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Opportunities and Challenges for Shipbuilding industry

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Abstract

Most of the ports are currently owned and managed by state-owned and private enterprises, only 4 ports have been invested by the state budget in the recent period, while the state still holds the ownership, infrastructure and leasing organization. Vietnam Maritime Administration is the agency assigned to act as the representative to sign contracts to lease and operate bridges of 5, 6 and 7 Cai Lan ports (Quang Ninh), Thi Vai ODA port, Cai Mep ODA port (Ba Ria - Vung Tau) and An Thoi wharf (Phu Quoc). Currently, there are 42 routes of public maritime routes into the national port with a total length of 935.9 km and 10 channels of specialized ports. The longest channel is Dinh An - Can Tho channel about 130.6 km, the shortest channel is 0.55km long, the channel to Sa Dec port, Dong Thap province (from the confluence of Tien river). The channel for large tonnage vessels to enter the Hau River (via Off channel) with a total length of 46.5km has been completed and put into operation to meet 10,000 DWT full-load ships and 20,000 DWT ships to reduce direct load to regional ports. The Vietnamese seaport system basically satisfies the requirements of rotation of goods transported by sea, positively serving socio-economic development in coastal areas and the whole country.

Keywords: shipbuilding industry, opportunities, challengers

1. Introduction

Last time, sea transport has achieved quite impressive results. Regarding the volume of containerized goods through the port, if in the first 6 months of 2017 only increased by 5% compared to the same period in 2016, by the middle of 2018, this number has increased to 17% over the same period of the year. 2017. Cargo volume since 2016 has grown positively. In particular, in the first 6 months of 2018, the growth rate reached 9%, this is a good number, proving the role of the fleet began to promote efficiency. Therefore, the Vietnamese fleet should prioritize the strength of traditional goods, bulk cargoes and capable transport routes. Another highlight is the national one-stop shop mechanism in 9 port areas for electronic procedures for Vietnamese vessels and foreign vessels to enter, exit and transit, which are applied. Favorable conditions for shipping development. In order to exploit the advantages and potentials, it is necessary to invest in expanding the infrastructure in order to connect Vietnam's ports with neighboring countries, build transportation works, warehouses and logistics centers on roads and corridors. connecting Vietnam's ports with Laos, Cambodia, Thailand, South China ... and going to major ports in the world; improve shipping capacity, increase cargo flow by sea; adjusting the planning of the seaport system towards focusing on developing regional economic advantages; improve service quality of Vietnamese fleets; focus on developing the capacity of transporting import and export goods, transporting international goods, transporting the North-South coastal line, transporting goods and passengers from the mainland to offshore islands. It is necessary to promote the role of Vietnam's seaport system as the gateway to the East Sea of many ASEAN transport corridors, focusing on the ports: Vung Tau (Cai Mep - Thi Vai), Hai Phong (Lach Huyen), Quang Ninh (Cái Lân), TP. Ho Chi Minh City, Da Nang, Quy Nhon, Nghi Son, Vung Ang; developing fleets, seaport systems, shipping services synchronized with the seaport system, focusing on efficient exploitation of inland sea transport routes to reduce the load on roads,

contributing to reducing costs, lifting High transport output. In order to maximize the advantages of the location of seaports, especially the international gateway port, to attract large tonnage ships to transport import and export goods to long-distance shipping routes that need research, To develop and connect seaports, the system of post-seaport support services with roads, railways, inland waterways, etc.

For the Northern region, focusing on completing the start-up stage of Hai Phong international gateway port (Lach Huyen port) and investing in ports under the approved planning till 2020; deploying investment in logistics services area after Lach Huyen port; developing inland ports to support seaports in goods production centers in Hanoi and Bac Ninh areas ..., inland container ports under transport corridors in the North to bring goods to and from ports by Inland waterways and railways. For the Central region, to promote research and investment in Lien Chieu gateway port and road, railway connecting the East-West economic corridor; to invest in building inland ports to support transportation to seaports in the Central region, especially in the Central Highlands region (Kon Tum, Gia Lai and border gates). For the Southern region, to focus on developing Cai Mep - Thi Vai international gateway port, gradually forming an international transshipment port; to prioritize investment in upgrading and lowering the depth of Cai Mep - Thi Vai channel from the ports in Cai Mep area to buoy "0" to an altitude of -15.5m with budget or ODA capital; focus on investing in Cai Mep Ha logistics service area, focusing on building an inland port system in the city. Ho Chi Minh City, Dong Nai, Binh Duong and

