

STUDY REGARDING THE ATTITUDE OF CITIZENS FROM RESITA TOWARDS PUBLIC TRANSPORTATION

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ABSTRACT

The transportation sector is very important for any country, considering that it allows a better communication between cities, facilitates the touristic activities and ensures better traveling possibilities for citizens. Public urban transportation is vital for any city, contributing to the evaluation of the quality of life of individuals that live in a certain town. The present paper tries to highlight the attitude of citizens of the city of Resita towards the issue of public transportation, expressing the main opinions centralized by using a questionnaire.

KEYWORDS: *transport, communication, consumer behavior, services, strategy*

JEL: *L91, L92, O18*

1. INTRODUCTION

The object of the transportation activity is the movement of goods and persons in space, by a carrier, which represents a way of achieving and accomplishing interests of a socio-economical nature. Often, "local authorities are trapped in an ever loosing catch-up game of modernizing and extending their road networks to meet their inhabitants needs and expectations" (Gaman et al, 2016).

According to Advancing public transport Report (2014), "local public transport, defined as the scheduled transport of passengers, over relatively short distances, mainly within urban and suburban areas, is one of the backbones of urban mobility within the EU".

When speaking about public transportation, we can mention this aspect as a controversial theme, considering that during recent years, the number of cars is much higher than in the past, many people using this form of transportation in order to travel inside a city or externally. It is no longer unusual for an individual or family to own more than one car. On the other hand we cannot ignore the role that public transportation still plays in the lives of citizens (Manciu, 2012).

The official statistics (Eurostat, Public transportation reports) make us to conclude the following aspects:

- the total number of passenger journeys along the European Union is higher than 60 billion, even if we must acknowledge certain differences among countries, which are impossible to ignore;
- the average number of journeys/inhabitant using public transportation in the European Union is 150 per year;
- the main means of public transportation include busses, tramways, metro, suburban heavy rail, the highest number of journeys for bus, according to Advancing public transport report.

Official reports (Ecorys, European Commission) developed a SWOT analysis

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regarding public transportation, which mention the most important strengths, weaknesses, opportunities and threats. Thus, we can develop the following figure, adapting the information for Romania:

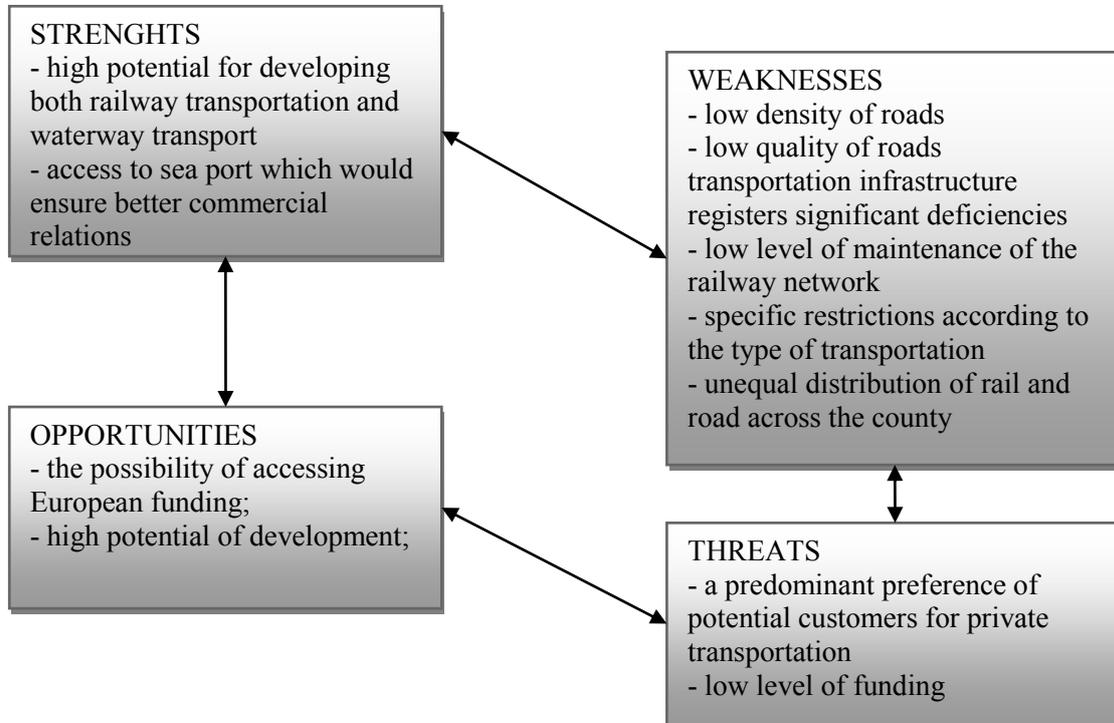


Figure no. 1

(Source: Ecorys, European Commission)

2. GENERAL PRESENTATION OF PUBLIC TRANSPORT SERVICES IN CARAS SEVERIN

The transport network in Romania is quite varied (Dobre et al, 2017). In 2014, the price of a 100-km rail and road trip (4.3-4.5 euros) placed Romania among the top 15 countries in the European Union in an index of low costs. Also, we can mention that Romania ranks 123 in terms of road quality, according the World Economic Forum Reports.

