TRANSPORT AS A FACTOR OF SUSTAINABILITY OF NATIONAL ECONOMY

Bedřich Duchoň

Microeconomic level can study of entrepreneurial subject and his/her decisions. Economic subject takes location decision and final choice as a function of transport possibilities and availability. Macroeconomic point of view involves structure and level of economic activities in geographical areas, cities, regions and countries, especially as a function of quality, safety and other factors. The proposal is aimed at microeconomics and macroeconomics problem of transport.

Key words: economic growth, competition, industry, transport, microeconomics, national economy

1 Introduction

Passenger and freight transportation, private and public, provides an important condition for development of economic and social activities. The economic growth, competition and employment depend on the perfect functions of transportation system.

Every entrepreneurial activity has had limits influencing the next development of this one. The current changes of economic paradigm, global economics, point out the facts that prosperity and wealth by the growth of microeconomics is created.

Transport can be searched from the different points of view. It is first of all an economic sector contributing to the national output. The second contribution of transport to the economy is an input to the process of production and can be substituted for other production factors.

2 Transport, Time and Space

People are connected with very wide range of activities which can be characterised as follows: living, working, trading, consuming, visiting and relaxing. Due to the Maslow’s motivation theory, these activities are aimed at satisfying various wants and needs, which move from basic needs to the high-orders wants done by education, health care and other social interactions.

Many of these activities are performed concurrently so that their requirements differ and geographical areas and spaces have to be adapted to accommodate them. The space where activities happen depends on many factors as location, climate, and availability of production factors, historical and social development.

The space is extensive in highly developed place especially in towns and cities. The space includes industrial, commercial and residential areas, health and social complexes (hospital, schools, universities, libraries, theatres and sports places).

1 prof. Ing. Bedřich Duchoň, CSc., Czech Technical University in Prague, Faculty of Transportation Sciences, Department of Economics and Management in Transport and Telecommunication, Horská 3, 120 00, Praha 2, Czech Republic, tel.: +420 224359155, E-mail: duchon@fd.cvut.cz
Activities in agriculture and other industrial areas are provided on the regional, national and international levels. If we search these activities either in highly developed places or in other geographical areas, we understand that many of human activities are separated from one another in time and space. Such time and space separations require moving people and goods with the demand to ensure to be at a certain place at a certain time.

The spatial and time movement of people and goods is provided by transport. Human activities satisfy people’s wants. The activities have a certain utility (value) for the people concerned. Manufacturing process brings the products providing given needs passing the utility for users. This kind of utility is referred to as utility of form.

Transport provides, like the production, the utility which is called the utility of time and place. This utility is created by both, passenger and freight transport. It is clear that transport has derived nature of needs. Because of derived nature of the need for transport, the user’s set of requirements for transport service is different and depends on purpose for which it is used.

3 Transport, Economic Activities and sustainable Development

Transport has a substantially place and role in economic activities. Transport is a sector of national economy contributing to the national output and also realising that output. This view has two approaches.

Transport demand is a derived one and the growth in transport is determined by the growth in national economy. Transport can be considered as a production factor giving the positive externalities to the national economy. On the contrary, transport can influence the environment by negative externalities. The role of transport in economy can be concentrated to the following items:

- **contribution** to GDP,
- **support of employment** (transport means production, infrastructure construction and maintenance, oil and refinery industry and so on),
- **support of trade**,
- **creation** of transport enterprises (transport market),
- **traffic**: output of transport in terms of services (passenger and goods),
- **prices** as an indicators of differences among modes of transport,
- **contribution** to the state budget (wide spectrum of sorts of taxes).

Access to different geographical regions and mobility people and goods besides of economic importance have also social, strategic and political implications. Generally said, the transport has several roles which finally create economic growth and development of regions from the point of integral view of national economy. Economic role of transport can be considered in specific factors:

- **Transport and production.** Because of derived nature of transport, this one creates an integral part of production or the supply a service cycles. Production or service processes are not complete until transport has delivered the utility of time and space to the output concerned. Through this fact the transport costs can be considered as an element of production costs. Transport costs also are a major item for decision process making about distribution and marketing.

- **Transport and utility.** The movement from factory to market for sale increases value of goods to consumers. Transport direct creates the place utility, whereas time utility is provided either directly or indirectly (inventory, warehousing). Direct time utility is typically case for unstorable goods, time-
sensitive products or manufacturing use lean production (JIT and other logistic technologies). Rapid or slower transport must be always decided whether the created utility time and place justify the higher transport cost.

**Transport and prices.** Efficient transport contributes to price stabilisation by taking goods or products to other markets when local market is oversupplied and vice versa. Price problem is very close connected with the competition.

**Transport and competition.** Transport can make supply a particular market with production factor, goods or services from different region. The competition between different suppliers in the market will then naturally intensify. The final result can be not only in prices being cut, but also the quality of goods and services could be higher. The reasons are in decreasing transport cost and transport time because of reduction of distance influence (market restraint) on market entry by different suppliers. But on the other hand mass and lean productions could tend to monopoly approach. Many prospective competitors could find the difficult enter the market on a scale large enough to be cost competition.

**Transport and land-use.** Transport can influence this use in following ways: provision of access and mobility of goods and people. Transport and other factors like climate, availability of production factors can increase the potential for production and service and can raise new uses. Reduction in transport cost could promote regional specialisation and urban development. Urban transport system which enables people to reach urban destination cheaply and quickly and effective road transport, passenger and freight, can support further development not only in urban area, but also in region. These all conditions have importance for economic growth and development of region.

**Transport and social approach.** Large urban community and physical mobility in region is not possible without transport system. Transport makes a major influence and impact on the social structure of community. Access to social services is important for all age segments of people. Social, cultural and other activities depend on local, national and international connections. Providing these activities the transport means are the substation for social function on all levels. Reduction transport cost and time can influence life style and increase the personal mobility. It can help to solve serious socioeconomic problems (unemployment, mobility of children and students, handicapped people and the elderly for participation in human activities.

**Transport, Policy and Strategy.** The government’s primary interest can be aimed at integration of different communities by means of transport. In many cases political support is important for social economic development of regions. The strategic position of transport is done by many crisis situations (nature catastrophes, fuel and energy shortages, military problems etc.).

4 Conclusion

The contribution is aimed at the both, microeconomic and macroeconomic aspects and consequences flowing out of this analysis.

Future searching of regional development can issue from the different theory approaches:

**System theory** (enterprises as an open system).

**Neoclassical theory** (transport costs).

**Behavior theory** (organization, technology, division and integration labor, small and medium- seized enterprise, product life cycle).

**Interaction of local systems** (disperse and concentration approach, internal and external effects of regions).
The searching of regional development based on neoclassical theory is dedicated to the transport cost. This theory provides the possibility for abstract approach to search the transport factor in localisation decision process. Transport factor, however, may not be always the priority one. The relation between benefit and cost, behaviour of suppliers and consumers together with other approaches can give the integral view for region development and transport system projecting.

This paper originated as a part of a CTU in Prague, Faculty of Civil Engineering research project on Management of sustainable development of the life cycle of buildings, buildings enterprises and territories (MSM: 6840770006), financed by the Ministry of Education, Youth and Sports of CR

Reference literature