

Liberalization of Public Passenger Railway Transport in Slovak Republic

Jaroslav Masek¹, Martin Kendra¹, Juraj Camaj¹, Anna Dolinayova¹

¹University of Zilina, Faculty of Operation and Economics of Transport and Communication,
Department of Railway Transport
Univerzitna 8215/1, 010 26 Zilina, Slovakia
jaroslav.masek@fpedas.uniza.sk; martin.kendra@fpedas.uniza.sk;
juraj.camaj@fpedas.uniza.sk; anna.dolinayova@fpedas.uniza.sk

Abstract - Public passenger transport is very important part of development of every region. Railway suburban transport must be the main transport system of every region because the public transport is one of the most important public services. The best characteristic of public transport is the quality of services. Paper deals operation of regional passenger transport in Slovakia, with liberalization and competition in railway transport, principles of the contract on transport services in the public interest and with the current state of regional passenger transport on regional railway line Bratislava - Dunajská Streda – Komárno.

Keywords: Regional passenger transport, Liberalization and competition in railway transport, Contract on transport services in the public interest, Transport policy

© Copyright 2016 Authors - This is an Open Access article published under the Creative Commons Attribution License terms (<http://creativecommons.org/licenses/by/3.0>). Unrestricted use, distribution, and reproduction in any medium are permitted, provided the original work is properly cited.

1. Introduction

Public passenger transport is very important socio - economic component. It is characterized like the service to the population, whose main task is to ensure the daily requirements for passenger transportation to work, schools, offices, medical facilities, etc. For this task in Slovakia have decisive contribution suburban railway passenger transport, bus transport and public transport.

The liberalization process is not possible without some rules and regulations because of the establishment of non-discriminatory environment for

the new entrants, mainly in the area of capacity allocation, the charges for the use of railroad and licensing procedures

Quality is one of the most important criteria influencing the demand for use of the service. In today's competitive environment, where some of the criteria of quality of service are lower than the competition, the company immediately loses passengers, thereby reducing income, deepening the losses and increasing the spending of public funds, which requires increasing subsidies [4].

2. Principles of the contract on transport services in the public interest

Carriers operating in the market of public transport in Slovakia are companies that are legally constituted to make a profit which is used to finance the operations of these companies. In operation of public transport, however arises the situation when revenues of some carrier's performances are unprofitable. In this case, with respect to market rules carrier did not carry out this performance [1]. However, since the principles of national transport policy, which is based on transport policy of the European Union, the state is required to ensure a certain level of transport service area, these performances, which are for the carrier unprofitable, viewed as services of public interest.

Transport service area is meant basic transport requirements of the population - especially travel to and from work, school, medical facilities, a shopping and culture. Moreover, according to the principles of state transport policy are fares in public transport services regulated (ordinary fare trains except higher

category, students, retirees, other groups), so the price does not even cover the carrier's costs [9].

The financing of public transport is based on existing laws and conducted on the basis of contract on transport services in the public interest (contract). Parties to the contract is the state, respectively the Ministry of Transport, Construction and Regional Development of the Slovak Republic, regions and municipalities as the customers of services and individual carriers - companies, who are the suppliers of these services.

The most important laws governing the operation and financing of rail passenger transport:

Act No 513/2009 of railroads, regulating:

- the types of railroad and rules for their construction and operation;
- type-approval of rolling stock and the authorization of their operation;
- the operation of for technical equipment and authorization to perform specified activities;
- operation of railroad infrastructure, the allocation of capacity and determination of charges for the use thereof;
- professional competence, health capability and psychological ability to work on the railroads;
- interoperability and safety of the railway system;
- competences of state administration in the railroads.

Act No 514/2009 of transport on the railroads, regulating:

- conditions for providing services on railroads;
- the rights and obligations of carriers and passengers in public passenger transport;
- the rights and obligations of carriers and senders and recipients of consignment in freight transport;
- certification of locomotion drivers;
- competences of state administration in transport on the railroads.

