

Develop China's Port Logistics and Enhance the International Competitive Strength of China's Ports

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Abstract

This paper summarized the operation experience and development trend of overseas port logistics, social environment for the development of China's port logistics, and the strategic significance for accelerating the development of China's port logistics. Then it analyzed the main problems in the process of the development of China's port logistics. Finally, it put forward measures and suggestions to accelerate the development of China's port logistics.

1. The operation experience and development trend of overseas port logistics

1.1 A general introduction of the development of overseas port logistics

Since nineteen eighties, with the acceleration of globalization and the rapid development of information technology and enterprise management science, the development of logistics has come to a new phase. It characterized by the constant innovation of the technology and management methods of logistics operation; the improvement of service quality, the expansion of service scope, and the decrease of service cost; and the globalization of logistics service, the integration of logistics system function, and informationization and intensiveness of logistics process.

1.1.1 Summarization of the development level of developed countries

(1) The logistics of European, USA and Japanese and other developed countries have basically achieved the

rationalization of transportation, automation of storage, standardization of packaging, mechanization of loading and unloading, integration of processing, distribution and delivery. It as a whole has come into the phase of logistics integration, i.e. supply chain.

(2) Government of all countries will regard the strengthening of infrastructure construction as the an important measure to promote the development of logistics, and encourage different transportation means to develop towards coordinated and connected multi-modal transportation. Thus, it makes the logistics system becomes more efficient and more consummate.

(3) The third-party logistics develops rapidly. At present, it accounts for 60% of the total logistics service in USA, and 76% in Europe, 80% in Japan. The rise of the third-party logistics is the prominent embodiment of the marketization of logistics operation. It precipitates the maturity of logistics market, the innovation of logistics technology, and the socialization of logistics service by providing professional and diversified services.

(4) With the widespread application of logistics information system and electronic data exchange technology, network technology and other modern logistics technology, it has realized the network allocation, the track of freights and vehicles and thus provides efficient information service.

(5) The relevant polices and statutes relatively mature in logistics-developed countries. And it shows the common trend of promoting free competition and relaxing the rules and regulations.

In conclusion, the rapid development of logistics in developed countries is built upon the relative perfect market economy system and flourishing comprehensive transportation system, and based on the vigorous demand of logistics. It pays attention to the integration of the resources of logistics system, the application of advanced technology, and the logistics global service and the intensiveness and coordinated development. Modern logistics has become the important foundation for developed countries to enhance their competitive strength and the fulfillment of their global strategy.

1.1.2 The main operation patterns of overseas port logistics garden

(1) Unified plan and construction of infrastructure by government, and the independent management of the renting of enterprise.

Most of the logistics gardens in European countries and Japan are laid out according to the following way: the government plans on the land for the development of port logistics garden, invest to build the infrastructure, conduct unified plan and construction about the transportation facilities, and water, electricity, communication and other supporting facilities inside and outside the garden, and then rent the land to the logistics enterprises.

The enterprises stationed in the garden plan for the construction of warehouse, freight yard, loading and unloading working area, business and processing place in accordance with one's business characteristics and development orientation. The management of the garden is completely up to the independent management of each enterprise, and government imposes no interference. Thus, the "base" featuring scale development, common sharing of resources comes into being.

(2) Bonded zone pattern

Bonded zone is the popular pattern that advanced port adopted for the development of international logistics. Against the background of economic globalization, the international production and trade of transnational corporations demands international logistics to provide bonded zone function. Thus, it inevitably leads to the development of bonded zone pattern.

1.2 The experience and characteristics of advanced overseas port logistics

Port, the passageway of international trade, is one of the key joints of global supply chain. The development of global supply chain urges the necessary close link of the transportation function of port and other sectors of logistics. Thus, the world-wide advanced ports, on the one hand, beef up their major business by way of building deep water professional docks, open up the transportation system of hinterland so as to provide unobstructed and efficient transport system for modern logistics; on the other hand, they provide room and various service facilities for the logistics activities related to ports in modern logistics garden, which facilitates the effective connection between port activities and logistics operation. The development of logistics garden has brought larger amount of and more stable supply of goods. So it enhanced the competitive advantage of port. The main experience and characteristics of overseas ports to develop logistics are as follows:

(1) To develop logistics with one's unique feature in accordance with one's advantage. The majority of ports follow one's own road of developing logistics with one's own features that is suitable for them.

(2) Large size and intensive development are the characteristics of port logistics garden. It requires large size of land, 50-100 hectares on average. Some gardens are even larger, such as the logistics garden in Rotterdam port, which covers an area of over 260 hectares.

(3) Most of the logistics gardens conduct mainly international logistics. They usually provide bonded zones, and exclusive passages for the supervision of customs between gardens and docks so as to guarantee the unobstructed flow of freights.