Tay Ninh are connected with inland waterways to support Ho Chi Minh City ports. Ho Chi Minh City, Ba Ria - Vung Tau; to promote investment in Bien Hoa - Vung Tau railway and Bien Hoa - Vung Tau expressway linking Cai Mep - Thi Vai port; to upgrade inland ports in the Mekong Delta to ensure conditions for receiving container shipping barges to create favorable conditions for connection between Cai Mep - Thi Vai port and cargo sources; promote the effective implementation of the project of exploiting port group No. 5, which focuses on addressing traffic congestion in Cat Lai area, studying solutions to attract increasing cargo throughput.. After a long period of crisis, Vietnam's shipbuilding industry is recovering. However, there are still many difficulties and challenges as the world's shipbuilding market has not really escaped from it. "According to statistics, Vietnam has about 120 shipyards, repairing ships with a tonnage of over 1,000 tons, with 170 launching and launching works. Total designed capacity of the plants is about 2.6 million tons per year, but the actual capacity is only 800,000 - 1 million tons per year. The Vietnamese shipbuilding industry has been heavily invested since 2002 and is in the process of being transferred from major shipping hubs in Asia. Currently, in addition to Vinashin, which was established in 2006 (now the Shipbuilding Industry Corporation - SBIC), as the core, Vietnam's shipbuilding industry has shipyards owned by the Corporation. Vietnam Marine (Vinaline), Vietnam National Oil and Gas Group and other state corporations and corporations, shipyards under management of Ministry of National Defense, local enterprises and FDI enterprises.

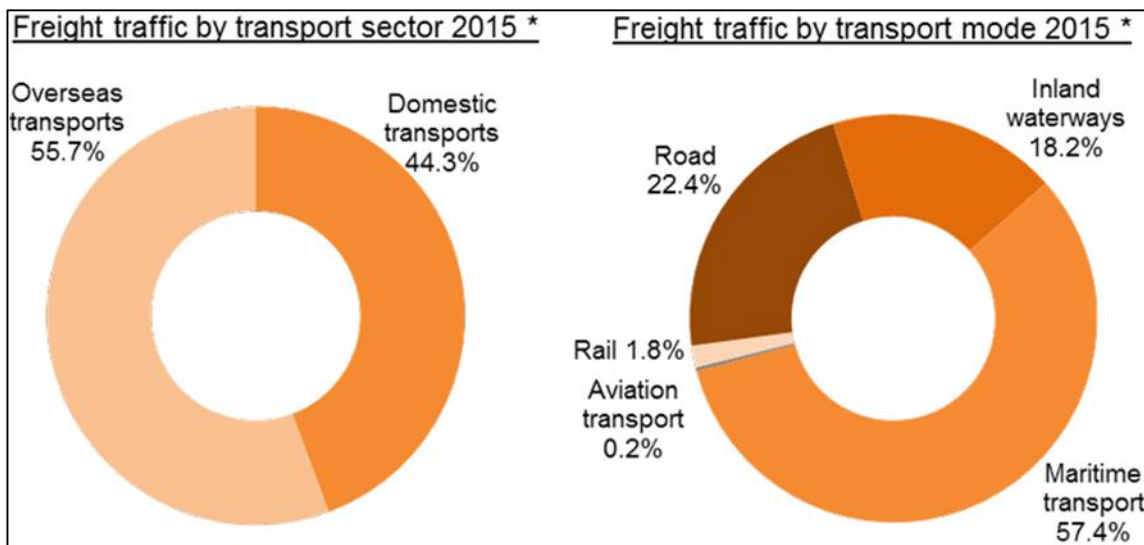


Fig.1: Vietnamese freight traffic

Along with the crisis of global shipbuilding industry, Vietnam's shipbuilding industry has experienced some ups and downs over time. The breakdown of Vinashin has caused the shipbuilding industry, together with tens of thousands of workers, to fall into ruin when a series of small and large shipyards in Vietnam were canceled, lacking jobs. Determining the importance of this industry, the Government is determined to direct the restructuring of the shipbuilding industry vigorously. For Vinashin (now SBIC) from 2010 to 2015, it was the period the corporation, they must focus on restructuring, handling bad debt. This period has encountered many difficulties due to foreign

