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PRIORITIES OF THE PERSPECTIVES OF DEVELOPMENT AND MANAGEMENT OF THE UKRAINIAN PORT INFRASTRUCTURE

Priority directions for the implementation of the strategic goals of the development of the domestic port infrastructure with the increase in the turnover of goods and the definition of the conceptual foundations for the formation of the state policy of planning and development of this sector are considered. Here, the problems of the country's foreign trade related to the high-quality overseas transportation, improvement of service of the seaports and providing of the optimal logistics of cargoes were studied. The implementation of the positive world practice of modernization and creation of new transshipment capacities on the base of uniting the forces of the state with the private capital is proposed. The conclusions on the need to pursue a policy of the further strengthening Ukraine's position as a maritime state, creating favourable conditions for achieving the goals, and solving the tasks of developing port activities, as well as creating its own information base regarding the conjuncture of the global freight market are proposed.

Keywords: *priority directions, port infrastructure, competitiveness, management decisions, investment efficiency.*

Formulation of the problem

The sea transport complex is a multifunctional structure that meets the needs of the national economy of transport provision and contributes to the development of the international trade in realizing Ukraine's obligation as a maritime power. Water transport is being served at the seaports and it is the cheapest than other modes of transport this makes it competitive both inside and outside of the country.

The seaports are an integral part of the transport and production infrastructures of the state. The competitiveness of the domestic transport complex depends on the efficiency of the functioning of seaports, the level of their technological and technical equipment, and the conformity of the management system and the development of infrastructure which must meet the current international requirements.

The port industry plays a key role in the growth of Ukrainian economy. The seaports are the gateway for the export of products of the agro-industrial, mining, and metallurgical complexes of the country and for the import of intermediate resources as coal, iron ore, and container cargo.

According to the operational data of the Administration of Seaports of Ukraine (ASU) Ukrainian seaports handled 132.9 million tons of cargo in 2017, this is 0.9% higher than in 2016.

The volume of transshipment of imported goods per a year is increased by 29.1% it is up to 20.6 million tons while the export is being decreased by 1.4%, it is up to 98.8 million tons.

In the structure of imports the six times largest increase is fell on the chemical and mineral fertilizers and it is amounted from 20.7 million tons in 2016 to 123.6 million tons in 2017. The high growth of cargo turnover is also demonstrated by coal, the volume of transshipment increased by 64.2% and it is amounted to 6.1 million tons.

In the transshipments of export cargo a significant share is occupied by wheat grain, it is almost 38 million tons and metallurgical products; it is amounted to 33 million tons. At the same time, the export of vegetable oils is increased to 5.2 million tonnes (an increase is amounted to 19.5% compared with 2016).

The volume of transit cargo handling increased by 14% to 11.778 million tons, container handling is increased by 23.3% to 35.201 TEU.

At the same time, the largest cargo was handled by the Yuzhny port, it is amounted to 41.889 million tons, it is increased the transshipments by 6.6% compared with 2016. Odessa port handled with 24.12 million tons, Nikolayev port held 23.533 million tons, and Chernomorsk port transferred 17.633 million tons.

In 2016, Ukraine's seaports reduced cargo handling in comparison with 2015 by 9% to 131.7 million tons.

The **problem** of the management and development strategy of the port infrastructure is the definition of the conceptual base for the formation of the state policy of planning and development of the port industry which is aimed at increasing cargo turnover in seaports, ensuring the needs of the country's foreign trade in high-quality sea transport, increasing the efficiency of using existing capacities in seaports and balanced development of the

new ones with the sufficient ground infrastructure capacity, service improvement of the sea ports and optimal logistics of goods [1].

The **purpose** of this article is to consider the strategic objectives of the development of the domestic port industry with the identification of priority areas for development. The proposed ways of solving problems and implementing the assigned tasks will help the positive trend of Ukraine's development as a maritime power.

Analysis of the recent research and publications

The problems and analysis of the development of Ukraine's maritime infrastructure, as well as the role of maritime transport in the world's economy and its development are widely covered in the works of a number of domestic authors.

Despite the great contribution to this study, investigation and analysis of the problems of the development of Ukraine's maritime transport, the reviewed works did not highlight the priority areas in the prospects for the development of the port infrastructure as a whole and the current situation in Ukraine.