(4) On the basis of the multi-modal transportation around ports, the port logistics garden can provide various

transportation means including ocean shipping, highway, railway and inland water transportation. Because the garden is close to dock, land transport cost is greatly reduced.

1.3 The development trend of world port logistics operation

1.3.1 Develop green logistics

Green logistics is also called environment-friendly logistics. It is a new trend in the twenty-first century, and also an objective requirement for an enterprise to participate in international competition. It refers to the logistics management system that is symbiotic with environment, which links the green principle part of the supply side and the counterpart of demand side, overcomes the obstacle of space and time to provide rapid and effective green commodities and services so as to satisfy customers.

Green logistics is also a multi-layer concept. It includes not only green logistics activities, but also the management, regulation and control imposed on logistics activities by society. It includes single green logistics works (such as green transportation, green package, and green circulation and processing) as well as the waste cyclic logistics aimed to realize the recycling of resources.

Sustainable development theory, ecological economics and ecological ethnics are regarded as the theoretical basis of green logistics. In the whole process of logistics, the time for processing and manufacturing accounts only for 5%, while storage, loading and unloading, transportation and other links occupied the rest of time. Logistics expense on average accounts for 40% of the total production costs.

1.3.2 Modern port logistics develops on the way from “logistics service terminal” to “front dispatch terminal”

The 3G port originated from 80's of the last century is a new type of resource-allocation port that combines international commodity, capital, information and technology into one body by relying on the industrial base. It becomes the carrier of logistics center. With the acceleration of economic globalization and regionalization, some international large ports is transforming themselves from “logistics service terminal” conducting international trade to “ front dispatch terminal” by taking the initiative to participating in planning, organizing international trade, industrial base and comprehensive service platform. Thus, the port has become the organizer and planner of economic activities.

1.3.3 The port allied with the inland to develop logistics platform

Logistics alliance enterprises rely on their core competitive strength to gain faster, cheaper and more efficient management system by contracting out their non-core business to outside partner. At present, such kind of

logistics alliance has formed rapidly in Europe and North America. Furthermore, the logistics enterprises are in Asian are being influenced gradually.

1.3.4 Transportation exchange and loading formed into a network

For example, relying on the consummate multi-modal transport system along Rhine River, Rotterdam port is planning to build a larger scale modern garden, Msasvlakte-2. The new garden includes nine parts: the garden headquarter, railway service center, barge service center, three-dimensional traffic, delta container freight yard, exclusive dock, offshore railway by-line service, spare development zone and inland highway. The international shipping center focusing on logistics transport is an important factor for Rotterdam port to always rank in the forefront of world port profession.

1.3.5 Logistics distribution coordinated

Since 60's in 20th century, the rationalization of distribution of goods was generally gained attention in USA. In order to gain benefits in circulation field, American enterprise adopted the following measures: first, the old type of warehouses were transformed into distribution center. Second, management formed a network. Standard operation was introduced in loading and unloading, portage, and storage. The operation efficiency was thus greatly improved. Third, the chain enterprises jointly established distribution center.

The logistics distribution in Japan has the following characteristics: advanced retail channels; the trend of common and mixed loading in logistics distribution; cooperation logistics distribution; governmental planning plays an important role in the development of modern logistics distribution.

2. The strategic significance of promoting the development of China's port logistics

2.1 The socio-economic environment of port logistics development in China

In recent ten years, the logistics in China has begun to come to the phase of development in a coordinated way thanks to the promotion of the government, the operation of enterprises and the self-discipline of the industry.

(1) According to the prediction of relevant department, the oncoming 10 to 20 years is the prime time for the development of logistics in China. The logistics in China will develop rapidly. The proportion of the total cost of social logistics in GDP will reduced below 15%.

(2) All the logistics centers round cities. The status of logistics of a city is suitable for its economic status and transportation status. The Pearl River Delta, Yangtze River Delta, Round-Bohai Bay area have formed city groups, industry groups, port groups, which are the manufacture center of China, even the world.

(3) Modern logistics has brought new opportunities for the development and of relevant industry and the

restructuring of economy. The central and local government attaches great importance to it. The participation of government department will play a critical role in promoting the modernization of logistics.

2.2 The strategic significance of accelerating the development of port logistics

The emergence of modern logistics goes together with international trade. The key coastal cities in China are in great need of large-scale logistics. The international logistics function of port is prominent. The key ports in such coastal cities play an important role in China's foreign trade freight transportation and North-South material exchange. And they are also the main body for China to participate in global competition.

All the foreign main ports around China regard logistics as the important content for their development. For an example, South Korean government will expand the infrastructure of Busan Port and GwangYang Port, enhance service standard, reprocess and redistribute commodities in port and increase added value of commodities. And then these commodities are transported to North American and other countries. This strategy, which is called "continent relay fleet for freight export", will probably attract 6,050,000TEU freight from China's Bohai Ring and Yangtze River region. It will create added value of 2,900 billion Korean dollar (\$2.4 billion US dollar). The implementation of this strategy will produce an awesome challenge to the development of China's port logistics.