partners cancel the contract, the traditional customer is Vietnam National Shipping Lines (Vinalines) also halted the project of packing tens of ships ... So far, with great support from the State, SBIC has been doing re work. The structure and have escaped the risk of bankruptcy. According to Ngo Tung Lam, Deputy General Director of SBIC, some time ago, some shipbuilding projects including construction or re-launching of shipyards were restarted, especially SBIC and its member companies. Copper shipbuilding for overseas makes the hope of recovery more fundamental. According to the SBIC leadership, in 2015, the whole company has deployed 254 products, including

15 fishing vessels, 20 fishing vessels, 143 other products and inland waterway vehicles ..., has delivered 178/254 products Gross profit of the corporation is more than 1,000 billion VND. Although the shipbuilding market in the country as well as the world is going through the quietest periods, the number of new shipbuilding and repairing is seriously reduced due to the impact of the world economy, but there are still many opportunities to accumulate. Pole for Vietnam's shipbuilding market. With the available potentials and especially the policy from the government through the strategy of sustainable development of Vietnam's marine economy to 2030, the vision to 2045 is opening Vietnam many opportunities for market development. Domestic as well as expanding cooperation with shipbuilding powers in the world. According to statistical reports, Vietnam currently has about 120 shipbuilding and repairing factories with a tonnage of over 1,000 tons, with 170 lifting and lowering works. The total design capacity of the plants is about 2.6 million tons / year, but the actual capacity is only 800,000 - 1 million tons / year. Since 2002, Vietnam's shipbuilding industry has been investing heavily. However, it is only in the process of receiving transfer from major shipbuilding centers in Asia. The overall picture of the shipbuilding industry is as follows: Vinashin, established in 2006, is now the Shipbuilding Industry Corporation - SBIC, which plays a key role. Sadly, however, the collapse of Vinashin has caused the shipbuilding industry and many of its workers or other shipyards to cancel applications and fall into misery.

2. Opportunities and challengers

The sea and ocean are of special socio-economic and political importance and a major development orientation for countries around the world. Facing the geostrategic shift from the mainland to the sea space, many countries have recently carried out their marine strategy planning due to their economic potential, national security and geopolitical status. Not outside the game, Vietnam determined that shipping and shipbuilding industry will play an important role in the strategy of developing marine economy and ensuring security, defense and sovereignty over seas and islands.

According to a report of the Ministry of Transport, as of the end of 2018, Vietnam's fleet of ships had 1,593 ships, ranked 4th in ASEAN (after Singapore, Indonesia, Malaysia) and 30th in the world. Our container fleet has grown quite well (on average 20% / year) with the number of ships increasing from 19 to 41. Vietnam's ship age has reached a younger age (14.7 years) than the world (20.8 years) thanks to the increase in the number of new ships. In 2018, the total transport volume carried out by the Vietnamese fleet reached more than 144 million tons, an increase of nearly 11% compared to 2017, accounting for 55.6% of the total turnover of goods of all directions. Mode of transport. In fact, the fleet only meets the demand for domestic transportation and in some countries in the region. With import and export transport, Vietnam has only accounted for less than 10% of export and import goods volume, operating mainly on short transport routes to ports in Southeast Asia and Northeast Asia. World transport trends in the current period towards containerization, but Vietnam's container fleet is mostly small vessels. Not to mention, Vietnamese shipping enterprises are facing

