
FACTORS AFFECTING SUSTAINABLE LOGISTICS DEVELOPMENT IN THANH HOA PROVINCE, VIETNAM

**Nguyen Thi Nhung - Hanoi University of Natural Resources and Environment,
Hanoi, Vietnam**

Abstract

In the context of globalization and the Fourth Industrial Revolution, logistics is an important factor in performing the strategy of sustainable development of the Northern Centre in the current and future. Research has shown a mechanism of positive relation of logistics on sustainable development of the Northern Centre through a positive impact on three components: (i) stable economic growth; (ii) Ensuring social equity and (iii) Ensuring a living environment.

Keywords: *Logistics, regional sustainable development, Thanh Hoa*

1.INTRODUCTION

Thanh Hoa is the gateway province from the North to the Central and South of Vietnam, where there are many seaports and connecting roads from the port to the Lao PDR. Thanh Hoa is also a province with a large area and population compared to other regions of Vietnam. It has advantages in developing the marine economy based on the diversified and synchronous development of logistics services.

However, seaport operations and logistics services still have many limitations, such as the seaport system, connecting transport infrastructure has not been synchronously invested; there is no strong enough policy to attract investment resources to develop seaport infrastructure and logistics services; domestic and international customers have not known Nghi Son global container seaport brand; Currently, in Thanh Hoa, there is no large logistics center in operation, the logistics-related services provided are primarily small and fragmented, not providing much support to shippers, while service costs are pretty high human resources are lacking, quality is not high,... the development of seaports and logistics services needs to be commensurate with the potential and advantages of Thanh Hoa. In today's globalization context, reducing logistics costs is considered the most effective way to increase profits and is a significant factor in assessing the competitiveness of an enterprise and a country. Lowering logistics costs will help reduce the cost of goods and services so that a business can strengthen its position in a country's market, and the industry will improve its competitive position internationally.

In the context of globalization, extensive economic integration, and the rapid progress of the 4.0 technology revolution, the requirements set out in the development plan of Thanh Hoa province for sustainable development have been affirmed by the Central Resolution. Determined and also necessarily objective. The concept of sustainable development is perceived as development that meets the needs of the present but does not interfere with meeting the needs of future generations. On that basis, the criteria for assessing sustainable development are considered on three main pillars: (i) stable economic growth; (ii) making good progress and social justice; (iii) rational

exploitation and economic use of natural resources, protection, and improvement of living environment quality.

For the sustainable development of the economic region, many domestic and foreign studies have also pointed out many factors that have both positive and negative impacts. In particular, the logistics factor has been shown by many studies to positively impact the sustainable development of the economic region and the country in general. Therefore, to verify the above thesis, the study examines the impact of logistics on the development of Thanh Hoa province in Vietnam.

For the overall assessment, the WB provides an LPI index, including domestic LPI and international LPI. Logistics is broadly understood as a network of services supporting the movement of goods, cross-border trade, and domestic trade. In the framework of the study, when considering the impact on the development of Thanh Hoa province in the context of globalization, the author finds and bases on the LPI index with 6 component criteria, including:

Firstly, the Customs (C): The effectiveness of the border control agencies, such as the speed of customs clearance of exported and imported goods; simplicity of customs procedures and predictability of customs clearance procedures (openness, transparency, stability of customs procedure regulations).

Second, the Infrastructure (IN): The quality of the infrastructure related to commerce and transport (infrastructure for seaports, airports, railways, roads, seaways, and cargoes). Air, transportation, warehousing, information technology infrastructure, and IT services).

Third, Service quality (LS): The capacity and quality of logistics service providers, such as enterprises providing road, rail, and air transport services Air, sea, and multimodal transport; warehousing and distribution enterprises; forwarding agents; customs clearance agents; trade and transport-related associations; consignee and consignee.

Fourth, the International shipment (Sh): The ease of arranging transportation of import and export goods at competitive prices, related to costs such as agency fees, port fees, and bridge fees. Roads, storage fees;

Fifth, the Tracking and tracing (TR): The ability to track and trace shipments during storage or transportation;

Sixth, the Timeness (Tm): The punctuality of the shipments are transported when they reach the destination compared to the scheduled time; Import and export shipments are cleared through customs and delivered on time.

2. STRENGTHS OF LOGISTICS IMPACT ON SUSTAINABLE DEVELOPMENT THANH HOA PROVINCE

Thanh Hoa is a province bordering the sea, so logistics development needs to be closely associated with seaports. Developing the Nghi Son international container seaport brand is necessary both domestically and internationally.

