table that includes: the type of crisis researched, the methodology used, the main conclusions, recommendations, as well as the suggestions for future research (Table 1). Out of 15 articles, one was published at the conference.

Table 1 shows the list of journals in which the papers discussed in this literature review were published. In the observed period, over the years, we can see the growing interest of researchers in this topic, which indicates that crisis management is of great importance and significance for tourist destinations, including nautical tourism.

Table 1 Journals publishing studies in this review

Journal	2014	2015	2016	2017	2018	2019	Total
Croatian Operational Research Review		1					1
Current Issues in Tourism	1						1
Environment and Planning A: Economy and Space					1		1
European Review of History						1	1
Global Change Biology				1			1
Heritage & Society				1			1
Journal of Cleaner Production						1	1
Journal of Cold War Studies			1				1
Journal of East Asian Studies					1		1
Marine Micropaleontology						1	1
Marine Policy	1						1
Networks & Spatial economics						1	1
Promet – Traffic & Transportation					1		1
Tourism Management			1				1
Total	**2**	**1**	**2**	**2**	**3**	**4**	**14**

Source: Authors

3 Results

The analysis of selected studies shows that, by the type of crisis, the authors mainly investigate maritime terrorism and piracy. As it can be seen from the Table 2, the literature review was mostly used to identify the types of crises, as well as their impacts on nautical tourism, and to define the nature of crises and its management. Furthermore, it can be concluded that authors most often use the following methodology: surveys, interviews, correlation analysis and similar. Some of the analyzed studies proposed a framework and models, with the inclusion of new concepts or theories from other disciplines (Krieger et al., 2016). When it comes to data analysis, the authors used the statistical package for social sciences (SPSS), the standard gravitational model and other econometric analyzes. From all of the above, there is no common method used when it comes to crisis research and crisis management in nautical tourism. Summarizing the conclusions of the analyzed studies, tourism has a reciprocal relation with crisis events that are often unpredictable and uncontrolled, due to the high degree of uncertainty. Crises are unstable situation in social, political or economic affairs. From the point of view of practical action, it is very difficult to define clear and precise boundaries between accident, major accident, incident, emergency, crisis and catastrophe, since these are states and forms of activities that are dynamic, flexible, pervasive, interactive and they change rapidly from one form to another (Ivanovic, 2014). There are three key components to this definition of crisis: threat, uncertainty, and urgency. Usually, when crises hit the destination, they affect tourism operations, so it is imperative to involve crisis management into the tourism development process, in order to protect and restore the image of a safe destination. Finding a way out represent a challenge for the scientific teaching discipline of crisis management. Through analysis, understanding and interpretation of opportunities and circumstances, crisis management researchers make a significant contribution to crisis resolution (Ivanovic, 2014). The process of managing crisis situations consists of prevention, response and recovery. In the phase of preventive actions, activities of accurate forecasting and risk analysis, control of technical parameters of infrastructure safety, education and training of operational staff, as well as critical services involving staff and environmental monitoring and early warning system are carried out. Determination of the quality, performance and reliability of plans and preparedness to act in the event of crises were being performed. Safety plans are developed and coordinated during the planning and organizing phases of protection of the national maritime transport infrastructure, while coordination takes place in a governmental and regional institution (Dimitrov et al., 2018).

Table 2 Review of recent literature

Authors/year	Type of crisis	Methodology	Conclusions, recommendations and further research
Bowen et al. (2014)	Maritime terrorism	Scenario analysis, surveys, interviews, SPSS, descriptive statistics	– how potential tourists perceive the threat for cruising, due to the given risk – future research may cover specific aspects of risk and how it is perceived by tourists, as well as how cruise companies can strategically respond to crises
Alison, N. et al. (2014)	Unsustainable sea transport	Literature review	– the example of Fiji – a combination of trading in catamarans and energy efficient small cargo ships as the most suitable technological possibilities
Jurun et al. (2015)	Exceeded ship capacity	Correlation analysis	– Baltic Dryness Index (BDI) as a major indicator of the cyclical nature of the maritime market and the performance excellence of representative shipping companies – future research to find out whether shipping companies with similar excellence indicators apply a similar strategy for protection against instability of BDI
Krieger et al. (2016)	Norovirus on cruise ships	Questionnaire (169 participants)	– new theoretical approaches for understanding the crisis communication in tourism and paradigm for communication about health crisis – the individuals' risk from certain crisis events (hurricane, epidemic of infectious diseases, terrorist attack) is related to their assessment of the overall safety and travel decision during the crisis – future research includes methodological flexibilities in concrete action – investigate the influence of other factors; repeat this research in different conditions; future research may include a segmental approach and analyze the difference between first and repeat cruise tourists
Ase (2016)	Soviet submarine crisis (Sweden)	Observations	– the stranded submarine signaled a crisis – gender and nation influenced the Cold War crisis; national security, military capability and foreign political crises are impossible to separate from gender, body and emotions

