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DEVELOPMENT OF AN ALGORITHM FOR STRATEGIC MANAGEMENT OF IMPROVING THE QUALITY OF THE TRANSPORT COMPLEX, BASED ON THE PROCESS OF INTERACTION OF TRANSPORT COMPANIES

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Abstract. *There are ample opportunities for state regulation of transport in the country through the system of state regulation and the budget. However, the reconstruction of the country's transport complex has complicated the management system. Public control over the activities of hundreds of thousands of transport companies will be significantly weakened, which will make it difficult to implement a unified intersectoral transport policy, especially at the interregional level, and will negatively affect the economic competitiveness and security of the country.*

The current stage of market reforms in Kazakhstan is characterized by a rapid growth of interest in improving the effectiveness of state intervention in the work and development of the transport sector, covering all types of freight and passenger transportation (specialized, general, etc.).

Speaking about the development of market relations in the management system of the transport complex, it is impossible to talk about the absolute significance of this process. The transport sector, as a special social sphere that affects pressing issues, cannot be fully focused only on market relations, since there are socially significant types of logistics that are subject to state subsidies.

The above shows the relevance and necessity of research to improve the management of the transport system. The purpose of the research is to find and substantiate the priority directions for improving the organizational and economic mechanisms for the development of a transport-integrated system of modern economic modernization. The article defines the possibilities and boundaries of interaction between state bodies and private entrepreneurship in order to increase the market efficiency of transport management, justifies the need to reform the structure of financing for transport management, taking into account modern trends and foreign experience.

Keywords: *transport, strategic management, transport system, economic efficiency, infrastructure.*

Main provisions. Based on the analysis and evaluation, the directions of improving the transport complex management system are formulated and innovative approaches to improving the interaction of subjects of the domestic transport complex management market are proposed.

The proposed mechanisms can be used in further research on the organization of the transport complex at different levels, economic support and improving the quality of management. In addition, the results of this study can be used in the development of regional programs for the modernization of transport management.

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Introduction. We have repeatedly noted that increasing the efficiency of interaction between transport companies is an important condition for improving the quality of transport services, therefore, in the future, the relationship between the companies, their commercial and desired synergetic effect and, in fact, the Kazakh transport market. trade union members. - business cooperation for the development of the general transport services market.

But first it is necessary to consider the main forms of interaction of transport companies, which are currently used to organize the service of cargo owners. In the previous chapter, we showed that theoretically, the interaction of transport companies is a form of inter-firm cooperation [1]. It should be noted that the historical process of formation and development of certain forms of interaction between intermediaries providing transport services (no wonder any form of interaction between transport companies can be attributed here) has passed several key stages. Figure 15 shows the scheme of stage-by-stage development.

In our opinion, in the process of formation and development of certain forms (directions and methods) of the organization of interaction of transport companies in the field of cargo service, four stages of evolution coincided, the development of market commercial relations based on the exchange of money.

Materials and methods. In scientific research, a set of methods and methods of economic research is used, the totality and features of which meet the requirements of a systematic approach. The research uses the methods of theoretical and empirical generalization, analysis and synthesis, comparative, computational and constructive, statistical grouping, functional and structural analysis, graphic structures, marketing research, etc.

Results and discussion. At the first stage, characterized by limited market activity, the interaction of any economic agents (including organizations providing certain transport services, i.e. future companies acting as members of the transport union) can be considered as forced interaction [2,3]. First of all, this was due to the fact that the need for the movement of goods was insignificant and was carried out mainly by the most affordable mode of transport (usually land). Secondly, other types of transport (water, air) before the 18th century. it was characterized by a high risk of cargo loss due to unfavorable conditions of subsequent transportation (Figure 1).

In our opinion, the second stage of the formation and development of cooperation between transport companies was short-lived-before the formation of a stable air fleet in countries and states (i.e., until the first third of the twentieth century). The appearance of a new vehicle for organizing cargo transportation revived relations between companies operating in the market at that time and other transport companies and brought them to a new stage.

Accordingly, the third stage of the formation and development of interaction between transport companies in the organization of cargo services can already be considered as interaction based on cooperative forms of short-or medium-term partnership [4]. The third stage of the development of cooperation between transport companies coincided with the formation of a strong corporate segment in the market of their activities (transnational and global corporations), and the last stage-with the last stage of industrialization (in other words, the cognitive economy. knowledge economy).

