

Progress in shipping management and in honour of the 73rd birthday of Professor Kuang Lin

Shipping management has been playing important roles in international trade across the global supply chains. Shipping management is directly associated to maritime shipping, global logistics and cruise and cargo management. In the past decades, shipping management is advancing in both theoretical and practical knowledge. It is also related to market and cargo forecasting, international trade, ship finance, relationship marketing, sustainability, transportation, logistics, efficiency and performance assessment.

In particular, this special issue honours the accomplishment of Emeritus Professor Kuang Lin in maritime education and business, particularly in the areas of shipping management, which is a celebration of Professor Kuang Lin's academic, social and charitable contributions for his 73rd birthday. Professor Lin is currently the Chairman of Pacific Star Group Educational Foundation, Honorary Professor of National Taiwan Ocean University, Honorary Council Chairman for the Chinese Maritime Research Institute and China Maritime Institute in Taiwan. Professor Lin started his academic career at the National Taiwan Ocean University in 1977 and established Pacific Star Group, which is the top of ocean freight forwarder in Taiwan. Professor Lin retired as the Vice President of National Taiwan Ocean University in 2009 and donated a building – Ivy Wang Hall to the Department of Shipping and Transportation Management from where he graduated. He received the highest honour bestowed by the Ministry of Education in Taiwan in appreciation for his significant contributions to maritime education.

The primary purpose of this special issue is to provide guidance and inspiration for those interested in counting to advance shipping management. Overall, we received 12 submissions, 6 of them were accepted through well-structured review process.

The first paper was *Impacts of Regional Integration and Maritime Transport on Trade: With Special Reference to RCEP* by Shu-Man Chang, Yo-Yi Huang, Kuo-Chung Shang and Wei-Tzu Chiang. The proposed Regional Comprehensive Economic Partnership (RCEP) will become a large trade agreement in Asia, which has brought together the ten members of ASEAN and five of the neighbouring countries. They used hierarchical clustering analysis and tree diagrams to identify functional areas characterized by bilateral trade intensity and bilateral LSCI indices. A Poisson quasi-maximum likelihood gravity model was constructed using worldwide trade data for 2007, 2010 and 2015. They considered FTA/CM of EU, RCEP and NAFTA as regional dummies and designed a real trade bloc induction variable. The fact is that economies with a large number of pre-agreement trades are “natural” trading blocs and their agreements may lead to more trade creation than trade diversion. Their findings indicate that these regional free trade agreements (such as the RCEP) will have a positive impact on trade after production, maritime transport and trade networks between members are developed. Findings from their empirical results indicate that the current trade volumes are affected by past volumes of trade.

Maritime transport carries about 80% of global trade. Given its crucial role in global supply chain, shipping connectivity has been considered as a strategic economic endowment that is able to connect local and global trade, facilitating the globalization process. The second paper *The direct and spillover effect of liner shipping connectivity on merchandise*



trade by Pei-Chun Lin, Szu-Yu Kuo, and Jui-Hung Chang, analyses the impact of shipping connectivity on merchandise trade, focusing particularly on its spillover effects on neighbouring regions. The paper used 157 countries' merchandise trade and the liner shipping connectivity index from the UNCTAD to evaluate whether merchandise trade is related spatially or clustered and how these connections are related. The research contributes to the methodology that the model with data on spatially lagged merchandise trade was markedly more accurate than the conventional linear regression model. The spatially lagged model had a higher log likelihood than the ordinary least squares model. Specifically, the paper found that merchandise trade of each country is related to those of its neighbouring countries. Results indicate that positive spillovers exist in China's LSCI in Hong Kong.

The third paper *The impact of collaborative decision-making on logistics service performance for container shipping services* by Po-Lin Lai, Dong-Taur Su, Hui-Huang Tai, and Ching-Chiao Yang, demonstrates the value of collaborative decision-making in container shipping services. While a growing number of previous studies have demonstrated the influence of information integration on organizational performance (Closs and Savitskie, 2003; Wong *et al.*, 2012; Viet *et al.*, 2018; Zhang and Cao, 2018), there seems to be a lack of studies examining the impact of information on logistics decision-making. Thus, this paper examines the impact of collaborative decision-making on logistics service performance in container shipping services based on organizational information processing theory. The theoretical propositions were confirmed by structural equation modelling of survey responses from 142 Taiwanese container-shipping firms. Results showed that internal information integration positively impacts external information integration, external information integration positively impacts collaborative decision-making and collaborative decision-making positively impacts logistics service performance. This paper highlights the importance of collaborative decision-making in maritime supply chain. Container shipping firms can facilitate logistics decision-making and strategy formulation through information integration to enhance logistics service performance.

