

PARKING POLICY – IMPORTANT COMPONENT OF HUMANIZATION OF STREET SPACE

Alica Kalašová¹

Traffic moderation in cities is a process that reflects the pursuit for a new quality of life as well as applying modern transport policies at European level. In practice, there are many different types of this process depending on the type of area, road and citizens' requirements. Parking policy represents a compromise between free mobility, accessibility and life quality. Parking is not autotelic, it is always derived from some other necessity. This is the reason why parking should be involved in urban policy connected with mobility and accessibility. In this contribution I would like to deal with these topics in greater detail. The main topic of this contribution is the presentation of transport research in the town of Žilina, such as directional research and research of acceptability that have been carried out in order to create a model for decrease in externalities with the assistance of electronic fee collection of driving through the centre, as well as solving of fees for parking in central parts of the town of Žilina.

Key words: humanization of street space, parking policy, individual transport regulation

1 Introduction

Problem solving (i.e., how to ensure that the cities have quality access communications in the necessary quantity and at the same time keep friendly environment) lies in sustainable growth of transport policy which involves integrated parking policy together with well-equipped and efficient public transport system. Parking policy plays an important role for it has a direct impact on traffic flow and a level of traffic load in inner city.

Traffic solutions, such as giving preference to public transport and closing parts of town centre for vehicles, will be successful only when parking areas are built and if alternative forms of entrance will meet demands for quality and quantity. These parking areas should be close to pedestrian malls or zones with restricted admission; with permissions for company cars.

Parking policy is a compromise between free motion, accessibility and a quality of life. Parking is not autotelic activity; it always arises from some other necessity. That is why parking should be involved in every urban policy which deals with mobility and accessibility. Parking and parking management are a part and parcel of public mobility. They are the services that inevitably form part of public transport. [3]

Parking in various places represents at least two thirds of vehicle operation time a year. Efficient parking management can decrease the city centre overload as well as reduce negative externalities (noise, accident rate, exhaust fumes, congestions...) as a result.

Looking for a place to park in the street is a frequent cause of useless traffic in the city centre, which increases overload. As long as there is no regulation of parking in the streets, it is free of charge or too

¹ prof. Ing. Alica Kalašová, PhD., Žilinská univerzita, fakulta prevádzky a ekonomiky dopravy a spojov, katedra cestnej a mestskej dopravy, Univerzitná 1, 010 26 Žilina, E-mail: Alica.Kalasova@fpedas.uniza.sk

cheap, the car-drivers wanting to park somewhere will constantly overload the traffic. Reasonable market price fees for on-street parking with the intention to provide a certain number of available places to park (or up to 85 % of occupancy) eliminates this problem without a major impact on the number of parking cars.

Eliminating free or unregulated on-street parking and a follow-up substituting paid on-street parking for off-street parking lowers so called „searching-for-a-place-to-park“ traffic, which makes it possible to give the space to pedestrians or non-motor traffic and step by step can solve growing amount of public transport. There are various solutions of parking within above-mentioned necessities: on-street parking, off-street parking, multi-storey car parks, and underground car parks.

Places to park as such are not enough. These places must be run on the professional level because parking managed in a different way will not contribute to global urban mobility. Parking management represents a combination of various aspects. Each of these is important to ensure good quality of parking and improving traffic in the city centre.

It is obvious that there is a necessity for multi-storey, underground, and other car parks. However cheap or well placed but low quality parking facilities will never be attractive enough for vehicle drivers. It is crucial to ensure quality parking to improve quality of life in a particular city. [1]

Some aspects of parking policy management are as follows:

- price creation for on-street parking
- price creation for off-street parking
- fines for illegal parking, etc.

Efficient transport as well as policy of parking facilities regulation requires a constant control and introduction of particular law standards and other regulations due to parking and traffic flow management. The first aim is to act in accordance with particular norms, i.e. with transport management policy and not because it is a source of income for the town. [4]

2 Traffic characteristics of the city of Žilina

Žilina is surrounded by four entry points to the city. It is the main artery heading from the East (Kosice direction) towards the West (Bratislava direction), the northern entry from the direction of Poland and the southern entry from the direction of Prievidza (Fig.1). Žilina county is an important transport crossroad. Important international roads leading through the Kysuce region to the Czech Republic and Poland origin in Žilina. There is also a public international airport near Dolny Hricov.

