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Solution for the development of container transport

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Abstract: The 21st century is considered to be the era of the ocean, "reaching out to the sea" has become a big trend, an important orientation of the sea and the landlocked nations. The South China Sea region has a very important geopolitical position. In the future, the marine economy will be a key sector of the national economy. By the end of 2018, Vietnam's fleet has 1,593 ships (including freight ships of 1,128 units) with a total capacity of 4.8 million GT and a total tonnage of about 7.8 million DWT. Statistics of the United Nations Trade and Development Forum (UNCTAD) show that in 2018, the Vietnamese fleet ranked 4th in the ASEAN region (after Singapore, Indonesia, Malaysia) and the 30th in the world. The total number of general cargo ships is 819, accounting for over 72.6%; bulk ships have 99 ships, accounting for 8.7%; oil tankers (166 ships) and specialized liquefied petroleum gas (150 ships) accounting for 14.4%; container fleet has 41 vessels, accounting for 3.6%. The average age of Vietnamese fleet is 14.7 years, down 0.2 years compared to 2017 and 6.1 years younger than the world (according to UNCTAD data, the average age of the world ship is 20.8). The vessels with the youngest average age are 14.2-year-old general cargo ships, while the highest average age is the 22.9-year-old liquefied gas vessels.

Keywords: containerization, fleet, ship, ocean shipping

I. INTRODUCTION

It can be said that containerization in the field of shipping is the largest revolution in the world after the revolution in information technology. The practical experience of many countries with developed container transport systems has shown the tremendous economic effects that it brings. The method of container transportation has grown around the world for more than two decades. Many countries have quickly built container ports to receive modern container ships as well as develop this fleet. Currently, our country is at an early stage of containerization. Foreign trade activities have started to use containers for transporting import and export goods by sea. Facing the requirements of scientific-technical progress and demands of foreign customers as well as the great economic benefits brought about by container shipping, the construction of the container port system and the current Container fleet. This is an urgent requirement for our country. Only then can we integrate into the general trend of international shipping. Ocean shipping currently handles 80% of the world's commercial cargo and 90% of the cargo is shipped by containers. The continuous development of efficient vessels with increasing capacity and advanced technology has given consumers a choice of cargo. Container transport is becoming more and more popular and has a great influence on life. Vietnam, with 3260 km of sea lanes, is located on the Indochinese peninsula and has an extremely favorable geographical position. For Vietnam, shipping has an undeniable important role. In recent years, especially since Vietnam implemented international economic integration policy, Vietnam's shipping industry has been developing rapidly, Vietnam's maritime market is gradually expanding at a common pace of regional and global trade trends. However, with some small transportation markets like Vietnam, the appearance of too many shipping lines,fierce competition is inevitable. As a result, freight rates go down too low in less than 10 years. Vietnam route has, in fact, become a loss-making route for many firms, besides a number of small firms, due to inadequate financial conditions, officially or officially withdrawn from the market: POL, HALA, CGM, ANL... The fierce competition along with the widespread economic downturn has forced large container carriers to have a new direction to combine each other into groups and group members to contribute to the operation on each route, inviting one carrier is allowed to queue on group ships on a slot basis [1]. Vietnam's container shipping activities, which are relatively set-up, in which Vietnamese shipping companies largely act as agents to collect commissions from ocean freight charged by foreign container shipping companies and businesses. sales of complementary related services. However, facing the great challenge of globalization of the world economy, in order to increase the competitiveness of Vietnamese companies with foreign companies, key corporations play a leading role in the economy. has been established, including Vietnam National Shipping Lines. Marine Corporation is assigned by the Government to manage the Vietnamese fleet, of which the container fleet has been assigned to GEMARTRANS Company directly to manage the business. Due to the limited financial situation, Vietnamese container fleets mostly operate in the form of loan-purchase-hire-purchase yet to be developed, the small number of vessels with small tonnage capital is only enough to operate short routes[2]. On the route of inland transport Saigon - Hai Phong, due to the nature of safe, guaranteed transportation and lower freight rates than traditional transport by far, by truck, so the couple Vietnamese vessels have been mostly well operated since

opening the service and have received support from customers. With the small number of ships and the remaining low tonnage, which cannot be operated on routes far from Vietnamese fleets, there is still fierce competition from rivals such as WANHAI, APM, APS, STRAITSHIPPIH, leading to severe freight rates, greatly affecting the business efficiency of the fleet. In addition, because the target market is quite narrow, although there are few competitors, the level of competition is very high, freight rates are severely reduced. In order to ensure a profitable market share and business, it is essential that regions in the region need to meet to formulate a standard rate schedule and to increase the number of trips, in the condition that there are few ships, it is necessary to reach place arrangements.

