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INTEGRATED PROCESSES IN THE MARITIME TRADE MARKET SYSTEM

ІНТЕГРАЦІЙНІ ПРОЦЕСИ У СИСТЕМІ РИНКУ МОРСЬКОЇ ТОРГІВЛІ

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Балан О.С., Липинська О.А., Стахов С.Ю. Інтеграційні процеси у системі ринку морської торгівлі. Науково-методична стаття.

У статті розглядаються інтеграційні процеси які відбуваються у системі ринку морської торгівлі. Метою статті є акцентування уваги на виборі методів оцінювання реального стану морської транспортної підсистеми. Ринок морської торгівлі фактично функціонує поза національним правовим аспектом. Водночас, саме національні капітальні активи відображають техніко-економічний рівень суден певної національності, формують підприємницьку та макроекономічну ефективність. Таким чином, встановлено, що у системі будь-яких ринкових відносин для кожної галузі, орієнтованої на стабільність попиту, закономірним слід вважати диференціацію розвитку підприємств для утримання позиції за факторами інноваційних технологій.

Ключові слова: ринок морської торгівлі, морська транспортна система, ринкові відносини, інноваційні технології

Balan O.S., Lypynska O.A., Stakhov S.Yu. Integrated Processes in the Maritime Trade Market System. Scientific and methodical article.

The article deals with the integration processes that take place in the maritime trade market system. The aim of the article is to focus attention on choosing the methods for assessing the real state of the sea transport subsystem. The maritime trade market actually functions outside of national legal aspects. At the same time, it is the national capital assets that reflect the technical and economic level of vessels of a certain nationality that form entrepreneurial and macroeconomic efficiency. Thus, it has been established that in the system of any market relations for each industry, oriented to the stability of demand, it should be considered natural to differentiate the enterprises development in order to maintain a position according to the factors of innovative technologies.

Keywords: maritime trade market, maritime transport system, market relations, innovative technologies

When choosing the level of integration, innovative technologies expansion for processing cargo flows and the quality of work of a shipping company, it is necessary to take into account the production capabilities of the enterprise and the state of the maritime trade market. In these conditions, innovative development projects and functional activity should be characterized by increased profitability. The lack of such effectiveness in many ports that used the principle of joint ventures raises doubts about such strategies justification. Each maritime transport enterprise should clearly respond to the nature of changes in the maritime trade market parameters. The imbalance nature on the part of cargo owners during the standard life cycle of the fleet and especially ports determines the problems and tasks of further effective functioning.

The condition for the effective use of the international division parameters of labour determines the totality of approaches and problem solving on the basis of adequate participation in ensuring the necessary entrepreneurial development. That is why the principles of operator activity interaction are being formed to solve business priorities. This determines the advantages of some subsystems and the loss of others when following the same rules under different development standards.

It is the latter that becomes the priority for achieving the necessary advantage. Unfortunately, in this aspect, due to various mistakes, the port segment of certain maritime nations is losing its position due to the simultaneous anticipatory development of other countries' ports. In this aspect, it should be noted the loss of certain positions by the port of Chornomorsk while maintaining transit advantages. But management at the level of macroeconomic structures has not ensured compliance of organizational and legal advantages with the

corresponding competitive approaches of other countries, which provide advantages of positioning in the system of East-West cargo flows.

In this regard, the orientation of port management to the uncertainty of interests was partly related to the uncertainty of the lands' status within the port, to the ports specialization, and to the limits of the exercise of administrative and power powers in seaports. The subsequent creation of the USPA State Enterprise on the basis of funds redistribution earned by the ports has not led to an increase in efficiency and renewal of capital assets of enterprises.

Analysis of recent researches and publications

The main factor that ensures the high efficiency of the active development of the maritime complex units is the creation of a mechanism that stimulates the priority of projects implementation to achieve transport independence of foreign economic activity. Monographs are devoted to solving this problem [1-3]. In this aspect, problems are considered in separate publications that focus on current, relevant problems [4, 5]. Periodically, new approaches to solving separate technical and managerial tasks for optimization of both business and global problems of improving the current situation in world trade, which affected Ukraine's ports, also arise. However, due to errors in integration, despite the significant reform of the port system, container cargo flows during 2014-2020, if they increased, then did not correspond to the global pace and transit potential of the Ukrainian production infrastructure.

Unsolved aspects of the problem

One of the features of improving the methods of making investment decisions at the current stage of economic growth is the need to take into account the fundamental laws of the functioning of the global economic space. Special attention should be paid to the positive impact of globalization on changes in the character of the national economy development. Among such factors should be considered:

- -specialization expansion in the international labour division,
- zones expansion with limited influence of customs control functions,
- possibilities of rational redistribution of minerals, capital, labour and financial resources,
- reducing the level of a certain group of economic risks.