Authors/year	Type of crisis	Methodology	Conclusions, recommendations and further research
Beck et al. (2017)	Climate changes	Five case studies	– perceptions of management failure, despite active management can potentially cause a crisis of motivation to manage – significant investments in local governance are needed to maintain the functioning of reefs affected by climate change
Fowler (2017)	Maritime heritage crisis	Descriptive statistics	– the maritime heritage crisis is affecting indigenous maritime cultural landscapes – the local population is sensitive to coastal changes due to the connection of heritage, land, sea and culture; they are facing a difficult future due to the maritime heritage crisis (population most exposed to rising sea levels)
Dimitrov et al. (2018)	National maritime transport system - part of critical maritime infrastructure	Content analysis	– maritime safety is connected with the protection of human lives, the marine environment and property in the marine environment from unintentional direct or collateral impacts – maritime transport infrastructure is the physical basis for providing all necessary services for the system functions; it consists of ports with intermodal connections, sea lanes, ships and management systems
Morabito & Sergi (2018)	Maritime piracy (Southeast Asia)	Standard gravity model (10 countries, 200 units)	– according to security experts, the main threat to regional security in Southeast Asia is maritime piracy and terrorism – pirate activities are used as weapons for terrorist groups; such attacks stop international trade and lead to economic losses
Jerebić & Pavlin (2018)	The global economic crisis	Literature review	– key factors that will shape the demand trends in the shipping market: insufficient tank demand, overcapacity, global market fluctuations, emerging markets, sustainable development and environmental awareness, new technologies, transparency and customer support – from the beginning of the crisis, overcapacity has been a major problem
Sibilia (2018)	The crisis in the world shipping economy	Literature review	– the crisis was additionally accompanied by high unemployment and inflation – there are several structural barriers, including a lack of policies and incentive schemes to promote the wind farm, a lack of funding, insufficient cooperation between different groups of actors and conservative attitudes that prevent risk and prevail in the maritime industry
Bai et al. (2019)	Unsustainable port development	IPA technology and survey questionnaires	– a theoretical basis for formulating Zhuhai's green port policies and establishing an effective methodological system – green indicators can be refined to improve green port systems – further research, the survey may cover a wider group of countries and people, to obtain more accurate evaluation results from the perspective of disseminating statistics; a more practical method of evaluation that is more in line with local conditions can be determined by taking into account the characteristics of different countries and regions and using the research methods of this paper to overcome potential universal problems
Buosi et al. (2019)	Salinity crisis	Literature review	– shallow environment with low plankton content combined with shallow rise – strong evaporation caused a progressive drying up of the Mediterranean basin and a massive salinity crisis – progressive deterioration of environmental conditions plays an important role in the distribution of planktonic and concrete species
Ikonomou & Tsakas (2019)	Delivery crisis (Norway and Greece)	Literature review	– the Norwegian International Register of Ships (1987) reduced operating costs for vessels flying the Norwegian flag, allowing Norwegian registered ships to charter crews at low cost – the wartime Greek economy benefited not only from capital inflows from the ship, but also from invisible receipts from shipments: it is a crucial factor in counterbalanceing the long-standing (and growing) trade deficit, which is a balance of payments problem – although from opposite ends, both Greek and Norwegian shipowners dealt with the process of regional integration and the perspective of a common shipping policy
Mesa-Arango et al. (2019)	The impact of international crises on the global value chain based on maritime transport	Bilateral analysis, analysis of network statistics	– economic crises have caused a drop in demand that has reduced trade between countries and restrictive trade policies pursued by crisis-affected countries to reduce or eliminate trade from a few or all trading partners – future research may include a study of the relationship between maritime trade and the flow of ships, an analysis of the impact of disturbances in the general international trade network, proposing new core benchmarks that record the monetary values of trade (weight) in the network