The purpose the contract on transport services in the public interest is to ensure safe, effective and quality services for regulated fares, their adequate performance according to the needs of transport service area and take into account social and environmental factors, factors of regional development and the requirements of the armed forces [7].

The contract on transport services in the public interest concludes customer (state) with carriers for transport performance, which as an entrepreneur in terms of its commercial interests, especially economic disadvantage, not provided at all, or did not provide the requested size or quality, or would not providing for regulated fares, but which are necessary from point of view transport services in the area coverage [1]. Contract for transport services in the public interest are not concluded for the providing of services local recreational, commercial and tourist character.

Customer of transport services may contract the directly entering the selected carrier. The payment obligation from contract consists in the compensation of the proven loss of performance of the obligation of the customer services.

Proven loss is the difference between the cost of eligible costs incurred to fulfil the obligation of contract, including reasonable profit and revenue from regulated fares, including other income in achieving by compliance obligation to provide services in the public interest [8]. Compensation of proven loss paid customer of services under the terms agreed in the contract and after the end of year the provider of services affected the overall bill the proven losses. Development of the passengers transport performance in the years 1995-2013 you can see in Figure 1.

To the costs of the rail company which provide transport services are included the costs of staff, the energy costs for the use of railway infrastructure maintenance costs, repair and operation costs of rolling stock and other equipment necessary for the provision of transport services, fixed costs and holding suitable return on capital. The refund granted proven loss can be used only to fulfil the obligation of contracts of transport services in the public interest.

3. The present contracting arrangement of transport services in the public interest

Railway passenger transport in the public interest in Slovakia provides only two carriers - Železničná spoločnosť Slovensko (ZSSK) and RegioJet (RJ), with the exception of foreign carriers in the local border transport, which is regulated by specific legal documents.

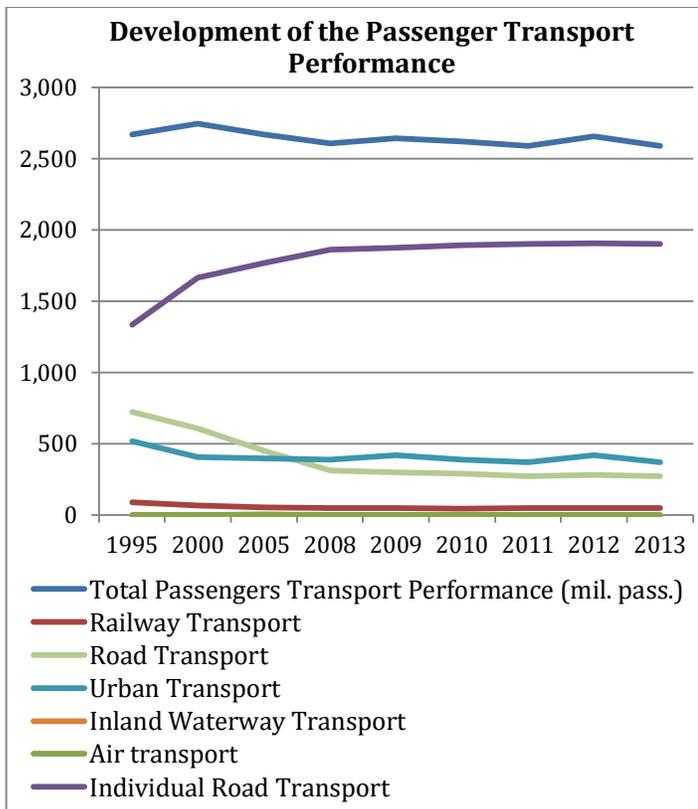


Figure 1. Development of the passengers transport performance (millions of persons) in the years 1995-2013 in Slovakia (Source: Ministry).

structure of the timetable. The amount of payment for one train km, which is 4.52 € per train km is agreed the whole period of the contract.