The actual situation of logistics infrastructure in Thanh Hoa Province Transportation infrastructure is the most important for logistics development and creates competitive costs. Logistics activities are always associated with transport modes that

account for a large proportion, such as sea, road connecting ports, and other methods. Therefore, the favorable location of the seaport is always an advantage to developing significant logistics centers in the world, which Thanh Hoa also has. With the area of the gateway connecting the North with the Central region in the coastal strip of land, in terms of the potential to connect the transport infrastructure to serve transport and logistics activities at the regional level, Thanh Hoa has the advantage. Compared to other provinces in the Central region. Thanh Hoa province's transport system is relatively diverse in modes and convenient regarding road, national railway, river, sea, and air routes, especially deep-water seaports. In the past period, the transport system has received considerable attention and investment, especially seaports, roads along the vertical and horizontal axis, connecting roads, and airports, which have improved capacity, significantly contributing to the country's development. Socio-economic development in general and logistics services in particular.

Regarding the national connection traffic network: The road has a total length of 10,578 km, of which the National Highway: 13 routes/1,301.7 km (7 vertical axes, six horizontal axes); Provincial roads: 64 routes/1,472.8 km. Railway: There is a national line 103.2 km long, passing through 8 districts and ten stations (2 main stations). HK port: Tho Xuan airport reaches level 4E, serving mid-range aircraft such as A320-A321, B777-B747, with international flights. Inland waterways: currently managing and operating 22 routes/761km, with 01 HK port, 18 TWW piers, and 29 licensed construction material wharves. Maritime: There are two ports, of which Le Mon port has six berths, allowing to receive ships of 2,000 DWT, Nghi Son port has nine general wharves and three specialized wharf areas, allowing to receive vessels of 70,000 DWT; 2 navigational channels on Ma river and Bang creek. Intra-provincial traffic: All district centers in Thanh Hoa province have connecting national highways, and some districts have 2 to 3 connecting national highways. In addition to the national highway system, the system of provincial roads and rural roads also creates a continuous connection network; the vertical axes connect with the horizontal axes and connect to the centers of districts and communes to start favorable conditions benefits in the trade of people and goods, contributing to the socio-economic development of the locality.

3. SOME LIMITATIONS OF LOGISTICS IN THANH HOA PROVINCE, CAUSES OF LIMITATIONS

Besides the strengths of logistics in promoting sustainable development in Thanh Hoa province, there are still some limitations, as follows:

Compared with the current market size, the transport infrastructure in the province has had more advantages than before. However, there are still limitations: Regarding roads; the expressway must meet the requirements. Demand speed, a large volume of transport. In addition to some national highways reaching grade III, 2-4 lanes, many other national routes go grades IV, V, and VI, which is very limited for traffic and safety. Provincial roads mainly meet grade VI road standards; low capacity, limited circulation. Regarding railways: general capacity is limited, and seaports have no connection. Regarding aviation: connecting to dynamic economic regions without highways.

Regarding inland waterways: the delta region has yet to invest in an inland waterway port and connect trenches with seaports. Rivers and canals in mountainous areas could be more favorable in terms of terrain for stable development. Regarding maritime: Nghi Son Port currently does not have a specialized container port to attract container goods in the province and other provinces in the region, such as Ninh Binh, Nghe An, and Ha Tinh.

The system of connected traffic infrastructure still needs to be improved and synchronized to meet the requirements of speed and large volume: + There is no expressway connecting with Nghi Son KTT. The connection works from NH1A to Nghi Son port, East-West road has not been completed, there is no railway connecting Nghi Son port, and no inland waterway port connecting to the seaport (currently mainly by road).

The logistics infrastructure and logistics behind the port are still limited. Thanh Hoa (Nghi Son) has large logistics centers and dry docks. + The logistics infrastructure system does not have logistics centers in Thanh Hoa; there need to be more large-scale logistics service zones to support the exploitation of the seaport system. Warehouses and sand satellite service yards have yet to be planned, spontaneously developed and are small, and there are no active dry ports in the area.

+ The system of warehouses, loading and unloading equipment, customs, port authorities, etc., related to sea container transportation from Nghi Son to other countries is also relatively new and needs to be improved and improved. Quality, cost reduction, procedure time,... – Shipping services and services at seaports are not diversified, service quality is still limited, and transportation costs are high (especially in sea container transport).

Logistics activities in Thanh Hoa mainly focus on transporting and withdrawing goods from the port (especially bulk cargo, raw materials for factories, construction machinery, and equipment, ...), the stages that create the least added value in the logistics service supply chain. Trucking services still play a dominant role, provided by hundreds of enterprises (most of which are small and medium-sized); towing service still needs to be improved and expanded, ...

