

# **The Rise of International Logistics in East Asia:**

## **Focusing on Maritime Transportation**

### **ABSTRACT**

Comparing with other regions, East Asia has enjoyed a dynamic economic evolution at a continuously high speed since the 1980s. Benefitting from the driving force, the consumption demand in the region has ever been increasing since then. Consequently, ocean shipping has become the mainstream transportation for the international trade in the area.

The dissertation consists of six chapters. Chapter I summarizes the structure of the dissertation, Chapter VI concludes by discussion the findings and pending issues and the main contents of remaining four chapters are as follows.

The study firstly explores the factors that contributed to the rise of container transportation in the 1980s and the increase of container tonnages from the 1980s to 2013 in East Asia, especially China. The study applies descriptive and correlative analyses as the methodologies. In particular, it focuses on the impact of ODA, OOF and FDI on China.

The findings indicate that ODA and FDI from Japan and other East Asian countries were the main force that promoted the transportation system and economic development in China. Leading by China from the 2000s, East Asia has become the new container transportation center in the world.

Secondly, the study discusses the performance of shipping lines in the development of global shipping alliances from the mid-1990s and current shipping network in East Asia. The descriptive analysis regarding the current shipping network in Asia/ North America and Asia/ Europe trade lane also has been done.

The results show that the increase of container transportation in East Asia has provided excellent opportunities for the shipping lines from the 1990s in securing the cargoes. During the same period, East Asian shipping lines have been in rapid development. The

other finding indicates that with the need for cost saving and efficiency enhancement, feeder service has become one of the important transportation vehicles for the main ports in the region.

Thirdly, the study takes the development of Port of Dalian, China from 2003 to 2013 as the case study of a container seaport in East Asia. The average growth rate of container throughput of the seaport was 18.21% from 2001 to 2014, which is the highest index in East Asia during the same period. Thus, the port is selected as the case study. The study tries to find how the port developed and the pending issues during the expansion period. Moreover, a model based on *triple exponential smoothing (TES)* was developed to forecast container throughput spanning from 2015 to 2017 of twelve major seaports in East Asia.

The findings indicate that the implementation of *Plan of Revitalizing Northeast China*, a state plan, has been driving the comprehensive development of Port of Dalian. However, targeting for high GDP has brought many unexpected incidents to the port. The forecast shows that the container throughput of the selected seaports will keep increasing in the coming three years except Port of Hong Kong and Port of Yokohama.

The fourth section examines the expansion of Sino-Taiwan trade and realization of direct shipping between China and Taiwan. The ratio of trade amount that Taiwan against China between 1990 and 2014 accorded with sigmoid, which indicates the tendency follow the logistic function, a model that applies to economic and statistical issues. Thus, the function is applied to forecast the ratio of trade amount that Taiwan against China from 2015 to 2020.

The results show that the ratio of trade amount that Taiwan against China will increase steadily from 2015 to 2020 if all the conditions are stable. The steady growth of bilateral trade will provide more business for the direct shipping across Taiwan Straits.

The final section summarizes and concludes the findings according to the research objectives and questions of the study. The pending issues and suggestions for the further research are proposed in the section as well.