INFLUENCE OF CHANGING ECONOMIC SITUATION ON THE CONDITION OF TAXI SERVICES IN RUSE

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Summary: A study has been made investigating the state of taxi services in conditions of changes occurred in the economic situation in Ruse. A comparative analysis to assess the current situation has been done and as a result a model was presented.

Keywords: taxi services, transport operation, run

INTRODUCTION

Taxi transport occupies a significant place in the contemporary urban passenger transport. Running along set route and schedule, the public urban transport can not always meet the requirements of people, because there are some who want the transport service to be performed "from door to door". For this purpose a taxi transport allowing for the individual requests to be carried out, is used. Taxi services have some characteristics such as: a high-speed communication; a travelling comfort; a transport from the initial to a final destination; prevailing occasional trips in time, direction, place of getting on and off the taxi car. The study of taxi services condition in the settlements is an important task for the proper functioning of the transport system in the modern city.

CONDITION OF TAXI TRANSPORT

Taxi services have been introduced in each developed country as a complementary alternative to the passenger transport in the cities. Due to multiplicity of legislations and traditions in the European countries the number of taxi cars for each is different and is determined by the condition of existence and development. For example on fig.1 it can be seen the average number of taxi cars per 1000 inhabitants in 14 European countries, and on fig.2- in their cities [1]. According to results it turns out that the highest number of taxis per 1000 inhabitants is in Bulgaria- 5,2 cars/1000 inhabitants and in Iceland - 3 cars/1000 inhabitants. For all countries the average number of taxi cars is between 1-1,5 cars/1000 inhabitants. The situation in the cities is
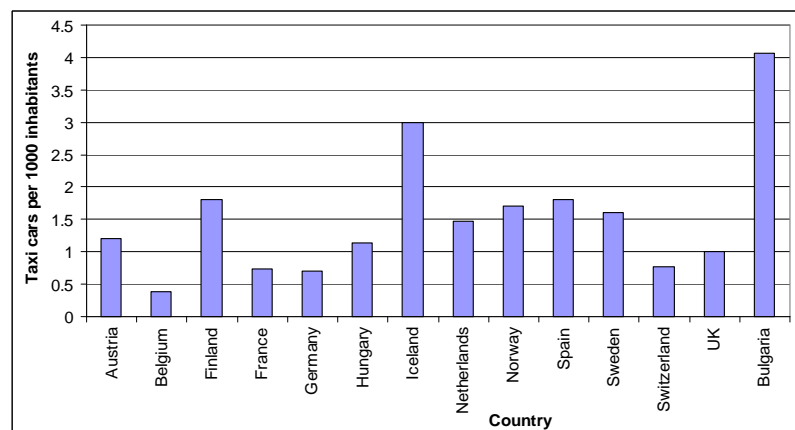

Fig.1. Taxi cars per 1000 inhabitants in 14 counties

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similar. It turns out that the average number of cars is between 2-2,5 cars./1000 inhabi-tants, (fig.2). Cities with the highest number of taxis per 1000 inhabitants are Dublin, Ireland with 7,2, followed by Ruse, Bulgaria with 5,2 и Oslo, Norway with 4,5 cars/1000 inhabitants.

Transport in Ruse

Ruse ranks 5th highest number of population in Bulgaria, the latest data is about 134 000. There is a well-established asphalted road network with pavements. The total area of the city is 127 124 square km. In 2007 there were 80 397 employed persons and 9% of them in the sphere of transport, storage and communications [2, 7].
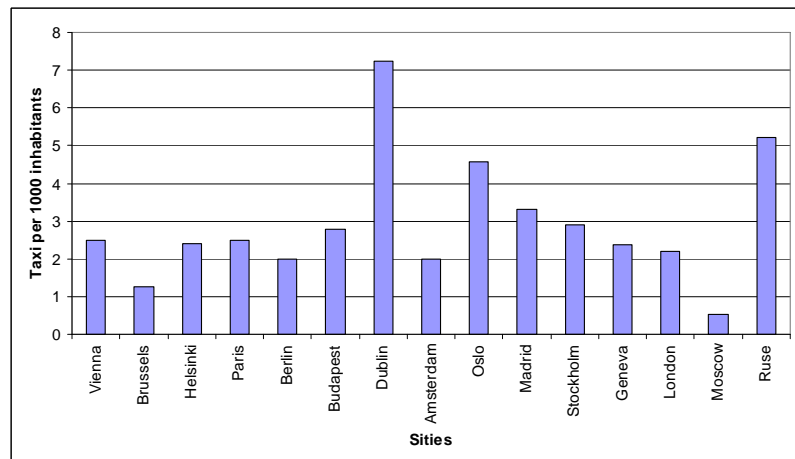

