

Analysis on the comprehensive power of Qinhuangdao coal terminals

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Abstract

The coal ports are vital to the great development of Qinhuangdao which even plays a crucial role in boosting the coal industry of north China and balancing the coal distribution and use of the whole nation. Apparently, the coal terminals are vital to the whole nation, especially those of Qinhuangdao are treated as a priority for all. And the significance obviously is there for its logistics environment analyzing. In this paper, the coal terminal environment of Qinhuangdao is analyzed, the strength and weakness are pointed out, the current situation of development and the achievement of developing are given, and finally some suggestions about improving the development of Qinhuangdao's coal port are presented. The purpose of the paper is to give the references to the development of Qinhuangdao's coal port in China.

Keywords

Coal terminal logistics; Qinhuangdao; SWOT.

1. Introduction

China is a vast land, rich in coal resources. It comes out abundant in northwest China, however, it is expended much more in the southeast China where more developed in economy is but starved of coal resources. This kind of "much more coal resources in northwest than southeast" distribution pattern caused the basic situation "mobilize coal resource from north to south, transport the coal resources from west to east", which are going on in the future. As the important node in transportation system of coal resource, in this pattern, ports have played a crucial role in transportation. Thus, how to larger the loading capability and transportation capability with minimal logistics cost to improve the core competencies has become one of the most urgent problems to be solved^[1]. Based on SWOT analysis method, this paper analyzes the strength, weakness, opportunity and threat of Qinhuangdao's coal logistics and provides some references for developing it.

2. Research Actualities

With the significance of port in transportation increased constantly, both domestic and overseas scholars have put a good deal of effort into it. Under the new situation of China, researches on port logistics mainly combine with "One belt One road" development strategy and offer certain suggestions. Yiyue Zhang, a famous scholar, used China-Kazakhstan Logistics Park which located in Lianyungang as an example, analyzed the role of it, put forward strategies on progressing logistics industry and coordinate international trade between China and Kazakhstan. Internationally, scholars focus on the comprehensive analysis of port logistics environment in their research, and point out the larger transportation capability can contribute more to the economic progress. Shuling Chen, another famed scholar, had a comprehensive analysis at the comparison of the port development policies of Taiwan, Hongkong, Korea and Japan in her article^[2].

Taken together, port logistics presents a developing tendency in promoting its comprehensive power combined with its own features.

3. Analysis based on SWOT

3.1 Strength

(1)Geographical advantage

Qinhuangdao Port, located in the east of Hebei province and Beijing-Tianjin-Tangshan economic zone, the west of Bohai Bay, is a key port connecting north and northeast China. Containing famous historical cultural town-Shanhaiguan Pass and summer resort-Beidaihe, Qinhuangdao has been put at a remarkable economic position^[3].

(2)High-quality logistics equipment and qualified personnel

Logistics equipment, managerial expertise and technical personnel are basic foundations of modern port logistics, Qinhuangdao is qualified with these. It comes out in front in the whole country in long history, large scale, advanced equipments and technology talents.

(3)Efficient transport network

Qinhuangdao has convenient traffic with its sea, land and air transportation extending in all directions and it has already formed a modern cubic traffic network with strong transportation capacities. The four national railway lines (Dalian-Qinhuangdao railway, Beijing-Qinhuangdao railway, Beijing-Shanhaiguan railway, Shenyang-Shanhaiguan railway) are joined here, with the 102 highways and Beijing-Shenyang expressway^[4]; they took shape a sea-rail transport network. Connecting with national railway network and highway network, it facilitates the cargo transportation. In other words, the coal resources can be transported to everywhere around China timely. And it can achieve a better cooperation between the upstream and downstream enterprise. In this way, the cost reduced, the core competence improved.

(4)Have a self-railroad

Qinhuangdao Port has a 194km-long self-railroad which extend to the terminals. Thanks to the self-railroad, it can not only decrease the conversion factor of cargo transportation but also can reduce the processing cost and logistics cost.

3.2 Weakness

(1)A shortage of close cooperation between port and hinterland

Under the influence of unbalanced distribution of the national coal resources, the transportation task is arduous; moreover, the shortage of close cooperation between Qinhuangdao Port and the economic hinterland is a really tough problem. With long distance and inadequate supply, it takes more time in coal transportation which has severely impacted those power plants operated by coal power. In this way, those power plants couldn't have a normal running. For example, not having enough thermal coal to meet the high demand of it, the industrially developed regions in southern China have to cut power very often in every summer .And it does really has a adverse effect on local people's normal life^[5].

(2)Scarcity of land resources

Qinhuangdao has a few land, the reserve land resource is also insufficient which will restrict the development of port logistics and industrial park. Thus the scale and the further progress of coal port are limited, and the follow-up work is hard to implement. If it is going like this, the Qinhuangdao port will be at stake of being replaced by other ports one day^[6].

(3)Imperfect management and operation mechanism

With many large-scale mechanization and facilities there, Qinhuangdao coal port has an amazing freight handling capacity and transportation capacity. However, without a perfect management and operation mechanism, it couldn't avoid the great wastage not mention to provide their maximum benefit. Conversely, if creating a perfect management and operation mechanism, Qinhuangdao can not only integrate and utilize its rich resources more reasonably but improve its productivity and efficiency.

3.3 Opportunities

(1) Policy support

After accession to WTO, China has permitted foreign merchants to occupy substantial shares or have a proprietorship of constructing and operating the public docks facilities and storage facilities concerning with transport service in terms of ports. Large specialized docks of oil, coal and ore will be the key point to introduce the foreign investment. It also brings about new opportunities for logistics transportation of ports when the development strategy called Belt and Road Initiative were proposed in new period and it is beneficial to promote and construct the comprehensive ability of ports^[7].

