Research on Ningbo - Zhoushan Port Construction and Development
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Keywords: Ningbo - Zhoushan port, Port location, Shipping development, SWOT analysis.

Abstract. Under the "the Belt and Road (B&R)" policy, the development of sea freight and ports has become the focus of national construction, and the local government has also issued various policies to support the development of the shipping industry. Based on the Ningbo - Zhoushan Port and related shipping policies, this paper expounds the development status of Ningbo - Zhoushan Port. This paper puts forward the development and management strategy of Ningbo - Zhoushan Port in order to cope with the opportunity and test under the environment of economic globalization.

Research Background
Maritime transport between countries in the world has become a carrier of personnel and goods exchange and an indispensable part of the links between countries. Countries at different levels of development have become the theme of world economic development at present, with equal participation, mutual benefit, opening up new opportunities for development and jointly responding to economic challenges. In 2013, President Xi Jinping put forward a cooperation initiative to build the "the Silk Road Economic Belt and the 21st-Century Maritime Silk Road ", aiming to actively develop economic cooperation partnership with countries along the route. China's cooperation with the world is deepening, from ASEAN, South Asia, West Asia to North Africa and Europe, taking the Belt and Road (B&R)'s infrastructure as a foothold to achieve common development and prosperity. Under the current environment of economic globalization, the balanced development of the world promotes the orderly and free flow of the global economy.

The State Oceanic Administration has also put forward the development concept of developing marine economy and building a marine power, which has very important strategic and practical significance in the trend of economic globalization. As the most important mode of transportation in the current international trade, marine transportation has the characteristics of large volume and low cost. The development of marine transportation has also driven the development of shipbuilding industry, steel industry, electronic instrument industry and other industries. Ningbo - Zhoushan Port, as the world's first port with cargo throughput exceeding "1 billion tons" in the first year, has become an important hub of the Maritime Silk Road in the 21st century with its unique location advantages. Facing the fierce competition environment, how to seize the opportunity in the Belt and Road (B&R)'s blue ocean economic development according to its own regional resources and advantages has become an urgent problem to be solved in Ningbo - Zhoushan Port.

Location and Current Situation of Ningbo - Zhoushan Port
Geographical Location
Ningbo - Zhoushan Port is located in the southeast coast of China, in the middle of our coastline.[1] Many islands provide the port with a natural barrier to sea waves. The tidal range in the port area is large and the tidal current is strong, maintaining the long-term stability of the water depth of the port channel and deepwater shoreline channel, so that the unobstructed water flow can purify the environment to a large extent.[2] In terms of passenger transport, there are regular liners with Shanghai and Ningbo. Freight routes extend in all directions, and cargo transportation not only spreads all over China's coastal areas and the middle and lower reaches of the Yangtze River, but
also exchanges with all countries in the world. Ningbo - Zhoushan Port is a natural deepwater harbour with the largest number of berths. Ningbo - Zhoushan Port has a developing economic hinterland. It is not only an important port in Zhejiang Province, but also crucial to China's economic development and foreign trade. Ningbo - Zhoushan Port is accompanied by superior port conditions and regional advantages, providing favorable conditions for its logistics and commodity trading markets. Ningbo - Zhoushan Port has 17 10 thousand-ton navigation channels and 3 300 thousand-ton navigation channels. It is an ideal port site for China to build a large modern deepwater harbour.

Transportation Environment
Modern ports are no longer limited to shipping and other functions. The port is the hub connecting the domestic and overseas markets, and the goods from the mainland are concentrated in the port by means of water transportation and land transportation, thus driving the development of other modes of transportation. In 2015, Yongzhou Railway was put on the agenda and a draft plan was formed. In the next few years, the construction of Ningbo East Station from the west and Ningbo - Zhoushan Railway from the east to Zhoushan Bai Quan will greatly strengthen the transportation between Zhoushan and Ningbo, which will help immeasurably the transportation of goods and reduce the transportation cost. The most important thing is to shorten the time, and the hub role of Ningbo - Zhoushan Port will be further reflected. With the rapid economic development, Ningbo - Zhoushan Port will play an indispensable role as the hub of the Maritime Silk Road. In the future, with the optimization of traffic environment, it will show its unique location advantages.

Talent Structure
The rapid growth of national economy and foreign trade has driven the growth of port throughput and the accelerated development of port and shipping industry. As far as the economic development of Ningbo - Zhoushan Port is concerned, there is an overall shortage of senior technical personnel and innovative personnel. From the second half of 2017 to the first half of 2018, Ningbo - Zhoushan Port Group recruited more than 140 senior personnel for various positions. At present, Zhoushan Port Airlines urgently needs professional talents such as pilotage, port construction and ship inspection.

