PASSENGER RAIL TRANSPORT IN POLAND

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Abstract

Efficient and effective operation of rail transport has a direct impact on the quality of life for citizens of the country and development of its economy. Rail transport market in Poland in recent years has been subjected to processes to face growing competition of other modes of transport. These activities are carried out at the organizational, legislative, financial, and the employment level in the form of restructuring and regionalization of rail transport. The aim of this article is to analyze the situation in passenger rail transport in Poland and to evaluate the possibility of its development.

Keywords: Passenger rail transport, SWOT analysis.

1. INTRODUCTION

Rail sector is a very important part of Polish economy. Not only businesses (transport of goods) but also consumers (passengers) greatly benefit from it. Effective and efficient operation of rail transport has a direct impact on the quality of life of citizens and development of domestic economy. In recent years rail freight market in Poland has been subjected to various processes to face growing competition of other modes of transport. These activities are carried out at organizational, legislative, financial and HR-related level through restructuring and regionalization of rail transport. In this article, based on SWOT analysis, factors influencing changes and prospects of development of Polish rail passenger market have been presented. It also presents possible ways to improve transportation methods in order to increase the share of this mode of transport in intermodal rail/road transport system in Poland.

2. RAIL OPERATORS PROVIDING PUBLIC PASSENGER TRANSPORT SERVICES IN POLAND

In 2001 as a result of commercialisation and restructuring process of a state enterprise Polish State Railways a new group called PKP Group was established. The aim of reorganisation was to separate the operating activities of the railways from the management of the railway lines in order to comply with the European Union directives.

A dominant company of the PKP Group is PKP SA – so called „parent company” while the others are „daughter companies”. Operating companies – daughter companies – provide services in the passenger transport market (PKP InterCity, PKP SKM in Tricity) and in the freight transport market (PKP Linia Hutnicza Szerokotorowa, PKP Informatyka, PKP Cargo). The third group are companies providing railway infrastructure related services (PKP Energetyka, PKP Polskie Linie Kolejowe, TK Telekom).

Passenger transport sector in Poland is dominated mainly by Przewozy Regionalne (PKP Regional Services Ltd) and PKP Intercity. These two companies provide railway transportation services all over Poland. Although other operators are much smaller they also enjoy huge popularity. Trains operated by other companies have been presented in Table 1.
Table 1. Railway companies providing passenger transportation services in Poland

<table>
<thead>
<tr>
<th>Company</th>
<th>Market sector</th>
<th>Types of trains - description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PKP Intercity</td>
<td>International</td>
<td>EuroCity (EC),</td>
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<td></td>
<td>Domestic: Inter-agglomeration</td>
<td>Express InterCity (EIC),</td>
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<td></td>
<td>Inter-regional</td>
<td>Express (Ex),</td>
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<td></td>
<td></td>
<td>Twoje Linie Kolejowe (TLK),</td>
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<tr>
<td>Przewozy Regionalne</td>
<td>Regional rail transport services</td>
<td>REGIO (former local trains)</td>
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<td></td>
<td>Inter-regional rail transport services</td>
<td>interREGIO (IR)</td>
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<td></td>
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<td>REGIOekspres (RE).</td>
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<tr>
<td>Kolej Mazowiecka</td>
<td>Regional rail transport services</td>
<td>Local trains (KM)</td>
</tr>
<tr>
<td>Kolej Dolnośląska</td>
<td>Regional rail transport services</td>
<td>Local trains (KD)</td>
</tr>
<tr>
<td>Koleje Śląskie</td>
<td>Regional rail transport services</td>
<td>Local trains (KŚ)</td>
</tr>
<tr>
<td>Arriva RP</td>
<td>Regional rail transport services</td>
<td>Local trains (ARR)</td>
</tr>
<tr>
<td>PKP Szybka Kolej Miejska w Trójmieście</td>
<td>Commuter trains in agglomerations</td>
<td>Local trains (SKM)</td>
</tr>
<tr>
<td>Warszawska Kolej Dojazdowa</td>
<td>Commuter trains in agglomerations</td>
<td>Local trains (WKD)</td>
</tr>
<tr>
<td>PKP Szybka Kolej miejska w Warszawie</td>
<td>Commuter trains in agglomerations</td>
<td>Local trains (SKM)</td>
</tr>
</tbody>
</table>

Source: own work based on http://rozklad-pkp.pl/

3. ANALYSIS OF PASSENGER RAIL TRANSPORT MARKET IN POLAND

As statistics reports show based on analysis and research of the Office of Rail Transportation in Poland and information provided to the public by carriers operating in the market in 2010, licensed carriers transported 241.1 million people, which was approx. 8.38% less than in the previous year 2009. Calculating the amount of the work done by carriers in the same period, which is a product of the distance travelled by passengers and the number of passengers, it was equal to 16 454 million passenger-kilometres, so a decrease of 4.8% compared to the previous year was noticed. Average passenger journey distance was about 75.4 km. Comparing the year 2010 to 2009 in passenger rail transport, demand undoubtedly declined while the supply was maintained at the same level as in 2009, and even increased as 135.5 million km of railway tracks were laid till November 2010, that is 3, 2% more comparing to 2009.
Taking into consideration the number of passengers in each province in 2010 the biggest number was recorded in Mazowieckie province – 80 778 million (over 30% of the total number of passengers). Moreover, only the Mazowieckie province recorded in 2010 an increase in the number of passengers carried.