Source: Authors

The importance of maritime safety[1] is increasing and in theoretical terms, concept of 'safety' is associated with the categories of 'risk' and 'protection'. As Dimitrov et al. (2018) defined, maritime safety includes the safety of the ship, its crew, passengers, safety in navigation, safety of the environment, in addition to measures to prevent crises and reactions, such as the protection of the sea against pollution. This includes the possibility of forcibly sanctioning prohibited pollution and the intervention of the competent authorities in order to limit the damage caused by incidents. As part of the above, the resilience of the system to resist cross-border aggression, terrorist activities and other intentional destructive influences is considered. On the other side, the term 'maritime security[2]' is used to describe the characteristics of the marine environment, while in official documents of the International Maritime Organization[3], the term refers to the security of maritime transport systems, port facilities and coastal infrastructure, and refers to the system's resilience to cross-border aggression, terrorist activities and other intentional destructive influences. It is also defined as a combination of preventive measures aimed at protecting ship and port facilities from the threat of illegal activities. Closely related to this is the International Code for the Security of Ships and of Port Facilities (ISPS), implemented by IMO in 2004, as a set of measurements for international security by prescribing responsibilities to a government and port authority, shipping companies and seafarers. The code mainly looks after the security aspects of the ship, seafarers, ports and port workers, to ensure preventive measures that can be taken if a security threat is determined. The main aim is as follows: monitoring people activity and cargo operation, detecting different security threats onboard vessel and in port, providing security level to the ship and deriving various duties, establishing the respective roles and responsibilities of the contracting governments, agencies, local administrations and the shipping and port industries; building and implementing roles and responsibilities for port state officer and onboard officers to tackle maritime security threat at the international level, collecting data that concern security threats, ensuring the exchange of collected security-related information data with worldwide port and ship owners network, etc. (Wankhede, 2021).

The 9/11 attacks indicated the vulnerability of transport infrastructure in the event of international terrorism. In order to strengthen maritime security, the International Maritime Organization[4] relies on SOLAS[5] & MARPOL[6] – The International Conventions for safeguarding human life and marine environment from all kinds of pollutions and accidents. The last adopted revised convention of 1974 is IMO SOLAS 74, which includes a number of regulations under different SOLAS chapters, which deals with safety precautions and safety procedures starting from the construction of the ship to real emergency like – "Abandon Ship". The convention is updated to meet the safety norms in the modern shipping industry from time to time (Wankhede, 2021). The MARPOL Convention includes regulations for preventing and minimizing pollution from ships, both accidental and from routine operations, described in six technical Annexes, together with strict controls on operational discharges (IMO, 2005).

Outbreaks of health crises can significantly affect both nautical tourists and cruise companies in a variety of ways. Outbreaks of health epidemics on ships pose a threat to the personal health and well-being of passengers, crew members, and even local port residents. Exposure to the crisis can increase the negative perception of tourists related to risk and security, which is why such situations require adequate crisis communication, which is crucial in the crisis management process. Krieger et al. (2016) concluded that the virus epidemic has resulted in a decline in potential tourists 'interest in cruising, along with their distrust and reluctance to cruise in the future.

Alison et al. (2014) suggest that renewable energy provides the new opportunities for maritime transport. The technology encompasses hybrid vessels that combine renewable energy and fossil fuel power, according to their own construction design of non-fossil fuels, where each has its advantages and disadvantages. The question arises due to the economy of the production of such fuels, as opposed to the costs of importing fossil fuels. Solar energy has the potential as an aid to other fuels, but is not advanced enough to provide the primary startup of that wind energy, which has also been shown to have strong potential in various implementations. Hybrid boats, as a combination of multiple energy sources, offer the best. The oil crisis of the late 1970s resulted in a small number

1 Maritime safety includes everything from ship construction to maintenance to how professional the crews are. The term is concerned with the protection of life and property through regulation, management and technology development of all forms of waterborne transportation.

2 Maritime security is a general term for the protection of vessels both internally and externally. The protecting areas include terrorism, piracy, robbery, illegal trafficking of goods and people, illegal fishing and pollution.

3 Specialized UN organization of 166 members that was established by the 1948 UN Convention and entered into force in 1958 when it was ratified by 21 states. Its goal and purpose is to exchange information between governments and their cooperation in maritime affairs, care for safety at sea, and the development and assistance in creating standards related to safety, as well as removing discrimination and unnecessary restrictions at sea introduced by individual governments.

4 The most important international convention in the field of navigation safety, also known as the SOLAS convention, adopted on the occasion of the 'Titanic' catastrophe in 1912. The latest version from 1974 is in force, with the protocol from 1978.

