

A Study of the Logistics Development in Hai Phong Port

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Abstract : Vietnam is entering an important phase of urbanization that corresponds to the current economic development. Developing logistics of Vietnam in general, and Haiphong particularly, is urgent in order to meet the need for the economic development of Viet Nam in this period of international integration. Hai Phong's development record over the past 20 years is remarkable. In conjunction with the local government's efforts, external factors, such as increasing direct foreign investment, is turning Hai Phong into Vietnam's logistics hub. However, even though Hai Phong accounted for 98% of North Vietnam's throughput, its logistics services are low level, the ports are fragmented, and the port management scale is backward, with the legal system overlapping. This paper has systematically evaluated the development of Haiphong city during recent years, then offers some solutions to develop logistics for Hai Phong ports.

Key words : Logistics Development, Hai Phong, Human Resources, Port Infrastructure, Legal System

1. Introduction

Haiphong is an important port city, industrial center, the largest seaport in North Vietnam. This is the third largest city in Vietnam and the second largest city in the North after Hanoi. With the advantages of deep-water ports, sea transport is extremely developed, Hai Phong is one of the growth engines of the Northern key economic region. Hai Phong accounted for 98% of North Vietnam's throughput in 2014. With over 100 km of coastline from capital city to Ha Noi, Hai Phong has the many potential and resources to become a logistics hub domestically in the short term and regionally hub in the future (CBRE research, 2016). Even reach great achievements recent years, Haiphong is still not performing at its full potential. Lacking of fully integrated infrastructure, transportation system is not meeting the requirements and making production cost increases, logistics services are less competitive.. Hai Phong is focusing on only seaports' development but this system still small, handling machinery and equipment are old-fashioned and preventing the development of logistics. Thence, evaluating the situation and giving some solutions to develop logistics system related in Haiphong port is very important and essential.

2. The Analysis of the Development Situation of Logistics Related in Hai Phong Port

2.1 The Legal System

In order to join the transport area, enterprises must comply with the specialized law provisions on each specific transport sector such as the Commercial Law 2005, Decree 140/2007 / ND-CP, Civil Code, Maritime Code of Vietnam, Decree No. 89/2011/ ND-CP dated October 10, 2011 on multimodal transport; the Customs Law of 2014; Multilateral and bilateral international treaties to which Vietnam is a party; International commitments such as WTO, ASEAN, TPP, etc, have been legalized; International practices such as INCOTERM 2010, UCP600.

In February 14, 2017, the Prime Minister issued Decision 200 / QD-TTg approving the action plan to improve competitiveness and develop logistics services in Vietnam. This is considered an important legal foundation to promote the development of logistics services in the following time.

2.2 The infrastructure

2.2.1 Waterway traffic system

The Haiphong waterway system links almost all

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provinces in the North and transports up to 40% of the total volume of cargo transported by waterways in the Northern provinces. Haiphong now has more than 400km of inland waterways with more than 50 inland waterway ports, 03 floating bridges, 06 ferry piers. On the canal: Total length of the whole route is 85 km. (inland waterways - Haiphong Department of Planning and Investment, 2017).

A diverse river system consists of 19 rivers serving inland waterway transport to the Red River Delta provinces with a total length of 211.6km. Five main rivers are: Da Bac - Bach Dang river length 32 km, Cam river length 30 km, Lach Tray river length 45 km, Van Uc length 35 km. There are also many other small rivers.

2.2.2 Seaport system

Haiphong is national seaport complex, including 12 main ports and many small ports around the city, Haiphong Port is one of the largest ports in Vietnam and south-east Asia as a whole, which is located on a marine transport route, connecting Singapore with Hong Kong and other seaports in the Eastern and Northeastern Asia. 95% of total cargo throughput measured by container TEUs is transported via ports in Hai Phong, reflecting its importance to the logistics industry in the North.

Hai Phong has more than 20 terminals with many differences function such as handling liquefied petroleum gas, cargo, dry bulk cargo, container cargo, being shipyard or handling small tonnage vessels. These ports are managed and operated by various companies.

