

EFFICIENCY STANDARDS FOR TRANSPORTING CARGO WITHIN A MOTOR VEHICLE NETWORK

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Abstract: The present work aims to explicate the efficiency considerations for cargo transportation within a network of motor transport. The study centers on establishing pertinent criteria used to assess the efficiency of the cargo transportation system.

Keywords: benchmark, motor transport, transportation enterprises, governance, management system.

One of the primary issues within globally-connected road transportation pertains to enhancing cargo transportation efficiency, ensuring prompt and cost-effective delivery of goods to customers, which necessitates changes in the operations of motor transportation enterprises. Within our nation, expansive initiatives are being executed with the purpose of advancing the domain of transportation and communication, safeguarding the secure conveyance of freight, enhancing the governance system within the transportation sector, and nurturing adept professionals within the field. Contemporary tendencies in economic development have prompted the implementation of reforms towards an all-encompassing transport policy primarily oriented towards enhancing transport services' quality and popularity, while considering the nation's geographical disposition. The central objective of the implemented reformations was the radical enhancement of the transport sector management system, alongside boosting investment attraction and export equity, and ensuring sustainable and strategic progression. As a part of the Uzbekistan Development Strategy for 2022-2026, the national program outlines a comprehensive plan to establish transport and logistics centers, which cater to the principal cargo-formation points across various regions. An underlying aim is to significantly reduce freight costs potentially by up to 30 percent. [1]. Hence, within our republic, there has been a notable escalation in the magnitude of freight transportation. Consequently, a rise in demand for a transportation network and associated transport-logistics structures occurs. The development of an ideal transport system demands elements that adequately address the necessities of the economy and the population in terms of transportation. Moreover, the plan should strive for minimization of costs related to vehicle use, networks integration, and system expansion. The criteria pertaining to this

matter ought to encompass all facets that impact the attainment of an ideal developmental blueprint for production personnel. The transportation facets encompass the following factors:

The assessment of the cost associated with direct collective labor expended in executing transportation endeavors across distinct modes of transit.

The pretext under scrutiny is the examination of the effects that specific modes of transportation have on the labor ambiance and quality of life of the community at large.

There has been a decrease in the volume of cargo being transported across various modes of transportation.

The demand for indispensable labor, energy sources, and metallic resources across diverse alternatives.

Insufficiency of materials, apparatus, and other precious resources, coupled with supplementary expenditures incurred in procuring such resources from alternative enterprises and industries.

The velocity at which loads are conveyed and additional measures.

Nonetheless, the simultaneous measurement of these indicators is unfeasible. Hence, it is imperative to select the criteria from a limited scope. This case entails the consideration of certain indicators, namely: firstly, the efficacy of the transport system, which entails assessing its capacity to reflect the needs and interests of production forces within the sphere of transportation, and secondly, the dynamic nature of transportation itself. In the optimization of transportation, both vehicles and network are subject to the application of specific criteria, contingent upon the particular issue at hand.

The criterion of work volume accomplished in tons-kilometers is a highly advantageous metric, as it enables the assessment of "distance" traversed within every network and remains precise within any direction. This criterion may be utilised in contemporary planning scenarios under the circumstance whereby the cost of Transportation indices for a particular class of vehicles that traverse both the forward and backward directions of the transportation infrastructure, exhibit parity or marginal divergence.

The assertion that this criterion pertains solely to a solitary transportation network that encompasses diverse modes of conveyance is erroneous. This methodology has demonstrated efficacy in addressing various challenges, such as the optimal routing of transportation within metropolitan areas, the strategic planning of zero distances, the equitable allocation of customers across multiple parking facilities, and the development of a coherent framework for the efficient management of cargo flow. It is feasible to formulate an optimization strategy based on the minimum cost of transportation. The criterion of "tariffs" enables the reduction of transportation

expenditures incurred by enterprises or sales organizations involved in the movement and reception of goods. As such, the utilization of this criterion enables the formulation of transportation schemes that are optimal with respect to enterprise profitability. Such is the advantage that this phenomenon presents. The current state of affairs within network infrastructure precludes the ability to implement said criterion at present. The aforementioned advancement in the field of optimal tariffs renders this metric of significant significance within an academic context. The assessment of operational expenses, specifically pertaining to the cost of transportation, is a crucial criterion for transport enterprises that are engaged in direct vehicular transportation. This parameter serves as a key indicator of the expenses incurred by the aforementioned companies associated with transportation services. This criterion offers a more precise evaluation of the cost-effectiveness of transportation across different modes of transportation. It allows for informed decision-making as to which mode of transportation is most suitable for the transportation of diverse types of cargo. The time spent on cargo delivery is subject to a minimum criterion. Specifically, this criterion refers to the temporal constraint that is primarily utilized during the transportation process for shipping goods of a prescribed magnitude from the freight-originating locations to designated cargo-receiving destinations within a tight timeframe. The importance of time as a critical factor is particularly evident in contexts such as military operations or the transportation of time-sensitive goods, among other scenarios [2]. One crucial aspect to consider in addressing the matter of the time parameter is the duration of loading and unloading of loads. Ensuring a timely supply of materials, raw materials, and finished products is a crucial element for creating favorable conditions to facilitate efficient operations within both the production and distribution systems of the regional economy. This aspect enables a reduction in the quantity of inventories that enterprises hold within their warehouses. The implementation of this measure guarantees the optimal functioning of not only the transportation system, but the entire logistic framework as well [3, 4]. The evolution and maturation of the Logistics industry has exerted a profound influence on transportation policy, thereby engendering noteworthy ramifications in this sphere. In this context, it is ensured that economic enterprises and organizations achieve mutual coordination through the synchronization of production and transportation, stockpiling and distribution activities. The evaluation of the optimal solution for the development and placement of the territory's transport network is conducted through utilizing the criterion of the minimum of cumulative (quoted) cost of productive forces. In the present scenario, the aforementioned criterion is concomitantly established with the minimum value of the combined sum of transportation and production expenditures. The optimal resolution for the transportation predicament concerning the stated production venues ought to conform to the imperative of reducing expenditures associated with transportation that are

incurred by the operational units. To effectively handle the escalating amount of transport operations, it is imperative that the transportation network secure supplementary financial resources to facilitate the proficient movement of cargo streams and to augment the capacity of vehicles.

In the evaluation of the economic efficacy of cargo flow distribution across various modes of transport, a comparative analysis is conducted between the operating expenses and the additional capital investment required for the enhancement of technical resources of fleets and networks. As a benchmark for evaluating the optimality of the proposed plan, the essential capital resources are included to enhance the potential of self-sustaining operating costs and areas for facilitating the transportation of commodities, which are contingent upon the magnitude of the shipment during the conveyance process. In our assessment, this widely recognized measure aligns more closely with the pinnacle of productive output. It is imperative to consider that the alteration in supplementary expenditures is non-linear in character. In view of optimization criterion, the utilization of differential costs, which refers to the quotient of the supplementary quoted costs against the elevation in the load flow, has been implemented.

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