5 International Convention for the Safety of Life at Sea, which establishes the least safety measures in the construction, equipment and operation of merchant ships.

6 The International Convention for the Prevention of Pollution from Ships which covers prevention of pollution of the marine environment by ships from operational or accidental causes.

of critical experiments and the results showed great savings in fuel use and improved ship performance, from known and available renewable energy technologies. The relatively short duration of the crisis and the consequent fall in the price of fossil fuels reduced further research.

Bai et al. (2019) in their paper propose a green port system according to which the focus should be on monitoring energy consumption and pollutant emissions, innovation of scientific research technologies and the development of a green port scheme to deepen the concept of green development and improve energy conservation and environmental capacity. The 'Green Harbor' initiative was officially proposed at the 2009 United Nations Conference on Climate Change. The results of the research have contributed to the new fields of energy application, intensive use of resources, control and promotion of pollution of ships and ports, and the organization for green transport. The authors proposed a list of measures that include fluid management of pollutants and air pollution, noise control, low carbon emissions and energy savings, and conservation, organization and management of marine biology. The concept of green development includes systematic planning of the green port, formulation and implementation of development plans, green development publicity and education, planned training and journalistic activities. Key indicators within the concept are following: structure of energy consumption, use of resources for conservation and recycling, prevention and control of pollution of port areas, ecological renewal of ports and environmental management, Green Transport Organization, energy conservation and environmental protection of ports. Ecological renewal of ports and landscaping is conceived through the actual effect of landscaping in the green area of the port.

According to Beck et al. (2017), climate change affects shellfish aquaculture. Deoxygenation disrupted the balance of marine life and reduced the habitat of commercial fish species. Increasingly frequent floods, erosions, embankments and saltwater intrusions are affecting coastal habitats, people, important infrastructure and tourism, with significant losses for national economies. Coral reefs are one of the most sensitive ecosystems to climate change, mainly because corals are very sensitive to temperature fluctuations and because ocean acidification interferes with the calcification process that forms the basis for reef formation. Green creations as defense systems can help mitigate hazards, provide protection, and manage resources related to other ecosystem services.

In all this, the role of management is extremely important, which must become more flexible, better in anticipating and responding to sudden situations and be able to facilitate change where it is desired, through a range of technological, economic, communication and management solutions. The process includes understanding human behavior under stress, using emerging technology to better identify and protect exposed areas, ensuring connectivity of relevant sides, and the ability to respond constructively to emergencies and surprises. By reducing the risk of disasters, developing an adequate warning system, timely detection of potential hazards and high-level communication, there is less possibility of negative consequences that any crisis situation may cause.

4 Conclusion

Nowadays, crisis situations have become more frequent. Various analyzes have identified their effects, which have a negative impact on national, regional and local economies, as well as on the tourist supply and demand of certain specific forms of tourism, including nautical tourism. In order to prevent or mitigate such situations, it is necessary to take certain measures to prevent and manage crisis situations, which include alert levels, improvement of the monitoring network, mitigation measures, risk assessment and communication strategies.

In the field of nautical tourism, every company can potentially anticipate the crisis and encourage tailored organizational learning needed to develop new crisis strategies and improve business resilience in emergency situations, to improve organizational preparedness for such events. During all stages of crisis, the role of management is crucial. Plans can help in identification and prevention of potential crises, reducing response time, and in limiting the financial costs. Crisis communication is in the middle of strategic crisis management for the tourism industry. This also applies to nautical tourism, especially to the cruise sector and includes the delivery of crucial and time-sensitive information that ensures public confidence, protects organizational reputation and reduces negative impacts in the long run. Achieving cooperation in the field of maritime safety and security requires countries to work continuously to reach consensus and build mutual trust, as well as adopting effective measures to promote economic and social development, with the aim of eliminating potential threats in the environment. In response to sustainable development issues, energy efficiency, use of renewable energy sources, increased training of ship and coastal personnel, improvement in ship and engine design, reduction of exhaust air pollution, as well as strict adherence to positive international, national and classification regulations, are imperatives of sustainable development in the field of nautical tourism. Adoption of existing practices, through accumulated knowledge and formulation of action plans, are prerequisites for achieving flexibility of tourist destinations and their preparedness for future crisis situations.

The main limitation is the fact that this literature review did not cover book chapters. Scientific papers published in journals and conferences indexed in WoS and Scopus were analyzed, so it would be useful to include other types of publications and databases, which would provide more information on crisis situations, their consequences on nautical tourism and adequate crisis management in the tourism context.