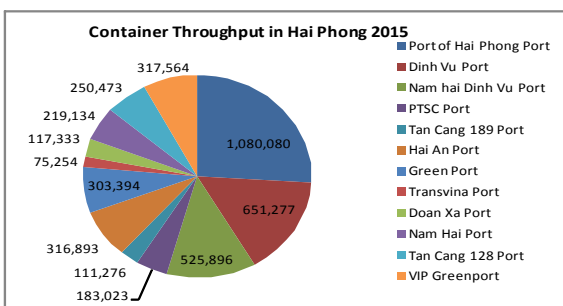


Fig. 1 Container throughput in Hai Phong, 2015 (TEUs)
Source : Port of Hai Phong report, 2016

The Lach Huyen International Gateway Port is under construction off the coast of Hai Phong, started from 2013. This project includes Lach Huyen Deep Sea Port and Tan Vu- Lach Huyen Highway project. The international port of Hai Phong with Lach Huyen harbor is an important project

not only with Hai Phong city but also with special significance in the development of Vietnam’s maritime industry as a gateway to the world. It will have a berth of approximately 8,000m, a route length of 18km and the depth of sea passage is 14m. When finished, the port’s annual throughput will be reach 30 million ton per year.it will be able to accommodate container ships about 8,000 TEU (Saigon new port, 2013)

Table 1 Top 5 seaports have the highest cargo throughput in the world 2015

(Unit: million tons)

No.	Port	2015	Growth ratio
1	Ningbo & Zhoushan	889,0	1,89%
2	Shanghai	717,4	-5,02%
3	Singapore	574,9	-1,10%
4	Tianjin	541,0	0,19%
5	Suzhou	540,0	12,5%

Source : The United Nations Conference on Trade and Development (UNCTAD), 2016

In 2015, the cargo throughput un Haiphong port is 79,2 million tons with growth rate is 12%. the table 1 shows the cargo throughput in that Ningbo & Zhoushan Port is highest with 889,0 million tons, over 11,2 times more than Hai Phong port. The growth ratio in Hai Phong port is high points out Hai Phong port is developing lately, it is a good sign.

In addition, with the total area of container yards of 6,730,000km2 and the amount of container throughput in 2015 is 36,54 million TEUs; 37 million TEU in 2016 and has set a new world record by handling over 40 million TEUs in the end of 2017 (the Shanghai International Port Group, 2018), Shang Hai Deepwater Port is biggest port and busiest container port in the world lately years.

2.2.3 Road network

- External road :

National road 5A : Ha Noi- Hai Duong - Hai Phong, total length is 102km. Ha Noi - Hai Phong Highway, total length is 100,5km. National Road 10 is an inter provincial road along the northern coastal areas and through 6 cities and provinces : Quang Ninh, Hai Phong, Thai Binh, Nam Dinh, Ninh Binh, Thanh Hoa., Road across Cat Ba island - Hai Phong, total length is 35km. National Road 37. total length is 20,1km

- Under construction roads :

Quang Ninh- Hai Phong Highway predicted open in 2018, including Quang Ninh- Hai Phong Highway total length is 19,5km and Bach Dang Bridge. (Hai Phong Department of Planning and Investment, 2017)

Coastal Highway Quang Ninh- hai Phong- Ninh Binh, total length 160km.

The Tan Vu-Lach Huyen Highway total length is 15,63km. (Vietnam Investment review, 2017).

- Internal roads: including 14 main roads of the city and provincial roads, total length 250km.

