

Research Assessment Exercise 2020
Impact Case Study

University: [The Hong Kong Polytechnic University |
Unit of Assessment (UoA): [BUSINESS (22) |

Title of case study: [Maritime Economics, Policy and Management |

(1) Summary of the impact

With a deep understanding of the container shipping market and industry, the HKPolyU team performed extensive studies on various topics related to port competition, cooperation, regional development and efficiency analysis. These studies have transformed the work of [REDACTED] by contributing to the formation of 28 trainees from 13 countries at the [REDACTED] programme in 2017. Recommendations from the research team have informed national policy decisions such as the central government's Five-Year Plans and Greater Bay Area plan. These policies are central in planning and coordinating the development of the maritime industry between Hong Kong and other international ports.

(2) Underpinning research

Research on world container shipping and ports is essential for improvements to the industry and for policy development. For container shipping, [REDACTED] studied the fluctuation mechanism of the container shipping market freight rate, pointing out the downward trend of the container freight rate before it actually happened. With a slowdown of the container shipping market, the liner shipping network will restructure, which, in turn, will affect the port competition/cooperation relationship. [REDACTED] studied port competition for container hub port position between Shanghai and Busan, and [REDACTED] studied pricing competition and capacity expansion strategies between Hong Kong and Shenzhen. The former concluded that large-scale capacity investment of container port in Busan is not optimal. The position of a hub port largely depends on the number of transshipment containers, which are not stable. Therefore, it is better for Busan and Shanghai to cooperate rather than compete for cargoes in the North Asia–America trade. The latter pointed out that although Hong Kong was the dominating port before 2000, using pre-emptive pricing or capacity cannot stop the growth of Shenzhen port because Shenzhen has a much better competitive conditions, such as lower labour and land cost, and closer to the manufacturing centre. Therefore, the best strategy for Hong Kong port is to cooperate with Shenzhen port.

[REDACTED] assessed production efficiencies of container operators of the world's major ports empirically and estimated the contribution of major factors (e.g. terminal facilities, port characteristics, country features, and globalisation levels of operators) in boosting productivity. Their study provides evidence to policy makers who design, regulate and seek to implement more efficient terminal and port operation. Their results give some of the first evidence of how production efficiency in ports can be achieved by the globalisation of terminal operation.

[REDACTED] provided a report to the State Council of P. R. China to inform policy on the development of the national maritime industry. In this study, LMS faculty members in PolyU [REDACTED] contributed to the report by analysing the strengths and weaknesses of the shipping industry in Hong Kong and on Mainland China, by considering the

national needs for developing the maritime centre and by recommending the central government support Hong Kong in its attempt to develop into an international maritime service centre.

(3) References to the research

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]

(4) Details of the impact

a. Industry training on ‘Port Cooperation and Competition’ at [REDACTED]
[REDACTED], a subsidiary of [REDACTED], is the world’s largest port developer, investor and operator with businesses all over the world. To coordinate port development and operation in its networks, with funding support from [REDACTED], [REDACTED] hosted the [REDACTED] project to train port staff from both the ports in its network and from other developing countries. All the trainers were leading experts from universities, industries and governments.

[REDACTED] has studied container port competition and cooperation, as well as port investment strategies, in China, Asia and the United States [REDACTED]. In his study for port pricing and capacity competition between Hong Kong and Shenzhen [REDACTED], he found the necessary condition for one port to use capacity expansion or pre-emptive pricing to drive the competitor out of market. This theory has significant effects on setting up the strategies for port competition or cooperation. It also points out the directions to find possible partners for cooperation. On the basis of this work, [REDACTED] invited him to give a 3-hour training session in 2017.

Through the training programme, 28 trainees from 13 countries along the ‘Belt and Road’ have benefited from the principles and practical considerations of port cooperation and competition, which has improved their work by encouraging cooperation among these countries. The trainees can use the knowledge ‘to promote the development of port and shipping industry in their respective countries. This common understanding also helped the managers responsible for port cooperation strategy in [REDACTED] to facilitate cooperation among the container ports along with the ‘Belt and Road’ countries, thereby making their work more successful ‘事半功倍’ (ref 5-a).

b. Influence on the policy of central government

[REDACTED] have contributed to the policy report [REDACTED], an internal report organised by the Development

Research Centre of the State Council of P. R. China, with the purpose of ‘provid[ing] policy consultation for the central government and State Council in stipulating the middle- to long-term plan and policies for national and regional development’ [REDACTED].

This report, which was distributed to the office of the Premier after publication, gained the full attention of the leaders of the party and State Council (ref 5-b). The recommendations of this report influenced the planning and coordination of the maritime industry development between Hong Kong and the Mainland. For example, in 2016, the Chinese National People’s Congress passed the 13th Five-Year Plan. In Chapter 54, section 1 (ref 5-c), the central government explicitly wrote the following: ‘Support Hong Kong in strengthening and improving its status as an international financial, shipping and trade centre . . . [and] work to see Hong Kong moves to its finance, trade, logistics, and professional services toward the high-end and high value-added level’. This makes direct references to the point raised by the team on the above-mentioned policy report. Also, the *Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area*, published in 2019, pointed out the plan to ‘consolidate and promote Hong Kong’s status as an international maritime centre, support Hong Kong’s development of high-end maritime services such as ship management and leasing, ship finance, maritime insurance as well as maritime law and dispute resolution services’ (ref 5-d). All the above provides an account of how the unit’s research project has influenced and stimulated public debate and influenced policy decisions on a national scale.

c. Influencing national maritime policies

Building on research projects, the team have actively influenced the public debate and policy decisions at the national level and internationally. They have explored the port performance using advanced empirical analysis.

Following the research findings [REDACTED], [REDACTED] was invited by the Egyptian government’s Suez Canal Authority to deliver a keynote speech at its national conference in 2016 (ref 5-e). A number of ministers, governors, ambassadors, company chairmen, economic analysts of major organisations, representatives of navigation and maritime companies from all over the world attended the conference.

Meanwhile, [REDACTED] was invited to deliver a keynote in 2017 (ref 5-f) by the Taiwan International Ports Corporation that is the national enterprise that is wholly owned by the Ministry of Transportation and Communications and operates seven major ports in Taiwan.

The team’s research has benefited both the government and the general public. It provides guidance to determine and formulate effective port policies that are otherwise often excluded.

(5) Sources to corroborate the impact

- a) Supporting letters from [REDACTED]
- b) Supporting letters from [REDACTED]
- c) The 13th Five-Year Plan for Economic and Social Development of the People’s Republic of China (2016–2020).
- d) Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area
- e) Appreciation letter from Suez Canal Authority, Egypt Government.
Reference letter from Taiwan International Ports Corporation.