Among Vietnam's current ports, there are 9 ports capable of renovating and upgrading to receive ships of 50,000 DWT which are the average ships in the world or container ships of up to 3,000 TEU. Each year, Vietnam's seaport system receives more than 130 million tons of cargo of all kinds, but mainly concentrates in major ports such as Tan Cang, Sai Gon, Hai Phong, Ben Nghe, Cai Lan, Da Nang, VICT. Currently, Vietnam has more than 60 seaports of all sectors and localities managing the output capital of about 40 million tons/year for all types of goods (excluding crude oil). Technical facilities of the ports are lacking, backward, inconsistent, unstable for ships of 20,000 tons (general goods) and durability for ships of 3-5 thousand tons for Container ships. In recent years, there is a situation of disorganized development, disorganization, no overall planning, causing competition for investment waste ... Flow in and out of Vietnamese seaports is also a problem worth mentioning. Most of the navigable channels into our ports are along the rivers, with high tidal fluctuations, greatly affected by sedimentation, long channels, and limited depth. Every year, the state must spend a huge amount of money to dredge and maintain waterways to ensure that ports can receive the increasing volume of goods. Although most Vietnamese seaports have motorable roads connected to national roads, these routes often face congestion. Some ports are located in urban areas and residential areas, thus the traffic situation is stopped, and only works at night, which greatly limits the capacity of the ports [3]. The container transportation by rail and road is one of the essential transport stages in multimodal transport. Not only serving customers from port to port, but carriers are increasingly inclined to serve customers from door to door. In Vietnam, the current development of container transportation by road is developing spontaneously to meet market demand, there are a small number of companies specializing in road transport and a number of shipping lines owning vehicles to serve as their own bridge, while most tracks are privately owned. In general, the cost of freight containers from the port to the customer's warehouse (and vice versa) is relatively high. At peak times such as the export of agricultural products, the number of existing vehicles does not meet the transport needs and is also overloaded for traffic in some big cities like Ho Chi Minh City or Hanoi. A large number of vehicles on the road with high payloads have caused phenomena such as traffic congestion, broken roads...[4]. Railways have also been put in use, but the weakest development of the transport types is making the railway obsolete and outdated. Although it is a type of vehicle with its own priority road, which can carry super-length and super-heavy cargoes at a cheap price, the transport of containers by rail requires at the transshipment points to have a yard including specialized cranes for loading and unloading, truck systems to transport goods from the customer warehouse to the container yard to load or unload goods from the container and transport to the customer warehouse. This, the railway industry has not met the above technical requirements, along with the high time of transportation on the railway so this mode of transport did not receive support from customers.

II. CHARACTERISTICS

Although the railway to the port is more convenient than the road, currently the ports with direct rail to the pier are only available in Hai Phong port. Remaining freight by rail must add a car stage, so very limited for transport capacity. On the other hand, the Vietnam railway is a single track, narrow gauge and goes through urban areas, so the operation of the railway is mainly at night. The two ports of Saigon and Hai Phong are the two largest ports with dedicated ports for container transport. In addition, in Da Nang, Quy Nhon, and Cua Lo ships, cont can also call in for goods, but the level of specialization is not high. In addition, in Sai Gon and Hai Phong, two inland clearance depots have been built to serve customs clearance for multi-modal transportation mode (door to door service) managed by the maritime development company. and mining. However, because the Vietnamese cont system has just been built since the appearance of the cont transport, the investment in equipment procurement has not been focused and developed synchronously, so in general, Vietnam container port is still very backward compared to other ports in the region. The application of scientific and technical advances, systematization and automation in the management of seaport operation. Vietnam is a developing country with a large population, with a relatively high and stable economic growth rate every year. Therefore, the volume of goods domestically circulating is increasing such as coal, cement, clinker, iron and steel, fertilizer. Import and export goods are also on the rise, Vietnamese goods with export strengths are rice, coffee, pepper, cashew nuts, other agricultural products and crude oil, frozen seafood. There are also consumer goods of joint venture companies or companies with 100% foreign-invested capital exported to other countries by