Container transport support services through new seaports are in the early stages of deployment, needing large logistics centers in the region. Not yet developed for stable container transport at Nghi Son port, and low shipping volume: The attraction of container ships to Nghi Son faces many difficulties. The new May 2019 is piloting container shipping at Nghi Son according to the route: Hai Phong - Nghi Son - ZHANJIANG (Guangdong province, China) - Hong Kong - NANSHA (Guangzhou province, China) - Hai Phong (Details of train schedules are in the appendix). However, the shipping line is currently operating with many difficulties; on average, each trip only has about 200 export containers and less than ten import containers. Maintaining the container shipping route will be very difficult if this situation continues.

Currently, many businesses and shippers in Thanh Hoa have to transport containers to Hai Phong Port to export to other countries, while at Nghi Son Port, there is a container ship to Hong Kong, China. The main shortcoming here is that the total cost of

containers from Nghi Son is higher than that of containers from Hai Phong. In addition, the frequency of container trains at Nghi Son needs to be bigger, slowing down the delivery progress of the business (a detailed analysis is available in the following section).

Container transport costs are still high due to unreasonable transport organization; delivery and service quality still need to be reduced; time has not been reduced to collect goods, return goods, and carry out procedures, causing increased costs. The average time for exporting/importing containers through Hai Phong and Nghi Son ports is the same (3 days). Therefore, Nghi Son port has yet to be able to compete with the time requirement even though the distance is closer.

Shipping services are still limited; the rate of empty ships going to and from Nghi Son Port is quite large. In 2018, 7112 ships were going to and from Nghi Son Port, of which most (more than 99%) ships only had one-way cargo (1 way with goods and the other way was empty ships without load). – Lack of large and professional logistics enterprises in Thanh Hoa.

Businesses operating in logistics-related fields still mainly serve themselves and primarily transport. Few enterprises specialize in logistics services, not a chain of services.

Lack of large logistics enterprises (domestic and international) to operate in Thanh Hoa can consolidate goods, create goods, build large and modern logistics centers,

It has yet to attract seaport operators and national and international logistics service providers to operate seaports. The application of information technology for logistics, warehousing,

Domestic and international customers have not berthed the Nghi Son international container port brand name. The Nghi Son seaport brand's marketing strategy and promotion still need to improve. In the world market, shipping lines and foreign shippers still need to learn more about the Nghi Son seaport system. - Statistical database system, especially on production, supply, consumption, transportation, warehousing, forwarding capacity, etc., is still lacking and weak, which has not supported much for logistics enterprises and logistics enterprises—development policy making. - The scale of production and consumption of goods in the province and region needs to be more significant to promote the logistics service industry professionally. - Professional human resources in logistics services are lacking and must meet the requirements. The logistics training system has yet to develop in Vietnam. Still, it is only a subject in external economics and transport economics (the University of Transport and the University of Transport in Ho Chi Minh City just opened logistics training in 2018).). - There have not been promulgated regulations, mechanisms, and policies to synchronously directly regulate logistics activities (schemes, master plans, plans) but mainly regulations for indirect adjustment through commercial development policies. General trade service, development of transportation, information technology, human resources, support for international container shipping lines from Nghi Son Port,...

4. SOME REASONS LEAD TO THE LIMITATION OF LOGISTICS IN THANH HOA PROVINCE.

Firstly, the planning and organization of planning implementation with regional linkages still need to be guaranteed. This shows that the traffic system connecting border economic zones and international border gates by road to significant seaports is still limited; The planning of many large seaports in Thanh Hoa province (every province has large seaports) is the cause of competition in Thanh Hoa province, low seaport operating capacity, the ability to recover investment capital in infrastructure. Slow floor, causing low efficiency in regional linkages and value chains. Thereby affecting the stable growth of Thanh Hoa province.

Secondly, there is still competition between localities in Thanh Hoa province, and there needs to be more attention to regional linkages and value chains. This is evident in the construction and operation of large seaports, attracting FDI enterprises in the seaport service business and logistics of localities (for example, Nghi Son port has many incentives to attract significant international ships to receive and return goods through the port, while other seaports in the region such as Cua Lo port, Chan May port do not have those incentives, so they unintentionally create price competition. Between seaports in the area). This leads to the cost can be reduced at a particular stage, but the total logistics costs increase, causing the uncompetitiveness of products in the market.

Thirdly, the quality of human resources in Logistics is still limited because they have not been adequately trained according to international standards. The survey shows that the training institutions in the localities of Thanh Hoa province still need help regarding facilities, programs, human resources of lecturers, library systems, laboratories, and practice. The quality of trained human resources for the labor market still needs to improve regarding theory and practical skills. In addition, the number of high-quality, internationally-trained human resources attracting employment in Thanh Hoa province is still deficient due to the low income and unsatisfactory cultural and social conditions. Candidates expect to work in big centers like Hanoi and Ho Chi Minh to Thanh Hoa province.