Hai Phong city has about 600 streets, located in 7 districts of the city. The longest road is Pham Van Dong Street, 14.5 km long. The shortest is Doi Can Street, connecting Le Loi Street to Luong Van Can Street in Ngo Quyen district, only 70 meters long. The streets in Hai Phong are clean, small, narrow, but traffic congestion are very rare.(Hai Phong Departmenr of Planning and Investment, 2017)

2.2.4 Rail transport

The railway from Hai Phong transports a large number of passengers and freights from Hai Phong to the southern and northern provinces. This railway connects Kunming in Yunnan, China through Lao Cai city and Nanning (China) through Lang Son city. The railway line starts from Gia Lam railway station (placed in Ha Noi city) to Hai Phong railway station, 102 km long, which is now use to transport passengers and cargo; going through Hai Duong and Hung Yen (almost parallel to Highway 5), and some lines transport passenger to Long Bien station, Hanoi railway station and some lines transport cargoes to Lao Cai and southern provinces. There are 3 special-use railway lines linking Hanoi-Hai Phong route with port areas along the Cam River from the Vat Cach port to the Chua Ve port.(Hai Phong Departmenr pf Planning and Investment, 2017)

2.2.5 Air transport

Haiphong has civil airport and international airport. After the expansion, the Cat Bi international airport will be capable of serving up to 4 -5 million passengers per year. In 2016, the first phase of the project was completed, the Cat Bi international airport can capacity 2 million passengers per year.

Table 2 List of airports connecting with Cat Bi international airport

Airlines	Destinations
Vietnam airlines	Da Nang, Ho Chi Minh city, Nha Trang
Vietjet air operated by Thai Vietjet air	Bangkok - Suvarnabhumi
VietJet Air	Buon Ma Thuot, Da Lat, Da Nang, Ho Chi Minh City, Nha Trang, Phu Quoc, Pleiku, Seoul-Incheon
Jetstar Pacific Airlines	Da Nang, Dong Hoi, Ho Chi Minh City
Sichuan Airlines	Guangzhou

Source: en.wikipedia.org

Beside Cat Bi international airport, Hai Phong has Kien An airport using for Military and Hai Phong international airport located Tien Lang district, scale about 6000 hectares with total estimated investment through 3 phases until 2030 is over 8 billion USD, this project promise to be largest airport in the North.

2.3 The development situation of the human resources

In 2016, there are 35.5 million tons of goods cleared in Hai Phong city and it is expected that by 2020, Hai Phong will have 109 to 114 million tons of goods import and export. According to Hai Phong People’s committee in “The development planning of logistics services in Hai Phong city to 2020, orientation to 2025 ” was held in Hai Phong in 2017, Logistics network is expected to have five centers in Lach Huyen Port, Nam Dinh Vu Industrial Zone, VSIP, Trang Due and Hung Thang Commune, Tien Lang with more than 150 hectares in 2020-2025 and 300 hectares in 2030. The forecast of logistics human resources in the city to 2020 requires about 270,000 people, of which 160,000 qualified workers and have passed professional training on logistics. That is why the demand for human resources for the logistics industry in Hai Phong city is very large.

3. Assessing the Situation to Develop Logistics System Related in Hai Phong Port

3.1 The legal system

In general, the legal mechanism for the city logistics system in Haiphong is relatively full. Recently, more legal documents related to logistic orientations, developments planning for the period by 2020, vision 2030 have been added but it is still inconsistent, the burden of administrative procedures still complicated because Vietnam is a developing country with low economic levels and weak state management.

The inconsistency in regulation about the competent state management department related to state management of logistics. For example, in Decree 97/2009/ND-CP and Decree 89/2011/ND-CP, the Ministry of Transport is permission granting multi-modal transportation license. However, according to the provisions of the Commercial Law, 2005, the Ministry of Industry and Trade is the state management agency for logistics and the registration of logistics business is done by the Department of Planning and Investment.

3.2 The infrastructure

3.2.1 Waterway transport system

In fact, it can be seen that inland waterway transport in Hai Phong has a lot of potential and advantages for development, Haiphong only exploits a very small portion of its transport capacity due to services and facilities are still weak, the current investment and planning is not adequate. The system of ports and wharves along transport routes has not been fully developed. The main loading and unloading technologies are not accessible to large vehicles. The constructions of some deep-water ports are invested, but not to build a road linking the port to the external traffic system. The number of vessels is large, but the tonnage and capacity are small, the range is limited, so it does not create high transport productivity and low economic efficiency.

