



Студенттер мен жас ғалымдардың  
**«ҒЫЛЫМ ЖӘНЕ БІЛІМ - 2018»**  
XIII Халықаралық ғылыми конференциясы

**СБОРНИК МАТЕРИАЛОВ**

XIII Международная научная конференция  
студентов и молодых ученых  
**«НАУКА И ОБРАЗОВАНИЕ - 2018»**

The XIII International Scientific Conference  
for Students and Young Scientists  
**«SCIENCE AND EDUCATION - 2018»**



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**OPTIMIZATION OF TRANSPORTATION BY MEANS OF LOGISTICS****Oshanova Balnur Erlankyzy***Balnur\_oshanova@mail.ru*

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The management of the transport and logistics process is a deliberate impact on it and based on scientific principles. It must ensure the promptness of decision-making and implementation, the successful implementation of the established plans. The basic functions of managing the elements of the transport and logistics system are realized by the management personnel, which is combined into separate groups and other subdivisions of different levels of management. The organizational form of the process is the structure of the management system of the motor transport enterprise, the quality of which largely determines the efficiency of the functioning of the entire system.

Until recently, the concept of uniformity of the general principles of the formation of management structures prevailed. At the present time, ideas and principles of the formation of structures are being exported, i.e. there is an understanding that each individual case requires an individual approach and there can not be a single indication of the best way to choose organizational management structures.

However, with the general significant attention paid to the creation and improvement of management systems, there is currently a gap in improving the management structures of motor transport enterprises. This is explained by the specific features of the work of road transport enterprises:

- the complex nature of the enterprise, which carries out the production processes of transportation, the restoration of technical characteristics and the carrying capacity of the automobile rolling stock;
- each of the services of an auto enterprise has its own management system (technical and operation), and some of their elements are common in case of territorial separation of separate units (branches and convoys);
- a autonomy of the main production, since road transport is carried out outside the auto enterprise.

The listed features lead to the fact that in conditions of growth in the number of carriers and the number of their rolling stock, there is a decrease in the completeness and quality of control over the course of the production process. Special difficulties arise in the service of managing freight road transport. This is largely due to the fact that the ongoing studies to improve the management of road transport-related mainly to the management of the technical service automobile industry. As for the operation of the automobile industry, the works in this area are mainly devoted to the management of passenger transport. The issues of the management of freight road transport are studied to a lesser extent. This is primarily due to the complexity of the research object, the variety of restrictions imposed by the specific operating conditions of load-forming and load-absorbing objects and the rolling stock, the influence of a large number of random factors on the system, and so on.

Planning itself is only the initial stage of the management process. The introduction of the most modern planning methods without creating an effective system for managing the transport of goods does not allow to solve the tasks facing the ATU in the field of improving the organization of the transportation process and its management. Lack of scientifically sound management practices makes it difficult to eliminate the plans, deviations that arise during the implementation process, and also to a significant extent limits the possibilities of the introduced planning methods.

The perfection of management on the basis of the application of economic and mathematical methods and means of computer facilities is given great importance. However, since a computer is only an auxiliary tool for performing management functions, then the rationalization of the management mechanism itself, which includes the improvement of structures and management

technology, should precede implementation. Based on the above, the transport infrastructure of the City of Astana can be modernized using the logistics tools based on the following principles:

- priority of eliminating gaps and obvious "bottlenecks" in traffic flows and cargo flows passing through the territory of Astana;
- priority of modernization and development of the existing capacities of transport infrastructure in comparison with new construction;
- the maximum use of existing industrial facilities and communications to ensure the republican, international and transit transport of goods by road;
- development of transport infrastructure with the development of a regional providing infrastructure (energy and communications), as well as other infrastructure sectors on the territory of the region;
- coordination of the development of the freight transport sector by road, transport infrastructure with the development of the infrastructure of sea and rail transport;
- saving resources by building multi-purpose facilities;
- the maximum concentration of budget funds and attracted investment resources (including foreign ones) in priority projects and their operational implementation.

The basis of the logistics model for the development of transport infrastructure is the republican and international transport corridors. Transport flows and cargo flows passing through the territory of Astana, in the area of which the communications of the basic transport network are located, should optimally connect with the national and international transport corridors, European and Asian transport networks.

Systemic development of international and republican motor transport corridors will allow: achieving concentration and saving resources through construction

Objects of transport infrastructure of multi-purpose use, taking into account the interests of the freight transport sector by road; to concentrate transport capacities by introducing a system for recording the activity of subjects of the freight transport market; promote the equalization of socio-economic development of municipalities.

At the same time, budget financing of the transport infrastructure of the freight transport sector by road must be based on the following principles:

- financing the maintenance, operation of transport infrastructure facilities in state ownership, at the expense of the budget;
- ensuring the guaranteed safety of the basic transport network for the transport of goods by road through adequate budgetary financing and the rejection of the residual principle of its allocation;
- Modernization and creation of new objects of transport infrastructure on the basis of a combination of budgetary financing and attraction of loan investment funds.

It is known that the development and adoption of decisions are a procedure that determines the entire further course of the process of managing the production system and the final result of its operation.

At present, when solving problems of operational management of cargo road transport, there is a tendency of wide use of economic-mathematical methods and imitating modeling of the transportation process. When solving these problems, an electric computer (computer) is used as a storage device for information processing, as a means of visualizing information and developing a solution in the "human-computer" dialogue mode.