Fourthly, the application of technology in logistics service enterprises still needs to improve. Modern technologies in warehouse management and just-in-time technology in accessing goods when transporting, storing, automatic separation, and packaging lines are still minimal. The reason is that most of the logistics service businesses are small and medium enterprises; digital transformation strategy and technology application are just beginning to approach; some enterprises have financial difficulties in technology investment; Others do not have a request from the customer, or if there is a need, but when logistics costs increase, the customer cannot afford it. In addition, the reason for strict control by state management agencies in road transport is to prevent excessive CO2 emissions and emissions into the environment, vehicles exceeding the allowable tonnage or authority. The factory planning and design stages to ensure the density of trees, ventilation systems, fire prevention, and the rate of concreting warehouses still need to be tight, causing inefficient implementation of the Green Logistics goal.

Fifthly, the connection and role of the Association of Logistics Enterprises still need to improve in connecting logistics businesses in Thanh Hoa province as well as joining the business community with local authorities, with management agencies. Port Authority, with limited customs authority. This leads to problems arising in customs clearance of goods, and storage of goods at warehouses and yards, which need to be promptly resolved; The quality of human resources for enterprises has been improved slowly.

5. SOME SOLUTIONS TO INCREASE THE POSITIVE IMPACT OF LOGISTICS ON SUSTAINABLE DEVELOPMENT IN THANH HOA PROVINCE.

Firstly, To complete the framework of mechanisms and policies to attract and encourage the development of logistics services and seaport logistics in Thanh Hoa province. To achieve the goal of developing the logistics service industry, the area needs to create specific support policies to promote the stable, synchronous, and long-term development of logistics, etc., so that investors, shippers, shipping lines, logistics companies can rest assured to invest and operate operating in the province. Expected policies include a Policy to attract investors to build and use a regional logistics center in Nghi Son: priority is to be implemented in the form of public-private partnership (PPP) investment. Select large domestic and foreign logistics enterprises (enterprises with potential, applying modern technology, specializing in 111 logistics, having significant sources of goods, warehouses, ..). Policy to attract investors to build and operate the provincial logistics center in Thanh Hoa City and the regional logistics center in Lam Son - Sao Vang industrial zone. Preferential policy for investment in building warehouses, in which priority is given to buying in large warehouses synchronously with factories, offices, ... for lease (The investment in synchronous construction of warehouses and factories helps businesses. Small-scale enterprises are convenient, convenient, time-efficient, and quickly put into production and consumption). Support policy to attract container goods to Nghi Son port (support shipping lines, shippers, logistics enterprises, port operators, ...) to bring goods through Nghi Son port instead of going by road to the port. Hai Phong.

Secondly, Improve the investment environment, promote investment attraction promotion and support the development of the logistics service market - Continue to promote administrative reform, especially investment-related procedures, construction, tax, customs ... for the production of goods for export, import, and export, and distribute them in the direction of increasing transparency and convenience for businesses. Authorities at all levels, departments, and branches regularly have dialogue and contact with companies and business associations to grasp the situation of production and trade; urge and promptly solve difficulties and obstacles to create favorable conditions to promote production and business activities, logistics projects, etc., to establish representative offices and logistics joint-venture companies in Thanh Hoa province.

Thirdly, Developing human resources in the logistics field of Thanh Hoa province.

Preferential policies with high-quality human resources in several necessary fields, such as information technology in logistics, international freight forwarding service

business, customs declaration services, and warehousing services through the government. Housing books, regional allowances; infrastructure investment policy, incentives for high-quality logistics human resource training institutions based in the region; Strengthen the coordination between the provincial government and the Ministry of Education and Training in creating conditions for local universities to open training majors in Logistics and supply chain management to train professional and human resources Meet national and international standards.

Fourthly, Strengthen the application of science and technology in the field of logistics in Thanh Hoa province.

Strengthen the implementation of the digital economy strategy to local authorities, port management agencies, customs authorities, warehouse and transportation service businesses. In addition, the provincial government has inter-provincial coordination in organizing exhibitions, conferences, and seminars to share technology products used in seaport service business and logistics service business. In particular, promoting products that apply Blockchain technology, AI technology, just-in-time technology in goods retrieval, and automatic technology systems in separating, packing, lifting, and moving goods in the warehouse...

Fifthly, strengthen the management of emissions and environmental pollution in the logistics service business in Thanh Hoa province.

6. CONCLUSION

Logistics development is essential to implementing Thanh Hoa province's sustainable development strategy now and in the future. Research has shown the mechanism of the positive impact of Logistics on sustainable development in Thanh Hoa province through its positive effects on three components of sustainable development in the region: (i) Stable economic growth; (ii) Ensuring social justice, and (iii) Ensuring a living environment.

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