

IMPROVEMENT OF FREIGHT MANAGEMENT TECHNOLOGY

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Transport connects regions, countries, continents, plays an important role in the world economy, contributing to the development of countries as a whole and their entry into the world market. The degree of development of the transport infrastructure affects the economic, political, social and environmental spheres of a country's life.

Ukraine's transport system connects European and Eastern countries, as it is located at the intersection of international transport corridors and has a developed transport network. Railway transport of Ukraine provides more than 80% of freight carried out by all modes of transport. This determines the urgency of the tasks for improving transportation systems, introduction of new and improvement of existing freight technologies, which will contribute to the globalization of the country's economy. Under such conditions, it is advisable to widely introduce into practice the technologies that have developed in some countries, namely: multimodal, intermodal, combined freight [1].

When organizing freight, the main criteria for choosing transport are: cost of transportation, speed, reliability, safety and quality of cargo delivery [2].

The cost of transportation and speed of cargo delivery largely depend on the choice of transportation route. At the same time, the choice of vehicles for transportation is one of the main tools to improve the quality of cargo delivery. Thus, in the case of intermodal transportation, the cargo is in the same transport unit all the way, which contributes to the quality and safety of the delivered cargo due to the reduction of freight operations. According to research, it is advisable to use the methods of theoretical qualimetry to objectively assess the quality of cargo delivery [3].

One of the components of this method is to solve the problem of choosing the optimal route, which uses many methods, in particular, such as: Dijkstra's algorithm, artificial intelligence methods, ant algorithm, neural networks, methods of genetic algorithms [4].

To implement the assessment of the freight management quality, it is necessary to solve the following tasks:

- to form a criterion for choosing the mode of transport on each section of the route;
- to determine the optimal route for cargo delivery;
- to determine the optimal interaction algorithm of modes of transport for freight.

Accordingly, the criterion for selecting a transport system is formed on the basis of a qualimetric assessment, which takes into account the volume of freight, the speed of cargo delivery and the route distance. Based on the methods of genetic algorithms, the optimal route of cargo delivery is modeled, the mode of transport is chosen and the interaction of modes of transport is determined.

Thus, the implementation of improving the freight management quality involves determining the optimal route for cargo delivery, the search for optimal interaction of modes of transport when carrying out, in particular, intermodal freight. The obtained procedure for assessing the freight management quality can complement traditional approaches to the formation of transport technologies, including the emergence of new vehicles. The developed procedure for assessing transport technologies can be used for non-discriminatory access to infrastructure.

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АЛГОРИТМ ПРОСТОРОВОГО ЗОНУВАННЯ МІСЬКОГО СЕРЕДОВИЩА З УРАХУВАННЯМ ПОТРЕБ ДЛЯ ШЛЯХІВ СПОЛУЧЕННЯ ВЕЛИКИХ МІСТ

ALGORITHM OF SPATIAL ZONING OF THE URBAN ENVIRONMENT TAKING INTO ACCOUNT THE NEEDS FOR WAYS OF CONNECTION OF LARGE CITIES

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Якість і організація міського середовища багато в чому визначають рівень розвитку основних сфер життя міста. Під якістю міського середовища розуміють рівень задоволення фізіологічних, матеріальних та духовних потреб населення міста. Кількість і якість таких послуг сьогодні здебільшого визначається нормативними документами. Проте міське середовище, створене на основі нормативів, не повністю задовольняє потреби мешканців міста до тих чи інших елементів міського середовища. Сьогодні просторова організація міста формується на основі адміністративних методів та базується на аналітичних дослідженнях соціально-економічних зв'язків (у межах історичного часу) і