The problem of restructuring the organizational structures created for the management of enterprises and systems (associations) is one of the most difficult to manage. Separately, it became complicated when the transfer of the economy to market relations makes the organizational structures of management systems of any level demand regular updating. In other words, the structure of a modern enterprise should be flexible, in need of new technologies of work and able to use them effectively to achieve its goal, to contain mechanisms for self-adjustment and self-organization. The methodology for developing the organizational structure of management can

be considered to provide these requirements.

To establish the characteristics of the organizational structure: the number of levels of management, the number of management personnel, the degree of centralization of management, and others - the normative and functional approach presupposes the establishment of correlation dependencies of these indicators on a number of factors. The characteristics calculated on the basis of established dependencies guide the researcher to the existing level and structure of the organization of the management of the object and exclude the possibility of taking into account the specifics of the conditions of the production activity of a particular transportation enterprise. So, the actual number of management personnel in an enterprise may, due to its specific nature, deviate significantly from the normative one.

The organizational structure, as part of the system that implements the logistics technology of cargo transportation, must meet the specific features of the object management of its activities. The emergence of a market environment, the change of existing material and information links - contribute to an increase in the dynamics of changes in the relevant conditions, which may necessitate a change in the organizational structure of the management object.

The main direction of improving transport technologies

– In the field of freight transportation by road and the movement of cargo flows through the territory of Astana is supply management on the principles of transport logistics, as well as:

– the creation of logistics centers focused on sectoral transport sectors and application of logistics principles in the delivery of goods;

– the integration of industry logistics centers into the multimodal logistics center of the transport services market of Astana operators and similar centers of other Kazakhstan entities, as well as foreign centers;

– complex informatization, application of IT technologies and openness in the organization and management of transport processes.

– The main tasks of increasing the economic and budgetary effects of transport business, which will be implemented in the province, include:

– implementation of the principles of transport and warehouse logistics at the level of individual freight flows used in the management of the supply of goods to large and medium-sized manufacturing enterprises and trade networks of Astana;

– Creation of a unified information system of orders and capacity of Astana, which allows holding open electronic trades.

It should be noted that the trend that has arisen in the transportation of goods by various modes of transport, to unify the dimensions of packagings by multiplicity of sizes and bring their standard sizes to the standards of vehicle sizes, accelerate and reduce the cost of handling goods in the junctions of various transport systems and in storage and handling areas dictates the need for the transfer of supplies of goods and goods on a container basis.

Improvement of the enterprise management system and its organizational structure in the past started with a systematic survey of the existing management system. The information material was used, so-called, archival or collected by interviewing employees of the management apparatus. In both cases, or with their combinations, the characteristics obtained about the management system are a reflection of the opinion of the employees of this enterprise and its management apparatus in oral form or reflected in the documents. The results of such surveys show that they are time-consuming and involve significant time-consuming, poorly coordinated survey results obtained by various researchers, since researchers may have a different accuracy of the survey: up to functions and documents or to structural units. As a result, the survey data may not be objective, since its results reflect the opinion of employees of the management apparatus. The theory of the formation of multi-level hierarchical governance structures shows that the divisions formed in it have a desire for self-preservation, and when creating new units in the organizational structure they will strive to find a ballast "work", artificially increase the importance of functions already performed by them, develop new forms of documents for themselves and the technology of working with them is

not so necessary objectively, but convenient or customary for their own customary activities. Expansion of such functions almost inevitably leads to an increase in the number of management personnel, the emergence of new structural units in the management structure, which, as a result, leads to a decrease in the efficiency of the entire managementsystem.

However, when this criterion is adopted, it is extremely difficult to establish a systemic relationship between the consumed resources of the organizational structure and the final results of the productive activity of the enterprise that it manages.

Comparative analysis of structures is carried out, as a rule, by the criterion of "centralization - decentralization". The centralization of planning and management creates the need for the enterprise as a whole to process practically the necessary amount of information. This forces either to reduce the amount of work by focusing only on the functioning of the least productive, that is, in the worst conditions, links in the system, ignoring the wide variety of possibilities of the remaining parts, or reducing it by building tree-like hierarchical management structures. At the same time, there is a tendency to increase the number of hierarchy levels, dictated not by the requirements of the production structure, but by the desire of the management apparatus to create more and more auxiliary units.

The way to focus on the worst conditions, without alternative, dooms the system to stagnation, since it not only does not use additional resources hidden under more favorable conditions for the work of its individual parts but at the expense of equalization by the weaker suppresses any initiative to use these resources. Hierarchy of the system, increase in the number of levels of organizational structure inevitably slows down the passage of managerial decisions and all other information from centralized bodies of enterprise management to immediate executors and vice versa. In addition, intermediate links deform information for their own purposes, which is natural for any active element with the ability totarget.The need to choose a reasonable degree of centralization - decentralization of management is realized long ago. In particular, in modern conditions of restructuring, the task is to decentralize management, to provide greater autonomy below the existing links of the system. It is possible, for example, to stimulate the principle of decentralization of management, and the adopted form of hierarchical subordination will not allow it to be realized or, at least, it will significantly hamper its implementation.Implement the adopted management principles allows comparative analysis of hierarchical structures using the information approach proposed by some authors of works in this area. An information approach to the analysis of systems makes it possible to substantiate the influence of the structure form on the implementation of the principles of "centralization-decentralization" of management.

Using information assessments of the degree of centralization and the coefficient of the use of elements in general, it is possible to quantify which of the organizational structure options allows more to realize the principle of decentralization or vice versa: the centralization of management, while not bringing the system to disintegration and complete uncontrollability by actions of subordinate levels specialists in strengthening the independence of the organizational structure.

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