Research on the Construction of Logistics Hub in Guangdong-Hong Kong-Macao Greater Bay Area under the Background of "The Belt and Road"

Tingting Zheng¹, a, Fan Li², b

¹Faculty of Business Administration, Shanxi University of Finance and Economics, Taiyuan030006, China
²School of Statistics, Shanxi University of Finance and Economics, Taiyuan, 030006, China

a731903895@qq.com, b2865028431@qq.com

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Abstract: As one of the most open and economically dynamic regions in China, the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) is an important national development strategy. Relying on the outstanding economic characteristics of the bay area and regional logistics coordination and integration capabilities, the Greater Bay Area has become an important support for the construction of "The Belt and Road". To build a world-class integrated logistics hub in the Guangdong-Hong Kong-Macao Greater Bay Area based on the existing technology and logistics integration needs. Based on the existing infrastructure of the greater bay area and the present logistics industry structure, this paper explores the construction of logistics hub according to the strategic needs of "The Belt and Road", and proposes the obstacles and opportunities for the construction of logistics hub.

1. Introduction

The Guangdong-Hong Kong-Macao Greater Bay Area (GBA) is composed of two special administrative regions of Hong Kong and Macao and nine cities of Guangdong. With the United States, The New York Harbor, San Francisco Bay Area, Gulf of Tonkin, known as the world's four bay area. As an important form of coastal economy, bay area economy is a highlight of the international economic landscape and a prominent symbol of world-class coastal cities. Economic integration and trade liberalization need to achieve regional economic coordination and efficient integration, and regional logistics collaborative development is the premise and basis of integration. Logistics is the carrier and foundation to promote the coordinated operation of Guangdong, Hong Kong and Macao, and the logistics industry is the key to promote consumption and production [1]. The core node region is the basis of resource allocation, the support carrier of protecting Guangdong, Hong Kong and Macao, and the important guarantee of deepening exchanges and cooperation between Guangdong, Hong Kong and Macao. Through the construction of logistics hub, further deepen the collaboration between guangdong, Hong Kong and Macao, achieve integrated urban development, promote the economic and trade cooperation between countries along the "The Belt and Road", and promote the regional division of labor, mutual assistance and joint venture in the GBA to a higher level, deeper area and wider scope.

2. The significance of the construction of the logistics hub in the bay area to the Belt and Road strategy

The GBA has an excellent geographical environment, the Pearl River runs off the whole province, the harbour resources are excellent, has a long coastline, backs on the vast economic hinterland, sits on the vast resources of the South China Sea, is the nearest economic developed area from the South China Sea. In the 21st century, the Guangdong Hong Kong Macao Bay area is one of the starting points for President Xi Jinping's sea route of Silk Road. The Great Bay area is the shipping center of the Indian Ocean and the Pacific Ocean, and the important transportation link of the asia-pacific and
even the world. The "Belt and Road" economic belt has become the most forward position of the global economy and trade, and the GBA is gradually becoming the most important strategic hub of the "Belt and Road" by taking advantage of the above advantages in terms of location and industries.

3. The development of logistics industry in Guangdong-hong Kong-macao Bay area

From the perspective of the logistics channels of the freight volume of the greater bay area, the freight transportation by sea and water currently accounts for nearly a quarter of the total transportation volume of the greater bay area, and the rest about 60% are transported by expressway. The opening of the Hong Kong–Zhuhai–Macau Bridge has bridged the traffic barrier and connected the economic exchanges between the mainland and Hong Kong and Macao, greatly promoting the economic and industrial development and trade exchanges between Guangdong, Hong Kong and Macao.

![Distribution of freight and logistics channels in the bay area in 2018](image)

Figure 1. Distribution of freight and logistics channels in the bay area in 2018

In 2018, the container throughput of the three major ports in the GBA, Hong Kong Port, Shenzhen Port and Guangzhou Port, totaled 67 million TEU, ranking among the top 10 in the world. Among them, the Yantian Port Area of Shenzhen, which is close to Hong Kong, reached 26 million standard containers, an increase of 5%. The rapid development of manufacturing industry in other Grand-Baie cities such as Huizhou, Foshan and Dongguan has led to the prosperity of regional supply chain management and logistics industry. Although the container business in Shenzhen has surpassed that of Hong Kong in recent years, Hong Kong remains an important cargo transshipment port for international trade in the bay area as a whole.

![Container throughput of the three major ports in the bay area (Unit: Million TEUs)](image)

Figure 2. Comparison of container throughput of three major ports in the bay area from 2011 to 2018.
Data Sources: Guangdong Provincial Bureau of Statistics, Guangdong Statistical Yearbook, Hong Kong Statistics Department, Shenzhen Municipal Committee of Transport.

