

Planning the transport companies sustainable development efficiency

Marina Vasilenko^{1*}, *Elena Kuzina*², *Alexander Glinsky*², *Ekaterina Vasilenko*², *Leonid Limanchuk*², *Vyacheslav Galkin*², *Maxim Bozin*², and *Asya Zaryan*²

¹Rostov state medical university», st. Nakhichevanskiy, 29, Rostov on Don, Russian Federation

²Russian University of Transport, st. Obraztsova, 9, b. 9, 127055 Moscow, Russian Federation

Abstract. An important role in ensuring sustainable development is assigned to the transport system. This is due to the fact that transport is the most important tool for solving social, economic and technological problems, and its functioning is accompanied by a negative impact on the environment, the occurrence of road accidents, causing harm to health. Planning as the most important management function allows to increase the socio-environmental safety and economic efficiency of the activities of railway transport enterprises, which means improving the quality of work. In the article, the authors compared approaches to strategic planning in the context of the concept of sustainable development of transport companies. The mechanism for the implementation of the ecological strategy of railway transport, which meets the requirements of economic efficiency, environmental safety and social responsibility, is disclosed. A block diagram of planning the socio-economic efficiency of the activities of railway transport enterprises in the system of environmental management is presented. Keywords: planning, efficiency, rail transport, sustainable development.

1 Introduction

Planning the economic efficiency of the work of railway transport enterprises is a voluminous process, which involves a lot of departments at various levels of company management. Therefore, coordinating the work of these departments in the process of implementing planned programs is a major task.

Planning, based on the process and system approach, is aimed at ensuring the economic efficiency of the transport enterprise [2]. Such measures will help ensure that the company meets standards in the field of quality management, environmental management, increase corporate social responsibility and reduce non-productive losses.

The issues of developing planning methods at enterprises, improving the planning system are considered in the works of scientists: P. Lorange, F. Gilmore, K. Andrews, R. Miner, R. Kaplan, A. Andreeva, L. Kantorovich, I. Shatskaya, A. Andreichikov, N. Katargin, S. Fedoseeva, M. Tikhovskaya, P. Magdanova, D. Logunova and others.

* Corresponding author: margo2026@yandex.ru

2 Materials and methods

The systematic approach involves in planning the production and economic activities of a transport enterprise to take into account such factors as competition in the market, relations with suppliers, relations with clients (customers), interaction risks, availability of resources, availability of infrastructure, availability of external financial resources, etc. [4].

Table 1 presents the main criteria for comparing a conservative approach to planning the activities of railway transport and the one being developed that meets the requirements of environmental safety and public interest.

Table 1. Comparison of approaches to strategic planning for the sustainable development of transport companies.

Comparison criteria	Approach name	
	Environmental	Conservative
1	2	3
Performance Accounting	In the planning process, the environmental and economic effect is assessed and the environmental and economic efficiency is measured. The environmental component is not taken into account	In the planning process, the economic effect is evaluated and the economic efficiency is measured. The environmental component is not taken into account
Planned events	Formed taking into account the requirements of environmental safety and environmental and economic efficiency	Formed based on the principles of economic feasibility
Risk accounting	Environmental and economic risks are taken into account: any risk profile is considered in economic and environmental aspects, that is, as a probability of reducing the environmental and economic effect	Only the economic risks of the enterprise are taken into account, the environmental aspect of the risk is ignored
Attitude towards the environment	The environment is perceived as part of the enterprise's environmental management system	The environment is perceived as a source of environmental costs and a reason for the decline in company profits
Corporate Social Responsibility	The activity of the enterprise is socially responsible: it is aimed at preserving human health and life as the most important part of the natural environment	The activity of the enterprise is socially irresponsible: the enterprise cares about economic benefits, forgetting about the need to protect the environment, thereby reducing social loyalty to its activities
Soil for innovation	Favorable	Not the most favorable
Accounting for associated environmental damage	Taken into account	Doesn't count
Consistency and integrity of planning	It is provided by planning the production and economic activities of the enterprise based on the model of the environmental management system, which allows	Not provided, as there is no model on the basis of which a plan for the production and economic activities of enterprises is developed

	covering all areas of the company's activities. Duplication of events in different sections of the plan is not possible	
--	---	--

The principle of systematic corporate planning provides for the interconnection of all activities of the plan both with the production system (production processes and their elements) and with the directions for the implementation of plans (components of the environment) [5]. It is beneficial for a nature user enterprise to increase the level of environmental and economic efficiency, this contributes not only to saving on payments for nature use, but also entails the following positive changes related to the optimization of the activities of railway transport enterprises:

- improvement of the investment climate at the enterprise;
- reduction of technological backwardness;
- increasing the degree of compliance of the enterprise's activities with international environmental safety standards;
- improvement of the economic indicators of the company, which is manifested in the increase in profits in the medium and long term;
- growth of social responsibility of the enterprise [1].

