

## MAINTENANCE OF STEADY DEVELOPMENT OF REGION: TRANSPORT SYSTEM AND QUALITY OF TRANSPORT SERVICES

*In the article the place of transport in maintenance of steady economic development of the region is defined. The analysis of modern demands to regional transport service is provided. The peculiarities of formation of transport service quality system are revealed. The estimation of dependence between a degree of quality and volume of provided transport services is given.*

### Introduction

In modern conditions the role and value of all types of transport, and especially regional, is growing; outstripping development and reliable work of last one is the integral condition not only of the general economic growth, but also of social stability of the country. The transport provides the communication for all branches of economics and layers of the population, has a direct influence on production structure forming and in determined degree depends on it. Reliable and well-timed granting of the transport services and their high quality are defined by level of the economics as a whole, functioning of which, in turn, is impossible without efficient transport service. Transition to market relations, refusal from directive managerial system, change of the property relations transformed the factors and criterias of the regional development. In this connection the necessity of new approaches motivation to decision of the regional problems of the development and increasing of the transport servicing efficiency of the territory of Ukraine became imminent.

### Literature Review

There are fundamental studies of many researchers, dedicated to general problems of the united transport system functioning: A. Ya. Aksenov, O. O. Bakayev, I. V. Belov, A. I. Galaburga, 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, E. M. Sych, Yu. M. Cvetov and many others; their studies have served the base for the creation of the transport functioning united theory. At the same time, there is a bit of studies on regional problems of the transport systems development, which display principle change

in the need for their service and particularities of their operation on the territory of Ukraine.

The focus of this paper lies in the analysis of regional transport as a condition which contributes to steady economic development. During the analysis the special attention is given to questions of formation of quality system of transport services, that is the precondition of increasing competitive ability of region.

### A Region and a Transport System

In scientific publications a region is considered in several aspects. In the international aspect a region is a group of the countries which are closely located and represent separate economic-geographical area of the world, either similar on national structure and culture, or close by the social-political organization [1].

In aspect of foreign economic relations a region is a component of the international economic attitudes where process of internationalization has the regional basis.

Most often a region is considered as an area, district, a part of the country, which differs from others by set of relatively steady economic-geographical and other features, naturally and historically developed and, quite often incorporate peculiarities of national structure of the population [1].

The main aim in the development and research of regional steady economic development models is findings-out and a consecutive substantiation of the basic most essential directions, which define improvement process of any system. For achievement of this purpose it is necessary to capture a lot of factors on which the increase in potential opportunities of regional economics depends, to reject minor ones and to allocate prime.

Thus, in formation and development of region

economics, in transformation of material production structure the special role is carried out by transport. The characteristic feature of modern economics is expansion of services sphere. The role of after-sale service, which considerably raises competitiveness of the realized goods, from year to year rises. The consumer is interested not only in goods he buys, but also in their timely and safe delivery, installation, adjustment, guarantee support.

The tendency of increase in human services demand, in turn, induces increase in demand for transport system services.

A transport is defined as a branch of a national economics which provides delivery of people and cargoes. Thus in the middle of the general concept «transport» as the most close are allocated two specific: the first - universal kinds (ground, water and air transport) to which as subspecies railway, automobile, air, sea and river transport are related); the second - «highly specialized technological ways of transportation of material production» - where conveyors, petroleum and gas-mains, mechanisms for carrying out cargo handling etc are included.

It is necessary to pay attention, that the place of a transport system in a national economics is defined in double way: concerning a national economics as a whole and its components transport carries out functions on moving and delivering cargoes and passengers; the transport mechanical engineering and construction, in turn, provides transport with means of production, and a fuel and energy complex - with raw material.

The regional transport system is a complex system which provides satisfactions of needs on delivery of cargoes and passengers, and creates unity, integrity, openness and complexity of development of regional national economics. An end-product of a transport system - a transport service, offered to consumers.

It is important, that reliable functioning of transport regional systems influences not only internal development of separate regions, but also to a great degree defines success of foreign trade activities. It is caused by reason that a lot of foreign trade activities forms, such as free economic zones, frontier and coastal trade, foreign tourism, have regional character, and are closely connected with a level of development of an infrastructure, in particular transport. In turn, regional integration forms development makes a basis for openness of national economics as a whole and contributes to development of the international markets.

Thus, in modern conditions it is impossible to consider influence of regional transport on eco-

nomical development only in regional frameworks. The task of regional transport system is becoming maintenance of communications at different levels: regional, national, world. Moreover, leading world companies which are in the sphere of service of regional transport form a spectrum of the main requirements to quality of transport service. Therefore, formation and development of region competitive transport system should be in advance calculated on international use. In this context the world economics becomes the main generator of technological innovations in transport and at the same time demands significant capital investments, possible only under condition of the state support.

### **Transport Services Quality System Forming**

Steady development of regional economics is impossible under condition of not competitive transport service. Simultaneously the aspiration to reach the maximal value of transport service for the consumer and its minimal cost both for the consumer and for the manufacturer demands concentration of efforts on transport services quality system which is the factor of economic growth.

Higher quality at macro level leads to increase in a total national product on 5-10 % [3].

The regional transport system should be considered as a system directed on creation of transport service of certain quality, that is set of features useful to the consumer. Thus, origin of these features in machine-building area in the form of means of transportation, their formation in transport system, functioning in the market and finally specificity of their consumption is a subject to analyse. In one uniform problem processes of production, exchange and consumption of transport service merge.

The whole cycle of transport techniques creation comes as preindustrial concerning manufacturing of transport service. However preindustrial stages of machine-building and transport branches considerably differ one from another. If in mechanical engineering manufacturing is preceded with development of the project, then a pre-production model etc, on transport the preindustrial stage is connected with development of "an ideal image" not of the future "material object", but an ideal plan of action which at realization should render qualitative transport service.

