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IMPROVEMENT OF METHODS FOR DETERMINING THE EFFECTIVENESS OF RESOURCE POTENTIAL USE

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Abstract
The article explores methods for improving the assessment of resource potential effectiveness in the road transport complex, with a focus on economic and social outcomes in the context of Uzbekistan's economy. It distinguishes between economic efficiency - measured as cost savings or relative indicators (e.g., sum/tkm) derived from income, transport performance, and proposed optimizations - and social efficiency, encompassing benefits such as improved occupational safety, environmental protection, and broader societal gains.
The study proposes practical applications of developed economic models, methodologies, and management systems, predicting outcomes including reduced production costs across economic sectors, accelerated development of a competitive transport services market, substantial budget savings through public-private partnerships, and enhanced synergistic performance via coordinated intermodal transport management.

Keywords: Resource potential, efficiency, public-private partnerships, synergistic performance, method, indicators, income.

Introduction

The logical conclusion of research work in most cases concludes with the determination of approximate values of economic or social effectiveness, which can be achieved as a result of the proposed scientifically based measures.
In general, in economics, these two types of efficiency are distinguished. Economic efficiency is taken as the difference between economic results (income, profit, expenses, etc.) changed as a result of a certain scientifically based (or practical) measure and is measured in practice by some relative value (sum/tkm, sum/t, sum/auto-day, sum/auto-hour, etc.) [1].
Social effectiveness consists of the totality of benefits and privileges that society can achieve after the implementation of the developed measures and recommendations. Occupational safety, environmental cleanliness, and other changes of a social nature can be the result of scientifically based measures [2].
As a result of proposals that take into account the economic model, methodology, and mechanisms of this research work, certain positive conclusions can be grouped as follows:
firstly, the practical application of the results of the scientific work is expected to lead to a decrease in the cost of products manufactured in the sectors of the republic's economy;

secondly, it can accelerate the process of forming a full-fledged market for transport services in the republic;

thirdly, projects implemented on the basis of public-private partnership in the road transport complex provide the opportunity to save a large amount of budget funds;

fourthly, as a result of the organization of the activities of the Center for Coordination of Transport Types, the indicators of synergistic efficiency of the country's transport system will be improved [3].

When calculating the economic effect that can be achieved as a result of applying the recommended economic model, methodology, and management systems in practice, it is necessary to work, first of all, from the point of view of a specific approach. That is, when determining the possible economic effect, first of all, the cost savings (efficiency) of transporting goods with the participation of vehicles of a single enterprise are calculated:

$$E_{RTE} = \frac{\sum_{i=1}^{n} D_i}{n \cdot \sum_{i=1}^{n} P_i} - \frac{D_{\min}}{R_{\min}} \quad , \text{ sum/tkm} \tag{1}$$

in this,

D_i total income of the i-th type of road transport enterprise (RTE), sum;

R_i Transport work of RTE, tkm;

D_{min} income of the enterprise with the lowest RTE value, sum;

R_{min} The amount of transport work of the enterprise with the lowest RTE value, tkm.

Then, based on this indicator, the amount of economic effect that can be achieved with the participation of the total volume of cargo transported by trucking enterprises can be determined:

$$E_{RTE} = (S - S') \cdot R = \left(\frac{\sum_{i=1}^{n} D_i}{n \cdot \sum_{i=1}^{n} P_i} - \frac{D_{\min}}{R_{\min}} \right) \cdot P_{RTE} = E_{RTE} \cdot R_{ART} \quad , \text{ sum} \tag{2}$$

in this,

R_{RTE} total transport work in freight motor transport enterprises, given tkm

At the same time, as a result of the practical application of a unified information management system, it is expected that the exchange of operational management documents and information in motor transport enterprises and associations will improve and the cost of transportation will decrease [4]. To determine this change, taking into account the role of computers in the decrease in the cost of the motor transport enterprise, the share of cost reduction can be calculated:

$$\Delta S_i = \left(\frac{\sum_{i=1}^{n} S_i}{n \cdot \sum_{i=1}^{n} R_i} - \frac{S_{\min}}{R_{\min}} \right) \quad , \text{ sum/tkm} \tag{3}$$

in this,

S_i transport work of RTE i, tkm;

S_{min} income of the enterprise with the lowest RTE value, sum;

R_{min} the amount of transport work of the enterprise with the lowest RTE value, tkm.