Currently, the interaction of transport companies can be considered as a strategic partnership of interests and interaction on the basis of a long-term contract.

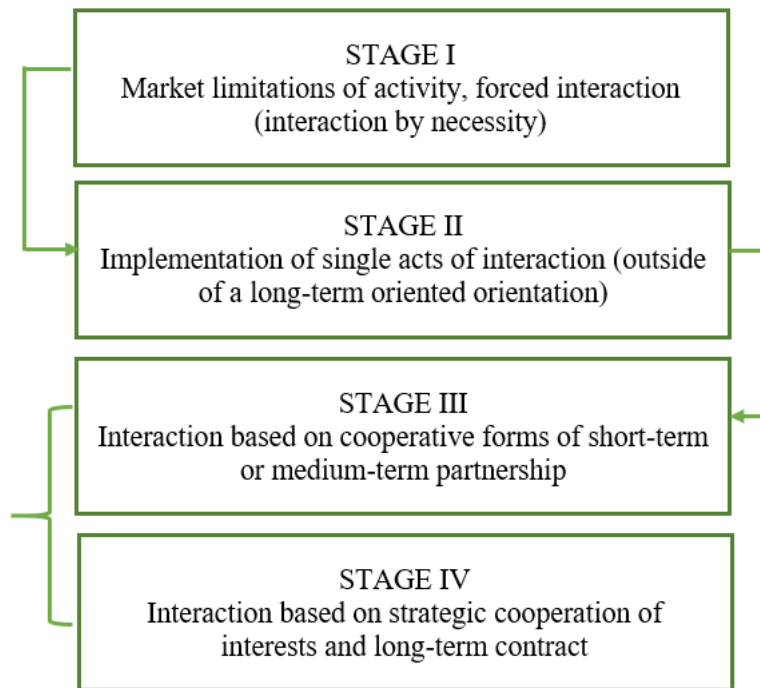


Figure 1 - Sequence of stages of formation and development of interaction between transport companies
Note - Developed by the authors

From this position, it is customary to distinguish two main groups of forms of interaction between members of the transport union when organizing services for car owners (and, accordingly, when providing other transport services), figure 2.

Despite the paradigm shift in the theory and methodology of interaction of transport companies and the predominance of the idea of the need to prioritize the use of adapted forms of interaction of these economic entities with each other and their counterparties, traditional market-hierarchical forms remain important.

This is due to the fact that modern adaptive forms of interaction between transport companies are important for ensuring the strategically sustainable and competitive development of these economic entities in the long term.

At the same time, the conclusion of long-term contracts for the management of small local cargo flows without a stable basis does not seem economically feasible and rational [5,6].

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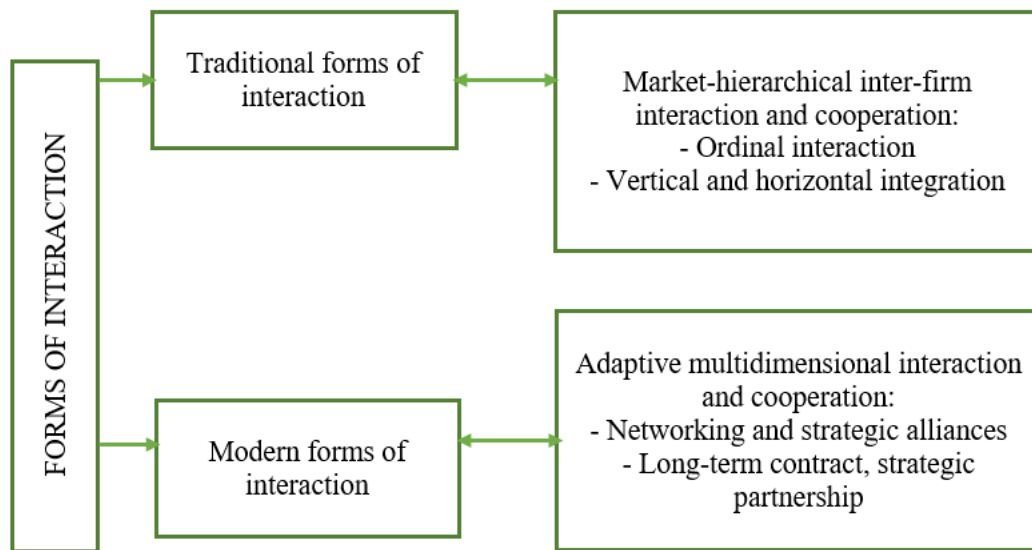


Figure 2 - Classification of the main forms of interaction of transport companies within the framework of effective service
Note - Developed by the authors

Therefore, speaking about modern forms of interaction of transport companies, we propose to consider them as a basis for global improvement of the organization of cargo owners' services, i.e. It is aimed not only at the long-term perspective from the point of view of strategic positions, but also at the rapid development of science.