The quality of region transport work and quality of its service are commonly distinguished. Parameters of transport work quality are the turnover and efficiency of carriage, weight and speed of movement of trains and another. Quality of transport service is characterized by a degree of

satisfaction in transportation needs, their rhythm, obtaining targeted dates of delivery and preservation of the transported cargoes.

The system of transport service quality consists of delivery during the certain time and to the certain place, availability, reliability, ecological cleanliness, comfortableness (for passengers) and safety (for cargoes), and also regularity. Thus, it is necessary to consider, that only timely delivery to the necessary place is own product of transport, all other qualities are created beyond the borders of regional transport system, so depend on activity efficiency of other branches of a national economics.

As the most important qualities of the future transport service are laid in machine-building branch, especially at this stage it is necessary to provide coordination between characteristics of means of transportation and modern requirements of consumers to speed, reliability of movement, comfortableness for passengers and safety for cargoes. Juran marked, that the consumer buys the car, but really he "wants to acquire traficability by means of transport" [4].

They distinguish industrial and consumer features of means of transportation. Such distinction is important because not all features of transport production mechanical engineering, which are formed during its development and are provided at a stage of its manufacturing, interest the buyer.

Industrial features in turn can be divided in technical and operational. Such division is relative. Some technical changes can interest only the manufacturer if, for example, they reduce the price of manufacturing, but do not reflect in any way on reduction of the product price, in what the consumer is interested. At the same time technical changes which are shown during operation of transportation means, directly infringe on interests of the consumer. Achieved transportation mean should be obedient in management, have optimum dimensions which guarantee rational accommodation of passengers and cargo, be provided by reliable control-alarm system etc. Just these features plus the moderate price involve the future owner of vehicles.

The uniqueness of transport service is expressed so that customer needs transportation on a certain quantity of kilometers not in any place of globe but only from the certain point of departure to not less certain point of destination. However, different types of transport can render this service. If technically such replacement is possible, also possible is a competition between them. The competition between railway and motor transport is especially strong.

In changing conditions of the market the problem of competitive speed, which different types of transport own, becomes aggravated. The more operatively the separate type of transport reacts to requirements of the consumer, the higher consumer satisfaction, i.e. demand for services of the given type of transport will be. Quality insufficiency of transport services leads to falling of demand.

Thus, there is a dependence between level of quality and volume of the rendered transport services which is defined under the formula:

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

where  $\Delta\theta_t$  – a change of volume of the rendered transport services in  $t$  period;  $\theta_t^i$  – change of volume of transport services in  $t$  period, independent from dynamics of quality;

$k$  – boundary inclination to quality, which shows how the volume of transport services will change if index of consumer satisfaction changes on 1 %;

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

The index of consumer satisfaction estimates a payment of different components of quality in the general opinion of the consumer about transport service quality. It is necessary to estimate the opinion not only of own consumers, but also of consumers of competitors, and potential consumers.

It is necessary to note, that with increase of a quality level consumption can increase in a different degree (figure 1).

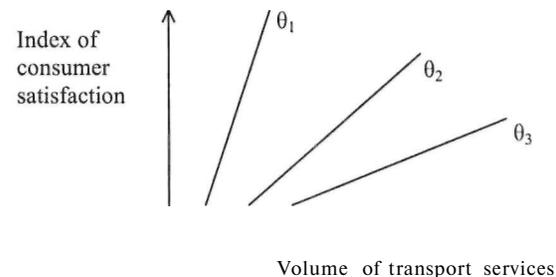


Figure 1. Dependence between volume of transport services and their quality

The less inclination of the line  $\Theta$ , the more saturated market of transport services is; the consumer is more legible, has a high standard of living and is ready to pay the greater cost for better, i.e. service valuable to the consumer.

### Conclusions

Thus, exactly reliable work of transport - the important factor of economic growth of economy - contributes to attraction not only the country as a whole, but also regions in the international division of labour, formation of new economic relations. However, the transport system can act not only as

a mean which contributes to regional development. In case when the transport system is not capable to satisfy needs of region for transport conditions, it is capable to brake seriously a development of region and to reduce its competitiveness.

The modern transport system of region should be considered as system directed on creation of transport service of the certain quality, i.e. the set of features useful to the consumer.

The condition of a survival of regions in the market environment is improvement of transport services quality. The accent on the consumer in quality management allows to expect not only returning of this consumer to the given transport, but also transfer of the positive information and, as consequence, expansion of the market.

In the long-term period management of quality system of region transport services should be di-

rected on achievement of the highest level of market competitiveness, improvement of transport system activity efficiency, maximization of system satisfaction and improvement of the manufacturing method of transport service.

Summarizing what was stated above, it is necessary to tell, that while speaking about market attitudes, the task to prove prime value of any branch of a national economics is not put this question is being solved by the market. But it is important to pay attention that in industrially developed countries they spend more funds on transport than on branches of goods production; that roughly develops both in industrial and in the social attitude those countries, earlier the backward ones, which could adjust effective functioning of transport system. Therefore this sphere demands the further researches and practical recommendations.

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## ЗАБЕЗПЕЧЕННЯ СТІЙКОГО РОЗВИТКУ РЕГІОНУ: ТРАНСПОРТНА СИСТЕМА ТА ЯКІСТЬ ТРАНСПОРТНИХ ПОСЛУГ

*У статті визначено місце транспорту в забезпеченні стійкого економічного розвитку регіону. Проведено аналіз сучасних вимог до регіонального транспортного обслуговування. Виявлено особливості формування системи якості транспортного обслуговування. Здійснено оцінку залежності між рівнем якості та обсягом наданих транспортних послуг.*