Table 3 Turnover of transport, storage by kinds of economic activity

(Unit: Bill. dong\$)

	2013	2014	2015	2016
Road	6.669	8.314	10.850	12.937
Inland Waterway	11.48	12.342	13.491	14.116
Storage	1.961	2.424	2.717	2.995

Source: Hai Phong statistics yearbook, 2016

3.2.2 Seaport system

Transport systems are not up to requirements and are impeding development, increasing the cost of production and discouraging investors.

Existing ports are not connected by continuous docks or direct connections, which impedes the upgrading of ports to transshipment centers. The current berth design may affect the handling of transit goods, as it is not possible to efficiently transport containers received from ships to mother ship because of the berth is not long enough for both ships. In Chua Ve terminal, berth length of CV3, CV4, CV5 berth are 550m in each berth, which is highest length berth in Hai Phong ports (The Second Zone Maritime Pilotage Single, undated 2018), the problem is when two ships of 350m length into a port at the same time, one ship will have to wait outside the port. In addition, the berth length of Dongsanhai container terminal in Shanghai Port is 1436m (Wang, 2016) almost 2,7 times with berth length of Chua Ve Terminal.

3.2.3 Road network

The external and out-of-urban transport network is basically meeting the travel demand, but there are limitations on river crossings, line capacity and quality of transport services. It is estimated that over 80% of cargo from Hai Phong Port is transported by road; the remaining volume is shared by rail and inland waterways.

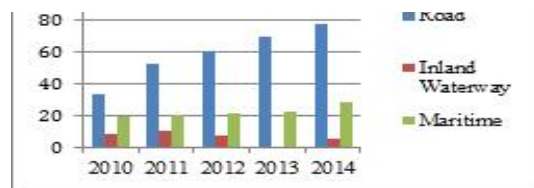


Fig.2 Haiphong's cargo volume by mean of transport million ton

Source: Ministry of transport, 2014

Urban traffic is facing the risk of congestion, traffic disability and according to the City Traffic Safety Board, over 70% of traffic accidents occur in suburban area due to the lacking of major roads, limited crossings, lacking of space for parking lots, public passenger transport not yet strong. The streets in Hai Phong are small, narrow but clean. (Hai Phong Statistics Year Book, 2016)

At present, the infrastructure in the two main corridors is overloaded with the needs of East-West corridor and Hai Phong-Thai Binh corridor. On the east-west corridor,

Highway 5 is the only route that has to handle the entire volume of goods transported from the docks of Hai Phong.

3.2.4 Rail transport

It can be said, now, only Hai Phong port has the railway system to go out and into the port. This is considered as a big advantage for Haiphong port. At present, the volume of cargo transported by rail is about 3%, while the rest is by road. Thus, it can be said that rail transportation has not yet brought into full play its advantages and has not become a major means of transporting goods into and go out from ports.

3.2.5 Air transport

Cat Bi International Airport became international airport from May 2016 after upgraded. At the end of the first quarter of 2017, the second stage of upgrading and extending the airport will be concluded, enabling Cat Bi to handle more modern aircraft. By 2020, the number of passengers is expected to reach 2.3 million while the amount of cargo will top 11,000 tones.

3.3 The human resources

According to the statistics of the Research Institute for Logistics Development, human resources for the logistics industry is lacking 26% of technical experts, 21% of people have knowledge of logistics. Labors costs account for a large proportion of total industry operating costs, averaging 33%. making logistics costs higher and also prevent the logistics development. According to the statistics of the Research Institute for Logistics Development (2016), human resources for the logistics industry is lacking 26% of technical experts, 21% of people have knowledge of logistics.