Fig.2. Taxi cars per 1000 inhabitants in 15 towns

The transport of the inhabitants in Ruse is done using [6, 7]:

- city bus and trolleybus transport. The bus and trolleybus transport take the bulk of citizens travelling to a workplace, a school, administrative and other objects within the town. Buses (small to 44 and large with 120 seats) are used to cover the needs of the city during the rush hours – in the morning (6:30-9:00) and in the evening (16:00-18:30). The passenger is assumed by several major companies: EGGED Ruse AD, Dunav Car Ltd, Geokomers Ltd and Chance-99 Ltd;

- personal cars. Over the last some 10 years the number of personal cars has significantly increased because this type of transport is one of the preferred ways to travel, that has led to more traffic jams and a heavy traffic in daytime;

- cycling. This is the least used means of transport which has not been and still has no power to be imposed among residents. It is mainly used by young people for pleasure, rarely for work. Yet, there is no adequate infrastructure built-up for its use;

- walking. It is preferred by people who live near the site of destination (an enterprise, a school, a shop) and those with low incomes. The location of the bus stops is at a distance of 400 to 700 meters far and citizens prefer walking to a bus stop and a distance to 400-700 meters [6].

- taxi transport. Because of the possibility to satisfy the requirements of customers 24 hours a day, all the year round, it is means of transport commonly used and the services of which are available through a phone call, at a taxi stand or on the street. Due to its highest price the taxi transport is influenced directly by the financial means of the customers.

Transport operation of the taxi transport in Ruse

The cars, used by taxi companies to carry passengers, are mainly with petrol engines fuel with butane gas. A minority use methane gas and diesel. This allows companies to form maximum low prices with small differences. In early 2010 taxi companies registered to operate are almost 190, with 700 cars[3, 4]. These are mainly sole traders with one, several or up to 300 cars. The larger of them have their own dispatch center with radio broadcasting, used to accept orders and optimize business. In March 2010 there are 6 taxi companies with

their own dispatch center and radio broadcasting in Ruse – The Right taxis, Milanov taxi, Taxi 6, Express taxi, City Taxi and Union taxi.

The large firms have their own fleet of cars which leased by contract drivers, wishing to work as taxi drivers or include in their staff taxi drivers with own vehicles. Each taxi driver in the contract to operate a taxi is required to work with the tariffs offered by the taxi firm and to pay all costs associated with the activity. Based on a review of the activity the following relationship, reporting the total cost S in the taxi business, can be recorded

$$S = f(S_f + S_s + S_r + S_c + S_a), \text{euro.}$$

where S_f is fuel cost;

S_s - cost of maintenance and repair;

S_r - cost of rental vehicle;

S_c - cost for control center with radio broadcasting;

S_a - cost for administrative services.

In April 2010 prices of the above costs are: rent a car – 12,5 euro for 12 hours work; radio broadcasting – 50 euro/month; administrative services 25 euro/month; fuel costs for propane-butane (methane) and A95H gasoline (diesel), according to the consumption during the shift and it is the custom the car to be transmitted by the driver always charged and in a good technical condition, ready to be used. In April fuel prices are as follows: propane-butane LPG 0,5 euro/liter; for gasoline A95H 1,1 euro/liter. The costs of maintenance and repairs are usually included in the rent a car, if not caused by an accident or negligence attributable to the taxi driver.

The formation of prices of taxi service takes into account these costs and the demand for taxis, in which they move around following values:
- paid run– 0,40 euro/km;
- paid stay – 0,10 euro/min;
- initial fee to board the car – 0,50 euro.

In the absence of restrictions on the formation of tariffs and regulations to control the prices of taxis by the state some of the taxi companies can afford to operate a service to two, three or more times higher prices.

The influence of the economic situation upon the taxi business may be examined after analyzing the work done and the number of orders received in the dispatching centers. It is known that during the winter taxis are in great demand by costumers, while in summer they aren't. Therefore it is done a study of the number of requests for a period of seven moths in winter (fig.3). The results show that the number of orders throughout the winter period is less than the orders in September 2008. And the trend is to reduce in the coming months, which according to its seasonality is expected to be fewer orders and less transport operation.

