

Iulian Gabriel PAUN

The Bucharest University of Economic Studies, Romania

TRANSPORT - USER PREFERENCES AND STATE INVOLVEMENT

Case
Study

Keywords

*Transport,
Consumer preference,
Privatization,
State involvement*

JEL Classification

L91, L98, M21, M31, L33

Abstract

Taking into account the dynamic evolutions of transports at global, regional and national level, the radiography of the situation in Romania from the point of view of the users of transport services becomes an important vector for identifying the issues that need to be strengthened or of those that need corrections for the Romanian transport sector to be able to meet the expectations of the demand. The research aims to identify behavioral patterns and perceptions about the types of transport used, to see what the users of transport services think of the role that the state must play in this sector of activity, but also to analyze the opinion of the respondents regarding the decision to privatize the transport companies owned by the state - CFR and Tarom.

INTRODUCTION

Transportation involves moving people, goods or information from one place to another. The term comes from Latin, from "transport", trans (over), and porting (wearing or carrying) (Merriam-Webster, 2015).

The transport activity is closely related to the existence of man. The development of various means and transport routes has been stimulated by the existence of physical restrictions in terms of the human body's ability to navigate on foot, but also of the quantity of goods that required movement. Transport is facilitated by access to various informational resources, natural or human, and commerce is boosted. As the range of modes has increased, community influences on acceptable or normal forms of transport have increased (Pooley, 2017).

Taking into account the current economic context characterized by the effects of the economic crisis in most countries of the world, the role of the state in the economy is reconsidered. Such reconsiderations and challenges do not go unnoticed in the transport sector, with transport services receiving increased attention due to the increased importance for the development and proper functioning of the economy.

Bogart's analysis (2005) shows that turnpike trusts have contributed to reducing passenger transport rates and travel time. It also mentions that trusts have generated social savings of at least 0.5% of national income in the 1800s and 1820s. Trusts have clearly responded to the booming economy by satisfying existing or potential demand for road transport services. However, they also stimulated demand for such services by lowering transport rates and travel time. As a result, they contributed independently to the development process.

Ludwing von Mises (1944) makes one of the first economic analyzes of bureaucracy, noting the differences between profit-making and governmental organizations. Mises demonstrates that governmental organizations are unable to make economic calculations suffering such inefficiencies. It is the author who makes a distinction between bureaucratic and profit management. The same author (Mises L. v., 1988) declares that in a system where prices are controlled and competition hindered by government interventions, there is no real indicator or real price. The price mechanism loses its usefulness and makes it impossible to make the right decisions. Since there are only administrative prices, the economic calculation simply becomes impossible. Under these circumstances, the issue of determining where to invest in new roads remains valid. The impossibility of exchanges makes it impossible and

unrealistic to properly assess the resources and therefore to allocate them correctly.

Arguments to support the privatization of roads and motorways are brought by Walter Block (1979; 2009). The author examines several criticisms against the privatization of this sector, starting with market failures - externalities, road safety, pollution and the responsibility of administrators. Block states that "road socialism" is guilty of many deaths on motorways and roads, with the primary responsibility for the administrator of these facilities. On the other hand, Jamroz (2012) states that population mobility, road network density and the percentage of cobbled roads in the network are the elements that have the most impact on the growth of road deaths. However, the percentage of motorways and express roads can significantly reduce road deaths.

Bottasso and Conti (2010) suggest that improving the transport infrastructure (as represented by the motorway network) seems to increase the productivity of private firms by reducing production costs and transport costs. This, in turn, could expand the relevant product markets, thus encouraging competition, stimulating the specialization and exploitation of economies of scale. However, the positive effect of investment in transport infrastructure on production seems to be discouraged by the lack of a liberalized road transport sector.

As can be seen, the transport sector may be public or private property and may be subject to different degrees of regulation. In most states, the transport sector is either state-owned or subject to strict control of the level of tariffs and services offered. Thus, we can distinguish two approaches to how to manage the transport sector: a planned, state-controlled approach and a market approach (private) (O'Flaherty et al, 1997).