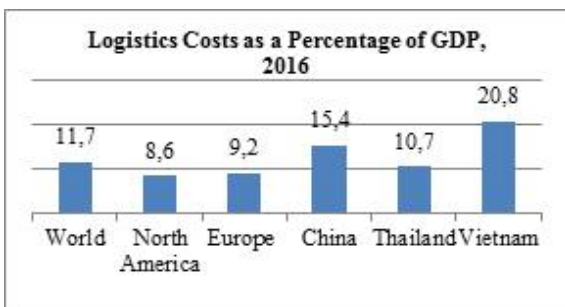


Fig.3 Logistics costs as a percentage of GDP in 2016
Source: Vietnam Logistics Association, 2016

In Hai Phong, besides few small training logistics centers, there is only Vietnam Maritime University is training logistics course. However, the teaching staff is still

lacking, so mainly the experts from other fields making knowledge transfer is not much. Further more, enterprises do not have recurring recruitment plans, they often recruit when they need labor and only meet the immediate requirements rather than long-term development plans. It is not motivate the employees to improve their skills and professional qualifications to become more professional. The other reason is that the workers did not aim for a specific job so they often lack the necessary skills. Not only that, they are not active in understanding the demand for recruitment and access to logistics companies as students, that is making them lack of experiences.

4. Solution for Development Sustainable Logistics

4.1. Legal system

The state only needs to pay a little attention to services that are considered "leverage" to support other sectors of development. The support is open mechanism rather than investment money for businesses. Accordingly, the State acts as intermediary connecting import-export enterprises with logistics enterprises. It can assign the Ministry of Industry and Trade and the Vietnam Chamber of Commerce and Industry to encourage the participation of enterprises.

At present, most huge ports in the world all have port land and port waters owned by the State. (Port Authority). The State manages and invests in port infrastructure and then leases it to the port operators for a period of 40-50 years. These enterprises will invest in cargo handling equipment to provide port services. They will be required to pay infrastructure lease fees annually to the State. Rotterdam Port was established under the "Port authority" model. Specifically, the Port Authority Rotterdam (PAR) is owned 30% by the Ministry of Finance and 70% owned by the local government (Rotterdam city) (Vietnam logistics. 2016). Lach Huyen Port is running under the "Port Authority" model. This helps to ensure the construction and development of the port land in line. To overcome the inadequacies between supply and demand. It also help optimize the connection of ports with logistics and provide the cargo source for the port.

4.2. The infrastructure

For sea infrastructure, it is important to upgrade the port system and fleet. In the case of river infrastructure, ports should be built on the basis of identifying the main routes

along with appropriate investment in equipment. With regard to railway infrastructure, it is necessary to renovate and upgrade existing roads, study and build the North-South express railway.

Promoting investment in modern and synchronous equipment as well as applying the scientific and technology achievements. Warehouse management system can improve efficiency by choosing the best routes and picking method. Recently, the State has promoted the implementation of electronic customs declaration Viet Nam Automated Cargo and Port Consolidated System, thereby creating a motivate force for logistics companies to actively upgrade information technology infrastructure.

The end of 2017, The Standing Committee of Hai Phong City Party Committee approved the list of 18 projects in 2018 including some key projects. These are important projects, contributing to the decision to create a breakthrough development.

4.3. The human resources

The government should check and continue to implement, develop the policies that facilitate the operation of logistics. On the other hand, functional units should cooperate closely with enterprises; determine the needs of enterprises in the future to have a reasonable training plan to avoid rampant training, costly but unemployment rate increase.

Pay more attention to the training and development of human resources such as public-private partnership contributes to the development of training plans and programs that are directly linked to the actual needs of the business.

Developing human resources to meet customer requirements and apply information technology in accordance with service requirements.

In particular, the Government should also exchange and expand opportunities for international training for tertiary institutions, creating a favorable environment for investment in education, giving opportunities and scholarships for students and staff in the country.

5. Conclusion

Hai Phong is the important commercial and transportation hub for northern Vietnam. Hai phong port is developing successfully. Recently, Hai Phong is invested and many huge infrastructure projects are completed and will be completed. However, Hai Phong is still not performing at its full potential. The legal system is inconsistent, the infrastructures are weak, logistics services and enterprises

are low level . Human resources are high quantity but low quality. In order to promoting port system more development in the future, Hai Phong need address the issues of transparency and administrative procedures, disseminating and applying new port management scale. Increasing management in logistics services. Improving labor quality, pay more attention into developing the transportation and infrastructure, connecting logistics enterprises. Therefore, systemizing and evaluating the situation of development and then giving some solution to develop logistics related in Hai Phong port is now extremely essential.

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