Continuity and systematic planning as its most important principles can make it socially oriented, environmentally friendly, which, in accordance with the utility model, improves the quality of the railway industry, brings it to a new level. The fulfillment of the tasks of the Environmental Strategy of Railway Transport provides for the achievement of economic, environmental and social benchmarks for the activities of the railway industry, the continuous improvement of the plan [6].

With regard to transport, sustainable development means that meeting transport needs does not contradict the priorities of environmental and health protection, does not lead to irreversible natural changes and depletion of irreplaceable resources. At the same time:

- - decisions in the field of transport development should be evaluated in terms of economic efficiency, safety and environmental impact of transport;
- - society and the State should strive for a reasonable reduction of transport needs, without violating the right to freedom of movement and trade;
- - the authorities and citizens are responsible for choosing optimal solutions from the point of view of ecology in the field of transport development;
- - as part of the implementation of the "polluter pays" principle, the manufacturer of the transport service must fully compensate for the environmental damage associated with its provision — from resource consumption to the disposal of vehicles and waste from transport activities;
- - in the regulation of competitive relations between different modes of transport, the principle of gradual switching of cargo and passenger flows to environmentally friendly modes of transport is implemented;
- - in the tax policy, acceptance is transferred from taxation of production and sale of transport services to taxation of consumption by their producers of fuel and energy resources;
- - efforts to solve the problems of transport planning, improve safety and reduce the negative impact of transport on the environment.

The concept of "sustainable development" includes the elements presented in Figure 1.

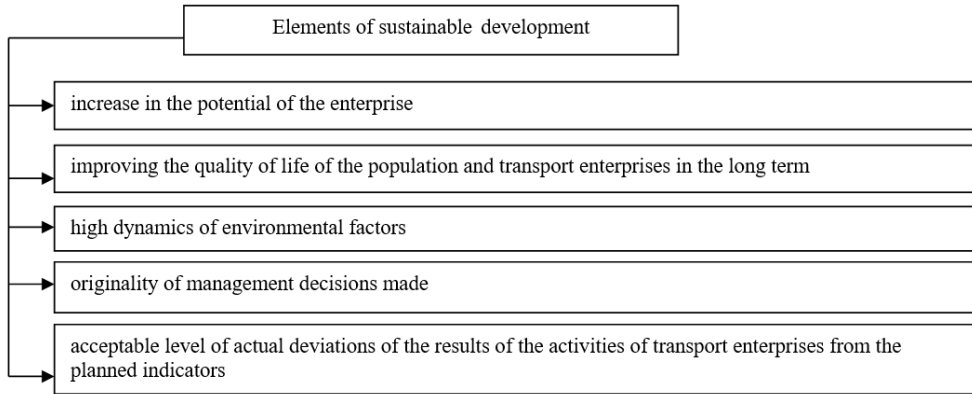


Fig. 1. Elements of sustainable development of a transport enterprise.

The application of the concept of sustainable development and its implementation in the management of transport enterprises implies, first of all, taking into account the environmental and social components of their functioning processes, as well as the introduction of resource-saving technologies.

Figure 2 shows the strategy implementation mechanism that meets the requirements of economic, environmental and social efficiency.

	Strategic planning	Medium term planning	Current planning
Economic goal of planning	Achieving economic efficiency of enterprises	Compliance with the compliance of the planned organizational and technical measures with absolute and relative performance indicators	Constant monitoring of economic efficiency and risk impact assessment. Providing feedback in the system.
Environmental planning goal	Creation of a safe ecological environment in accordance with the concept of sustainable development	Reducing the associated damage to the environment, reducing environmental risks	Continuous monitoring of environmental performance and risk impact assessment. Providing feedback in the system
Social purpose of planning	Increasing the corporate social responsibility of railway transport, increasing industry customer orientation	Creation of socially oriented planned programs in which public interests are put in the first place	Continuous monitoring of social performance and risk impact assessment. Providing feedback in the system.

Fig. 2. The mechanism of sustainable development of transport companies in the context of the implementation of the Environmental Strategy of Railway Transport.

Guidelines for planning to improve the socio-environmental and economic efficiency of the production and economic activities of railway transport enterprises (hereinafter referred to as the methodology) consists of several sections and contains a list of actions within the framework of the internal planning process. It consists of several sections:

1. General Provisions.
2. Recommendations for planning organizational and technical measures.
3. Calculation of indicators for assessing the organizational and technical measures of the plan for improving the socio-ecological and economic efficiency of the production and economic activities of railway transport enterprises.

4. Formation of risk profiles of organizational and technical measures of the plan.
5. The procedure for choosing alternative organizational and technical measures of the plan.
6. Measures to implement the plan to improve the socio-environmental and economic efficiency of the production and economic activities of railway transport enterprises in production activities and its subsequent adjustment.