financial difficulties, not having enough resources to upgrade their fleets, so it is difficult to compete with large fleets in the world. Vietnamese shipping enterprises also lack links with shippers and contracts with customers in a short time, so Vietnamese ship owners do not dare to invest in building new ships without stable sources of goods. In the near future, the market for Vietnam's dry bulk shipping enterprises (coal, stone, sand, steel, plaster, cement) will be better when domestic thermal power plants are strong. Construction market in Phu Quoc is promoted. For fleet management and operation, Vinalines focuses on restructuring the fleet, selling and liquidating old and ineffective ships to create reciprocal capital to implement modern and economical new ship investment projects. fuel, environmentally friendly, ... like the Ecoship generation with the goal that by 2020, the fleet of Vinalines will have an average age of about 14 years old with a container fleet of around 13%, container ships liquid cargo accounts for about 9%, dry bulk and bulk cargo accounts for about 78%. In transporting goods, Vietnam is now focusing on developing dry ports as an "extended arm" of seaports. Continue to maintain a leading position in the domestic shipping market; increase the capacity and market share of transport between Vietnam and other countries and international transportation in Southeast Asia and Northeast Asia; gradually expand to exploit markets in Europe, America, Africa and South Asia; participate in providing services on ocean shipping and in global supply chains. By the end of 2014, the Government issued the Shipbuilding Industry Development Action Plan on the basis of strategic cooperation with Japan. With this plan, the Government is determined to achieve the goal of making shipbuilding a key industry in the implementation of the Marine Economics Strategy. Accordingly, it will focus on the production of a number of products suitable to the development conditions of Vietnam and establish trust in the world market. Vietnam is a country with a high quality shipbuilding industry. The increase in the output value of the whole industry reached 5-10% per year. It is no coincidence that Vietnam's shipbuilding market has been receiving the attention of many countries, shipping companies, including major powers and shipbuilding corporations. Damen, a major Dutch shipbuilder, has invested \$ 60 million to build Damen - Cam River shipbuilding joint venture. According to JF Van Drenth, director of technical cooperation of the Damen Group, from 2003 to date, Damen has built more than 100 ship products of all kinds at the Cam River Shipyard in close cooperation between the two. Sharp. With high skill and good management, Cam River Shipyard has fulfilled its commitment to quality standards by Damen, ensuring the progress and delivery time of the ship ... According to Damen representative, this company is in the process of discussing the next investment at Ben Kien (Hai Phong) of Song Cam Shipyard.

It can be said that shipbuilders in Southeast Asia face three challenges. Meanwhile, Vietnam's shipbuilding industry suffered a blow in 2010 when collapsed with debt up to \$4.5 billion. The goal of the Plan is to make shipbuilding a key industry in the implementation of the Marine Economics Strategy; Focus on producing some products suitable to the development conditions of Vietnam; Establishing trust in the world market for Vietnam is a country with a high quality shipbuilding industry. Some