Analysis of the transport operation carried out by taxis in Ruse

In considering the distance run traveled by taxis for three months in 2009 and 2010 (fig.4), tend to reduce the paid and the total run of cars. In total run of 153 km per car per month, in August 2009 and 41% paid run, in March 2010, the run is quickly reduced to a total run of 98 km of which only 28% paid. The situation directly affects the taxi operators

and they are forced to carry out reorganization in order to save their business. Possible solutions that can be made are:

- reducing the unpaid run by larger stay of cars at taxi stands and places with large passenger flows generated(schools, shops, entertainment facilities, bus and railway stations) ;
- reducing the number of cars and taxi companies;
- reducing the basic costs of rent, administrative services;
- re-registration of companies with accumulated financial liabilities;
-search for alternative solutions in a choice of a new type of vehicle;
- search for assistance programs and additional funding;
- diversification of activities;
- non-chargeable contributions/taxes due by the taxi drivers/operators;
- shift in the sector of informal economy;

Failing to stabilize the situation in taxis and to find costumers the number of taxi cars may decline to reach the number of other countries in Europe, which is between 1 and 3 cars per 1000 inhabitants.
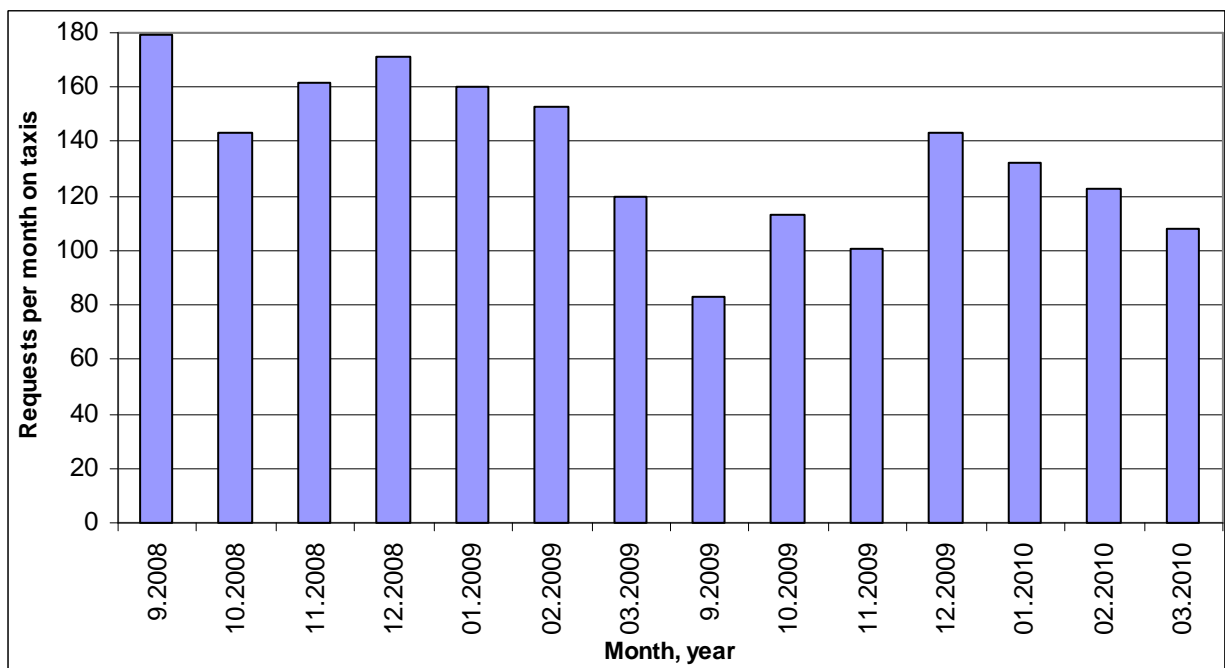

Fig.3. Average number of requests per month on taxi in 2008-2009 and 2009-2010 years

Fig.4. Average mileages of taxis in 2009-2010 year

CONCLUSION

The survey of the taxi business in the last year shows a trend of decreasing the general average run of a taxi car in a shift from 153 km to 98 and the efficiency, which fell from 41% to 28%, due to the economic situation and the solvency of population. Together with the reduction of work it is changing the number of taxi cars, which has fallen almost 20% for a year [4, 5].

According to literary sources, the number of cars in the cities of developed countries in Europe ranged from 1 to 3 cars per 1000 inhabitants, suggesting that with changes in the country the number of taxi fleets will also be changed (reduced) getting closer to these limits. This supposes that it is necessary some of taxi drivers who fail to be competitive on the market of taxi services to reorient themselves to find a new job.

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