The economic effect that can be achieved through the use of consistent management equipment in the production activities of trucking enterprises is:

$$E_{RTE} = \left(\frac{\sum_{i=1}^{n} S_i}{n \cdot \sum_{i=1}^{n} R_i} - \frac{S_{\min}}{R_{\min}} \right) \cdot K_i \cdot R_{RTE} - K_{inv} \cdot Inv = \quad (4)$$

$$= \Delta S_i \cdot K_i \cdot P_{RTE} - K_{inv} \cdot Inv \text{ , sum}$$

in this,

K_{inv} coefficient that takes into account the economic efficiency of investments;

I_{inv} Amount of investment funds required for the practical implementation of the proposed measure, sum:

K_i Coefficient that takes into account the share of cost reduction resulting from the consistent use of computers.

It should be recognized that in pricing policy, which determines the impact of the economic potential of the road transport complex on the potential of the country's economy, not only prices for road transport services, but also tariffs for railway transport services, prices for infrastructure services, which are reflected in the costs of road transport. Based on the goals and objectives of this study, it should be noted that the improvement of the pricing policy of the complex can be carried out on the basis of the mechanism for determining the cost of road transport services [5].

Determining the net share of highways in the country's gross domestic product, that is, scientifically substantiating the economic impact of the resource potential of highways on economic sectors, is a very complex process and is one of the unresolved problems to date. In this study, the author's approach to solving this problem was recommended [6].

First of all, based on data from the Statistics Committee of the republic, the share of sectors of the country's economy in the gross domestic product and the road transport complex in the cost of industry products were clarified.

Using this data, the net share of roads in the country's gross domestic product was calculated using the following expression:

$$NS_{GDP} = \sum_{i=1}^{n} \left(U_{GDP}^{i} * U_{i_t}\right) - \left(U_{GDP} * U_{TC}\right) \quad (5)$$

in this,

NS_{GDP} – net share of the road network in gross domestic product, %;

U_{GDP}^{i} – Share of the i-th type of food in the gross domestic product, %;

U_{i_t} – highway - share of the transport complex in the cost of the i-th type of industry, %;

U_{GDP} – share of the transport and communications sector in the gross domestic product, %;

U_{CN} – highway - share of the transport complex in the cost of the transport and communications network, %.

In this study, a modern indicator is proposed that reflects the contribution of highways to the development of the country's economy, and it is conditionally called "road resource" (RR). The road resource can be considered as a surplus value arising from the use of roads by sectors of the country's economy, that is, when paying for the use of socially significant roads, the same amount of funds could be the business profit of entities operating in the road sector.

"Road resource" can be determined in the following way:

$$RR = NS_{GDP} - C_{GDP}^{FS} \sum_{i=1}^{n} \left(U_{GDP}^{i} * U_{i_t}\right) - \left(U_{GDP} * U_{CN}\right) - C_{GDP} \quad = \qquad (6)$$

where:

C_{GDP}^{FS} – funds spent on highways relative to GDP, %.

In the literature devoted to the economics of the road transport complex and its use, abstract indicators such as the volume of freight/passenger transportation, freight/passenger turnover, or the density of transport routes per 1000 people are given as indicators of transport development. Of course, these indicators are necessary to determine how much resources should be spent on the development of transport infrastructure and rolling stock, but they do not indicate the purpose of this transport development. The goal stems from the essence of infrastructure, which creates transport conditions necessary for social life and economic activity. Consequently, the determination of indicators reflecting the extent to which expenditures on transport, requiring the attraction of large capital investments, lead to changes in transport activities necessary for the socio-economic life of the country, has become an urgent task.

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