Recently, the problems of increasing externalities have been causing difficulties in transportation within Žilina city. The city of Žilina is the fastest-development region in Slovakia.

Žilina is the largest city situated on the Váh river, located 49°15' of northern latitude and 18°45' of eastern longitude. With population of 85 425 inhabitants (on 1st January 2007) and the area of 80,03 square kilometers it creates an important centre of northwest Slovakia.

As in other European cities, the traffic situation in Žilina is continually getting worse. Fast grow of individual transportation, descent of public transport together with development of new business and commercial activities in the city – all these processes make an important impact on the city communication system. There are about 62 550 registered cars (on 31th 12. 2008) in the Žilina county (Fig. 2), the level of motorization is about 397 cars per 1000 inhabitants, the level of automobilization is about 286 cars per 1000 inhabitants.

The problem we deal with lies in the central part of the city where congestions and problems with parking irritate more and more people. Every year, Faculty of Operation and Economics of Transportation and Communications realizes a survey of traffic intensities on selected crossroads in Žilina. Results of these surveys, together with data gathered from several bachelor and diploma theses related to organization of traffic in the city, give us an opportunity to have a relatively detailed overview of traffic situation in Žilina within last 15 years. Based on the gathered data, we can see an unanimous increase of traffic intensities in covered area. The growth between years 1994 and 2006 reached up to 28 % on one of the monitored crossroads. [2]

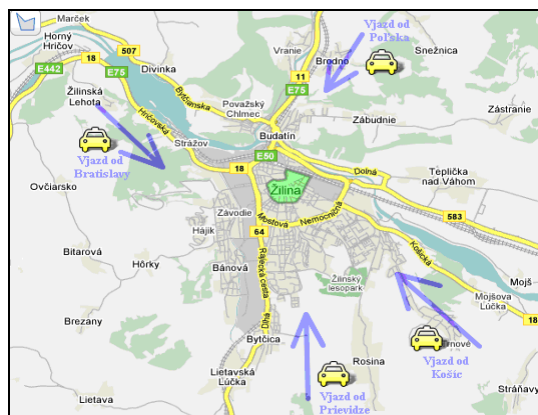


Fig. 1. Individual entry points to Žilina

The growing traffic brings another related problem. The number of traffic accidents in Žilina county is rising. On the other side, the utilization of public transport has dropped rapidly. It is apparent that meeting the increasing demand is not possible through ever increasing capacity of road system. Such solution eventually leads to a higher share of individual car transport compared to the lower (and disadvantageous) share of public transport means which in Žilina is provided by the DPMZ company. There has been a dangerous trend in decreasing demand for public transport in the recent years. Table 1 provides the evidence for this in terms of decreasing number of passengers. As the statistics provided by Transport Company of the City of Žilina shows, there is a 47 % dropdown in passengers transported annually in last 8 years (table 1) [5].

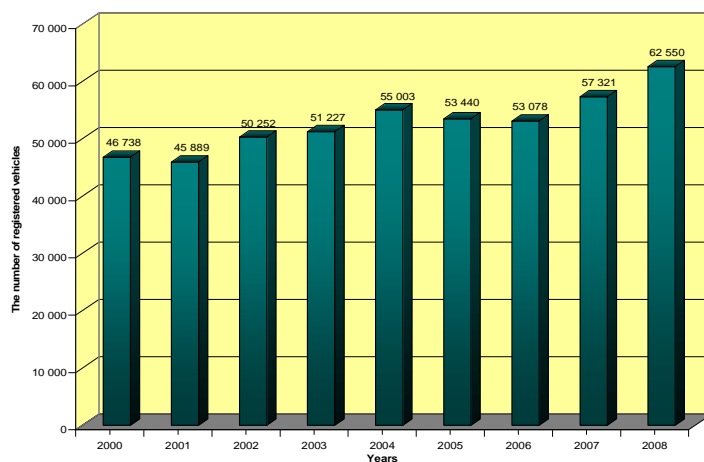


Fig. 2. Number of registered vehicles

There are several reasons of this problem, inter alia insufficient financing of public transport and thus reduction of lines, disastrous organization of trolleybus network and at last but not least congestions that affect public transportation and make it unreliable. The increase of individual car transport is caused by various factors, e.g. the increase of total length of roads within the city which is presumably linked to business development, changing citizens' lifestyle, the increase of car number in possession of citizens etc.