Concentration of companies providing railway transportation services in Warsaw agglomeration that were included into urban transport system significantly contributed to the expansion. In total, these companies (KM, SKM Warszawa and WKD) recorded an increase in passenger transportation by 2.7 million people compared to 2009.

In 2010 the highest number of passengers was carried by local government companies – Przewozy Regionalne (PKP Regional Services Ltd) 43.6% and Koleje Mazowieckie 20.3%.

It should be noted that passenger transport services provided by local companies are mostly done on short distances. Average transport distance of one passenger was 46.4 km, so an increase of 6.7 km compared to 2009 was noticed. On the other hand, PKP Intercity carried less than 14% of passengers.

Considering the situation of the passenger transport services market in Poland in terms of transport performance indicator, the largest share – 46.8% - belonged to PKP Intercity; the result was mostly affected by the type of services they provide, i.e. long distance trains.

A significant share, as high as 36.2% belonged also to Przewozy Regionalne and such result was undoubtedly achieved due to high number of passengers carried. Furthermore, the company introduced changes which also had a considerable influence on the result – they included a new product called “InterREGIO” to the service portfolio and entered the market of inter-regional transport services. The share of other companies in the transport performance is rather modest - except of Koleje Mazowieckie (10.01%) and PKP SKM (4.9%) the share did not even reach 1%.

Figure 1. Number of passengers in each province
Source: own study based on analysis and monitoring of Office of Rail Transportation
In 2010, once again, a decline in transport performance in the railway market was noticed. The most noticeable was a decrease in passenger trains where transport performance rate was reduced by 15%. The situation with inter-regional trains was completely different as this group indicated the highest transport performance and delivered 9 095 million passenger-kilometres (approx. 7% more than in the previous year).

The sector of regional transport services in Poland in 2010 was divided between 7 licensed operators. It was dominated by PKP Przewozy Regionalne. Despite an overall decline in the transport performance (6%) the company maintained the largest share in this market sector - up to 46.7%. The second place, taking into account the number of passengers carried, hold Koleje Mazowieckie which had 25% of the market share; the operator recorded a 3% increase in transport performance.

Inter-regional transport services in 2010 were delivered by 4 operators. PKP Intercity was in a dominant position as they had 66.25% of market share, the next was Przewozy Regionalne with more than 33% of market share; mostly it was achieved by expanding the operator's services portfolio and new initiatives like "InterRegio" trains. The two other operators had less than 0.2% of the shares in this market sector.

4. DETERMINANT FACTORS OF CHANGES OF PASSENGER RAIL TRANSPORT MARKET IN POLAND

There are many strengths of the Polish passenger rail transport market. It's position is relatively high as far as passenger transport services between cities and within large urban areas are concerned. The main advantage of rail transport is its marginal impact on the environment, especially in comparison with air and road transport. Unfortunately, lack of customer focus and ineffective operation management of railway companies to improve the quality of services contributed to loss of significant market share by railway sector. The main obstacle to reverse the downward trend of rail transport in social and economic life of the country is the number of its weaknesses. Poor condition of rail transport infrastructure making it impossible to adapt it to needs and expectations of the modern market, bad condition of railway rolling stock, low level of integration with other transport systems and rail transport operators focused on competition, rather than on cooperation are major obstacles of this market sector. Factors mentioned above are the causes of low-quality transport product and significantly extend the travel time between stations.

Lack of customer focus and ineffective operation management of railway companies to improve the quality of services contributed to loss of significant market share by railway sector. Only rail transport products and services that best match needs and expectation of customers who make up the market of transport services are attractive. Different ways to adapt to the needs of the rail transport market in Poland depend on its segments.

Inter-agglomeration rail transport services are considered to be ideally suited to customers taking into account the resources they have (human resources – train staff and infrastructure – passenger carriages) and marketing and organizational aspects. Weaknesses that create barriers blocking development of this category are:

- poor condition of infrastructure independent of the operators/carriers that reduces commercial speed of trains,
- insufficient amount of rolling stock including modern wagons and modern traction stock adapted to the travelling speed of 160 km or more,
- limiting the availability of travel services for people with disabilities,
- real-time passenger information system,
- high ticket prices, no discounts or special rates.

