

GPRA 2015

Global Port Research Alliance Conference on “Port and Logistics Connectivity”

Academic Session A1: GHG Emissions in Port

- ❖ **Date: 21 May 2015**
- ❖ **Time: 2:15pm – 3:45pm**
- ❖ **Venue: R1205, R Core (Shirley Chan Building), PolyU**

Global shipping activities generate a substantial amount of greenhouse gas (GHG). Contemporary ports face unprecedented challenges in adopting sustainable operations. This session consists of three studies to investigate emissions in port:

- The first study aims to address the issues of global environmental management by conducting a study on the environmental performance of top global container ports. By examining air quality, port waste, energy consumption, and noise in container port sector, a Green Port Index is developed to serve as an international benchmark for standardised environmental comparison.
- The next study aims to explore current operations in bulk, container and liquid ports in Thailand and their contribution to GHG emissions. Common types of environmental effect on port infrastructure and operations are revealed through a comparative study of “green port operations”. The proposed “green port operations” framework is able to facilitate the cutting off of GHG emission.
- Efforts to introduce various measures to reduce and mitigate the environmental impacts incur pollution abatement or compliance costs (PAC) with the regulations. The authors of the third study develop a DEA model to measure the PAC at an aggregated industry level. The authors first compute the expected foregone output by varying hypothetically set emission cap in the port industry. Then, they find the optimal target where marginal value foregone output equals the marginal benefit of pollution reduction.

Session Chair: Prof. Ruth Banomyong, Thammasat University

Title	Author(s)
Green Port Index	Brendan Thomas Dickinson, Kee-Hung Lai, and Venus Y.H. Lun (The Hong Kong Polytechnic University)
Green port operations framework as strategy to reduce greenhouse gas (GHG) emission: A comparative case study in bulk, container and liquid Ports, Thailand	Sathaporn Monprapussorn (Skinakharinwirot University), and Ruth Banomyong (Thammasat University)
Measuring foregone output under industry emission reduction target	Young-Tae Chang, and Hyosoo Park (Inha University)

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Global Port Research Alliance Conference on “Port and Logistics Connectivity”

Academic Session A2: Business Operations in Shipping and Logistics

- ❖ **Date:** 21 May 2015
- ❖ **Time:** 2:15pm – 3:45pm
- ❖ **Venue:** R1206, R Core (Shirley Chan Building), PolyU

Shipping and Port operations are important to facilitate related activities. This session consists of four studies to examine several important issues in shipping and port:

- The first study evaluates the effects of motivation on job satisfaction on organisational performance in the container shipping industry in Taiwan. Based on the factor analysis, four motivation dimensions and five satisfaction dimensions have been identified. Results showed that remuneration is positively related to financial performance such as return on assets, turnover growth rate, and profitability.
- The second study examines the green innovation and firm performance of the container shipping industry. The authors develop a model as a foundation for the adoption of green innovation. The authors will also present a case to discuss the application of the proposed model.
- The third study investigates the port and logistics connectivity. In this study, the authors review the logistics development in Vietnam’s major container ports and discuss the opportunities and challenges in economic development.
- The fourth study examines the correlation between international trade and shipping industry by employing the Shanghai Container Freight Index (SCFI) and monthly trade data from five countries along the routes of maritime silk road. The results show that export trade negatively correlates to the SCFI. This study provides insight on using SCFI as the barometer to achieve scientific and reasonable allocation of shipping capacity in China.

Session Chair: Prof. Chin-Shan Lu, The Hong Kong Polytechnic University

Title	Author(s)
Motivation, job satisfaction and organizational performance: An empirical study of container shipping companies in Taiwan	Kelvin Pang, Chin-Shan Lu (The Hong Kong Polytechnic University), and A.T. Chung (Maersk Line Taiwan Ltd.)
Green innovation and firm performance: A case study of the liner shipping industry	Michael Ng, Venus Y.H. Lun, Kee-Hung Lai, and T.C.E. Cheng (The Hong Kong Polytechnic University)
Container Port and Logistics Connectivity in Vietnam: Opportunities and Challenges	Juanyu Nancy Wu, and Venus Y.H. Lun (The Hong Kong Polytechnic University)
The Correlation of Maritime Shipping and Export Trade on Maritime Silk Road	Bao Jiang, and Jian Li (Ocean University of China)