The fourth paper was *Comparing the Productivity of Major Shipyards in China, South Korea, and Japan – An Application of a Metafrontier Framework* by Shih-Liang Chao and Yi-Hung Yeh. This study measures the productivity of 21 major shipyards in China, South Korea and Japan. The results indicate that Japan held the leading position in the global shipbuilding industry in 2014. However, South Korea replaced Japan and dominated the shipbuilding market in 2015. In terms of intertemporal productivity, South Korea and Japan maintained their levels of productivity in 2014 and 2015. The research suggested shipyards in Korea and Japan could seek breakthrough in technology to upgrade their productivities when they are facing the competition from shipyards in China. This paper contributes to the use of a metafrontier framework to measure the technology gap ratio (TGR) in major shipyards. By decomposing the metafrontier Malmquist productivity index (MMPI), efficiency change (EC), best practice change (BPC) and technical gap change (TGC), this research provides a useful model and approach for shipyards to improve their productivity.

Tourism is one of the important drivers of economy in a particular country. The fifth paper *How port aesthetics affect destination image, tourist satisfaction and tourist loyalty?* by Chin-Shan Lu, Hsiang-Kai Weng, Shiou-Yu Chen, Chi Wai Chiu, Hiu Yan Ma, Ka Wai Mak and Ting Chi Yeung, points out the importance of port aesthetics on tourism market. Using a survey of 247 tourists in Hong Kong, this paper found that port aesthetics positively influence destination image, destination image positively influences tourist satisfaction and tourist satisfaction positively influences tourist loyalty. Port aesthetics is operationalized as a multi-dimensional construct reflecting five complementary constructs, namely, leisure and

culture, design and cognition, atmosphere, recreational facilities and memory, whereas each of them comprises several items, resulting in a total of 17 measurement items. The empirically validated scales can be used to advance theory and practices of port tourism, at the same time, providing a useful approach for port tourism bureau to evaluate their port aesthetics efforts and identify areas for improvement. This paper used a structural equation model and found that port aesthetics positively influenced destination image and indirectly influenced tourist loyalty via destination image and tourist satisfaction. The findings provide a variety of implications for destination marketers and managers. This research suggests that port marketers could participate in several marketing activities such as advertising and promoting a tourism exhibition, organizing a cultural and music event, advocating higher service quality through stakeholders including travel agencies, cruise companies, airlines, hotels, restaurants, news, publication and magazine.

While the sustainable consumption (SC) has arisen as a key aspect of sustainable development, the sixth paper *Assessing sustainable consumption practices on cruise ships* by Tat-Dat Bui and Feng-Ming Tsai, proposes a hierarchical framework for assessing SC in cruise ships. The paper applies a hybrid of the Delphi method and a fuzzy decision-making trial and evaluation laboratory (DEMATEL) to construct complex causal relations through digraphs to depict interrelationships among attributes and assess the validity and reliability of the constructs. A set of three aspects containing 21 criteria were identified based on previous studies and expert consultations, namely, waste minimization, resource efficiency and recycling and recovery. The paper found that emission control on ships, cruise ship alternative energy sources, ballast water treatment systems, water purification systems and nanofiltration systems are crucial criteria for the improvement of SC in cruise ship operations. From a strategic management perspective, the paper suggests that cruise operators should invest in the identification of new solutions for facilities, sourcing, products and service selection by working with onshore suppliers using the proposed alternatives to avoid inefficient consumption and to reduce toxicity from the cruise ship. In addition, this paper provides key attributes for the evaluation of SC, the implications are offered for companies developing new activities either in ensuring compliance with business goals or in decreasing the environmental impacts.

On behalf of his former students, colleagues and friends, we formally express our sincere thanks to Professor Lin for his teaching and guidance. It is with great admiration and gratitude that we dedicate this special issue to him in celebration of his 73rd birthday.

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