According to the Strategy development and regional action plan for Caras Severin County, “the public road network has a length of 1,944 km, with an average density of 22.8 km/sq km, the distribution of the public road network being: 560 km – national roads; 883 km –county roads; 501 km – communal / village roads”.

A permanent concern of Caras-Severin County Council is to identify opportunities for financing the rehabilitation of road infrastructure.

The analysis of data regarding urban passenger transport at the level of December in the period 2005 - 2016 in the county of Caras Severin, shows us the following situation:

Table no. 1

Number of vehicles and passengers transported

	2005	2010	2011	2012	2013	2014	2015	2016
Number of vehicles in inventory - end of year –								
Tramway	34	28	14	-	-	-	-	-
Buses and minibuses	51	27	36	44	44	55	57	58
Passengers transported (thousands)								
Tramway	7455	4619	2726	-	-	-	-	-
Buses and minibuses	1756,1	1750	3392	6814,1	5856,6	5268,1	5528	5879

(Source: Romanian Statistical Yearbook, 2016)

As we observe in the table above, the number of vehicles differs from a year to another, 2012 being the first year when the tramway is no longer a mean of public transportation in Caras Severin. However, during the period of 2005 – 2011, the number of these has decreased very much, from 34 to 14. Their capacity was no longer enough to serve the needs of the population, so there was made an important transition, to buses and minibuses. The number of these vehicles was high in 2005, the first year of analysis, decreasing in 2010 to only 27, but the removal from circulation of the tramways determined the local authorities to supplement the number of buses. We therefore observe a positive evolution of the overall number, from 36 in 2011 to 58 at the end of the year 2016.

On the other hand, the number of passengers transported faces an oscillation, as seen in the following chart:

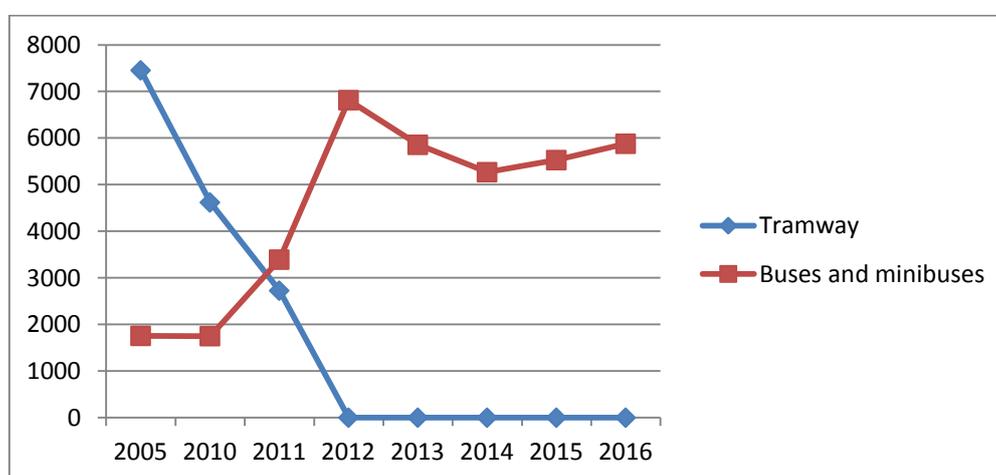


Figure no. 2

(Source: designed by author, according to information in the Romanian Statistical Yearbook, 2016)

3. RESEARCH METHODOLOGY

The purpose of this research is to study the categories of services requested by residents in Resita, in comparison with the system of needs and incomes.

In our case, the subjects surveyed represent the population of the city, comprised

in a representative sample. The method of sampling used is the method of quotas, ie a rational choice of individuals, aiming to obtain at the level of the sample - a structure by gender, age groups and occupations, identical to the structure of the population of the municipality, using for this purpose, common data from the general presentation of population of Resita on 01.01.2017.

As a form of research, we used the structured individual survey, based on a questionnaire consisting of 16 questions, namely 13 content - questions and 3 questions for identifying the persons questioned.