quantitative targets up to 2020: n The growth rate of output value of the whole industry: 5-10%; To set aside 70-80% of production capacity for domestic demand for shipbuilding, serving the economic, social, defense and security development, except for some types of ships such as submarines and cruisers, battleships, high technology and technical requirements; 3-10% for export; The number of ships exported is expected to be 1.67 to 2.16 million tons per year. The first challenge is lack of profitability. Many shipyards in the area are not profitable due to their extremely small production and poor management. PT PAL of Indonesia is under contract because the Indonesian government cannot commit to a long-term Navy modernization plan due to lack of funding. In 2009, PT PAL was forced to start a production rationalization process where nearly half of the company's 2,000 employees were laid off. Meanwhile, Vietnam's shipbuilding industry suffered a blow in 2010 when the Vinashin Industrial Group collapsed, with an estimated debt of \$ 4.5 billion (currently the group is in the process of Restructuring. Bridge). The second challenge is corruption. In Malaysia, corruption in arms procurement has undermined national naval shipbuilding efforts. The Kedah class patrol vessel program initially had the ambition of producing 27 OPV offshore patrol vessels. However, this ambition has been hampered from the very beginning by the financial breaches leading to quality problems and time delays. The original contractor, the PSC Marine Shipbuilding Company, was found not paying some subcontractors, while being involved in embezzlement of employees' retirements. As a result, the Malaysian government requested the Boustead Shipyard to receive the PSC and terminate the project. Even then the first ship in the shipment did not pass the trials on sea trials before delivery due to technical and quality problems. Finally, the Navy's Kedah class shipbuilding program was forced to drop to six. The third challenge is the lack of advanced technology and expertise in shipbuilding. The technology and technical capabilities of the shipyards in the area may be the biggest obstacle facing these shipyards. In most cases, shipyards are small in size, limited to the construction of patrol boats, escort ships and coastal patrol vessels. Only Singapore is the exception when it is capable of building larger ships such as destroyers or amphibious assault ships. Even so, all shipbuilding companies in the region have to import all or almost all of the systems and weapons they equip, including machinery, radar, electrical equipment, fire control, missile and naval guns. For these reasons, many regional shipyards want to cooperate with other countries to participate in larger and more complex shipbuilding projects. However, the common problem is that local shipyards do not possess sufficient labor or production skills to participate in large projects. Therefore, although there is potential, it is unlikely that Indonesia, Malaysia, Thailand, and Vietnam can surpass their present status as small states in naval shipbuilding. Vietnam's shipbuilding industry is facing with many difficulties and constraints. First of all, according to information shared by Dam Dinh Vinh, specialist of the international shipping brokerage Maersk Broker, shipbuilding market worldwide is very fierce as demand for shipbuilding is decreasing. Prices in all segments of the ship are relatively low and shipbuilders in general are competing fiercely in all areas such as ship type, price, financial and service strategy. On

internal constraints, the construction capacity of Vietnam's shipbuilding industry is currently only 30-40% of designed capacity. Support industry is very important for shipbuilding industry, but the pace of development of supporting industries is slow, investment has spread and the target of localization ratio has not been achieved. In terms of manpower, shipbuilders with international certificates are far less than required. In terms of design, according to experts, the technical design stage only meets the requirements for small, popular vessels. Vietnam does not have an international standard model test tank to develop new designs, the entire technical design of the ships are still purchased overseas. This is the weakest point of Vietnam's shipbuilding industry today and will remain a weakness in the future if there is no priority investment policy, training engineers design team. Many experts from countries with large shipbuilding industries in the world such as Norway, Poland, Japan, South Korea ... stated that the world shipbuilding industry has not escaped the situation, at least by 2014. Freight prices by sea decreased; reduced ship prices, the phenomenon of contract cancellation, time divert ship. The number of new shipbuilding orders, especially those of general use such as bulk carriers, oil tankers, and container ships continue to decline; Shipbuilders face a very competitive situation, facing the pressures of restructuring and the changing environmental friendliness of world maritime conventions. The tendency of the world market, with supply-demand imbalances, also presents challenges, but also offers new opportunities for the shipbuilding industry. According to Andrew Westwood, vice president and director of business development for the Asia-Pacific region, the surplus will continue for another 3-4 years due to the volume of ships in some countries. overloaded (like China); Orders from Korea, China continue to decline; Some countries continue to build ships serving the domestic demand such as Brazil ... are no small challenges to the development of the world shipbuilding industry, and Vietnam is no exception. Along with the rapid development of China over time, the growth of emerging economies in Asia has brought about the emergence of middle classes in China, India, and elsewhere pushing consumer demand - shipping, buying more goods. We need to monitor this development as it may be a condition for the emergence of bulk carriers, container ships. Shipbuilders are also facing financial difficulties when lending to banks for production is almost impossible. Enterprises cannot borrow capital from banks. Shipbuilding requires huge capital, so almost businesses have to mobilize from ship owners, brothers, friends and suppliers of supplies. Although the current shipbuilding industry has not completely overcome the difficult but latent challenges, there are also opportunities. This is the time for enterprises operating in the shipbuilding industry to evaluate and perfect the organizational structure, strengthen the brand name, continue to maintain and aim for long-term and sustainable development ", Deputy Minister Transportation Nguyen Van Cong emphasized. On the other hand, with increasing demand for energy, it will boost the shipping market and tankers in deeper, more remote areas. Specifically, the world's energy consumption will increase by 36% by 2035. Countries using coal and oil all increase (except for some OCD countries). Along with that, the renewable energy industry is also getting more and more interested ... All that shows both opportunities and