(2) Legal protection

Port Law of the People's Republic of China was implemented in January 1, 2004, which has been the first law to standardize port comprehensively and systematically since the founding of new China. Legalization is a criterion generally practiced by developed countries when managing port. This law reflects the objective requirement of running port by law and the great-leap-forward development^[8].

(3) Hinterland effect

It is time for Qinhuangdao to mark a tuning point of the transportation of urban functions and promotion of industrial structure. And the mode of economic development changes from the extensional quantity growth to connotation quality growth. Qinhuangdao will focus on the economic development in 21st century and the logistics will be the pillar industry. In the process of developing modern logistics, the advantages to be the world-class port city should be made use of and the port can be the core and breakthrough. Besides, it should pay attention to develop the comprehensively port logistics which is based on ports and includes the harbor industries and portside services.

(4) The development of e-commerce

As customers have the increasing demands for enterprises which live on production, transportation and transfer the domestic enterprises engaging in port running should build a network system of modern e-commerce logistics. Then it helps to achieve the information exchange and sharing among enterprises and ports. The deepening development mode of Internet plus has also provided the new opportunities to upgrade and develop port transportation.

3.4 Threats

(1) Fierce competition among ports

With the rapid development of China's economy, the competition among ports has a tendency to go up especially for transporting coals. This form illustrates the recent market shares of coal docks.

Table 1 the analysis of market shares about coals transportation

Ports	Market shares (%)	Production scale (Million tons)
Qinhuangdao port	41.32	14513
Tianjin port	21.80	7100
Qingdao port	3.13	1904
Rizhao port	6.15	3019
Lianyungang	3.58	2170
Huanghua port	14.61	5643
Yingkou	2.52	1386
Jinzhou	3.01	1755
Jintang Port	4.24	2320
Other ports	0.42	541

Thanks to the changing market demand, the competition of price and service among ports turns to all-directional competition which includes business chain, port capacity and optimization of port operation procedure.

(2) The competition of foreign companies

As the degrees of China's openness increases constantly, foreign enterprises prefer to invest more money in China and they build ports or participate in operating. They not only bring adequate money, but also provide advanced technologies and management thoughts. What's more, they compete with domestic port enterprises at a low price.

4. Analysis matrix and development strategies based on SWOT method

4.1 SWOT analysis matrix

Table 1 SWOT analysis table

	Opportunity: Policy support;Legal protection;Hinterland effect The development of e-commerce;	Threat: Fierce competition among ports;The competition of foreign companies;
Strength: Geographical advantage;High-quality logistics equipment and qualified personnel Advantage;Efficient transport network;Have a self-railroad	Seize the opportunities to further develop coal logistics.	Make better use of its advantages ;Actively participate in the cooperation with relevant enterprises.
Weakness: scarcity of land resources; A shortage of close cooperation between port and hinterland; Imperfect management and operation mechanism	Enhance the coordination between port and hinterland;Improve the logistics service ability;Speed up the pace of logistics information modernization; Cultivate relevant talents;Construct dry ports; Protect environment	Adjust port structure; Prepare well for its transformation to the Green Logistics.

4.2 Develop Strategies

Based on SWOT analysis method, the following strategies are put forward:

(1)Enhance the coordination between port and hinterland

It's noticeable that economic hinterland is the foundation of survival and development of port. As the pillar industry of port cities, in most case, can boost the development of the surrounding industries which can activate the whole city's economic development. In turn, the construction of hinterland can be a pulling power to support the port, especially the policy support and infrastructure construction are the solid guarantee for the port's further promotion. Generally, regarding the city and port as a whole, the local government should enhance the coordination between port and its economic hinterland, and develop them simultaneously. Besides, formulating preferential policies to drive the harbor industry, integrating the harbor water and beach resources, creating a good environment to attract the foreign investment and forming industry clusters are all need to be done.

(2)Improve the logistics service ability

In this logistics competitive severely age, Qinhuangdao Port should do following things: invest more funds into it; build a stable and more closed relationship between port and the relevant departments of hinterland; optimize the customs services; larger the loading and transportation capability; self-improve to increase clients' satisfaction.

(3)Speed up the pace of logistics information modernization

Information technology is the trend of the world economy and port development as well as the foundation and precondition of logistics. Thus, there is necessary to develop its information technology to support and boom the port logistics. Through the contemporary logistics becomes more complicated, the information technology is efficient and quick in the transmission of logistics information. With the increasing competitiveness and clients' higher requirement, it has a necessity to

build the modern information network like EDI, MIS, wireless terminal, E-commerce etc, which can realize the information sharing among the enterprise, client and management organization. Furthermore, it will help the logistics information management to reach a new horizon.

(4) Cultivate relevant talents

Developing countries' experience shows that a professional team is the key to realize the logistics incorporation. Because logistics is a interdisciplinary subject which is involved with engineering, management, economics and many other subjects, it puts forward high demand for the relevant workers, such as they should have a larger skill set for the vocation. Absolutely, Qinhuangdao Port needs those compound talents who are proficient in logistics knowledge and mechanical technology. Not only can foster talents but also can provide strong support for the further development of the port, local universities are certainly the good place to fill the talent gap, where the Qinhuangdao port should have a long-term cooperation with.

(5) Reform the "Polluted Logistics" to "Environmental Logistics"

With the damage of environment becoming more seriously, recently, China take the environment protection to a new level at the same time when promoting the development of economy. At the precondition of the smooth operation, the coal transportation industries which are viewed as "black logistics" should also responds the state's appeal to develop the green logistics actively. Adhere to the "prevention first, treating crucial" policy, Qinhuangdao should adopt new type of installation to treat the waste harmless. In addition, transfer the "severe pollution and low benefit" pattern to the "intensive green logistics" to reduce pollution.

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