The study of theoretical and methodological sources on the research topic shows that the current process of interaction of transport companies in the organization of transport services is as follows (Figure 3).

Thus, as can be seen from the proposed scheme, a number of transport companies are currently systematically carrying out the process of servicing one cargo owner. At the same time, the cargo owner himself manages the movement of cargo from the destination to the point of departure, maintains feedback with each transport company. In this case, the risks are obvious:

- firstly, there is a very high probability of increasing the time of cargo transfer from the point of departure to the destination, which is a lost benefit for the cargo owner, respectively, a decrease in the economic effect of the transport service;
- secondly, organizational and transaction costs may arise, which may be a direct result of inefficient coordination of the actions of each subsequent transport company;
- third, there is a high probability of cargo loss or changes in the composition and design of the cargo unit during its movement, which also affects the economic efficiency of the services provided and the benefits received by the cargo owner.

It should be noted that in this scheme, the economic and other advantages of transport companies are much higher, and their level of responsibility for the movement and safety of goods is reduced, since each company bears a certain responsibility only during its movement and cannot be responsible for actions or inaction.

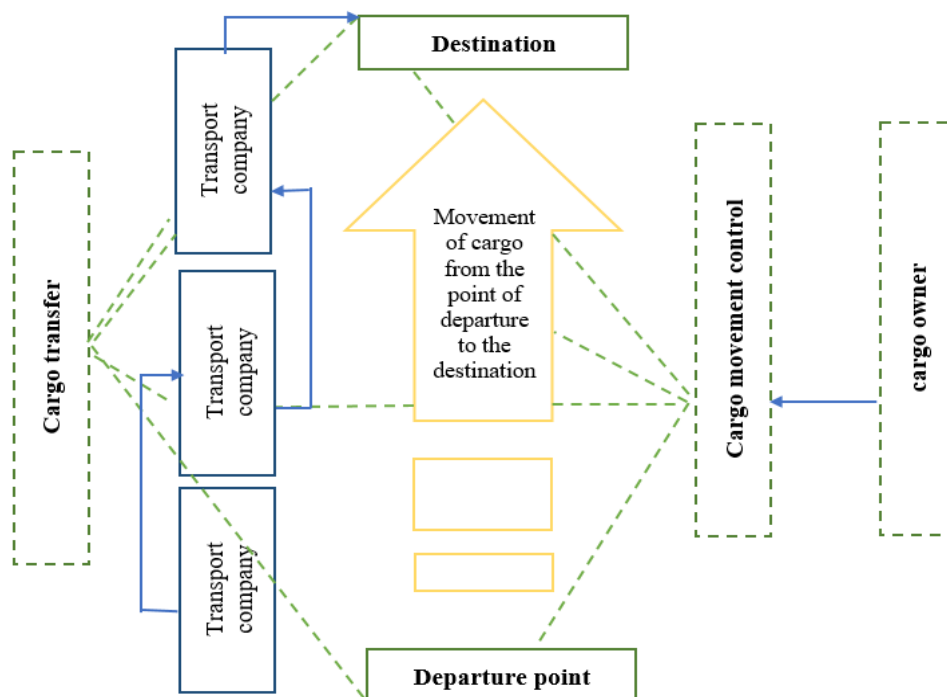


Figure 3 - Typical algorithm of interaction of transport companies in the process of transport services

Note - Developed by the authors

In his notes, the issue of interaction of participants in the transportation process from the point of view of the quality of transport services is considered. Ju. Sokolov and I. M. Lavrov [8,9] noted that if the participants in the transport process are divided according to the degree of responsibility for ensuring the desired quality of transportation in descending order, then the basis of income distribution can be determined in the process of improvement quality.

Thus, the infrastructure owner is responsible for maintaining a large number of quality indicators. In each case, the organization determines the income and expenses for the transportation of goods for each participant in the transportation process. This is due to the fact that each of the participants in transport activities will have their own types of work, respectively, income and expense items.

