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*Olena Bazilinska, Olena Panchenko***TRANSPORT COMPONENT OF THE ECONOMY  
AS A BASIS FOR SUSTAINABLE DEVELOPMENT OF THE REGION***Олена Базілінська, Олена Панченко***ТРАНСПОРТНА СКЛАДОВА ЕКОНОМІКИ ЯК ОСНОВА СТАЛОГО  
РОЗВИТКУ РЕГІОНУ***Елена Базилинская, Елена Панченко***ТРАНСПОРТНАЯ СОСТАВЛЯЮЩАЯ ЭКОНОМИКИ КАК ОСНОВА  
УСТОЙЧИВОГО РАЗВИТИЯ РЕГИОНА**

*The essence and importance of the transport component of the economy to ensure the sustainable development of the region is revealed within the article. Features of the transport component of the economy as a factor contributing to the stabilization of regional development are identified. Based on the current state diagnostics of the transport component of the economy, fundamental changes in the needs for its services, which appeared as a result of its reforming, are proved. The process of forming a system of quality of transport services, which is a prerequisite for improving the competitiveness of the region, is analyzed. In addition, the assessment of consumer properties of services of the transport component of the regional economy, as well as their essence and specificity, is carried out.*

**Keywords:** transport component of the economy; sustainable development of the region; quality of transport services; regional transport; regional development.

*Fig.: 1. References: 3.*

*У статті розкрито сутність та значення транспортної складової економіки для забезпечення сталого розвитку регіону. Визначено особливості транспортної складової економіки як чинника, що сприяє стабілізації регіонального розвитку. На основі діагностики сучасного стану транспортної складової економіки доведена принципова зміна потреби в її послугах, яка з'явилась у результаті реформування. Проаналізовано процес формування системи якості транспортних послуг, що є передумовою підвищення конкурентоспроможності регіону. Крім цього, проведено оцінювання споживчих властивостей послуг транспортної складової економіки регіону, а також розкрито їхню сутність та специфіку.*

**Ключові слова:** транспортна складова економіки; сталий розвиток регіону; якість транспортних послуг; регіональний транспорт; регіональний розвиток.

*Рис.: 1. Бібл. 3.*

*В статье раскрыты сущность и значение транспортной составляющей экономики для обеспечения устойчивого развития региона. Определены особенности транспортной составляющей экономики как фактора, способствующего стабилизации регионального развития. На основе диагностики современного состояния транспортной составляющей экономики доказаны принципиальные изменения потребностей в ее услугах, которые появились в результате её реформирования. Проанализирован процесс формирования системы качества транспортных услуг, который является предпосылкой повышения конкурентоспособности региона. Кроме этого, проведена оценка потребительских свойств услуг транспортной составляющей экономики региона, а также раскрыта их сущность и специфика.*

**Ключевые слова:** транспортная составляющая экономики; устойчивое развитие региона; качество транспортных услуг; региональный транспорт; региональное развитие.

*Рис.: 1. Библ.: 3.*

**JEL Classification:** R40

**Target setting.** At the current stage, Ukraine is on the path to integration into the European community, therefore, it is necessary to develop sectors of the real economy and introduce European principles of management. For this purpose, it is important to ensure the reform of the transport component of the economy, which is the basis for the effective functioning of any economic system.

The transport component of the economy is flexible and mobile, which makes it the most important stimulus for the development and economic growth in the market conditions. Therefore, at the present stage, there is a special role and significance of all modes of transport, and especially of the regional one, which advanced development and reliable work is an essential condition not only for general economic growth, but also for the social stability of the country as a whole. Transport provides communication of all directions of economic activity and segments of the population, has a direct influence on the formation of the production structure and to a certain extent depends on it. Reliable and timely delivery of transport services and their high quality are determined by the level of economic development as a whole, in turn, the functioning of which is impossible without an efficient transport service.

Macroeconomic instability and financial and economic crises have transformed factors and criteria for regional development. In connection with this, the necessity to justify new approaches to problems solution of the regional development and efficiency increase of the transport services of certain territories of Ukraine has come to an end.

**Actual scientific research and issues analysis.** General problems of the transport network functioning, including the regional one, are included in fundamental researches of such scientists as: A. Ya. Aksionov, O. O. Bakayev, I. V. Belov, A. I. Galaburda, A. I. Vorkut, L. V. Kontarovich, Yu. F. Kulayev, V. N. Livshic, V. Ya. Negrey, O. E. Pashchenko, V. A. Persianov, O. L. Petrashevskiy, S. I. Pirozhkov, N. V. Pravdin, D. K. Preyger, S. M. Reser and many others. In addition, works of these scientists served as the basis for the creation of a unified theory of the transport functioning.

