REGIONAL DISPARITIES OF THE TRANSPORT INFRASTRUCTURE IN NORTHERN HUNGARY

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Abstract

Although there are several different impacts arising from the development of the transport infrastructure, it is well established that the quality standards of the transport networks are in a strong connection with the economic situation of an area. In economically lagging regions, networks are an essential prerequisite for economic development. Economic growth requires trade, and trade requires transport; as well as the transportation demands improving availability conditions of certain territories. In addition, increasing mobility is a precondition for increased productivity. The infrastructural position through the terms of the availability and attractiveness of locations is able to affect on the internal and external capital flows, on the freight and passenger movements as well as on the market size. The transport system can also have an effect on the intensification of the regional connections, therefore its development increasingly become an important purpose.

In my research I study the availability as the term of competitiveness and of choice of location take the North-Hungarian region into consideration. Their economic, social and institutional terms have to possess satisfactory internal and external connections.

Keywords: Transport infrastructure, availability, competitiveness, regional development

1 INTRODUCTION

Works that analyze the economic impacts of the transport system mostly have deal with the level of the country or a larger territory. But the effects on the regions or subregions have increasing importance. The inadequate quality, density of the minor-, access- and connecting roads as well as the low quality of the transport services might be one of the most important reasons for regional disparity. In this aspect the quality and quantity of the micro relations belongs to the aims of the road infrastructure developments. (Kenneth B.-Hensher D., 2005; Fleischer T., 2003.)

In my research papers I analyse the availability as the term of competitiveness, internal and external connections and of choice of location. The main problems of the Hungarian regions – in infrastructural aspects – arise from the inadequate road and rail networks – bad condition, quality and low weight-bearing capacity – that are able to delay the economical and social development to a great extent mostly in those settlements that are in the periphery of the regions, in a relative confinement.

Taking the North-Hungarian region as an example, mostly the inadequate density of the minor-, access- and connecting roads cause disadvantages, and the low-quality transport services in the rural areas that restricts the economic growth, it might be a reason for areal disparity. The development of these factors, to streamline and enlarge the regional road infrastructure would be necessary and have to be in a dominant position in the future to make the quality of life better, to ensure the connections into the global economic to assist, increase the economic development processes and to improve our competitive potentials.
2 COHERENCE BETWEEN AVAILABILITY AND COMPETITIVENESS

According to several literature and references, the availability and the adequate infrastructural conditions appear as an independent term of competitiveness in many cases. During the survey of the other terms we have to take into consideration, that in accordance with the economic situation and its main scope of activities and realizable aims, different elements and service claims become the key issue and propulsive power for the economic development in different time period. (Fleischer T., 2003.)

For the word of competitiveness there is not any consistent definition in the economic literature. An "official" determination of OECD of a nation's competitiveness is "the degree to which a country can, under free and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people over the long term". (www.stats.oecd.org)

Competitiveness equally requires innovation potentials, achievement, successes in business and cooperation processes inside and outside of agglomerations, regions and national borders. According to its mission, it means a branch of industry, product or a kind of economic strength that is able to constitute propulsive power for business actors or institutions of the region. Consequently, it is an essential point, how are the sphere of large enterprises, knowledge-based innovators and small and medium enterprises able to cooperate effectively. (Kozma G., 2003.)

In the pyramid model of Imre Lengyel and János Rechnitzer, there are ex post and ex ante elements connected to the competitiveness. The main aim is to improve the quality of life and the standard of living, for that the development of the preconditions – for example the availability and infrastructural elements – are essential in the long run. (Lengyel I.-Rechnitzer J., 2002.)

Although the infrastructural extension is reasonable in many ways – the good availability and well-expanded internal connections are necessary preconditions almost for all factors –it is not able to be declared squarely, that the network development of any transport sector has a positive effect on the competitiveness.

Through the competitiveness the term of availability also plays an important role in the choice of location. In these days the rate of the tertiary sector is commanding, the product differentiation became dominant, due to the globalization the role of the agglomeration economy, clusters, supply chains and cargo networks is increasingly important, and in the case of that the transport and infrastructural preconditions have an adequate function. Although the infrastructure does not have an independent attractive force, it is able to operate effectively through the integration into the economic systems and to promote regional development processes. (Kovács F., 2002.)