The aim of this is to focus attention on choosing the methods for the real state assessment of the maritime transport subsystem, which can be used benchmarking, the essence of which is quite clearly formulated in the following form: "Benchmarking, or reference assessment is the process of studying and adapting the best practices (methods) of other organizations in order to improve the results of the company's activities itself" [7]. The possibility of comparing approaches to solving similar problems and the relative comparability of conditions is obvious.

The main part

To form the directions and projects for the subsystems development of the maritime transport industry [6], it is important to choose a formula that clearly reflects the relationship between results and costs. The logic of building potential and realizing its potential is necessary. At the same time, it should be taken into account the impossibility of conducting experimental evaluations when this or that situation arises. Therefore, the conditions that refute traditional theoretical approaches are considered. In this system, the most important thing is the analysis of previously formed results and conditions that have ensured efficiency or its absence. Theoretical constructions in the maritime trade market system require constant coordination with current characteristics [7].

It is unacceptable to violate the principles of disposal and effective use of objects that are in the individual structures possession. Thus, once in the port of Chornomorsk the management created a company to which the functions of the forwarding office of the port for the release of containers together with resources were transferred, thus, in the presence of state ownership, the income streams were privatized contrary to the principles of real ownership of the fixed capital.

The diversity of maritime transport enterprises, using different strategies for functional sustainability management based on a single technological process, makes it difficult to develop uniform standards and methods for making managerial and investment decisions. That is why it is important to use an algebraic statement of the logical relationships of the results and resources of individual shipping companies with different organizational forms of structuring segments of the global maritime trade market.

However, attention should be paid to the weakness of the management principles according to regulations and standards: "Even such a basic indicator as profitability, we evaluate with the help of "rubber" criteria; we do not have real tools at our disposal to determine the required level of profit" [8]. Therefore, the dissertation focuses on the choice of efficiency assessment methods, taking into account the features of the current stage of development of individual subsystems of the maritime transport industry.

In this aspect, the transshipment expansion belongs to one of the innovative areas of maritime transport routes development. In this regard, Ukraine has favourable natural conditions, but management and economic solutions do not ensure the effective projects implementation. As early as 2004, there was a need to develop the Izmail-Tulcha ferry complex under the Ukrainian Danube Region development programme. However, construction did not actually begin until 2019 due to unconfirmed construction feasibility. It is impossible to solve the integration task even in the process of implementing the Association Programme with the European

Union because the corresponding project documentation was not developed. Only in 2021, the ferry crossing began to operate.

According to the Rotterdam Rules, Ukraine can be classified as one of the options for transit potential, the full implementation of which, under the conditions of a normal state of transport and economic relations, can provide up to 10 billion dollars of income to the payments balance.

At the same time, it should be kept in mind that seaports are actually turning points of international transport routes or corridors. Therefore, they should develop under the conditions of economic growth and interaction of various types of transport, in particular, taking into account the strategy of interaction within BSEC.

In order to accelerate the innovative technologies implementation for cargo flows maintenance, it is necessary to select principles and adjust the set of indicators according to the method of a balanced system of indicators [9]. In any case, the general indicator should reflect labour productivity, return on capital, technical and economic level of the fleet and the quality of cargo delivery. When evaluating individual areas of innovative solutions that affect macroeconomic results, state programmes for supporting production potential and a corresponding strategy should be formed.

Issuing the license for the right to carry out goods and passengers transportation must be carried out after an appropriate inspection of the vessels condition, and not only on the basis of certificates of qualifying companies, i.e. a document of compliance. According to statistics, up to 70 percent of safety deficiencies are detected during the inspection of the vessel condition. This characteristic significantly affects the shipowner's position in the system of the transport services market, taking into account the fact that "...such a management value as "enterprise value" is increasingly used as a higher target value" [9]. Therefore, the long-term strategy should focus on the technical and economic priorities of the shipping company's fleet.

Taking into account the main provisions of the macroeconomic development theory, the most important component of growth is private investment, as a result of balanced consumption and accumulation. In maritime transport, this strategy is implemented on the basis of entrepreneurial strategies in increasing the transport capacity of the shipping companies and competitive cargo terminals construction in various closed water areas. This is quite clearly manifested in the Adzhalytskyi and Sukhyi estuaries, where the state ports of Pivdennyi and Chornomorsk are located, and competitive alternative corporate cargo terminals are actively being created. Creating new transshipment capacities forms a cash flow of budget deductions for the existing cargo nomenclature in the range of \$1 per ton.

