

# Editorial: Post-COVID-19 global trade and business environment and maritime supply chain

Since January 2020, the COVID-19 pandemic has caused widespread impacts on virtually every sector of the global economy, including world trade and global supply chains. The unprecedented effect of such a pandemic and the resultant restriction rules imposed in many countries have revealed acute bottlenecks in supply chain links in many trade regions. It has been widely reported that significant disruptions have been experienced by a number of firms. As a result, it has been argued that the existing globalised economies might require to be restructured in the aftermath of the COVID-19 pandemic when governments and firms start to re-strategize their critical supply chains through various disruption and resilience management strategies.

As more than 80% of world trade in terms of volume is moved by sea, the global maritime supply chain is considered critical. Like many other economic sectors, various segments of the maritime industry have been severely impacted by COVID-19. The pandemic has exposed the vulnerability of maritime networks, port efficiency and hinterland connectivity. As a consequence, global shipping markets were negatively affected by the slump in demand for goods on everything from container ships to oil tankers. The impact of COVID-19 has not only forced cruise shipping to cancel orders and trips but also created a massive reduction in demand due to non-essential travel, a largely reduced workforce in factories, and the closure of production and shipbuilding facilities. Being closely and directly linked to economic activities, the container shipping sector was also severely affected due to lockdowns and other social restrictions. Meanwhile, seaports as critical nodes in global maritime supply chains were congested due to reduced workforce, productivity and lengthened cargo receipt/delivery transactions. At the same time, other shipping intermediaries, i.e. freight forwarders and logistics service providers, who play crucial roles in connecting demand and supply of maritime supply chains also suffered due to reduced business transactions.

Given this context, there is a need to re-evaluate global maritime supply chains in light of the new business environment. Hence, the focus of this special issue is on understanding the impact of the COVID-19 pandemic on various players in the maritime supply chain, as well as possible trends of global trade and maritime supply chains and strategies and policies in the aftermath of the pandemic. The theme of this special issue of *Maritime Business Review* is “*Post-COVID-19 global trade and business environment and maritime supply chain*”. After a review process, five papers are accepted for inclusion in this special issue. They represent a well-balanced mix of topics suggested by the theme of this special issue. An overview of these papers is presented as follows.

As highlighted earlier, the COVID-19 pandemic has impacted various players in the maritime supply chain, notably seaports, including their relationships with other supply chain partners such as dry ports. Indeed, the relationship between a seaport and a dry port in the hinterland is interesting but complex at different levels, including marketing approaches and strategies. In *Revisiting the marketing approach between seaports and dry ports in Malaysia: current trend and strategies for improvement*, Jeevan, Rahadi, Mohamed, Salleh, Othman and Ruslan emphasise the specific situation of COVID-19 as a background when trade and port activities have been severely affected. The paper reveals that the marketing of seaports and dry ports has to be undertaken differently given the impact of



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the pandemic. The authors use the market survey method and have conducted personal interviews with ten port market managers, some of whom have extensive experience in marketing. The respondents were asked to elaborate on five questions regarding various aspects of marketing the services of a seaport and/or a dry port. The main findings reveal that during a large disruptive event such as COVID-19, customised pricing and strategic locations are among the options that would effectively help retain existing customers and attract new ones. Good customer relationship management is more important and has been proven to be more effective during the pandemic.

Meanwhile, the South-East Asian container freight market for the period just before the COVID-19 pandemic is analysed in the study of Vemuri and Munim. In a time of increasing uncertainty, the ability to predict the future and the quality of forecasting is more important than ever. However, forecasting is a challenging task with a mixed performance record. In *Seasonality and forecasting analysis of the South-East Asian container freight market*, the focus is on the seasonality patterns of the container freight market in Southeast Asia, including Malaysia, Vietnam, Indonesia, Thailand, the Philippines and Singapore. The authors have analysed the new Southeast Asian Freight Index (SEAFI) from 167 weekly observations from 2016 to 2019 and made forecasts using two univariate models, namely autoregressive integrated moving average and seasonal autoregressive neural network. The paper reports some interesting findings, showing that while the six Southeast Asian container trade routes share similarities and common characteristics, they also exhibit specific features of each individual market. This leads to the conclusion that one model is more appropriate than the other for certain markets and that taking these special features into account will improve the accuracy of the forecast. The paper also provides some suggestions for further studies, such as the analysis of structural breaks in the SEAFI composite and its six routes due to COVID-19.