Statement of the main material

According to the statistical evidence of the recent years, the seaports of Ukraine, with a turnover of 132.9 million tons, placed the second position among the countries of the Black Sea-Azov basin. The largest seaports of Ukraine are in the TOP-10 list of the sea ports of the Black and Azov ports and retain such positions for a long period.

In order to realize the strategic goals of the port industry development with the increase of the cargo turnover and ensuring its optimal logistics, it is necessary to single out the following priority areas:

1. Balanced development and efficient use of port facilities on an innovative base;
2. Providing competitive logistics and improving service in seaports;
3. Optimization of the management system.

To develop **the first priority**, the following problems must be solved:

- the imbalance in the development of handling and public infrastructure (road and rail roads to the sea ports, electricity, gas, water, etc.), including the capacity of the Odessa-Port, Nikolayev-Cargo, roads in the cities of Odessa, Nikolayev, Mariupol, Berdyansk, Kherson and others;

- a low level of development of the port infrastructure, organization of traffic in the direction of seaports;

- low efficiency of using the capacity of existing transshipment capacities (about 50% of the total capacity of all ports);

- lack of an effective mechanism for attracting private investments for the development of port infrastructure facilities;

- insufficiently developed transport infrastructure in seaports and water areas (lack of the sufficient deep-sea anchorage, storage areas for vehicles, etc.);

- insufficient level and inconsistency of depths in separate seaports and on canals to the passport characteristics;

- slow renovation of the fixed assets of the state's ports, inconsistency of their technical level for providing services for carrying out operations with cargo, ships, rolling stock, etc.

The **solution** of problems shall be achieved within the framework of the following tasks:

- development of a master plan for the of seaports growing, taking into account the perspectives of the water areas, road and rail development programs using multimodal transport and clustering;

- harmonization of development plans for port infrastructure, port capacity along with programs for the development of transport infrastructure at the national and local levels;

- joint development with Ukrainian Railways JSC for working out the effective mechanisms for investing in the development of port stations and access railroads;

- modernization and construction of port facilities (especially strategic importance) for the effective implementation of cargo and vessel maintenance in seaports;

- redevelopment of existing port facilities that are not involved in the production process, to efficient cargo processing complexes (with the involvement of private investments on the terms of public-private partnership) with a focus on creating added value;

- provision of formation within the sea ports of investment sites with attraction of property and lands of state, municipal and private forms of ownership;

- legislative support of mechanisms for attracting private investments for the development of port infrastructure facilities and appropriate access roads on the terms of public-private partnership;

- formation of the specially designated areas for the temporary accommodation of cargo transport with the provision of proper storage conditions for cargo in accordance with the current environmental and sanitary standards;

- ensuring that the actual depths of the seaports of Ukraine and the access canals correspond to the established passport characteristics, the construction of the deep sea ports and the modernization of their port infrastructure;

- updating of the domestic specialized fleet for dredging;

- introduction of the SMART-infrastructure and technologies that facilitate the automation and robotization of transshipment processes at sea terminals, and "green" technologies aimed at reducing harmful emissions from production processes at the ports and generating energy from alternative sources;

- ensuring the implementation of the innovative solutions for the building of an appropriate infrastructure for the reception and servicing of ships using liquefied gas as a ship fuel;

- updating of fixed assets of state stevedoring companies at the expense of investment funds attracted from privatization or concession of such enterprises with the use of innovative approaches and solutions.

The **second priority** is to ensure competitive logistics and improve service at the seaports.

According to the index of effective logistics (IEL), which is formed by the World Bank, in 2017 Ukraine occupied the eightieth place from 160 countries.

At the same time, the worst criteria, from which the logistics efficiency index is formed, are the next ones: the effectiveness of customs and border control, poor transport infrastructure and the quality of logistics services, the complexity of the organization of transportation of goods at a competitive price. This determines the low level of satisfaction of participants in the transport process from the quality of services in seaports [2].

Since the commencement of the Law of Ukraine "On seaports of Ukraine", a number of deregulatory measures have been introduced related to simplification of the procedure for control and clearance of ships and cargoes, but there are clear disproportions in the volumes of cargo transportation to and from seaports. Over ground transport carries more than 96% of cargoes from the total volume of transportations and a very small part falls on the water transport [4].