The opposite approach is demonstrated by the creation in the Gulf of Finland on the basis of state financing and crediting of port facilities with a total cost of 16.5 billion dollars, without taking into account the costs of maintaining the ecological balance. These costs are significantly lower than those required to use the terminals of the Baltic countries' ports as transit capacities. However, despite the negative reaction of the World Bank, the project of national port capacities development according to transport safety criteria was implemented. At the same time, the increase in current costs for maintaining the specialized fleet of the maritime cluster was taken into account.

Similar projects implementation by Azerbaijan and Georgia, in addition to direct results and costs, also has a multiplier effect, the basis of which is the formation of synergies due to new jobs creation in the construction and shipbuilding industry, as well as in the field of service for legal entities and individuals in accordance with the growth of their solvency.

Due to the strengthening the degree of competition in the transport capacity implementation due to its temporary surplus, the role of operational efficiency management methods is increasing, as a result of "...achieving a better method of organizing production work" [10]. The same condition causes the need for innovative solutions and the presence of consistent institutional provisions.

It is impossible to see only the danger of losing this form of ownership through the system of conflicting commercial interests in realizing the potential of entrepreneurial structures and state enterprises. Such losses can be real only if a state enterprise management does not provide an investment component in competitiveness. None institutional guarantees of the activity of various ports are able to ensure the loading of terminals without economic benefits for cargo owners. Therefore, transformational processes in relation to state terminals at the initial stage formed the unprofitability of individual ports. In fact, the container terminals of the port of Chornomorsk have lost cargo owners.

The principle of ownership for any form of ownership of capital assets is considered as the main one. The transfer of individual terminals to different tenants without the principles of concessional reimbursement of the cost of capital assets has led to a redistribution of profits to the macroeconomic interests detriment.

In the conditions of globalization of economic relations, the problems of transport and technological activities and transit service fall into the sphere of priority decisions both at the level of individual countries and their unions. These are the most urgent issues from the viewpoint of efficiency of production and commodity exchange, safety and management the at the international level. For the governments of a number of countries, cargo transit is considered at the level of national policy. Government and the EU authorities directly provide legislative and investment solutions for multimodal transport development projects [6].

One of the results for processing the information flows is considered the methods of constructing freight indices, which represent the state assessment of the price parameters of the transport services market. Freight

indices reflect the change of state relative to an average level or base period. This is usually a type of aggregate price index with constant weights:

$$I_f = \frac{\sum_i^n P_{fi} q_0}{\sum_i^n P_{i0} q_0}, \quad (1)$$

where p_{f1} , p_{f0} – are the tariff or freight rates of the base and reporting period,
 q_0 – is the amount of cargo transported in the base period.

However, the main difficulty of using such indices should be considered the limited accuracy of prospective calculations. Another approach is based on the using the arithmetical mean index:

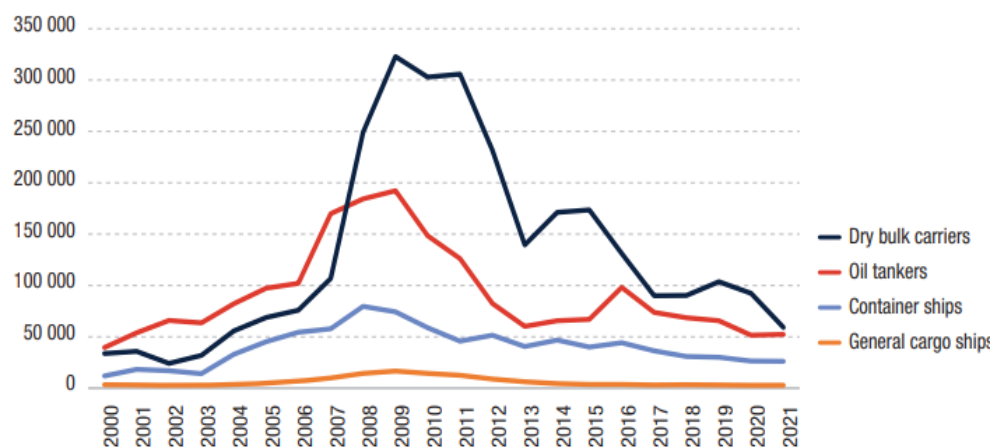
$$I_f = \frac{\sum_i^n \frac{P_{ci1}}{P_{ci0}} w_{i0}}{\sum_i^n w_{i0}}, \quad (2)$$

where $I_f = \frac{P_{ci1}}{P_{ci0}}$ – is the individual index of changes in tariff (freight) rates,

w_{i0} – is the weight of this cargo (i) in accordance with its share in the total amount of freight of all cargoes accepted for the index calculation in the base period.