Container shipping plays an important role in the maritime supply chain and global trade, especially in recent years when the ratio of containerised cargo has been increasing. In this connection, there are multiple levels of risks, including pandemics such as COVID-19, that may affect the effectiveness and efficiency of container shipping operations which need to be carefully analysed and addressed. However, the quantitative analysis of container shipping operational risk (CSOR) is hindered by the lack of a well-established theoretical structure to guide deeper research efforts. To address this gap in the literature, Nguyen, Chen and Du propose a methodological framework in *A methodological framework for quantitative risk analysis in container shipping operations* to strengthen the quality and reliability of CSOR analysis. The framework, named CSORA, consists of five steps to build up a five-level structure for CSOR analysis: risk foundation and context establishment, expert cognition and expertise formulation, collection of predictive assessments, data processing (aggregation and calculation) and data analysis and risk situation interpretation. The authors then apply this framework in the context of the three largest container shipping companies in Vietnam and found that the framework enables the addressing of uncertainties. It is also suggested in this study that the proposed framework needs more applications to prove its functionality and reliability as a CSOR research platform.

As shipping is the lifeblood of the global economy, seafarers who are at the helm of shipping play a critically important role in maintaining the continuity of this lifeblood. In this respect, their well-being and mental health are negatively affected as a result of the COVID-19 pandemic, as detailed by Wong in *Impact of the COVID-19 pandemic on the well-being of the stranded seafarers*. Being physically and mentally well is critical for seafarers to remain productive and effective on the job. However, due to long working hours in stressful working conditions, it is not easy to avoid adverse impacts on mental and physical well-being. Issues such as depression, anxiety and suicidal ideation are common among the seafarers. In spite of this, there is evidence to believe that shippers and employers pay inadequate attention to addressing and resolving the issues of mental health and welfare of the seafarers on board. During COVID-19, the situation deteriorated

further due to wider lockdown and restrictions, imposition of extra workload relating to COVID-19 guidelines and procedures, the anxiety of sickness or death and mental distress due to the prohibition of returning home. In this backdrop, using responses from 110 seafarers belonging to four Taiwanese shipping companies, Wong demonstrates that, despite the adequacy of the guidelines provided by the shipping companies to protect seafarers from COVID-19, their mental health continued to deteriorate during the pandemic. Three issues such as uncertainty or delay in crew change, low vaccination rate and the lack of recognition of outstanding performance under unprecedented circumstances by the seafarers are found to be responsible for the worsening of mental health. The results of the correlation analysis highlight that the uncertainty or delay in crew change is the foremost concern that has a profound negative impact on their work performance. To minimise the adverse impact of COVID-19 on the well-being of stranded seafarers, this study also suggests several recommendations for both shipping companies and seafarers.

The COVID-19 pandemic is just one of the events that have caused disruptions to multiple players in the maritime industry. In response to the disruptions brought about by various political, economic, social, environmental and legal factors, including pandemics, players in the maritime industry have employed various strategies to manage those disruptions and maintain and enhance their resilience. These are reviewed in *Managing disruptions in the maritime industry – a systematic literature review* by Nguyen, Tran, Truong Ton and Thai. As over four-fifths of the global trade is conducted via sea, any disruption in maritime supply chains will adversely affect the economic development of nations around the world, which becomes more obvious during the COVID-19 pandemic. Nguyen *et al.* conduct a systematic literature review on managing disruptions with a view to assessing the disruption management strategies being deployed and their impact on the resilience performance of players in the maritime industry. Using a total of 47 articles, this review identifies five strategy deployment domains for mitigating disruptions which include port, transport network, supply chain, region and others. Furthermore, the literature review indicates that there are mainly three approaches considered for designing mitigating disruptions strategies. These are mathematical models, management frameworks and technical support systems. The literature review suggests that by far the majority of studies focus on developing mitigating measures and strategies and there is a lack of research investigating the impact of these measures on the enhancement of the resilience performance of maritime firms. This gap leads the authors to propose a conceptual model called a Digitally Embedded and Technically Support Maritime Disruption Management model for future research.

Overall, this collection of papers addresses how the COVID-19 pandemic has impacted various players in the maritime industry, including seaports and their associated partners in the hinterland such as dry ports, shipping lines and seafarers. Strategies addressing the disruptions caused by the pandemic as well as other events in the past in order to enhance resilience have also been comprehensively reviewed. The papers selected in this issue examined various important contemporary management problems and employed a range of methodologies, which help enrich academic theories as well as enhance practical applications in the maritime industries.

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