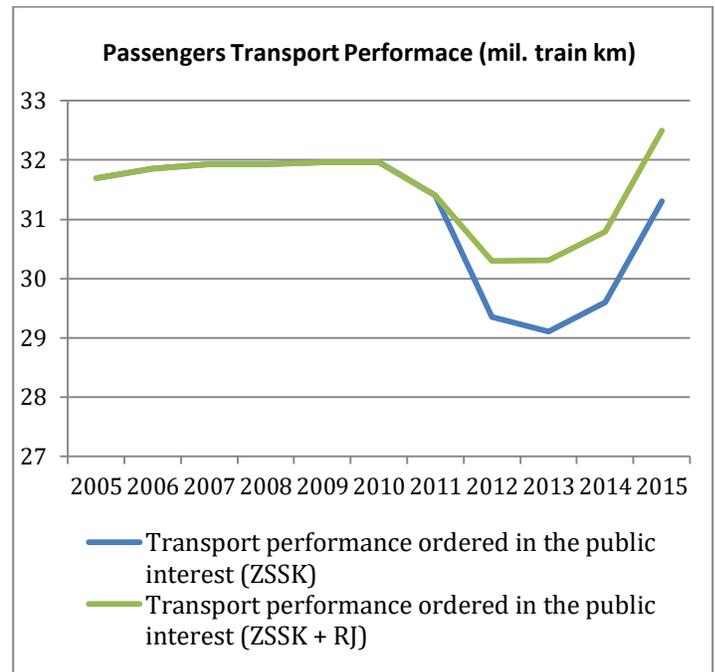


Figure 2. Development of ordered passengers transport performance in years 2005-2015 in Slovakia (Source: Ministry).

The financing of passengers rail transport is currently doing through noninvestment subsidies on the basis on contracts of transport services in the public interest. These contracts were concluded by the Ministry of Transport, Construction and Regional Development of the Slovak Republic and both passenger carriers. Ordered transport performance by Ministry you can see in Figure 2.

Regular passenger rail transport on the line Bratislava - Dunajská Streda - Komárno operates from 4.3.2012 only carrier RegioJet on the basis of a contract concluded with the Ministry of Transport, Construction and Regional Development of the Slovak Republic. This contract was concluded in 27.12.2010 for 9 years [3]. Ordered traffic performance for whole period the timetable (TT) has a range of 1 246 451 of train kilometres (train km). For the duration of the timetable 2011/2012 range was set as equivalent traffic performance corresponding with the start of operations 4.3.2012 (947 743 train kilometres). Amount of ordered train kilometres specifies amendments to contracts for the duration of the annual TT depending on the

Supplement no. 1 to the contract, dated 19.3.2012 for the period of the timetable 2011/2012 set of ordered services to 947 269 train km.

Total payment for a period of 4 3 2012 - 8 12th 2012, in accordance with Supplement no. 1 is maximum amount of 5 485 225 €. Payment was realized according to the schedule specified in the Annex no. 5.

Supplement no. 2 dated 20.12.2012 for the duration of the timetable 2012/2013 agreed amount the ordered 1 196 422 train km and total payment for transport services for a period of 9.12.2012 - 14.12.2013 is set to a maximum of 7 115 021,13 € [3].

Payment shall be calculated using the formula:

$$Payment = TRAIN\ KM \times P \times i + TRAIN\ KM \times CRI \quad (1)$$

where:

TRAIN KM = amount of train km for timetable period [train km];

P = price for train km - 4,52 [€/train km] according to art. 6, paragraph 1 of contract;

i = cumulative increase in the consumer price index provided by the Statistical Office of the Slovak Republic for the duration of timetable;

CRI = costs for the use of railway infrastructure maintenance for the duration of timetable [€/train km].