Knowing all the values of the items that make up each indicator of the quality of transport services, it is possible to quantify the share of actual income and expenses for which a particular participant in the transport process is responsible. In general, the definition of these shares (or the quality assurance potential of each participant) can be calculated as the ratio of the sum of the quality indicators of transport services for which this participant is responsible to the sum of all indicators of the quality of transport services.

Thus, the proposed methodology allows each participant to assess the completeness of participation in the transport process to ensure the quality of transport services, using the values of quality assurance potentials calculated for each common situation.

Based on the authors' analysis of the influence of each participant in the transport process on the quality of transport services, the areas of their influence on the effectiveness of each indicator are determined and the average values of the coefficients are calculated on their basis.

We also recommend using these coefficients, which can be used to estimate the amount of contribution to the work of each of the participants in the transportation process and use them

when determining the amount of payment, including when calculating the effective rate and cost of transportation participants.

It is recommended to consider a scheme for improving the process of interaction of transport companies in the context of strategic integration, taking into account the variety of aspects of interaction of transport companies in the process of servicing cargo owners (Figure 4).

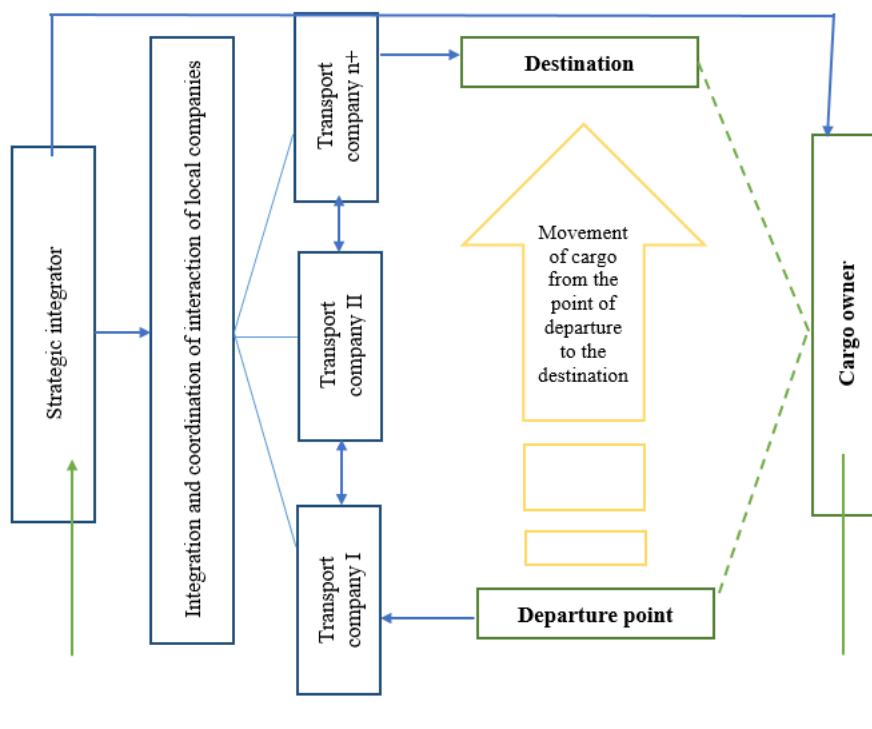


Figure 4 - Improved algorithm of interaction of transport companies in the process of transport services
Note - Developed by the authors

The concept of strategic integration, based on the activities of transport companies, was formed at the beginning of the 20th century [10].

This concept considers the transport alliance as an integrated structure that accumulates the necessary resources, methods and organizational techniques related to the development of modern high-tech solutions aimed at creating the most optimal supply chains aimed at maximizing quality to increase the efficiency of services as an integration structure, including the provision of services to contractors and transport flows (chartering), as well as to local operators subordinate to it. According to this concept, the largest and most diversified transport company first develops a transportation route (at the discretion of the cargo owner) with the maximum choice from the point of departure to the destination. The optimal route with the optimal ratio of time, costs and risks.

Secondly, the transport company, which is a strategic integrator, independently coordinates the actions of participants in the local (lower level) transport process in accordance with the instructions of the cargo owner, and not only controls the movement of cargo in space, but also offers other important transport services, namely: controls and optimizes supply chains for a specific cargo owner and its main counterparties; develops configuration and management of the transport subsystem of cargo owners; performs comprehensive management of the cargo owner's inventory and expenses within the framework of the main activity; organizes and performs remote



documentation of the turnover of goods and stocks belonging to a specific cargo owner.