Ningbo - Zhoushan Port, according to the lack of senior and middle-level applied talents, makes full use of the existing professional teaching resources in colleges and universities, supports the reform of relevant professional talent training modes through project approval, builds a professional teaching sharing platform, improves professional teaching conditions, improves professional teaching level, trains more excellent professional talents for shipping and shipping, and also increases talent introduction efforts to ensure competitive advantage.

Shipping Policy
China's finance has increased subsidies for shipping companies to eliminate old ships, and increased macro-control by encouraging shipping companies to join forces with related industries and restructure to prevent vicious competition. Meanwhile, it has cleared up fees and charges related to enterprises and reasonably collected taxes, greatly reducing the burden on shipping companies.

In 2017, Zhoushan introduced a series of policies to support the development of the shipping industry and promote its integration into the national development strategy. We have formulated such systems as the "Training Program for Key Municipal Shipping Enterprises" and "Some Opinions on Promoting the Healthy and Stable Development of Shipping Industry". The main direction is to support key shipping enterprises, actively participate in the construction of the free trade zone and optimize the financing environment, so as to promote the development of river-sea combined transportation.[3]

Economy
As an infrastructure in the development of cities, ports not only create economic profits directly from economic activities related to ports, but also drive the construction of cities through the
horizontal and vertical development of industries and industries. Their indirect contribution to the economy is very important. [4]Ningbo - Zhoushan Port is forming a new industrial chain, which will promote the rapid development of the city and make the port transportation faster.

In 2016, Zhoushan's shipbuilding and marine engineering equipment, shipbuilding and harbor equipment, harbor petrochemical and other industries accounted for more than half of the city's industrial economy, initially forming a modern marine industrial cluster focusing on marine new materials, marine biological medicine, shipbuilding and marine engineering equipment and other industries. By May 2018, the total throughput of Ningbo - Zhoushan Port had reached 449.972 million tons, up 5.8% year on year. Sinopec has invested nearly 20 billion yuan in the construction of a green petrochemical port, and Zhoushan's large-scale petrochemical project, which processes 12 million tons of crude oil annually, started on July 6, 2018. Huang Zeshan's oil trade and storage base, Zhenhai city logistics functional area, Ningbo - Zhoushan port gathering and transportation system and other projects are under construction, including multi-modal transportation system, river-sea transportation information platform, commodity storage and transportation transaction, modern shipping services and other fields, and are expected to be completed by 2020.

Ningbo - Zhoushan Port Shipping Development SWOT Analysis

Current Situation of Competitive Ports Around

The competitive ports around Ningbo - Zhoushan Port are mainly Shanghai Port, Hangzhou Port and Wenzhou Port.

Located in the front of the Yangtze River Delta, Shanghai Port is divided into several ports and is the main hub port along the coast of China. Ninety - nine percent of Shanghai's foreign trade materials are transported through Shanghai port. Since 2010, the container throughput of Shanghai Port has been ranked first in the world. Yangshan Deepwater harbour is located in Shengsi rugged archipelago and belongs to Shanghai Port. It is the largest container deepwater harbour in China. The deepwater coastline is more than 10km long and can accommodate large container ships entering and leaving and can dock over Panamanian container ships. It is the core port area for Shanghai Port to participate in international competition and is expected to become the world's largest container deepwater port. As the distribution center of river-sea combined transport, it has been driving the development of the surrounding regional economy.

Hangzhou Port is located in the northeast of Zhejiang Province. It mainly relies on the Beijing - Hangzhou Grand Canal, Hangzhou - Ningbo Canal and Qiantang River for tourism passenger transport and cargo transport, mainly inland waterway transport. Its throughput topped 100 million tons in 2014, and its radiation capacity is also increasing.

Wenzhou Port is a Millennium port, located in the southeast coast of China, with convenient transportation and 350 kilometers of coastline. International freight routes lead to 22 countries and regions. Waterway freight routes connect Dalian and other coastal ports as well as Nanjing and Jiujiang along the Yangtze River, with an annual throughput of more than 50 million tons.[2] At present, Wenzhou Port is in the period of port layout optimization and function adjustment. It is actively implementing the construction and development strategy of "One Port, Seven Districts" and developing towards the East China Sea, and has successively built small gate island and Yueqing Bay.