3 ECONOMIC IMPACTS OF THE TRANSPORT INFRASTRUCTURE

The transport infrastructure terms have important effects on the economic conditions of an area as discussed above. The different impacts mainly arise from the changes or developments of the transport infrastructure. When the transport conditions improve as well as the availability and attractiveness of locations, prospectively the firms and consumers react positively. The changes in the transport costs are able to have an effect on the freight and passenger movements as well as on the market size. Transport system improvements are able to increase the labour market and can have an influence in the migration processes and also have an effect on property and housing markets. (Tóth G., 2005.)

These positive impacts – mainly the increased transport claims and mobility – also require the further development of the availability conditions. From the introduction of the availability terms, the spatial, temporal and qualitative terms are well separated. To improve all of these factors would be necessary to improve the competitive potentials of a territory and also to assist and increase the economic development processes.

The transport network is able to be regarded as an optimal term as long as it can provide a satisfactory accessibility of the region or the territory from other areas and can allow an economical availability of several markets that are important for the certain region. These conditions are able to
become realized if the transport network of the area is an integrated part of the European networks and the connections are optimal for the territory. (Veres L., 2005.)

At the same time the fact has to be taken into account that the improvement of the micro connections also plays an important role in the competitiveness of an area, and in this regard the minor road infrastructure, the local network system might become more necessary for the region than for example one of the transeuropean transport corridor. (Fleischer T., 2003.)

The utility of the infrastructural investments from the point of view of the local or regional development is not obligate. The model of Banister and Berechman analyses the coherences between the economy and transport investments. They introduced the open and closed system into the analysis of the transport investment surveys. The system is called open, when the political and economical factors are secured.

<table>
<thead>
<tr>
<th>Open and dynamic economical system of terms</th>
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<tr>
<td>1.</td>
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<tr>
<td>Strong economic self-sufficiency and environment protection.</td>
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<td>Infrastructural investments have encouraging effects.</td>
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<tr>
<th>AVAILABILITY with low quality level</th>
<th>AVAILABILITY with high quality level</th>
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<tr>
<td>3. The inadequate infrastructural terms conductive to the lagging behind, but only the infrastructural developments are not able to result economic boom.</td>
<td>4. In spite of the favourable conditions the further investments have low effects because of the lack of adequate economic terms.</td>
</tr>
<tr>
<td>Lagged behind, isolated, static territories.</td>
<td>Lagged behind territories, exceptional zones near the junctions.</td>
</tr>
</tbody>
</table>

Closed and static economical system of terms

Figure 1

Coherence between the economy and transport investments

The other important viewpoint is the accessibility. Only the positive motion on the axles of availability is not able to signify economic development automatically, just in the cases where the open and dynamic system exists. In the second case the well-developed transport infrastructure is able to support the development processes, but it is not an inevitable term. In the dynamic system positive effect might be partly discovered, where the infrastructure provides just low-level
accessibility – as we can see, in the first case the infrastructural investments have also high encouraging effects. But in the other assumptions the infrastructural developments are not able to result economic development, because some other economic terms are missing. (Tóth G., 2005.)

3.1 Disparities in the North-Hungarian region

Accordingly, the adequate infrastructural terms are important indirect preconditions to improve the competitiveness of an area. The availability problems and the weak cohesion among certain areas are able to cause regional disparity inside a region, which problems can delay the economical and social development to a great extent mostly in those settlements that are in the periphery, in a relative confinement. But in every case we have to take into consideration, that in addition to the infrastructural terms, other economic conditions have to exist to assure the economic development of a region.

In case of some Hungarian regions we can say, that the availability through the road infrastructure is satisfactory, inside the region many accessibility deficiencies exist. There is weak cohesion among certain areas that has a negative effect on the capital expenditure, market relations as well as of the quality of life. Taking the North-Hungarian region into consideration, we can say, that the highway that reaches the southern part of the region is not able to connect easily the micro areas of the central and northern territories into the national economic activities. One of the main problems is that the minor road system and other adequate possibilities of the connection have not existed yet, and these facts result, that the foreign investors, who prefer the good availability, might invest in other territories. (Erdősi F., 2004; Gáspár L., 2003.)

In my research I analyse the North-Hungarian region with its problems that I discussed above. Since the M30 highway has reached Miskolc, the capital of Borsod-Abaúj-Zemplén county, the availability of the region has greatly improved, the main important connection with the central area of the country has been attained. The main problem comes from the quality and the condition of the public road infrastructure – mostly of the minor-road system; they are much worse than the European and the national average. The availability of huge number of towns in the region – mainly in the subregion of Ózd, Bodrogköz and Edelény – is possible from only one direction. Several settlements of Nógrád county have the most disadvantageous position with extremely long accessibility times. Because of these, the western territories of the county build contacts with Central Hungary instead of the North-Hungarian region – weaken further the internal connections inside the territory.