Bel and Fageda (2013) carry out an empirical analysis of the relationship between privatization, competition and regulation based on data from a wide sample of European airports. Privatization policies may involve a change in how governments can intervene in markets, while airports - unlike network infrastructures - are subject to mixed degrees of competition and monopoly characteristics. The authors provide empirical evidence that the rigor of regulatory reform is related to the level of competition existing. Large airports with significant market power tend to be subject to very prescriptive regulation and airports with nearby competitors tend to be subject to less prescriptive regulation. Donnet, Keast and Walker (2011) propose to use a framework with a new instrument for mapping airport privatization to meet the expectations of airport management. In the development of this framework, governmental

decision-makers contribute to the development of new privatization strategies or to their revision, while the private sector can identify the intentions and expectations of privatization initiatives in order to make better informed decisions. Reddy, Mirza and Yu (2014) asserts, following analyzes of the relationship between property ownership, concentration and efficiency of Chinese firms between 2005-2012, that partial privatization did not lead to increased performance and efficiency gains. The authors believes that without the help of the government, it is difficult for state-owned enterprises to have sustainable long-term performance.

METHODOLOGY

Thus, taking into account all of the above-mentioned aspects, it is desirable to identify patterns of behavior and perceptions of transport. Besides these features, it is also aimed at identifying the perception of the users of the means of transport regarding the role that the state must play in this sector of activity but also the identification of the agreement or disagreement regarding the decision to privatize the two state-owned transport companies - CFR and Tarom. To achieve the proposed objectives a direct survey was carried out by applying a questionnaire during April 24 - May 20, 2017.

Data collection was carried out with the help of students from the 2nd year of the Faculty of Business and Tourism at the Academy of Economic Studies in Bucharest. They had the role of being interviewers. The criteria for recruiting respondents were as follows:

- People who live in Bucharest;
- People who have at least high school as the last graduate school;
- Minimum age 18 years and maximum 75 years.

The research was designed to be representative of the Bucharest population (18-75 years of age, respectively 1629329 persons), at a confidence level of 95% and error of +/- 3%. In view of the above, the sample size was determined to be N=1066. Following the collection, 1627 questionnaires were uploaded on a link to create a database that was used to generate different situations necessary to interpret the results obtained. The database was processed using the SPSS computing program, with which a series of tables were generated.

RESULTS

Thus, it can be noticed in Figure 1 that the leading means of transport used by the inhabitants of

Bucharest to travel outside the locality are represented by private owned car, train and bus or minibus.

More than 7 out of 10 respondents choose the personal property when going out of town, 6 out of 10 respondents use the train and about 5 out of 10 people choose the bus or minibus to travel. Individuals using the personal property car are significantly more compared to the total sample: in the range of 26-55 years, in the category of graduates of the bachelor and master degree, in the category of high-income people and in the category of employed and entrepreneurial persons.

People using the train are generally students aged 18-25, but also people aged 56-75, low income and high school graduates (unemployed, retired).

Those who use more buses and minibuses are low income individuals in the category of students, as well as people without jobs.

The airplane is used by 4 out of 10 people, mostly from the range of 36-45 years, entrepreneurs, masters and doctoral graduates with high incomes.

Regarding the ridesharing car (an arrangement where a passenger travels in a private vehicle run by his owner, free of charge or against a charge, in particular as established through a site or an application (Oxford University Press, 2017)), but also the rented car, they are used by about 1 in 10 respondents. It is noticed that this new form of transport - ridesharing - has overtaken the use of rented cars as 13% compared to 9%. Those who use ridesharing cars generally fall within the range of 18-35 years, and are predominantly higher in the category of students.

A high upward trend in the use of the personal property car is evident compared to the present situation (Figure 2). This confirms the results of Steg (2003) conducting a study of a sample of 1803 respondents in the Netherlands, which suggests that frequent car users associate cultural and psychological values with this means of transport (eg the car is a symbol of status, and driving is enjoyable). So, for frequent car users, driving is related to numerous important values in modern society.

Other means of transport can be found to have a slight tendency to reduce use, with the exception of the bus and the minibus, where the tendency to reduce use is the most pronounced. Taking into account the planned deadlines for the completion of national highways, it can be noticed that by the year 2021, when the last part of the motorway ends theoretically in Romania (Istvan, 2013), it can be assumed that the trend of using minibuses and buses, but also other means of road transport, can be accelerated, given the improvement of road infrastructure and, implicitly, of travel speed. However, these tendencies must be interpreted with great caution because the results can be influenced by many factors.