containers. For imports, the biggest is oil products, fertilizers, iron and steel in the form of raw materials, machinery and equipment. Indonesia and the Philippines are still the two countries in the region that mainly import Vietnam and Thailand rice due to the close, simple and familiar transportation route. Thailand is a country with a large volume of import and export goods such as rice, sugar, cassava, maize, construction materials and imported mainly fertilizers, oil products. Meanwhile, the Thai fleet is small, the age of vessels from 15 to 25 is quite a lot. Compare to the region only the Chinese and Singapore fleets are superior. Particularly, the Singapore fleet mainly transports oil, containers and other service ships. Therefore, there is still room for outside markets and there are many opportunities for Vietnam's container fleet to participate. Vietnam's maritime industry in general and container vessels, in particular, have a large contingent of managers and officers, most of whom have technical and professional qualifications to meet management and operation requirements container fleet today [5]. First of all, it must mention a huge weakness of the Vietnamese fleet. That is the technical condition of the fleet is generally quite low. Basically, the age and type of ships of Vietnam are not appropriate, even backward compared to the fleets of other countries in the region and around the world. In particular, Vietnam's fleet lacks specialized vessels, such as vessels carrying liquefied gas, chemical tankers, or bulk cement, while the demand for these items is quite large. Moreover, container ships, bulk carriers or crude oil and product tankers are limited in both quantity and tonnage. As mentioned, the management team and crew members of the maritime industry are an advantage for the development of the fleet. However, this is also a difficulty due to the fact that most of the seafarers' officers are of average age and not highly re-trained. A fairly common fact today is that Vietnam's import and export companies continue to buy and sell goods under the method of buying CIF to sell FOB, which means that the right of transport for the Vietnamese side is not focused properly level. This comes from a number of reasons. Some export products of Vietnam have low quality and competitiveness, so foreign partners often press on prices and modes of transport. In addition, many of our export businesses do not have a firm grasp of chartering and shipping services, so there is a fear of risk, which has given way to partners. It is recognized that Vietnamese import and export businesses have not received reasonable support from the banking and insurance systems due to our limited financial capacity. On the State's side, Vietnam has not really had strong policies to encourage the purchase and sale of import and export goods carried by the national fleet to reduce the foreign currency, which is the freight paid for foreign fleets. Moreover, the lack of uniformity of coordination between the maritime authorities and regulations, laws and sub-laws on maritime is simply a difficulty for resolving related team disputes ship. In addition, one factor causing many difficulties for the development of the fleet is that our port system is generally defective. For example, the problem of port charges is still high, the access time is quite long, the loading and unloading technique of the workers is still poor, causing a lot of damage to the bags. One factor that causes many challenges for Vietnam's shipping fleet is the fierce competition of foreign fleets, especially in the field of container shipping, crude oil, and produce oil. While Vietnam's fleet, as analyzed, there are many limitations in quantity and payload. Many ships with poor technical conditions, over 20 years old ship age, crew members are not enough to meet the requirements plus limited financial capacity, these are major challenges for the Vietnamese fleet when having to apply the Ministry International safety management law (ISM code). This is the supplementary Code in the Convention on Life Safety at Sea (SOLAS 74), which came into effect on July 1, 1998. Phase 1 applies to passenger ships, oil tankers, chemical tankers, gas carriers, bulk carriers and high-speed cargo ships with a gross tonnage of 500 GRT or more. From July 1, 2002, phase 2 applies to other types of cargo ships and mobile offshore drilling rigs with a total capacity of 500 GRT or more. The purpose of this Code is to ensure safety at sea, prevent injury to people and property, and avoid damage and pollution to the environment, especially the marine environment [6]. Right from the first phase, Vietnamese ships in the scope of application of the Code have faced many difficulties because Vietnam still has deficiencies in safety equipment, life-saving, fire-fighting, and anti-fire devices pollution, so many shipowners are forced to restrict the operation of these vessels. Many ships operating on foreign routes are also regularly inspected and the ship's detention status for several days due to failure to meet the requirements of the International Convention and ISM code.

III. DEVELOPMENT SOLUTIONS

To accomplish this, the industry has built a scheme to restructure the maritime industry to 2020; including the maritime transport sector, which has just been approved by the Ministry of Transport and is considered a guideline for the transportation activities in the coming time. To develop the shipping industry, the most important thing is to modernize the fleet. According to calculations from now to 2020, it takes at least 2 billion USD to improve the market share of import and export transport of Vietnamese fleets. However, with the difficult state budget, it is impossible to rely on the State capital. Especially, by allowing foreign investors to contribute capital up to 49%, it will attract many foreign resources to participate in Vietnam's shipping development, ”Mr. Thu emphasized. Enterprises themselves need to base themselves on the approved branch

development plans and plans; including determining the development trend of fleets and types of ships so as to have a reasonable investment in developing a fleet of enterprises.