The above characteristics of the services of strategic integrators are consistent with the thesis that their owners systematically coordinate the activities of all members of the transport union involved in ensuring the systematic movement of goods within the framework of transport services we mentioned above. This means that the modern development of the transport services market and, in particular, transport services is characterized by the emergence and development of new adaptive multidimensional forms of interaction between transport companies (including forms of interaction: network, strategic alliances, long-term).

For example, the creation of network structures as part of the strategic integration of transport services for cargo owners is a way to create a network with networks and connections to meet the needs and expectations of partners and the business environment.

The essence of the network principle is the replacement of multi-level hierarchies with clusters of firms or specialized structural units, the transition to horizontal organizational structures coordinated by market mechanisms instead of administration, and the creation of independent working groups instead of functional structures.

The use of strategic integration in the process of providing transport services to cargo owners allows transport companies to improve the service processes themselves (i.e. improve the quality), and by increasing the efficiency of operator interaction:

- The concept of general transport services and the organization of transport services in general is changing, the strategic integrator provides direct and feedback to cargo owners, full commitment to ensuring the safety of the movement of goods;

- the concept of cargo owners access to sales markets is changing, since strategic integrators operate globally and ensure the movement of goods to any point in the physical space of the world economic system;

- The concept of managing transport flows in general and cargo transportation in particular is changing, since the strategic integrator coordinates the entire supply chain, and not a separate local level, depending on the movement of goods;

- The concept of forming costs and expenses of cargo owners in connection with the purchase of certain transport services is changing. Here, firstly, the risk of loss and loss of cargo is minimized, and secondly, by creating a single centrally responsible link, the total transaction costs associated with the movement of goods are reduced.

Conclusion. Thus, in our opinion, the processes of interaction of the transport alliance participants in the organization of cargo owners' services should be aimed at strategic integration of the system using modern adaptive and multidimensional forms of cooperation. This approach creates synergy both for the transport companies themselves and for cargo owners who use the services of these companies when organizing the movement of goods.

But in addition to improving the processes of interaction between transport companies in the field of servicing cargo owners, we need solutions that allow us to constantly improve the quality of this service.

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РАЗРАБОТКА АЛГОРИТМА СТРАТЕГИЧЕСКОГО УПРАВЛЕНИЯ ПОВЫШЕНИЯ КАЧЕСТВА РАБОТЫ ТРАНСПОРТНОГО КОМПЛЕКСА, НА ОСНОВЕ ПРОЦЕССА ВЗАИМОДЕЙСТВИЯ ТРАНСПОРТНЫХ КОМПАНИЙ

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Резюме. В статье проводится анализ ключевых проблем сдерживающие развитие транспортной отрасли Республики Казахстан. Рассматриваются вопросы построения эффективной логистической стратегии и внедрения современных методов управления бизнес-процессами транспортного предприятия. Которые, в свою очередь, относятся сегодня к числу приоритетных задач отечественной экономической науки и практики, а также для повышения продовольственной безопасности страны.

Ключевые слова: транспорт, стратегическое управление, транспортная система, экономическая эффективность, инфраструктура.

КӨЛІК КОМПАНИЯЛАРЫНЫҢ ӨЗАРА ІС-ҚИМЫЛЫ ПРОЦЕСІ НЕГІЗІНДЕ КӨЛІК КЕШЕНІ ЖҰМЫСЫНЫҢ САПАСЫН АРТТЫРУДЫ СТРАТЕГИЯЛЫҚ БАСҚАРУ АЛГОРИТМІН ӨЗІРЛЕУ

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Түйін. Мақалада Қазақстан Республикасының көлік саласының дамуын тежейтін негізгі проблемаларға талдау жасалады. Тиімді логистикалық стратегияны құру және көлік кәсіпорнының бизнес-процестерін басқарудың заманауи әдістерін енгізу мәселелері қарастырылады. Бұл өз кезегінде отандық экономикалық ғылым мен практиканың, сондай-ақ елдің азық-түлік қауіпсіздігін арттырудың басым міндеттерінің қатарына жатады.

Түйін сөздер: көлік, стратегиялық басқару, көлік жүйесі, экономикалық тиімділік, Инфрақұрылым.

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