The main reasons for traveling outside the city are visits to relatives and friends, but also for tourism (Figure 3). In general, 7 out of 10 respondents travel to visit relatives for tourism purposes. Visitors to relatives and friends are generally young people aged 18-25, high school graduates with a low income level, being predominantly students, but also people without jobs. Respondents who chose tourism as a reason for travel are generally people aged 18-45, with high incomes, ranging from employees, entrepreneurs and students. Work is the third reason for the trip, and those who are motivated by it are predominantly male, aged 26-45, with higher education (masters and doctorates), who have high incomes, especially in the category of employed and entrepreneurs. People aged 56-75, high school graduates, low income and unemployed generally have medical reasons for choosing to travel out of town.

Generally, only 3 out of 10 people reserve a means of transport when traveling, and when they reserve they do it online from a computer or laptop or by telephone (Figure 4). Only 1 in 10 respondents say they make the reservation directly from the application on their mobile phone. About 2 out of 5 people say they do not book when traveling. These results have to be interpreted in the context in which 63% of interviewees declare that they most often use the personal property car so that it is normal for those who reserve to be fewer. Those who book online travel from a computer or laptop are generally people aged 18-35, college or high school graduates, with high incomes, being mostly employees or entrepreneurs, but also students.

People who use mobile apps to book the travel tend to be aged 26-45, masters graduates with high incomes. Of the respondents who say they do not make significantly more bookings compared to the total sample are those aged 56-75, high-school graduates, low income, unemployed or retired.

As a way to pay for travel, 3 out of 5 respondents are accustomed to paying cash (Figure 5). They are generally people between 18-25 and 56-75 years old, high school graduates, low income, rather being students and unemployed persons. Approximately 2 out of 10 interviewees prefer the online option. These people are generally aged 26-35, are graduates of the masters program, with high income and are rather entrepreneurs. Only 1 in 10 respondents pays with the bank card to POS, these being people in the 56-75 age segment, high school graduates, low income and unemployed, with a significantly lower percentage compared the total sample.

More than half of survey respondents say they are travel out of town at least once a month, about 3 out of 10 people say they are travel out every 2-3 months, and 1 out of 10 people declare it go out 4-6 times per month or less than once every 6 months. Of the people who declared that they travel at least

once a month outside the locality, 34% travel with the most often means of transport used 2-3 times a month, 29% go out once a month, 21% leave more than 5 times a month and 15% go 3-5 times a month.

The study reveals that in the decision to choose the means of transport used the most important for respondents is the safety of the trip and ease of access to the means of transport. The two attributes are almost at parity, with 93% and 92%. These results reinforce the conclusions of Nickpour and Jordan (2013) which discover that accessibility issues can be classified into three distinct categories - physical, psychological and operational, of Olivková (2016) which conducts an investigation into the assessment of public transport quality in terms of passenger satisfaction and discovers that accessibility has a high role in obtaining satisfaction, but also Cristache, Iacob, Serban and Frâncu (2011), which observes increased attention in recent years on accessibility to public transport. The third attribute, in order of importance, is represented by punctuality and respecting the travel timetable, with a 90% score. Fourth and fifth in the ranking of importance are occupied by the travel speed and the cleanliness of the means of transportation, each with 89% and 88% of the votes of the respondents. The following four positions, in the hierarchy of importance, are at a difference of 4 or 5 percentage points compared to the 5th position in the ranking, respectively the cleanliness of the transport vehicle. This are represented by flexibility and an advantageous timetable, both with 84%, followed by direct routes to destination and accessibility of tariffs, the two with 83%.

Although the promotions offered, the carbon dioxide emissions and the form of ownership are the last in the hierarchy of importance, they should not be neglected because 6 out of 10 respondents declare the promotions to be important, 5 out of 10 interviewees consider low carbon dioxide emissions, and 4 out of 10 people assert that the form of ownership is important in the decision to choose the means of transport.

From the association map (Figure 7), it is noted that the train is well associated with low carbon dioxide emissions, affordable rates, ownership, but also travel safety and promotions. The airplane has a strong association with the speed of travel, courtesy of the staff, cleanliness and observance of the travel schedule. The bus and the minibus are associated with an advantageous schedule, variety of routes and ease of payment. These are characteristics that do not differ greatly, their vectors being very close to their origin. Rented and ridesharing cars are very similar, with the same features as flexibility, affordability and great schedule time.

The study has surprised the respondents' perceptions and expectations about the role of the

state in transport. To achieve this a series of questions have been created to verify agreement or disagreement in respect to different statements about the state and transport policies, the perception regarding the influence of the ownership on quality of services, the agreement and disagreement on privatization of transport companies, but also to identify the degree of state involvement in the sector.