Tab. 1 Utilization of public transport in Žilina

Year	Number of passengers
2001	24 552 137
2002	23 283 584
2003	19 334 019
2004	17 281 517
2005	15 616 869
2006	14 666 257
2007	14 348 825
2008	13 224 155

3 Parking situation of the city of Žilina

The contribution contains the following specifications: contribution title, names of the authors, organization and address of the authors, summary, key words, text, appendices (if applicable), reference literature.

Let's have a look on parking situation in Žilina [6]. In 2002, a Žilina parking company was founded. 75% of the company share has a private investor and 25% belongs to the city of Žilina. New parking concept was introduced since 2003 which includes parking places for residents and visitors. There are three parking zones for visitors in the central part of the city with following prices:

- Zone I, historical city centre and area surrounding area for pedestrians – 1,30 € /h,
- Zone II, around the historical centre – 0,60 € /h,
- Zone III, areas next to the city centre – 0,30 € h.

Besides above mentioned parking places, there are several parking places operated by other private companies, where the price can differ. After four years of operation, we have gained some experiences. After the first year of operation, when the number of cars in central city zone dropped partially, the drivers get used on the parking fee and the system is no more successful as a regulation of traffic, it was just an example of short term regulation. Even the year-by-year increase of parking vehicles is 35% and the average fee paid by one car parking is approximately 0,70 €. Because there is not enough parking places, the cars are often parking on pavement and this is very disturbing for pedestrians.

When evaluating results of Žilina Parking Company, following conclusions were found:

- years after introduction of parking fee scheme, it can be stated that the number of vehicles in the central city area has decreased only temporary within the first year of operation.
- when the parking fee scheme was introduced, in given time it caused the regulation effect. Currently the individual traffic has returned back to the city center. Drivers got used to pay given parking fee.
- average parking fee paid by one vehicle in the whole area is nowadays approximately 0,48 € (14,51 Sk), in the solved area is it about 1,16 € (35 Sk/h).
- 53 % of visitors to central city area consider the parking fee as overestimated.

Based on the evaluation of parking survey, we can consider that parking fee is only a temporary regulation measure.

4 Conclusion

There are many other important steps, which have to be taken prior to successful realization of road charging system. It must be clear, who will be the owner and operator of the system and who can provide the money for its installation. Not less important is the question how the profit from the operation will be used. According to our opinion, the profit should be used for improvement of the traffic situation in charged area, because its users will be affected by the system. However it doesn't mean that we will build new roads and parking places at the expense of disruption green areas - we can rather focus on improvement of public transport. In Slovakia, there is not yet convenient situation for introduction of toll systems in cities. Together with some legislative steps it is necessary to inform the public about possibilities we have. By informing the public, we can reach our target – to increase the level of acceptance on road charging systems in cities and to show the benefits these systems can bring.

As all the previous regulations especially the parking system doesn't lead to reduction of traffic and congestions, we think that it is necessary to come with more sophisticated solution of the problem. There is no place for increasing capacity of the city communication system, contrariwise we have to eliminate amount of the traffic and toll collection is the way how we can achieve it. The concrete aims of toll collection are: [2]

- regulation of vehicles entering central part of the city,
- better environment and conditions of living for residents,
- larger utilization of public transport,
- source of financing for public transport and road infrastructure.

It is necessary to take into account that a toll system brings together some risks and negative impacts as well. For successful realization it is necessary to focus on technological aspects and limitations, rentability and financing of the system as well as public and political acceptance of the system.

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