Funding: The presented research in this paper is not funded from an external source.

Authors contributions: Conceptualization: D.G., methodology: D.G., data collection: R.A., data processing: D.G., R.A., formal analysis: D.G, research: D.G., R.A., writting: D.G, R.A., review and editing: D.G., R.A., supervision: D.G., verification and final approval: D.G.

References

[1] Alison, N. et al. (2014). A review of sustainable sea-transport for Oceania: Providing context for renewable energy shipping for the Pacific. *Marine Policy,* 43, pp. 283-287.

[2] Ase, C. (2016). Ship of Shame: Gender and Nation in Narratives of the 1981 Soviet Submarine Crisis in Sweden. *Journal of Cold War Studies*, 18 (1), pp. 112-132.

[3] Bai, Y. et al. (2019). Evaluation and Governance of Green Development Practice of Port: A Sea Port Case of China. *Journal of Cleaner Production*, 249, pp. 1-27.

[4] Beck, M. et al. (2017). Avoiding a crisis of motivation for ocean management under global environmental change. *Global Change Biology*, 23 (11), pp. 4483-4496.

[5] Bowen, C., Fidgeon, P. & Page, S.J. (2014). Maritime tourism and terrorism: customer perceptions of the potential terrorist threat to cruise shipping. *Current Issues in Tourism*, 17 (7), pp. 610-639.

[6] Buosi, C., Cherchi, A. & Mana, D. (2019). Benthic foraminiferal proxies of environmental changes during the pre-Messinian salinity crisis of the Sinis Basin (W Sardinia, Mediterranean Sea). *Marine Micropaleontology*, 155, pp. 1- 46.

[7] Dimitrov, N., Mednikarov, B. & Vasilev, V. (2018). Security analysis of the national maritime transportation system as part of the maritime critical infrastructures. *Proceedings of 19th Annual General Assembly – AGA 2018: International Association of Maritime Universities (IAMU)*, Barcelona, Spain, pp. 344 -351.

[8] Fowler, M. (2017). Maritime heritage in crisis: indigenous landscapes and global ecological breakdown. *Heritage & Society*, 10 (1), pp. 96-98.

[9] Ikonomou, H. A., Tsakas, C. (2019). Crisis, capitalism and common policies: Greek and Norwegian responses to common shipping policy efforts in the 1960s and 1970s. *European Review of History: Revue Européenne D'histoire*, pp. 1–22.

[10] IMO. International Convention for the Prevention of Pollution from Ships (MARPOL) https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx.

[11] Ivanović, V. (2014). Pojam krize: konceptualni i metodologijski aspekti. *Međunarodne studije*, 14 (2), pp. 10-28.

[12] Jerebić V, Pavlin S. (2018). Global Economy Crisis and its Impact on Operational Container Carrier's Strategy. *Promet – Traffic & Transportation*, 30 (2), pp. 187-194.

[13] Jurun, E., Moro, F. & Ratković, N. (2015). The Baltic Dry Index and performance excellence in a crisis environment. *Croatian Operational Research Review,* 6, pp. 335-346.

[14] Krieger, J., Liu, B. & Pennington-Gray, L. (2016). Tourism crisis management: Can the Extended Parallel Process Model be used to understand crisis responses in the cruise industry? *Tourism Management,* 55, pp. 310-321.

[15] Luković, T. (2013). *Nautical Tourism*, University of Dubrovnik, Croatia, CAB International, pp. 1-270.

[16] Mesa-Arango, R., Narayanan, B. & Ukkusuri, S.V. (2019). The impact of international crises on maritime transportation based global value chains. *Networks & Spatial economics*, 19 (2), pp. 381-408.

[17] Morabito, G., Sergi, B. S. (2018). How did maritime piracy affect trade in Southeast Asia? *Journal of East Asian Studies,* 18, pp. 255–265.

[18] Sibilia, E. A. (2018). Oceanic accumulation: Geographies of speculation, overproduction, and crisis in the global shipping economy. *Environment and Planning A: Economy and Space*, pp. 1-20.

[19] Wankhede, A. (2021). The ISPS Code For Ships – An Essential Quick Guide https://www.marineinsight.com/maritime-law/the-isps-code-for-ships-a-quick-guide/.

[20] Wankhede, A. (2021). Safety of Life at Sea (SOLAS) – The Ultimate Guide https://www.marineinsight.com/maritime-law/safety-of-life-at-sea-solas-convention-for-prevention-of-marine-pollution-marpol-a-general-overview/.