Thus, 7 out of 10 respondents disagree with the statement - *The state knows best what are the passengers' transport needs*. These are generally people aged between 18-25 years category, students, entrepreneurs with a high income. Only 3 out of 10 of those surveyed agreed with this statement, they were rather people in the age group 56-75 years, high school graduates, low income and unemployed.

Those who agreed - *Transporters know best about passenger transport needs* - represent 5 out of 10 respondents, in parity with those who disagree with it. Here there are no significant differences depending on gender, age, education, income or occupation.

Travelers know best about their transport needs - 9 out of 10 respondents agree with the previous statement. These are predominantly 18-25 year old in the students category.

The direction in which a mode/form of passenger transport is developed must be decided by the state - 3 out of 5 people disagree with this mention and are mostly from the age of 18-35, masters graduates, students, as well as entrepreneurs. Overall, the unemployed respondents, high school graduates, aged between 56-75 years, agreed with the statement.

The direction in which a mode/form of passenger transport is developed must be decided by firms operating in that area - 7 out of 10 respondents agree with this. From the category of those who disagree, the percentage of the total sample is significantly higher for those who are unemployed.

The state has to discourage a mode/form of passenger transport if it goes against environmental policy, even when consumers tend to favor it - 7 out of 10 interviewed said they agreed to this. **The general opinion shows a major support for policies aimed at discouraging environment-friendly transport activities, despite the fact that they are preferred by consumers.**

The state has to encourage a way/form of passenger transport if it agrees with the general policies of the environment, even when consumers tend to disfavor it - **6 out of 10 respondents** also agree with this statement, **showing their support for policies that support forms of transport that are in line with environmental norms, even when they are discouraged by consumers.**

Regarding the influence of the form of ownership of the means of transport, 71% of those surveyed said that this influences the quality of the services offered. Those aged 18-25 in the students category have a significantly higher proportion than the total sample.

Overall, respondents do not agree with the privatization of the two companies owned by the state (CFR and Tarom). The difference between those who agree and those who do not agree with the privatization is only 2% for CFR. This difference has to be considered with great care because it falls within the error margin of +/- 3%.

70% of those who have said that they agree with the privatization of CFR and Tarom companies (N=71 respondents) argued that this method increases the quality of the services offered, 4% believe that the tariffs will be reduced and 3% think that there is a need for a change and that by privatization the providers will be careful to meet the needs of the clients. A percentage of 3% of respondents believe that through this procedure companies will escape rigid public regulations that lead to bureaucracy and inefficiency.

Regarding those who do not agree with the privatization of state companies CFR and Tarom (N=98 respondents), about 3 out of 10 respondents believe that the two transport companies offer good conditions to the citizens and there is no need to privatize them. 9% of respondents think that the decision is not a good one, 8% consider it unnecessary. Those who argue that such a procedure would not bring noticeable changes are 7%. Only 5% of respondents consider that a balance is needed between the state and the private one.

Aspects to which most respondents believe that the involvement of the state must be as high as possible are those concerning the licensing and verification of the safety of motor vehicles or aircraft. 4 out of 10 respondents agree on a higher role of the state in licensing, and 7 out of 10 people consider the same as regards the verification of the carrier's material base (Figure 6).

Only 3 out of 10 respondents believe that the state should play a higher role in establishing travel routes and tariffs. **People who favor a strong role of the state in transport are generally between the ages of 18-25 and 56-75, high school graduates with low incomes, being in the category of students and of unemployed persons. Respondents who believe that the role of the state in this sector must be non-existent or as small as possible are generally from the age of 36-45, doctoral graduates with high incomes, being part of the entrepreneurs category.**

A particular importance is also the identification of transport user profiles that include information on gender, age, level of education, income and occupation of the respondent according to several

variables. Thus, users' profiles on the means of transport used are as follows:

- **train** - those who travel with this means of transport are generally students aged 18-25, as well as persons from 56-75 years old segment, high school graduates with low income (unemployed, retired);
- **bus or minibus** - low income individuals in the category of students, as well as people without a job;
- **plane** - people aged 36-45, entrepreneurs, masters and doctoral graduates, with high incomes;
- **ridesharing car** - 18-35 years old, particularly from students category;
- **rented car** - people aged 26-55, with higher education, high income, being mainly employed or entrepreneurs.