Advantages (Compared with other Ports). Ningbo - Zhoushan Port is a natural deep-water port with unique geographical advantages. The available deep-water coastline for port construction is about 223 kilometers. In recent years, Zhejiang Province has vigorously developed its economy, taking Ningbo - Zhoushan Port as its pillar, further opening to the outside world and greatly increasing the volume of foreign trade materials.[5] From January to September 2018, the port cargo throughput was 82952 million tons, up 7.65% year on year. Ningbo Port has advantages in economy and technology, Zhoushan Port has advantages in geographical environment and natural resources. After the merger of the two ports into Ningbo - Zhoushan Port, resources sharing complementary advantages and reasonable division of labor have developed very rapidly under
unified management. At the same time, Zhoushan is also a new area of national economic development and is supported by the state in terms of policies and funds. From the point of view of customs clearance efficiency of imported goods at Zhoushan Port, after the port informatization took the lead in realizing "one report, four reports" for international shipping, the average time for customs clearance was 65.72 hours, and the overall efficiency was among the highest in the country. The development of the petrochemical industry in Zhoushan City is driving the improvement of the throughput of oil transportation, which is not available in the surrounding ports.

Disadvantages. Ningbo - Zhoushan Port integration time is too short, communication efficiency and operation efficiency between departments are not very high. And lack of accumulation, in the current situation of the continuous development of cargo transportation, the accumulation of international container and bulk cargo transportation is not as good as that of Shanghai port, and domestic freight and passenger transportation are not as good as those of Hangzhou port and Wenzhou port. Despite the continuous construction of the port, the current infrastructure is still not perfect and the informatization level is not up to the standard of Shanghai Port.

Development Opportunities. Under the environment of economic globalization, China's continuously open market has continuously increased the throughput of international cargo transportation and increased the demand for ports. The construction of surrounding ports has brought more convenient transportation and more sources of goods. With its superior location and strong support from Zhoushan municipal government, Ningbo - Zhoushan port can better seize the opportunity, attract investment and expand its business in the competition with its neighboring ports. At the same time, the economic development of Zhoushan City in Ningbo is also promoting the development of port construction relatively, making the port infrastructure constantly improved and the informatization level continuously improved.

Threats. Ningbo - Zhoushan Port integration process is incomplete and internal cooperation is not close. The competition in the surrounding ports is too fierce. The international transport throughput of container ships and bulk carriers in Shanghai Port has been very high. Domestic freight passenger transport in Hangzhou Port of Wenzhou Port has always been in the leading position. Most of the islands lack the necessary land area behind the coastline. At the same time, there are many typhoons, big waves and strong storm surges, making it more difficult to build a harbor.

Ningbo - Zhoushan Port Development Strategy Research

(1) Zhoushan Port is not well developed and constructed, and most of its 54 deep-water coastlines are still to be developed, while Ningbo Port's coastline resources are becoming increasingly scarce. Therefore, while developing trade and increasing cargo throughput, it will continue to strengthen the development and construction of deep-water coastlines to promote the long-term development of Ningbo - Zhoushan Port.

(2) The port needs to adapt to the needs of the logistics market, enhance logistics service awareness, change production methods and management strategies, develop comprehensive logistics services, ensure smooth operation of logistics, ensure service quality, lay a foundation for economic construction and improve its competitiveness.

(3) Speed up personnel training, information construction and infrastructure construction to meet the needs of different development directions of the port to cope with possible opportunities or crises. Enterprises and institutions of higher learning jointly cultivate innovative and professional talents, combine teaching with practice, create diversified teaching, enhance the strength of enterprises.

(4) Coordinate and cooperate with neighboring ports, complement each other by sharing routes and adopting more uniform charging standards, improve port production efficiency, and enable shippers and ship operators to obtain more direct economic benefits in order to attract more investment and promote common development.

(5) Strengthen cooperation with ports in countries along the "the Belt and Road (B&R)" line, and
expand greater business through integration with the international community. The choice of joint venture or cooperative alliance with other ports can increase the routes, help improve the competitiveness of both sides and take up more shares in the world shipping market.

(6) The port economy should develop harmoniously with the regional economy. Making full use of the government's policy support for port-related industries, we will focus on the construction of Ningbo - Zhoushan Port, set up related industrial parks, develop new enterprises, and vigorously support the development of industries highly related to the port and shipping economy. Relying on Ningbo - Zhoushan Port, the port city belt will be established to develop related industries by taking advantage of its own geographical, economic and logistics advantages, so as to better serve the construction of the city belt, thereby promoting the development of port economy and improving its economic status.

References