In this regard it is important to pay attention to the integration processes, which due to the concentration of resources and interaction, reduce the risks of freight fluctuations – these are logistics companies. Their number exceeds 50 thousand. But, despite systemic globalization, most of these companies do not belong to large operators. This is another regularity of globalization – ensuring competitors' access to the logistics market, the turnover of which reaches 600 billion dollars.

At the same time, the cyclical interrelationship of the shipping market with the parameters of the maritime trade market and its influence on using the shipbuilding capacities determines the task of improving the planning and management of investment projects. Thus, a relatively long period (2002-2007) of high rates of growth in demand for maritime transport in world trade provoked the shipbuilding intensification and the rapid construction of new capacities in China and Korea. At the same time, no attention was paid to the imbalance of global economic growth and orders for new shipbuilding during 2008. This subsequently led to a sharp abandonment of new shipbuilding with losses for shipowners and shipbuilders. In fact, this segment of the maritime transport industry, with the exception of countries with national support, did not reach design capacity during 2015-2022.



Source: UNCTAD calculations, based on data from Clarksons Research.

Notes: Propelled seagoing merchant vessels of 100 gross tons and above; beginning-of-year figures.

Figure 1. The Nature of Loading of the World Shipbuilding Base

Under these conditions, the use of Ukraine's enterprises has actually been lost. In addition to the general patterns of the global maritime industry development, non-systemic risks for individual ship owners and operators differ. A special role in the transport service stability of international economic relations in certain sectors is played by the risk of pirate captures, the length of time ships are kept and the cost of buying out crews. In this case the redemption price grew faster than inflation and oil prices. At the same time, the risk zone of

pirate attacks was changing. Only the global efforts of the world community have reduced losses in one region, but the problem has intensified in another region of the world ocean.

Conclusions

In any case, using the "intelligence" technology, which is the management of choosing the intelligent strategies aimed at optimizing the results of the transport business based on studying the information flows, is necessary for the sustainable efficiency management in the sea trade market system.

The latter are formed according to original programmes and methodologies by expert systems, which are manifested on a large scale in the structure of maritime transport subsystems [1].

The indicators for different groups of indices are selected taking into account the peculiarities of the freight rates formation in certain segments of the freight market in the retrospective period. That is, the possibility of planning interest rate standards reflecting investment projects to increase the carrying capacity of the shipping company is limited.

In the system of any market relations for each industry, oriented to the sustainability of demand, it should be considered natural to differentiate the enterprises development in order to maintain a position according to the factors of innovative technologies. Therefore, it is standard to consider the assessment of changes in the current period relative to the previously achieved parameters of the flow of income and the efficiency of using the capital assets.

Abstract

The multifactorial development of the global maritime trade market determines both the complexity of managing individual processes and the need for constant clarification of the factors and directions of changes in the basic state. This, in turn, determines the risks and complexity of adopting and implementing relevant investment and management decisions. It should be noted that the sea trade market actually functions outside of national legal aspects. At the same time, it is the national capital assets that reflect the technical and economic level of vessels of a certain nationality that form entrepreneurial and macroeconomic efficiency. In this way, the legal conditions for the emergence of multi-level integration processes are formed.

At the same time, a different principle of interaction should be distinguished. The nature of participation in the distribution of cargo flows between companies and routes should be considered as a special form of integration processes. This is due to the requirement of the unconditional provision of global needs, on the one hand, and, on the other hand, the differentiation of the adequate enterprises participation in the availability segments according to different characteristics. The actual situation of the maritime trade market in the system of the international division of labour determines the priorities of innovative strategies that guarantee a certain balanced development.

The innovative strategies development in the maritime trade market requires an understanding of the specifics of the industry, including the need for investments in sustainable development and decarbonisation. The increasing role of maritime transport enterprises in the international division of labor requires the optimization of the condition of the national merchant fleet and ports to ensure market relations. However, this optimization should not be pursued at the expense of other national priorities or in contradiction with international principles. Therefore, effective positioning of maritime transport enterprises requires taking into account transformational factors and balancing the technical and economic aspects of production with cost-effectiveness criteria. By adopting a thorough approach to managing the balance of individual maritime transport enterprises, it is possible to ensure a certain period of adequacy in relation to the external situation, thus minimizing risks and maximizing efficiency.

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