Problems requiring solutions in this area:

- loss by domestic seaports of cargo flows, especially transit, container cargo, and their reorientation to the ports of Baltic, Poland and Germany;

- imperfection of the procedures for customs clearance, crossing the state border and big level of corruption at the monitoring services;

- insufficient level of implementation of electronic systems for clearance of goods and vessels;

- imperfect tariff policy in the sphere of the seaports providing services;

- the slow employment of measures to expand the list of services for cargo operations, which would create an additional cost;

- the lack of fully functioning free economic zones at the seaports;

- unfulfilled potential of river transport (along the Dnieper and other inland waterways of Ukraine) for the transport of goods to/from seaports;

- insufficient level of informatization of transport processes and organization of information interaction with subjects of controlling bodies, incl. protection from cyber threats

- insufficient level of technical and technological safety at the seaports.

Solving these problems will be ensured by the following tasks resolving:

- introduction of the modern information systems with a high level of protection against cyber threats, allowing customers of port services to carry out clearance and monitor cargo, vehicles from any place of the world;

- creation of attractive conditions and introduction of the practice of using inland water transport as an alternative and cost-effective way of transporting goods to/from seaports;

- reduction of the processing time for cargoes and simplification of administrative procedures for the implementation of international transport;

- ensuring effective state regulations in the provision of specialized services at the seaports by entities of natural monopolies, as well as services, the payment for provision of which is included in port dues;

- development and appropriate approval of the methodology for calculating port charges, taking into account the revision of their size in accordance with the structure and directions of freight flows in order to develop competition, ensuring the attractiveness of seaports for users of transport services, creating a guaranteed source of compensation for port expenses;

- creation (construction, reconstruction) of a sufficient number of receiving port facilities for polluting substances and wastes, including ballast water sediments, in accordance with the requirements of international conventions to which Ukraine has joined or plans to accede;

- - creation of the network of multimodal transport and logistics clusters and basic logistics centers such as dry ports, terminals, specialized reloading complexes, etc. .;

- prevention of environmental pollution, compliance with the requirements for the use and protection of water bodies within the territory and water area of the seaport.

The third priority direction is the optimization of the management system of port industry.

The Law of Ukraine "On the seaports of Ukraine" ensured the implementation of a number of activities related to the transfer of administrative functions by state stevedore companies to the Administration of Seaports of Ukraine (ASU) [5]. Tariffs for cargo operations were redirected to the formation of port

development plans, the formation of seaport councils with the participation of all port operators, the adoption of laws and mandatory regulations on ports, etc. Thus, to date, no practical application has been made by a number of provisions related to the development and investment of port industry.

With the aim of increasing the efficiency of the port sector management, the creation of the State Marine and River Transport Service of Ukraine, which is entrusted with the functions of the Maritime Administration, has been started.

Now in the Register of seaports of Ukraine there are 96 port operators of state and private ownerships. The share of state stevedoring companies - sea trade ports in the total volume of cargo handling decreased due to their low competitiveness compared to private port operators. This is due to high social obligations, fiscal burden and operational issues, the settlement of which is carried out primarily at the state level.

The existing system of management and legal regulation in the sphere of functioning and development of seaports provides for the participation of public authorities in making decisions on the disposal of state property, coordinating with local authorities land support issues, which makes the adoption of such decisions long-term [3].

Under such circumstances, private investments to the development of state-owned enterprises are extremely difficult compared to other countries that have a more simplified and more transparent decision-making system.

At the same time, the domestic port industry is actively introducing a positive world practice of modernizing and creating new transshipment capacities made by the state together with the private capital. The ground infrastructure that provides stevedoring activity is created by the private investors who are also a landowner, and the strategic infrastructure (approach canals, operational water areas, and piers) belongs to the ASU.

Such general implementation of the projects ensures the efficiency of the investment, both public and private, i.e. it is a payable one.

The question of the participation of local authorities in the development of seaports, in particular, regarding the allocation of land for the placement of transshipment capacities, the organization of communication of ports with main communication routes remains unresolved. This situation makes it difficult to use the best global management practices in Ukraine, in particular the "landlord of ports" model in the process of investing in the seaport industry.