The main objective of the research is the analysis of the market in order to study the possibility of development for the local public transport services in the city Resita. The secondary objectives of the research are:

- O1. Identifying the main means of transport in the city of Resita;
- O2. Identifying the frequency of use of means of transport at city level;
- O3. Identification of means of transport that should be developed as a priority;
- O4. Identifying consumers' perception of price when it comes to choosing a mean of public transport
- O5. Determining consumers' preferences when choosing a mean of transport for traveling outside the city;
- O6. Identifying aspects that should be improved with local public transport

The main issues discussed in this research are:

- 1. A general presentation of public transport services;
- 2. The evolution of the market for public transport services;
- 3. Case study;

Processing of statistical data related to the population of Resita municipality at 01.01.2017 indicate us the following sample:

I. The gender criterion:

Total population	Male	Female
72.486	35.133	37.353

The share for total male population: $35.133/72.486 * 100 = 48,47\%$

The share for total female population: $37.353/72.486 * 100 = 51,53\%$

II. The age criterion

- under the age of 20

Total population	Male	Female
3.776	1.934	1.842

The share for total male population: $1.934/ 3.776 * 100 = 51,22\%$

The share for total female population: $1.842/ 3.776 * 100 = 48,78\%$

- 20-29 years

Total population	Male	Female
11.534	5.871	5.663

The share for total male population: $5.871/ 11.534 * 100 = 50,90\%$

The share for total female population: $5.663/ 11.534 * 100 = 49,10\%$

- 30-39 years

Total population	Male	Female
14.162	7.091	7.071

The share for total male population : $7.091 / 14.162 * 100 = 50,07\%$

The share for total female population: $7.071 / 14.162 * 100 = 49,93\%$

- 40-49 years

Total population	Male	Female
15.496	7.568	7.928

The share for total male population: $7.568 / 15.496 * 100 = 48,84\%$

The share for total female population: $7.928 / 15.496 * 100 = 51,16\%$

- 50-59 years

Total population	Male	Female
13.191	6.175	7.016

The share for total male population: $6.175 / 13.191 * 100 = 46,81\%$

The share for total female population: $7.016 / 13.191 * 100 = 53,19\%$

- over the age of 60

Total population	Male	Female
14.327	6.494	7.833

The share for total male population: $6.494 / 14.327 * 100 = 45,33\%$

The share for total female population: $7.833 / 14.327 * 100 = 54,67\%$

4. CONCLUSIONS

The sample consisted in 72 individuals, the structure being calculated based on the above mentioned percentages (4 individuals with age under 20 years, 12 individuals in the category 20-29, 14 individuals in the category 30 – 39 years, 15 individuals in the category 40 – 49 years, 13 individuals in the category 50 – 59 years, 14 individuals in the category over 60 years old).

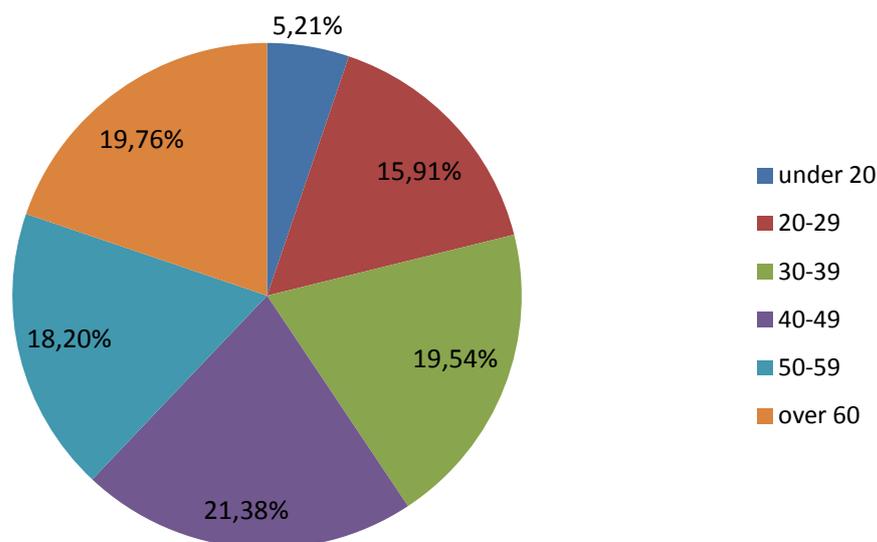


Figure no. 3
(Source: computed by author)

The conclusions were the following:

1. Considering the position of the subjects regarding the use of public transportation means

Most of the subjects surveyed 44.45% (ie 41.67% men and 47.22% women) claim that they use public transport. According to the age criterion, the largest share is owned by those under the age of 20, while in the occupation criterion, the "students" category has the highest percentage.

