

**W. Wang *Container Ports in China***  
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In recent years, due to the efficiencies created by standardization, the shipping industry has been able to lower the freight rates. Containers can be handled much more efficiently than loose cargo and are typically shipped via several modes of transportation, including truck, railway and ship. Container usage significantly reduces transport and port time, labor and handling costs and losses due to damage and paperwork. It would be clear that world wide containerized cargo knows a lot of advantages above non-containerized cargo. Especially in China, containerized cargo plays an increasingly important role.

Date back to the development process of China's container ports from 1975 to 2005. These thirty years can be divided into three phases. The first is from 1975 to 1986, during which container transportation appeared in China. The next ten years, from 1987 to 1997, was a boosting phase, since more and more container ports emerged and developed. After 21 century, China's ports gradually matured and then some questions came forth, therefore, the third phase was used to adjust the related policies and development direction of China's container ports.

Nowadays, with the evolution of container vessels and modern logistics technologies, future prospect of China's container ports/terminals would be to improve reasonable arrangement varying from selection of site location to terminal management, with respect to considering over deep water, high efficiency, informationized management and multi-function. In order to analyze the China's characteristics of container ports, five port groups would be known, namely, surrounding BoHai Sea Area, Yangtze River Delta Area, Southeast Inshore Area, Pearl River Delta Area and Southwest Inshore Area. In these areas, some important hub ports and their corresponding feeder ports had been established during a longer time. The geographical and economical relations between ports and their hinterlands would be more and more close and diverse. This report presents five typical ports of these regions, namely, Qingdao, Shanghai, Xiamen, Shenzhen and Haikou. Especially, Shanghai and Shenzhen are more and more mature to be a regional hub ports, and then international hub port would be the next goal.

The port of Rotterdam is a typical hub port, where more famed companies have built up terminals. As the outstanding representatives among the container terminal companies, ECT, Euromax, and APM, have handled the most volume containers passing through Rotterdam. With modern technologies, machines and vehicles, they can easily achieve the high efficiency handling ability and safety guarantee. When comparing the terminal in China with Rotterdam, with regard to port type, throughput, productivity, location characteristics and infrastructure facilities, it can be stated that: China have more ports with a good geographical location, but today China has not a real international hub port. Moreover the terminal productivity is still improving, but it is not satisfied the requirement of increased container flows. On the other hand, the port of Rotterdam has a relatively mature container transport system; it is one of the largest international hub ports which located in the gate of Europe. The terminal productivity is fairly higher because of its higher automatic degree and reasonable overall layout. Therefore, Rotterdam is a good example for China's port to learn more experiences about the construction of container terminals.

In conclusion, China's container ports facilities and service-related will continue to grow and improve. With the acceleration of globalization of the world economy, the port demand would at least double to 2015 with around 650 million TEU handled in the world's ports. As China will have an increasingly larger market share, the container terminal are expected to solve the current existing problems, such as relatively low efficiency, lower productivity of transporting vehicles and unreasonable layout of terminal, etc. In order to cater to increasing share to container throughput of the world, more and more reform methods should be found by China government or its corresponding departments in the future.

Today, the yearly growth rate of container throughput in Rotterdam presents a decrease trend, but it still maintain the most competitive position in the international transporting industry. In the coming decades, the port of Rotterdam wishes to win back its market share in Hamburg-Le Havre, meanwhile, one of basic constraints for the future development of the port and for making the region more attractive to work and live in is the ample availability of sites. A number of the trends observed will lead to a sharp increase in the throughput of containers, therefore, more space is required to cope with the growing throughput, storage and distribution/delivery of containers, and as a result, the port is undergoing a continuous process of restructuring and modernization.

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