Port development is not only about infrastructure development but also the construction and application of an advanced management model as well as improving port operation capacity. Take full advantage of geographical location and natural conditions to develop the seaport system. To rationally develop among national general ports, specialized ports, and local ports, ensuring uniformity throughout the system. Paying attention to developing deep-water ports in all three regions of North-Central-South to increase the attraction of large container ships. Upgrading and expanding other ports, paying attention to the maintenance and maintenance to ensure synchronous and efficient operation. Ensuring through the whole volume of export goods and exchanging between domestic regions by sea, meeting the country's socio-economic development needs. To upgrade and develop in-depth equipment and technological lines for container transportation such as modern loading and unloading equipment such as ship loading and unloading gantry cranes, wheel loader cranes (RTG), or rails on rails (RMG), forklifts (Schedule Carrier) to overcome the backwardness in technology, technology to increase competitiveness in international integration of seaports. Application of modern information and communication technology (EDI, Wireless) in a comprehensive manner for port management and operation. Strengthen human resource training for management staff at universities or professional schools to improve their expertise in container port operation. The current Vietnamese fleet of shipping vessels is almost all old-class dry cargo ships, which cannot be used for container transportation, even in combined form. With the small number of vessels only able to operate short routes, these ships have a long life only have a few years of service, while the demand for container cargo in Vietnam will be increasing higher. Therefore, the shipping of containers by the "door to door" mode is about to be favored and will become the most popular way of transporting goods in the near future. Therefore, if Vietnam does not have a plan to develop its container shipping fleet soon, in the next 2 years, almost all import and export goods will be packed in Vietnam's container (about 40% to 50% of total import and export volume) will be transported by foreign ships. Vietnam Maritime Industry will no longer have the opportunity to develop the container fleet and the State Budget will lose an additional significant revenue...

One of the important factors to increase the competitiveness of the container fleet is the human factor. Currently, the number of crew members in Vietnam is relatively large but the qualification, as well as foreign language proficiency, mostly does not meet the requirements. In addition, the quality of newly-graduated seafarers is weak, the mechanism of use and training is still inadequate, failing to meet production requirements of the economy and integration requirements. Meanwhile, the training, re-training, and raising of the qualifications of crew members are carried out by shipowners on their own ability without the coordinated coordination between universities and high schools maritime with state management agencies are the Ministry of Transport and Vietnam Maritime Administration with shipping companies. The training programs also need to be renewed content, training time so as to reduce the theoretical volume, improve practical skills. For officers and crew members working on international maritime routes, there is a need to have a pay policy based on the efficiency of the ship's business. In addition, there should be policies on allowances and higher financial incentives for crew members such as dangerous and dangerous allowances, expensive allowances. Transport is an extremely important part that cannot be separated during containerization. However, the overcrowding of the road while the railway cannot meet the requirements for loading and unloading, as well as transporting container cargo, makes the transport freight much higher. Because of this problem, containerization in Vietnam's cargo transportation has been slowed down compared to other countries in the world. The investment in railway equipment as well as the construction of roads connecting ports and industrial parks and ports to reduce congestion for roads, assuming transportation costs are an indispensable thing. On the other hand, businesses need to strengthen coordination and association with production, export and import businesses to actively seek freight contracts, gradually creating a closed, specialized logistics service system. Karma. It can be said that the weak point of the Vietnamese fleet is that the fleet structure has not been rational. Currently we have more than 1,800 ships. However, the number of small ships, bulk carriers is too much while specialized ships, container ships, tankers, and liquefied petroleum gas account for very little. In addition, although Vietnamese shipping enterprises are many, with about 600 enterprises, there are over 500 private enterprises and only account for one fourth of the total tonnage, showing that the majority of enterprises in this field are still fragmented, small operations. The key weakness of the shipping industry today is the inadequate management of the enterprises, connection problems, alliances between shipping lines, between shipping lines and shippers are not tight, plus the trade practices make the market share of transports of imports and exports of Vietnamese fleets low. Another factor that brings difficulties for Vietnamese fleets is the average age of the high fleet, currently about 17.7 years old while the average age of foreign fleets is only around 10 years old. According to statistics, in 2014, the total transport volume carried out by the Vietnamese fleet was estimated at 98.5 million tons (135.7 billion

T.Km), a slight increase of 0.13% compared to 2013. Vietnam's shipping business still faces many difficulties and continues to face fierce competition.

IV. CONCLUSION

The investment in railway equipment as well as the construction of roads connecting ports and industrial parks and ports to reduce congestion for roads, assuming transportation costs are an indispensable thing. Although the domestic fleet is responsible for almost 100% of inland freight by sea, it only accounts for about 10-12% of Vietnam's freight market for import and export by sea. Vietnamese sea-going vessels mainly operate on short-haul routes to Southeast Asia and Northeast Asia, with no direct service to Europe and the US, although these are the two major export markets of Vietnam. In addition, inland shipping is facing difficulties in low freight rates, scarce supplies and imbalance between the North-South directions. The current share of sea freight transport in total transport volume of new modes of transport reaches nearly 19%. This proportion is not commensurate with the potential and strengths of shipping. However, the cost of transport in Vietnam is quite high because the cost of transport support services (logistics costs) is higher than other countries in the region such as Thailand, China, Singapore ... so export enterprises still in trouble. On the side of state management agencies are also actively improving the management work to create maximum conditions for businesses.

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