**Uninvestigated parts of general issue defining.** Along with this, there are few researches devoted to the regional problems of the development of the transport component of the economy, reflecting the fundamental change in the need for its services, which were formed as a result of reforms and through which sustainable development of the regions of Ukraine is possible.

**Purpose of the article.** The purpose of the article is to study the features of the transport component of the economy as a factor contributing to the sustainable development of the region. In the course of the analysis, special attention is paid to the issues of the quality system formation of regional transport services, which is a prerequisite for increasing the competitiveness of the region.

**Statement of the main material.** Regions development is an important factor in overcoming crises and in ensuring the functioning of any economic system. Implementation of reforms, strengthening of decentralization processes necessitates an increase in the importance of sustainable regional development. It is sustainable regional development that should ensure balanced development of the territories, which includes:

- increase of management efficiency;
- increase of territories competitiveness;
- promoting European and world integration;
- increase in production, incomes and, as a result, an increase in the welfare of the population;
- significant changes in the social, institutional, administrative structures of the society;
- changes in the public consciousness;
- changes in traditions and habits; improving education and health, partnership development, etc. [3].

The main objective of the development and research of the models of sustainable economic development of the region is to find out and consistently substantiate the main essential areas that determine the process of improving any system. In order to achieve this goal, it is necessary to cover a number of factors, which depend on the growth of potential opportunities of the region's economy, to reject the secondary ones and to highlight the priority.

Transport plays an important role in the sustainable development of the regions, as it is an infrastructure branch. Developed transport sphere promotes integration of regions into national, European and world economic systems. Hence the characteristic feature of the modern economy is the expansion of the transport component, which provides its adaptive capabilities and makes transport the most important element of the sustainable development. Presence of an efficient transport component ensures economic transformation, and lack of it – condemns them to inefficiency.

It is high-quality transport services that greatly increases the competitiveness of the goods sold. The consumer is interested not only in the product he buys, but also in its timely and reliable delivery, installation, adjustment, warranty support. The tendency to increase demand in the services sector, in turn, induces an increase in demand for transport services.

Transport is defined as the direction of economic activity, which carries out the delivery of people and goods. In this case, within the general concept of «transport», as the closest, two species are distinguished: the first - universal types (land, water and air transport), which subspecies include rail, road, air, sea and river; the second is «highly specialized technological methods of transportation of material products» – which includes conveyors, crude oil and gas pipelines, mechanisms for carrying out loading and unloading works, etc.

It should be emphasized that the place of the transport component in the economy is determined in two ways: in relation to the economy as a whole and its constituent, transport carries out functions for the movement and delivery of goods and passengers; transport engineering and construction, in turn, supplies transport means of production, and fuel and energy complex - raw materials.

The transport component of the region's economy is a complex system that satisfies the needs for the delivery of goods and passengers and creates the unity, integrity, openness and integrity of the development of the national economy of the region. The final product of the transport system is a transport service offered to consumers.

It is important that the reliable functioning of transport regional systems affects not only the internal development of individual regions, but also largely determines the success of foreign economic activity. This is due to the fact that many forms of foreign economic activity, such as border and coastal trade, foreign tourism, are of a regional nature, and are closely related to the level of infrastructure development, including transport. In turn, the development of the regional integration forms creates the basis for the openness of the national economy as a whole and promotes the development of international markets.

Thus, in today's conditions it is impossible to consider the impact of the regional transport on economic development in a purely regional framework. The task of the transport component of the economy is to ensure connections at different levels: regional, national, global. Moreover, it is the world's leading companies that are in the service of regional transport, form a range of basic requirements for the quality of transport services. Thus, formation and development of the transport component competitiveness of the region's economy should be designed in advance for international use. In this context, the world economy is becoming the main generator of technological innovations in transport and at the same time requires significant investments, which are possible only under conditions of the state support.

Sustainable development of the regional economy is impossible under the condition of non-competitive transport services. At the same time, the desire to achieve the maximum value of transport services for the consumer and its minimum cost both for the consumer and for the producer requires concentration of efforts on the quality system of transport services, which is a factor in economic growth. Higher quality at the macro level leads to an increase in gross national product.

The regional transport component of the economy should be considered as a system aimed at creating a transport service of a certain quality, that is, a set of consumer-friendly properties. Consequently, the origin of these properties in the machine-building industry in the form of means of transport, their formation in the transport component of the economy of the region, functioning in the market and, finally, the specifics of their consumption should be analysed. The processes of production, exchange and consumption of transport services merge into a single problem.