CONCLUSIONS

As a result of the research we can find that respondents from Bucharest are traveling to visit relatives and friends, but also for tourist and medical purposes. They often use their private owned car to travel outside the locality, followed by the train and bus or minibus. Only 3 out of 10 people reserve a means of transport when traveling, and when they reserve, they do it online from a computer/laptop or telephone. 1 in 10 respondents declare they make the reservation directly from the mobile app and about 2 out of 5 people say they do not book when traveling.

More than half of the people participating in the study say they go out of town at least once a month, and 34% of them travel 2-3 times a month.

Attributes with the highest importance for passengers in the decision to choose the type of transport used were identified as being related to: the safety of travel, ease of access to the means of transport, compliance to the travel timetable and speed of travel. From the transport association map, it can be seen that the train is linked with low carbon dioxide emissions and accessible fares, the airplane is associated with staff courtesy, speed of movement, cleanliness and punctuality, rented car and ridesharing are associated with flexibility, ease of access and timetable, and coach and minibus are associated with route diversity, advantageously travel schedule and ease of payment and booking.

In general, middle-aged, 56-75 year old, low income, non-occupational or students consider that state involvement in transport should be as high as possible. Although 3 out of 10 respondents consider that the form of ownership of the transport service provider influences the quality of services offered, 6 out of 10 people say they disagree with Tarom's privatization, and 5 out of 10 say the same about CFR.

This explains why certain decisions on the privatization of state-owned transport companies are postponed, with the general public disagreeing with such decisions, which allows policy-makers not to change the present situation in order not to lose image capital. Equally, the results of the study can provide a basis for implementing strategic decisions on different types of transport.

At the same time, the fact that the results are representative of the city of Bucharest may reveal some tendencies that can expand and develop throughout the national territory, the capital being a pioneer for the rest of the cities in the country, but also a place where certain transport arrangements are introduced and developed (see ridesharing).

Based on the profiles of the users of the means of transport, specific strategies that take into account the target group can be developed, the promotion and communication models can be adapted so that they are as efficient as possible or can be identified the vectors of change or resistance for certain decisions such as the privatization of some operators or some others policies concerning the involvement of the state in certain aspects of national transport.

REFERENCES

- [1] Bel, G., & Fageda, X. (2013). Market power, competition and post-privatization regulation: evidence from changes in regulation of European airports. *Journal of Economic Policy Reform*, 16(2), 123–141.
- [2] Bogart, D. (2005). Turnpike trusts and the transportation revolution in 18th century England. *Explorations in Economic History*, 42(4), 479-508.
- [3] Bottasso, A., & Conti, M. (2010). The Productive Effect of Transport Infrastructures: Does Road Transport Liberalization Matter? *Journal of Regulatory Economics*, 38(1), 27–48.
- [4] Cristache, S. E., Iacob, A. I., Serban, D., & Frâncu, L. G. (2011). Trends And Perspectives Of The Romanian Regional Passenger Transport. *Bulletin of the Transilvania University of Braşov Series V: Economic Sciences*, 4(2), 143-146.
- [5] Donnet, T., Keast, R. L., & Walker, A. R. (2011). Fitting airport privatisation to purpose : aligning governance, time and management focus. *EJTIR*, 11(2), 98-114.
- [6] Istvan, C. (2013). Estimated Date Of Completion Of The Planned Motorway Segments In The Central, North-Western And Western Regions Of Romania. *Annals of the „Constantin Brâncuşi” University of Târgu Jiu, Economy Series*(5), 24-33.

- [7] Jamroz, K. (2012). The impact of road network structure and mobility on the national traffic fatality rate. *Procedia - Social and Behavioral Sciences*, 54, 1370 – 1377.
- [8] Lipkovich, I. A., & Smith, E. P. (2002). Biplot and Singular Value Decomposition Macros for Excel©. *Journal of Statistical Software*, 1-15.
- [9] Merriam-Webster. (2015). *Merriam-Webster*. Retrieved Mai 1, 2015, from <https://www.merriam-webster.com/dictionary/transport>
- [10] Mises, L. v. (1944). *Bureaucracy*. New Haven: Yale University Press.
- [11] Mises, L. v. (1988). *Economic Calculation in the Socialist Commonwealth* (1st ed.). Auburn: Ludwig von Mises Institute.
- [12] Nickpour, F., & Jordan, P. W. (2013). Accessibility in Public Transport - A Psychological Approach. In N. A. Stanton (Ed.), *Advances in Human Aspects of Road and Rail Transportation* (pp. 341-350). Boca Raton: CRC Press - Taylor & Francis Group.
- [13] Olivková, I. (2016). Evaluation of Quality Public Transport Criteria in Terms of Passenger Satisfaction. *Transport and Telecommunication*, 17(1), 18-27.
- [14] Oxford University Press. (2017). *Oxford Dictionaries*. Retrieved 6 26, 2017, from <https://en.oxforddictionaries.com/definition/us/ride-sharing>
- [15] Pooley, C. G. (2017). *Mobility, Migration and Transport - Historical Perspectives*. Lancaster: Palgrave Macmillan.
- [16] Reddy, K., Mirza, N., & Yu, Y. (2014). *The Relationship between Ownership Identity, Ownership Concentration, and Firm Operating Efficiency: Evidence from China 2005-2012*. Retrieved 6 30, 2017, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2479274
- [17] Steg, L. (2003). Can Public Transport Compete With The Private Car? *IATSS Research*, 27(2), 27-35.