challenges for the shipbuilding industry. It's not just the need for oil tankers in new oilfields, or the ships that can run in cold regions, icebreakers ... but also fuel-efficient and environmentally-friendly ships. The tanker market will have a chance. With the cost of using oil more and more expensive, there are also oil tankers in new oilfields, which are expected to increase from \$ 150 billion to \$ 170 billion in the coming years. Along with that, there are three major issues concerning for the shipping industry, everything is rising, shipowners are struggling and increasingly pressure on the environment. The solution is inevitably how to save energy, friendly environment. The experience of some of the world's big shipbuilding companies shows that they use new energy such as solar, renewable energy to save fuel. Designs need to focus on environmentally friendly technology, energy efficiency.

3. Conclusion

Vietnam is a country with a long coastline, located on an important maritime route linking the Pacific Ocean and the Atlantic Ocean. At the same time, there is a favorable natural geographic location to develop the marine economy. In particular, the shipbuilding industry is a very important part of the maritime economy, labor-intensive and advanced technology applications. Therefore, it is necessary to create favorable conditions for development, especially with preferential policies for businesses, domestic and foreign investors to do business. In 2018 and 2019, especially in 2020, a series of new conventions applicable to ships will be stricter like the new regulations of the International Maritime Organization (IMO) or the European Council on supervision and reporting. And verification of carbon dioxide (CO₂) emissions from shipping (hereinafter referred to as "EU MRV") strictly regulates the ship's operating conditions for CO₂ emission reduction index, energy efficiency management, Water ballast treatment. All of these new models have large capacity, equipped with modern fishing facilities to improve production efficiency. According to the Shipbuilding Industry Corporation (SBIC), in 2017, the value of shipbuilding field reached over VND 3,071 billion, equal to 69% of the plan. Other areas increased significantly, such as: Ship repair reached VND 488.3 billion, equal to 125% of the plan; ancillary industry reached 264.5 billion dong, equaling 123% of the plan. Although shipbuilding has not reached the plan, but looking back on the period from 2008 to the present, this field has always been in a state of turmoil and bottomlessness due to lack of jobs, these are quite positive numbers.

References

1. <https://www.msn.com/vi-vn/money/news/v%E1%BA%ADn-t%E1%BA%A3i-bi%E1%BB%83n-v%C3%A0-%C4%91%C3%B3ng-t%C3%A0u-nh%C3%A2n-t%E1%BB%91-quan-tr%E1%BB%8Dng-trong-chi%E1%BA%BFn-1%C6%B0%E1%BB%A3c-bi%E1%BB%83n-ar-AAB2LhM>
2. <http://haiphongaz.com/kinh-te-dau-tu/nganh-cong-nghiep-dong-tau-co-hoi-va-thach-thuc-34618.html>
3. Abd-Alla G H (2002), "Using Exhaust Gas Recirculation in Internal Combustion Engines: A Review", *Energy Conversion and Management*, Vol. 43, pp. 1027-1042.
4. <http://baoquocte.vn/nganh-dong-tau-tai-cac-nuoc-dong-nam-a-44800.html>
5. <http://business.gov.vn/tabid/96/catid/10/item/13737/k%E1%BA%BF-ho%E1%BA%A1ch-hanh-%C4%91%E1%BB%99ng-phat-tri%E1%BB%83n-nganh-cong-nghi%E1%BB%87p-%C4%91ong-tau.aspx>
6. <https://goldenseallogistics.com/dinh-huong-phat-trien-cang-bien-viet-nam.html>
7. <https://www.baogiaothong.vn/co-hoi-nao-cho-nganh-dong-tau-viet-nam-d242608.html>
8. <https://bnews.vn/nganh-dong-tau-viet-nam-giai-phap-dat-chuan-made-in-vietnam-/52942.html>