Sections of the methodology can be presented in the form of a block diagram (Fig.3).

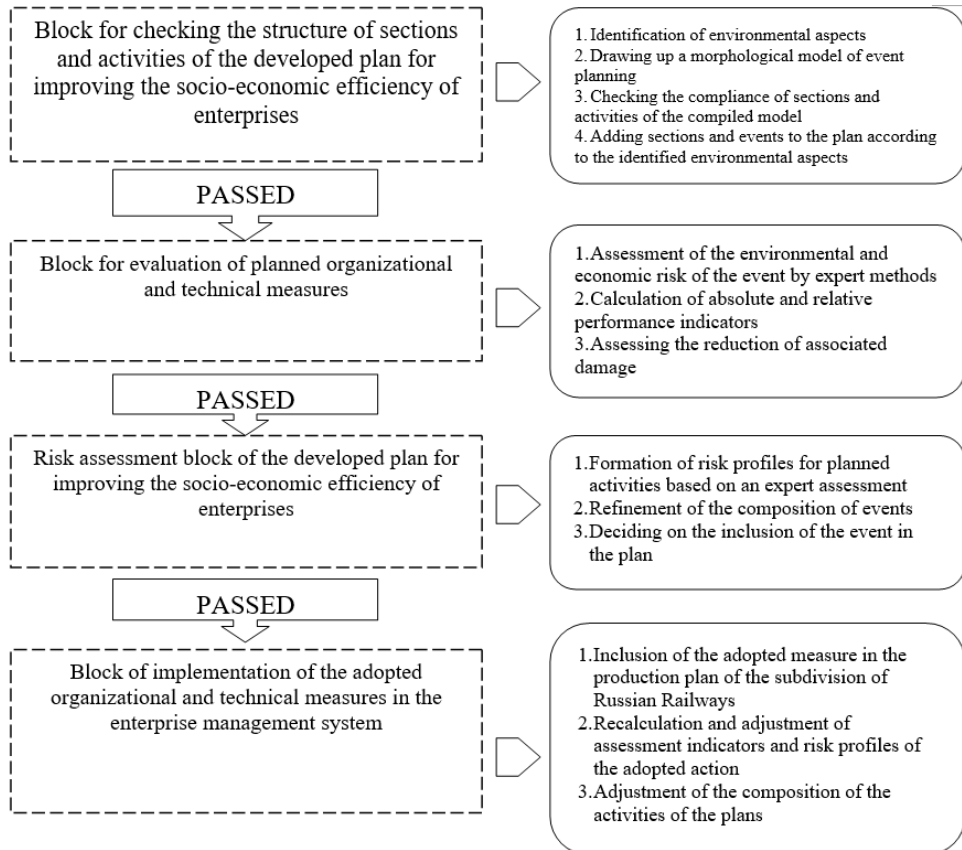


Fig. 3. Block diagram of planning the socio-economic efficiency of the activities of railway transport enterprises in the system of environmental management.

3 Conclusions

A new approach to planning the production and economic environmental activities of railway transport enterprises suggests that the interests of the consumer are always put in the first place [7]. The customer's needs when using rail transport include, among other things, a safe ecological environment [8]. Thus, an increase in environmental and economic efficiency through the planning of industrial and economic environmental activities of railway transport enterprises will ensure the customer focus of railway transport and make it more attractive to consumers.

References

1. V.D. Zinchenko, *Uchenye zapiski Rossiyskogo gosudarstvennogo sotsial'nogo universiteta* **5**, 139–142 (2009)
2. N.N. Kondrasheva, *Problems of Economics and Management* **12(28)**, 91–94 (2013)
3. T.Yu. Korneeva, S.A. Nikitin, *News of the Tula State University. Economic and legal sciences*, 195-204 (2010)
4. V.A. Makeev, M.A. Kuzina, *Scientific Thought of the Caucasus* **1(69)**, 66–69 (2012)
5. N.P. Tereshina, A.V. Sorokina, *Transport business of Russia* **1**, 78–81 (2014)
6. L.V. Shkurina, *Corporate system for managing investment activities in railway transport: concept and methodology* (VNIITI RAN, M., 2010)
7. V.S. Naumov, O.G. Kholeva, *Automobile transport* **35** (2014) URL: <https://cyberleninka.ru/article/n/ispolzovanie-kontseptsii-ustoychivogo-razvitiya-pri-upravlenii-transportnymi-predpriyatiyami>
8. M.A. Vasilenko, N.A. Drozdov, E.L. Kuzina et al, *European Proceedings of Social and Behavioural Sciences (EpSBS) Volume 117 - International Conference on Social and Cultural Transformations in the Context of Modern Globalism* **219**, 1659-1667 (2021) Doi: 10.15405/epsbs.2021.11.219