The **problem** is that the Law of Ukraine "On the seaports of Ukraine" has not been fully implemented, as well as:

- incompleteness of the process of delineation of the functions of state regulation, supervision, operations

and functions of economic activity of transport enterprises between executive authorities and ASU, state stevedoring companies in a competitive transport market;

- limited competition at the seaports due to the incompleteness of the process of distribution of property between state stevedoring companies and ASU;

- impossibility of full-scale optimization of the activities of state-owned enterprises of the marine industry due to the high level of expenses for the maintenance of social infrastructure facilities, bureaucracy in the duration of making managerial decisions on the disposal of state property;

- imperfection of real instruments of ASU influence on land allocation processes within seaports, transfer of land plots to sublease for business entities;

- imperfection of control systems over the effectiveness of management decisions taken, insufficient transparency of the activities of public authorities and economic entities in the public sector of the economy in the field of transport;

- lack of an effective system of communication and feedback between the authorities of transport, transport enterprises and users of transport services, which reduces the efficiency of transport management and the quality of transport and logistics services;

- excessive fiscal burden on port charges.

The **solution** of problems can be achieved within the framework of the following tasks:

- delineation of the functions of ensuring the safety of navigation, state supervision and provision of administrative services by captains of seaports;

- formation of conditions (at the legislative level) for the development of seaports including their water areas and land resources through the application of the European model of "port-landlord" management;

- completion of the distribution of facilities between state stevedoring companies and the Administration of Seaports of Ukraine in the framework of implementation, in particular, training at state stevedoring companies;

- carrying out an inventory of land plots jointly with local authorities in the context of their use for the purposes of developing port facilities and access roads;

- preparation for concession tenders for the management of non-strategic objects of the port infrastructure of state ownership, which ensure the process of stevedoring;

- providing legislative conditions for the gradual privatization of state-owned stevedoring companies in seaports;

- sale or transfer of non-core assets of the industry enterprises to communal property, in the absence of restrictions related to national security;

- implementation of joint procedures with the EU to ensure the safety of navigation, monitoring the

movement of sea-going ships, providing assistance at sea, maritime communications, responding to cases of pollution from ships, and the creation of a national segment of the SafeSeaNet information sharing system for vessel traffic and emergency events;

– development of services for access to public information;

– assistance in organizing various forms of training, retraining, employment of employees of state stevedoring companies, incl. private sector enterprises;

– increase of responsibility and transparency in making managerial decisions, in particular, by:

➤ introduction of elements of corporate governance at enterprises of the public sector of the economy or their corporatization in accordance with the law;

➤ implementation of an information system of open data, electronic services and other measures to prevent and combat corruption in the transport sector;

➤ strengthening dialogue between consumers of services at the seaports and public authorities, local government and civil society.

Conclusions

The orientation of the state maritime policy should contribute to the further strengthening of Ukraine's position as a maritime state, the creation of favorable conditions for achieving the goals and solving the tasks of maritime development. The process of reforming the transport complex of Ukraine provides for increased control by the state over the use of the freight base of the country's domestic maritime transport as an industry of a transport complex with a certain currency resource. Extremely important for the boosting of the activities of transport enterprises of Ukraine is the creation of its own information base regarding to the conjuncture of the global freight market.

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ПРІОРИТЕТИ У ПЕРСПЕКТИВАХ РОЗВИТКУ ТА УПРАВЛІННІ ПОРТОВОЮ ІНФРАСТРУКТУРОЮ УКРАЇНИ

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Розглянуті пріоритетні напрямки для реалізації стратегічних цілей розвитку вітчизняної портової інфраструктури зі збільшенням обороту перевалці вантажів і визначенням концептуальних основ формування державної політики планування та розвитку даної галузі. Вивчені проблеми зовнішньої торгівлі країни, пов'язані з якісними морськими перевезеннями, поліпшенням сервісу в морських портах і забезпеченням оптимальної логістики вантажів. Зроблені висновки щодо необхідності проведення політики подальшого укріплення позицій України як морської держави, створення сприятливих умов для досягнення цілей і рішення завдань розвитку портової діяльності, а також створення власної інформаційної бази щодо кон'юктури всесвітнього ринку.

Ключові слова: пріоритетні напрямки, портова інфраструктура, конкурентоспроможність, управлінські рішення, ефективність інвестицій.