The whole cycle of the transport equipment creation is preproduction in relation to the production of transport services. At the same time, the pre-production stages of the machine-building and transport industries differ significantly from each other. If engineering is preceded by the development of a project, then a prototype, etc., then the preproduction phase in transport is associated with the development of the «ideal image» of the future "of a substantive subject", but an ideal plan of action that, when realized, should provide a qualitative transport service.

The quality of the region transport and the quality of its services should be distinguished. Indicators of the quality of transport operation are turnover and productivity of vehicles, mass and speed of movement, etc. The quality of the transport service itself is characterized by the degree of the need satisfaction for transportation, their rhythm, compliance with the prescribed delivery times and the preservation of the goods transported.

The system of qualities of a transport service consists of the delivery at a certain time and at the intended place, accessibility, reliability, ecological purity, comfort (for passengers) and safety (for loads), as well as regularity. It should be borne in mind that only timely delivery to the right place is your own product of transport, all other qualities are created outside the transport component, that is, it depends on the efficiency of other industries.

It should be noted that the timeliness of delivery depends not only on the driver, but also on transport and maintenance services and reference and information services.

The availability of a transport service is determined by its price, as well as the number and convenient location of service points for passengers and cargo owners.

The reliability of the delivery is connected primarily with its accident-free movement, but at the same time here also applies to its uninterrupted work.

Environmental friendliness is ensured primarily by the quality of used fuel and lubricants.

The comfort of passenger transportation depends on the class of offered vehicles, as well as on the attendant staff.

A special approach is needed for cargo transportation, cargo storage is solved by a whole set of measures, such as, packing of cargo, protection of information about shipments of goods, means of protection, etc.

Since the most important qualities of the future transport service are laid down in the engineering industry, it is at this stage that it is necessary to ensure consistency between technical characteristics of the transportation means and the modern requirements of consumers to speed, reliability of movement, comfort for passengers and preservation for cargoes. Dzhuran pointed out that a consumer buys an auto but in reality he «would like to get possibilities for transportation with the help of the transport» [1].

Production and consumer properties of vehicles are distinguished. Such a difference is important, since not all properties of transport machine building products, which are formed during its development and are provided at the stage of its manufacturing, are of interest to the buyer.

Production properties, in turn, can be divided into technical and operational, but such a division is relative. Some technical changes may be of interest only to the manufacturer, for example, if they reduce the cost of production, but do not affect the price reduction of the product, which is the consumer concerned. At the same time, technical changes that occur during the operation of vehicles are directly related to the interests of the consumer. Purchased means of transportation must be obeyed at the time of driving, have optimum dimensions, which guarantee rational accommodation of passengers and cargo, are equipped with a reliable signaling system, etc. It is these properties plus a moderate price and attract the future owner of vehicles.

As the representative of the transport service user, the future owner of the vehicles must worry that the implementation of the technical characteristics of the purchased products functionally provides the necessary speed, reliability of travel, comfort for passengers and preservation for goods, that is, the most important qualities of the future transport service are already laid in the machine-building industry.

The peculiarity of the transport component of the economy is also that it produces not only traffic but also stops. The transport service is physically connected not with traffic, but with a stopover, upon arrival at the destination. And the final point is only for goods and people being transported, and not at all mandatory for the transport itself.

The movement of goods transported may be interrupted, and the movement of transport - no. Conversely, the arrival of transport at the final point for it does not mean that its movement has also stopped the goods or people that were transported on it. In this case, a possible transfer of passengers or overload of cargo from one mode of transport to another can take place. Thus, people and goods transported clearly are not related to the movement of one type of transport, that is, the movement of vehicles and the fact that they transport, different phenomena.

So, the mechanical movement and stops are of social content. Transport moves not only under the influence of horsepower, by which the power of the motor was measured at one time, nevertheless, the contract between the owner of the vehicle and the consignor is not of less power. Such agreement determines initial and final points of transport, as well as goods and people.

Cargoes cannot only continue to move by other modes of transport, but also undergo forwarding processing: cargo handling, warehousing, storage, etc. Finally, they leave the transport industry, becoming objects of trade or production activities. Some features of operation items in transport should be also taken into consideration. First, there may be people among these subjects. If in the non-productive sphere (for example, in medicine) it is possible to find analogues, then this product is unique among material production. Second, the goods (not to mention people) as the objects of labor by vehicles owner are not bought, and if necessary, trust the senders. Thirdly, the impact of vehicles extends not only on goods and passengers, but also on the transport network through which the movement takes place.