Regular passenger rail transport on all other lines of Slovak Railways (excluding the lines with cancelled passenger traffic) provide Železničná spoločnosť Slovensko on the basis of a contract agreed with the Ministry of Transport, Construction and Regional Development of the Slovak Republic dated 27.12.2010. The contract was concluded for a fixed term with effect from 1.1.2011 for a period of 10 years [2]. The contract may be extended for a further period of 5 years. The total duration must not exceed 15 years.

The performance orderer - Ministry has the right to exclude individual trains from the range of the contract and take them directly to another carrier or put out to tender. Range of total traffic performance ordered by client under this contract may be reduced due to exclusion of trains crossing original competences in regional rail to regions or any other reason gradually over the effectiveness of this contract by up to 35%, on a year on year no more than 10% of the total ordered performance of train transport 2010/2011.

Carrier obligations include a commitment to carry, operating and tariff commitment.

The commitment to carry means obligation to transport passengers according predetermined ranges of traffic under the current train timetable.

The operating commitment is the obligation of the carrier in relation to the rolling stock. The carrier operates rolling stock on the basis of licenses, uses them, maintains and restores them to perform public service.

Tariff commitment is obligation of carrier to apply the fare, which shall not exceed a maximum price of transport in relation to the predetermined categories of customers, which is established by the valid decree the Office for Rail Regulation.

In the first contract year (2010/2011) was agreed and ordered a guaranteed range of total transport performance to 30.3 million train km [2].

Amount of reasonable profit may not exceed 7.5% of the total payment. Amount of reasonable profit is of at least 1% of economically justified costs. Basic level of reasonable profit for 2011 was agreed to 0%. The method of calculation and payment structure under contract is in Annex 1 and 2.

Also with ZSSK customer governs the range of ordered train kilometres by supplements to the contract for a period of annual timetable.

According supplement no. 2, which was agreed 23.12.2011, is in year 2012 guaranteed and ordered a range of total traffic performance at 29.35 million train km. Basic level of reasonable profit for 2012 was agreed to 0%. From contract for transport services in the public interest were excluded traffic performance of IC trains.

Supplement no. 3 was agreed 20.12.2012 and in the year 2013 will be guaranteed and ordered range of total traffic performance featuring 29.104 million train km, of which productive traffic enforcement is 28.684 million train km. Basic level of reasonable profit for 2012-5 is still 0%.

4. The current state of regional passenger transport in Slovakia

The first year of operation, transported RegioJet (RJ) on the line Bratislava - Dunajská Streda - Komárno, about 1.5 million passengers. RJ brought on regional lines new quality of regional transport, which attracted new customers. Example RJ is proof that the combination of modern vehicles, tact timetable and new services on the train and at the stations is possibility how to make rail transport in the regions more attractive and make it to be a main kind of passenger transport, which is more preferable in all respects for the state, municipalities and passengers. RJ daily dispatches about 50 trains, offers modern air-conditioned, low-floor vehicles Talent by Bombardier and Desiro by Siemens, tact schedule (during peak are intervals 30 min.), special faster connections (travel time BA - DS 38 min.) and new service on trains (free internet, newspapers) and additional services at the railway stations (P + R parking place). Comparison of operation ZSSK and RJ you can see in Table 1.

Number of carried passengers is possible in 2011 increased by 10-12% in terms of others carrier employee's travel benefits used to track section. Significant difference after the start of the company RJ operating, as could be mainly due to:

- non-recognition of employee's travel benefits of ZSSK, ŽSR, ZSSK CARGO;
- reconstruction of the railroad, which allowed implementation tact timetable (before renovation were intervals more than 5 minutes, now within 1 minute);

- reconstruction - improving the quality environment of all railway stations and stops;
- 68% increase of transport performance ordered by the Ministry.

Table 1. The Comparison of operation by ZSSK and RJ.