The GBA has basically established a network of sea, land and air routes, and the Pearl River Delta has become the largest logistics portal and hub in China and even the world. In terms of port water transportation, Guangdong, Hong Kong and Macao port group has become the regional port group with the largest passage capacity and the best water depth in the world. As for expressways, by the end of 2016, there were 24 expressways out of the province (including two between Guangdong and Hong Kong and new Hong Kong–Zhuhai–Macau Bridge). In the area of railway transportation, major railway passageways have been built, which traverse the east and the West and the north and south. By the end of 2016, four river crossings and three river crossings had been built in the GBA. By 2030, the bay area will be planned to build a total of 12 river crossings. [3]

4. To build a world-class integrated logistics hub in the Guangdong-Hong Kong-Macao Greater Bay Area

The logistics hub of the GBA includes five important components: First, port and shipping center. Give full play to the advantage of port resources, through cooperation with countries along the sea route of Silk Road, promote exchanges and cooperation between ports to form infrastructure connectivity. Second, airports and aviation centers. Give full play to the advantages of the airport cluster in the GBA, expand air transport co-operation with the sea route of Silk Road countries, and improve the inter-continental route transfer system. To Construct a World-Class Airport Cluster and improve the external access capacity and resource allocation capacity of the bay area. Third, railways and intermodal transport centres. We will continue to expand the scope and depth of opening up, exchanges and cooperation with the outside world and accelerate the planning and construction of free trade ports, the integration of port resources, the "Belt and Road" and the strategic layout along the GBA. We will further enhance the port's comprehensive strength and its ability to gather and radiate, realize the connectivity of the "Belt and Road" , and build the GBA into a water-rail corridor connecting the "Belt and Road" . Fourth, logistics and supply chain management center. Integrate public logistics information resources, use big data, cloud computing and other technologies to build logistics and supply chain management information center. Building a logistics and supply chain management center with significant international influence. Fifth, factor trading and innovative financial center. Rely on logistics hub, around financial assets, agricultural products, equity, insurance, shipping, aviation elements, and so on, to create a set of industry, services in one element of the transaction cluster. [3] Taking the opportunity of fostering and improving shipping finance and supply chain finance, we will further develop the service function of financial capital to promote the upgrading of the shipping industry, relying on the financial market position of Hong Kong and Macao, to build a world-class shipping financial product design center.

5. Opportunities and challenges

At present, the coordinated development of logistics among guangdong, Hong Kong and Macao is still far behind that of the Yangtze river delta and the European Union. The three areas of cooperation hidden policy barriers still exist. On the cross-border coordination mechanism, how can Guangdong, Hong Kong and Macao effectively coordinate the differences and differences between the governments of various places, better exert the central government's role in designing and leading the overall development of the bay area, and achieve an effective cross-border coordination mechanism, it is very important for the construction of GBA. On the economic system, how to achieve the effective connection of the economic structure between Hong Kong, Macao and the mainland, as well as the free flow of resources and commodities, on the premise of ensuring that the basic system of the "One Country, Two Systems" will not be shaken, distorted or distorted. And the parallel processing of coordinated management has become the most severe challenge for the development of the GBA.
There is a breakthrough in the construction of logistics hub in the GBA. In transportation, the construction of the GBA hub should optimize and improve the transportation and logistics network. We should improve the capacity and level of multimodal transport, speed up the development of multimodal transport of containerized goods, actively expand international multimodal transport services, improve and optimize integrated service processes, and vigorously develop "single system" transport services. In information technology, promote the construction of intelligent logistics information platform, integration of public logistics information resources, information connectivity, promote the process of information standardization. In the aspect of environmental protection and energy conservation, we will actively promote the development of green logistics, study and promote the use of clean energy (LNG), trackless and dual-source electric freight cars, new energy (pure electric) vehicles and ships, speed up the construction of shore power facilities, and promote the use of shore power by ships calling at ports. We will implement a differentiated traffic management policy for new-energy goods vehicles, provide convenience and expand the scope of traffic, and impose few or no restrictions on pure electric light goods vehicles. Develop Green warehousing, take green logistics as a breakthrough point, drive upstream and downstream enterprises to develop green supply chains, use green packaging, promote recycling, reduce excessive packaging and secondary packaging, promote the implementation of green goods packaging and logistics equipment, reduction.

6. Conclusion

The construction of logistics hub in Guangdong-hong Kong-macao Bay area is the medium of economic exchange between China and the outside world. Relying on rich resources and geographical location as well as industrial advantages, to promote China's "Belt and Road" strategic development process. The guangdong-hong kong-macao Bay area logistics hub is continuously improving and innovating from the aspects of transportation, technology, information, energy-saving and talents, so as to transfer more high-quality resources to China and make use of its own advantages to build an important logistics hub facing the world.

References

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