The second place is occupied by the occasional use of public transportation 33.33% (ie 38.89% men and 27.78% women). As far as the age criterion is concerned, the highest percentage of 46.15% is held by those aged 50-59 years. According to the occupation criterion, the most significant percentage of the occasional use of public transport is occupied by official clerks (53.84%).

2. The attitude of the subjects regarding the means of transportation used most often.

A percentage of 43.06% (ie 37.14% men and 47.37% women) of the subjects surveyed uses the personal car. In terms of age, the largest share is represented by those aged 20-29 (66,67%). In the occupation criterion, the most significant percentage of the use of the personal car is occupied by the category "other occupations" (31.25%), the second place with a 41.66% (23% men and 14% women) is represented by the individuals who use mostly the bus. The share for age is 50% for those under the age of 20, for those aged 30-39 and over 60, as well as 50% for students, intellectuals and pensioners. No one of the respondents, ie 0%, uses the moped or other means of transport than those mentioned in the questionnaire.

3. Conception of subjects on how often they use public transportation

More than half of respondents surveyed - 56.94% (ie 54.28% men and 59.46% women) claim to occasionally use public transport. According to the age criterion, the largest share of 66.67% is held by persons aged between 20-29 years, and in terms of

the occupation criterion, the persons in the "retirees" category register the highest percentage of 64.28% (23.71% men and 21.62% women).

4. The attitude of the individuals questioned regarding the choice of transport according to the price indicator

For 41.67% (42.86% men and 40.54% women) of the surveyed subjects, the price is an important indicator in the choice of means of transportation used, the highest share being recorded 100% for the under-20s and considering the occupation criterion - the highest share of 100% is held by students.

5. Position of the subjects towards the means of public transportation that should be developed priority

Most subjects 72.22% (80% men and 64.86% women) considered that the most important means of transport should be buses. The share of the age criterion is 100% for those under the age of 20, and for occupations the highest share of 100% is for students. On the second place, with a percentage of 22.22% (17.14% men and 27.03% women) subjects chose the tram as the means of transport that should be developed with priority. The share for the age criterion is 46.15% for those who are between 50-59 years age old and the share for occupations is 46.15% for civil servants.

6. The perception of the persons questioned regarding the desire to re-introduce the trams as a mean of transportation in the city of Resita.

The highest share - 55.55% (60% of men and 51.35% of women) feel positive about the reintroduction of trams as a means of transport in the city of Resita. The age criterion is 100% for those under the age of 20 and the regarding occupation - 100% for students. A 44.45% (40% of men and 48.65% of women) do not want to re-introduce trams. The share for age is 73.33% for those aged 40-49, and the share for occupations is 43.75% for the category "other occupations".

7. The perception of the persons questioned regarding the renunciation of the use of the personal vehicle, in the situation where the local public transport would meet its own standards and needs in terms of transportation, taking into account the reduction of pollution and the fluidization of traffic in Resita.

55.56% of respondents (54.28% men and 53.85% women) are willing to give up their personal car to reduce the pollution and fluidity of traffic in the city. The age criterion is 64.29% for those over the age of 60 and the occupancy rate is 61.53% for workers and civil servants. A share of 44.44% of respondents (45.72% men and 46.15% women) are unwilling to give up their personal car. The age criterion is 100% for those under the age of 20, and the occupancy rate is 64.28% for retirees.

8. Perception of people surveyed regarding the affordability of public transport in terms of cost relative to population incomes.

A percentage of 68.05% of respondents (57.14% men and 78.38% women) claim that public transport is affordable in terms of cost related to population incomes. The age criterion is 100% for those under the age of 20 and the occupation rate is 100% for students and students. A share of 31.95% of respondents (42.86% men and 21.62% women) states that public transport is not affordable in terms of cost related to the income of the population. The age criterion is 33.33% for those aged 20-29, and the occupancy rate is 43.85% for those with other occupations.

9. The attitude of the questioned people on the most important aspect that should be improved in local public transport.

For the percentage of 56.94% (57.14% men and 56.76% women) of the interviewed subjects the most important aspect that should be improved is the waiting interval, the highest share being 78.57% for the elderly.

Synthesizing the results obtained from the questionnaire (n = 72 persons), we can conclude that:

- As regards the use of public transport, most subjects claim to use the means of public transportation, even if most of the individuals surveyed state that they most often use their personal car as a means of travel.

- More than half of the interviewed subjects claim that they occasionally use public transport.

- Following the sampling, it was concluded that the price is an indicator in the choice of the means of transport used. The most important means of transport that should be developed is buses. According to the study, we observe that most subjects (especially pupils and students) want the re-introduction of trams as a means of transport in the city of Resita.

- Most of the respondents are willing to renounce the use of their personal vehicle if the local public transport meets their standards and needs in terms of transport, taking into account the reduction of pollution and the fluidization of traffic in Resita.

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