Only private carriers that will enter the rail transport market can stimulate innovations in this segment.
Services offered by inter-regional operators are adequate to meet existing demand however, a key factor taken into account is ticket price. It is necessary to make train cars more comfortable and their modernization is as unavoidable as modernization of some track sections. In order not to lose existing customers a relative stability of product portfolio should be ensured; furthermore, range of products should be adapted to passengers with reduced mobility.

Regional rail transport services and commuter trains in agglomerations are the only ones that regardless of the quality of services enjoy huge popularity. Constantly growing demand in this segment is a result of increased road traffic congestion in urban areas. To meet customers’ needs in this segment it is necessary to increase the frequency of trains, coordinate and integrate train and bus transport systems and introduce so called “combo ticket” entitling passengers to travel different transport modes. It would be beneficial to eliminate bottlenecks, i.e. the busiest routes; the solution would be separation of agglomeration traffic and laying new railroad tracks.

5. **DIRECTIONS OF DEVELOPMENT OF PASSENGER RAIL TRANSPORT MARKET IN POLAND**

A continued downward trend in passenger rail transport should be stopped as soon as possible. Possibilities of rail transport sector to overpower competitive modes of transport improving quality of transport services are of diverse nature. Rapid urbanization of the country, lifestyle changes, nature of the work of people (an increase of business trips), increased mobility and growing expectations, increased level of wealth (holiday trips), contribute significantly to the development of two transport sub-systems: inter-agglomeration and agglomeration (commuter trains).

Inter-agglomeration transport services and commuter trains are the most promising segment of the rail transport market. Inter-agglomeration transport services are expected to grow rapidly, the major aim in this category is to guarantee travel time of less than 3 hours, and there where the traffic is really heavy, i.e. Warsaw - Katowice, Warsaw - Krakow, Warsaw - Poznan, Warsaw - Wroclaw to shorten travel time to less than 2 hours. Trains should be of a cyclical nature (fixed time intervals) during peak traffic hours and their frequency should be adequate.

To achieve the expected status quo and develop adequate service portfolio it is necessary to take following steps:

- Building high-speed rail system,
- Modernization of existing railroads to adapt them to 160–200 kph,
- Modernization of train stations to improve their functionality and aesthetic value,
- Acquisition of new high-speed trains and modernization and acquisition of rolling stock to provide transport services at a speed of 200 kph, with air conditioning and accessible to people with disabilities,
- One-stop-shop – combined sales train and air tickets
- Introduction of supplementary services such as broadband Internet access or catering services on board

The prospects for development of inter-regional transport services are moderate and diminished by private vehicles.

It can lead to a decline in the railway transport sector, as it is not possible to fully cover expenses with profits from railway tickets. Increasing the attractiveness of services can stop this process and attract customers. Such services are provided between the provincial cities and other key cities of social and economic significance as well as between health resorts and the frequency of trains depends on the stream of travellers. Rail services between the capital city and other major agglomerations should be provided every one or two hours. In case of rail services provided between towns and cities of minor significance the
frequency should not exceed four hours. It should be noted that the range of services in this market segment largely depends on seasonal fluctuations. Development of inter-regional passenger transport system is not possible without a comprehensive modernization of passenger train cars, keeping in mind their adaptation to the needs of the disabled and possibility of transporting bicycles. Modernization of existing locomotives and acquisition of new units is also unavoidable.

A moderate growth is expected in the regional rail transport market, which depends primarily on the level of funding and regional transport policy. A major threat to this segment is an increase in the number of personal vehicles which are widely available and considered as strong competition and risk factor. It is necessary to remove, as soon as possible, obsolete train cars and high-powered locomotives and invest funds in new rail buses and comprehensive modernization of electric trains (electric traction units).

A great opportunity for regional transport market is "intermodal partnership", i.e. integration of rail passenger services with regional bus transport where the rail transport is a basic public transport system in the region and bus transport works as a complementary service (passenger pick-up / drop-off). Systems functioning this way would create an integrated and comprehensive range of transport services. The situation presented above requires a prior process of regionalization of passenger transport, where voivodship governments would fulfil the function of the regional manager of the passenger transport market.

Change of train stations and train stops into regional or local intermodal nodes and introduction of integrated transport information systems (train, bus) can also show beneficial effects.

6. CONCLUSION

Among other market sectors that undergo transformation into market oriented economy and liberalization in EU, and therefore in Poland, the rail transport services market is considered as slow-changing and the results of transformation are not fully satisfactory.

Standard of services is not as high as in some Member States. Deterioration of rolling stock and infrastructure often forces passengers to choose road transport.

The main objective of transport policy in Poland is liberalization of access to infrastructure. It aims to implement intramodal competition strategy that will have a significant impact on increased intermodal competition in the market. Revitalization of rail transport services promoting competitiveness is a problem that requires to overcome many obstacles as the sector is very capital-intensive.

LITERATURE