Among the competition elements in port service, logistics service is the most important link. The concept of port logistics will breathe dynamics into port for its integrating with world economy. The modern comprehensive large-size ports, such as Shanghai port, Shenzhen port, Guangzhou port, Tianjin port, Qingdao port and Dalian port, all have freight loading and unloading, storage, transportation, going through customs, bonded zone and information service function. If we adjust the management and organization according to the requirement of logistics activity, these ports will become the most intensive logistics centers, and their function as mentioned above will bring to full play. All these will make ports become the linker and thruster in the development of logistics.

Port logistics is also an important component of coastal logistics. The upgrading of logistics service is also a new concept for the development of port logistics. To improve the consciousness of logistics service, we can start from the following points: value-added service, socialization service, professional service, intelligentized service, networked service. We should transform the traditional service pattern, and thus upgrade our competitive strength. Analyzing the characteristics and the trend of the development of modern logistics, we can see that modern large-scale comprehensive key ports play an important role in logistics. Thereby, it is of great significance for China to accelerate the development of large-scale ports and make them become efficient

logistics organization centers.

3. The main problems of port logistics development in China

(1) Development policy

When it comes to the main problems concerning the development of bonded zone, the current administration system and policy are unfavorable factors. For example, according to the current customs administration pattern, port region and bonded zone belong to two separate customs regions. Thus, the transfer between the two customs for the flow of foreign trade freight will result in longer customs going through process and the higher cost of logistics. The integration of the two as a pilot project is under way. However, more time is needed for the perfection and popularization.

The development of logistics garden involves in large amount of use of land. The land use of logistics garden depending on China's large-scale container port region on average exceeds 100 hectares. The widespread problem of China's port is the shortage of inner warehouse area and the occupation of outside land by others around the port. Land use is the foremost problem that needs to be solved.

(2) The development of port requires excellent transportation infrastructure. The development of port logistics inevitably results in larger amount of traffic flow. At present, the obstruction of containerized and distribution transportation network is the important problem that affects the development of logistics garden.

(3) The logistics infrastructure capacity cannot meet the need of logistics. And the contradiction between supply and demand is prominent.

(4) The coordination ability of port logistics management is still low. The enterprise that has basic logistics service function hasn't formed effective logistics service network.

(5) The shortage of advanced professional logistics talents and low standard of the establishment of logistics management information system.

4. Suggestions to the acceleration of the development of port logistics in China

4.1 Create excellent policy environment

In the process of the establishment of market economy system, the old system will be gradually transformed to new one. Therefore, to overcome the existing system and establish policies that fit for logistics development is the critical link for promoting the development of logistics.

(1) The competitive strength of China's modern logistics on the whole at present is weak. Due to the imperfection of logistics law-making, it is hard to protect China's logistics industry according to law when the

market is open. Hence, the state should list logistics industry to key industry catalogue and give special support in a certain period. The domestic logistics industry must accelerate the upgrading speed and make it come into normal and mature phase as soon as possible.

(2) To encourage domestic and overseas enterprise to invest in port, accelerate the combination and extension of port region function, promote the effective integration of the transfer, storage, allotment, distribution, transport of logistics, and perfect gradually the comprehensive logistics function of port.

(3) The local government entrust the port group to develop the land by selling or transferring it for port use. And the planning and administration of land use for port should be strengthened.

(4) To encourage diversified financing and investment channels, attract investment home and abroad with the large-size ship-company, big shipper, gigantic group as the core investment body to participate in the construction of ports. And extensively form strategic alliance with capital as the ties.

4.2 Establish efficient port supervision system

To further improve port “big customs going through “pattern so as to fulfill all-weather and one-stop going through of customs. Bank, revenue and other relevant organs should also prolong their service hour, and conduct online tax and fees paying. We should also promote railway-and-sea coordinated transportation, examine bills in a concentrated way, and extend port service function to implement taking and giving permission within one’s jurisdiction. By doing all these, we can improve port service function as a whole.

4.3 Ensure infrastructure construction and transformation

To integrate the regional resources of the port in accordance with the demand, expand business; increase the infrastructure that is needed for port logistics and information service operation; provide extended diversified and multi-direction service and value-added service, extend port industry chain and value chain, and enhance the radiation and influence power of port.

4.4 Building unobstructed outward passageway

To actively build all-direction grand communications system centering round the port, and make port become the key communication hub radiating the whole country. And form the terminal network system linked with port and hinterland superhighway, and the railway-and-sea coordinated transportation system to improve port terminal transportation efficiency for the development of modern logistics.

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