It should also be noted that the uniqueness of the transport service is also expressed in the fact that the customer needs to be transported for a certain number of kilometers not anywhere in the globe, but only from a certain designated point of departure to a designated destination. It should be noted that different types of transport can provide this service. If technically such a replacement is permissible, then competition between them is possible. Competition between rail and road transport is particularly strong.

In the changing market conditions, the problem of competitive speed, which is characteristic for different types of transport, is exacerbated. The more efficient the separate mode of transport responds to the requirements of the consumer, the higher will be consumer satisfaction, and that is, the demand for services of this type of transport. Qualitative failure of transport services leads to a drop in demand.

Thus, there is a relationship between the quality level and the volume of transport services provided, which is determined by the formula:

$$\Delta\theta_t = \theta_t^a + k \cdot (\alpha_t - \alpha_{t-1}),$$

where  $\Delta\theta_t$  – change in the volume of provided transport services in the t-th period;

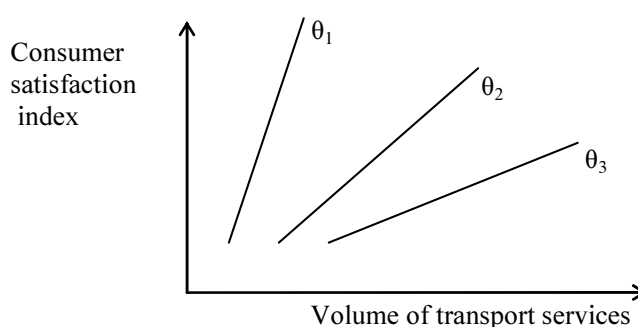
$\theta_t^a$  – change in the volume of transport services in the t-th period, autonomous from the quality dynamics;

k – marginal propensity to quality, which shows how the amount of transport services will change in the change of the consumer satisfaction index by 1%;

$\alpha_t, \alpha_{t-1}$  – consumer satisfaction index in t-th and (t-1) periods respectively.

The consumer satisfaction index assesses the contribution of various components of quality to the overall consumer perception of the quality of transport services. It is necessary to assess the opinion of not only their own consumers, but also consumers of competitors and potential consumers.

It should be noted that with an increase in the quality degree, consumption can increase to varying degrees (Figure).



*Fig. Dependence between the volume of transport services and their quality*

The lower the slope of the  $\theta$  line, the more saturated is the transport services market; the consumer is more intelligible, has a high standard of living and is ready to pay a higher price for a higher quality, that is valuable for the consumer service.

Consequently, the reliable transport operation is an important factor for sustainable development, promotes the involvement of not only the country as a whole, but also the regions in the international division of labor, the formation of new foreign economic relations.

However, the transport system can act not only as a factor contributing to regional sustainable development. If the transport system cannot meet the needs of the region in transport services, it can seriously hinder the development of the region and reduce its competitiveness.

The modern transport system of the region should be considered as a system aimed at creating a transport service of a certain quality, that is, a set of consumer-friendly properties.

The condition of sustainable development of the region is to improve the quality of transport services. The emphasis on the consumer in quality management allows one to expect not only the return of this consumer to this transport type, but also the transfer of positive information and, consequently, sustainable market expansion.

In the long-term the quality management system of transport services in the region should be aimed at achieving the highest level of market competitiveness, improving the efficiency of the transport component of the economy, maximizing customer satisfaction and improving transportation technology production.

**Conclusions and propositions.** Summing up the above, it should be said that, speaking about the sustainable development of the regions, the task is not to prioritize any branch of the economy, as this issue is solved by the market. However, it is important to draw attention to the fact that in industrialized countries, more money is spent on transport than on material production. Foreign experience proves that those which were previously backward countries, that were able to establish an efficient functioning of the transport component of the economy, are developing rapidly in the industrial as well as socially components. Therefore, strategic priorities for reforming the transport component of the regional economy should be:

- development of transport networks infrastructure;
- efficient use of transit potential;
- ensuring optimal interaction of all transport modes;
- development of the regional transport services market;
- improving the quality of transport services;
- rational transport management;
- formation of a single information space;
- improvement of tariff policy and pricing;
- development of the system of transport logistics;
- provision of environmental safety;

- development of transport engineering;
- creation of modern scientific potential;
- formation of the system of innovations introduction;
- development of the training system for highly skilled personnel.

Thus, the transport component of the regional economy requires further research and development of practical recommendations aimed at improving its efficiency and growth of customer satisfaction.

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