	RJ	ZSSK	
12 months	2012-2013	2011-2012	Change
Number of passengers (thous.)	1 511.161	764.283	98%
Pass. transport performance (thous. pass.km)	54 516.027	21 850.85	150%
Average transport distance (km)	36.080	28.590	26%
Train transport performance (thous. tr.km)	1 204.473	719.057	68%
Number of trains	17 475	9 127	91%
Average number of passengers/tr.km	45.260	30.390	49%
Average number of passenger/train	86.480	83.740	3%
Trains occupancy	0.290	0.169	72%
Reimbursement of Ministry total (thous. €)	7 014.796	4 875.206	44%
Reimbursement of Ministry €/1 tr.km	5.820	6.780	-14%
Reimbursement of Ministry €/1passkm	0.130	0.220	-42%
Reimbursement of Ministry €/1 pass	4.640	6.380	-27%

(Source: [5], [6])

5. Conclusion

A necessary condition of the operation each service is to provide it in high quality for a reasonable price and in a time when the passengers are interested in it. Liberalization and free competition in the area of passenger transport services definitely brings increasing the service quality. However, the problem may be way how to ensure the selection of the carrier and the content of the contract of transport services in the public interest. Selection of the carrier should be in the public tender according to a set of criteria. Allocation of train kilometres and railway line should be transparent and conceptual and should follow the pre-established rules for all carriers.

An important precondition for providing attractive passenger transport services is attractive

timetable. To be the timetable attractive, it must be based on the demands of passengers and this can be only achieved by concentrated tact timetable. Additional services are value-added to more enjoyable time for passenger during the transportation, otherwise passengers perceive this time negatively as a loss time. Additional services without attractive timetable don't bring the desired positive effect. Therefore Ministry should change the way of the order transport services in the public interest for other carrier (ZSSK) and the other carrier will be not limited by transport performance (train km), what does not allow them to create passengers attractive timetable.

Acknowledgement

The paper is supported by the VEGA Agency by the Project 1/0188/13 „Quality factors of integrated transport system in the effective provision of public transport services in the context of globalisation“, and project KEGA no. 026ŽU-4/2015 „Innovative approaches in system of teaching management in the study program Railway transport with a focus on application the dynamic quality models in the railway transport“, that are solved at Faculty of Operations and Economics of Transport and Communication, University of Žilina.

References

- [1] National Council of the Slovak Republic, "Act No 513/2009 and Act No 514/2009," 28 October 2009. [Online]. Available: <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2009/513/20151201> and <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2009/514/20151201>.
- [2] Ministry of Transport, Construction, and Regional Development and Carriers, "Contract on transport services in the public interest (ZSSK)," 12 December 2010. [Online]. Available: <http://www.telecom.gov.sk/index/index.php?ids=90706>.
- [3] Ministry of Transport, Construction, and Regional Development and Carriers, "Contract on transport services in the public interest for operation passenger transport on railway line Bratislava – Dunajská Streda – Komárno," 12 December 2010. [Online]. Available: <http://www.telecom.gov.sk/index/index.php?ids=89055>.

- [4] J. Gašparík, J. Široký, L. Pečený and M. Halás, "Methodology for assessing the quality of rail connections on the network," *Communications: Scientific Letters of the University of Žilina*, vol. 16, no. 2, pp. 25-30, 2014.
- [5] "Internal materials of ZSSK," 2014.
- [6] "Internal materials of RegioJet," 2014.
- [7] E. Nedeliaková, A. Dolinayová and J. Gašparík, "Methodology of transport regulation in the Slovak Republic," *Periodica Polytechnica: Transportation Engineering*, vol. 38, no. 1, pp. 37-43, 2010.
- [8] L. Pečený, J. Gašparík and A. Dolinayová, "Quality criteria regional passenger rail services in Slovak republic," in *Standards of public transport central strategy vs. regional priorities*, Brno, 2014.
- [9] L. Pečený, V. Zitrický and P. Meško, "Quality of regional passenger transport in Slovakia," in *Horizons of railway transport 2014: International Scientific Conference*, Strečno, Slovak Republic, 2014.