With the Bennett’s method in my earlier research papers I have compared the regional and national conditions with using ten indicators of the road- and subsidiary road infrastructure. I also mentioned some facts about the availability possibilities by public transport services of rural areas.
Taking the national value as a base, the road density and the stock of the passenger cars have the following values in the case of the seven NUTS-II regions. The Figure 2 shows, how are the number of passenger cars and road density values related to each other. Central Hungary, Central and Western Transdanubia are above the national average at both terms. The eastern part of the country is lagging behind the others, the number of passenger cars are under the average as well as the road density – except Northern Hungary. All these factors might reflect income conditions as discussed above.

Although it is noticed above, that the North-Hungarian region is significantly under the national average according to the number of passenger cars per 1000 person – as well as the average age and type structure of the cars – road capacity problems are exist here also. In the North-Hungarian region there was a remarkable growth from the year of 1995, but in spite of this, the extension of the road infrastructure have not been in line with the claims: the dynamic expansion of the traffic and the number of cars indicates increasingly the lack of the capacity of roads – mainly around the cities and settlements with higher population.

**Availability of rural areas**

Inside the region, the rural areas, mainly most of those that are located in the periphery of the territory are usually lagging behind the urban areas in many respects. The traffic infrastructure and the quality of the services usually are on a low level.

The main problem of the minor-road system is that the lack of financial funds the development and maintenance processes are realized only in rare cases. There are considerable differences mostly in the condition of the access and connecting roads as well as in the local and long-distance transport services – for this reason the infrastructural terms of rural areas are worth to be examined separately. (Fleischer T., 2004.)
To study the availability problems, we have to take the transport services terms into account. The Figure 3 involved the data of public transport services in the availability surveys. According to the availability conditions by public transport services inside the region, the settlements of the counties are in unfavourable conditions. In many cases even for neighbouring subregions takes at least half an hour or even more to get to the destination that causes also weak internal and external connections between these territories. (Erdősi F., 2005.)

As the Table 1 shows, in Heves county more than the 71% of the population are not be able to arrive home within one hour by bus or train from the county capital – it is a further problem that the possibility of travel without changes is hard to be ensured. The role and attractive force of the county capitals according to their economic and administration functions cover the whole territory of the county. To assure their direct availability would be an important aim in the future. (Erdősi F., 2004.)

Table 1
Availability of settlements with public transport services (2003)

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<tr>
<th>County</th>
<th>Ratio of population of settlements</th>
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<td></td>
<td>that are available from the county capital</td>
</tr>
<tr>
<td></td>
<td>only with change</td>
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<tr>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Borsod-A.-Z.</td>
<td>26,8</td>
</tr>
<tr>
<td>Heves</td>
<td>34,8</td>
</tr>
<tr>
<td>Nógrád</td>
<td>37,4</td>
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</table>

Reference: Erdősi F., 2005; edited by the author

These facts are reliable mostly in those settlements that are in the periphery of the region. To assure the internal cohesion such an adequate network density is necessary, that is able to promote
the development of the territories to a similar extent. The vehicle stock also needs to be modernized and expanded as well as the comfort class of the public transport vehicles that is also remarkably low. The development of these factors has to get a high importance in the future to make the standard of living and the quality of life better and to ensure the connections into the global economic and social processes. (Veres L., 2005., Tóth G., 2005.)

4 SUMMARY

The infrastructural terms are important preconditions to improve the competitiveness of an area – certainly not as an independent term. The inadequate availability is able to cause weak cohesion and regional disparity inside a region, which problems can delay the development processes. On the other hand, the extension and improvement of the networks have a positive effect on the peripheral territories. It may influence – through the availability and attractiveness of locations – increasing mobility, larger market size that is a precondition for increased productivity. The transport network intensify the regional connections, therefore its development increasingly become an important aim.

According to the most important infrastructural indices, the North-Hungarian region is lagging behind among the seven regions. The main problems arise from the inadequate quality and density of the minor-, access- and connecting roads between small settlements and the low-quality transport services in the rural areas. These disadvantages restrain the economic development processes, therefore the improvement of these conditions have to become dominant factors in the future to make the quality of life better, and reduce the drawbacks, improve the competitive potentials and to promote the development of the territories to a similar extent in the region.

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