FIGURES

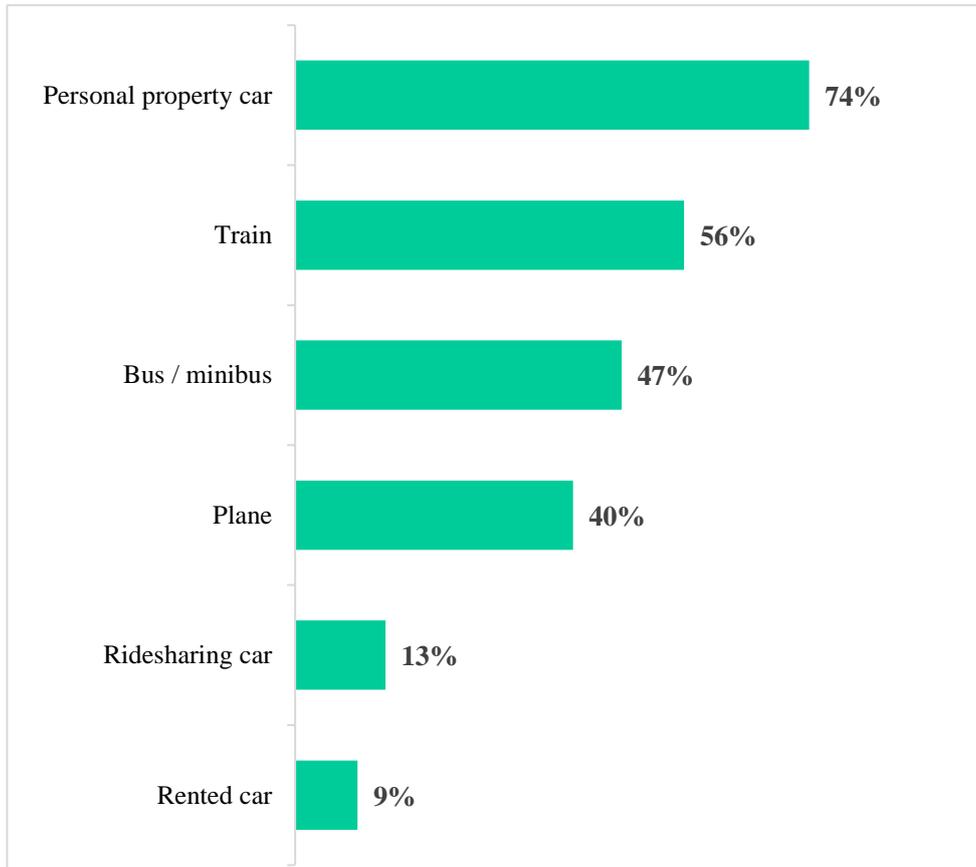


Figure 1 Means of transport used to travel outside the locality

Source: Author, personal survey conducted in April - May 2017, Base: N =1627 respondents (inhabitants from Bucharest, aged 18-75)

	Present	Next 6 months	Difference
Personal property car	31%	40%	↑ 9,0%
Train	23%	22%	↓ -1,3%
Bus / minibus	20%	15%	↓ -4,4%
Plane	17%	16%	↓ -0,5%
Ridesharing car	5%	4%	↓ -1,5%
Rented car	4%	2%	↓ -1,4%
Total	100%	100%	

Figure 2 The tendency to use the means of transport in the next 6 months

Source:
 Author, personal survey conducted in April - May 2017, Base: N =1627 respondents (inhabitants from Bucharest, aged 18-75)

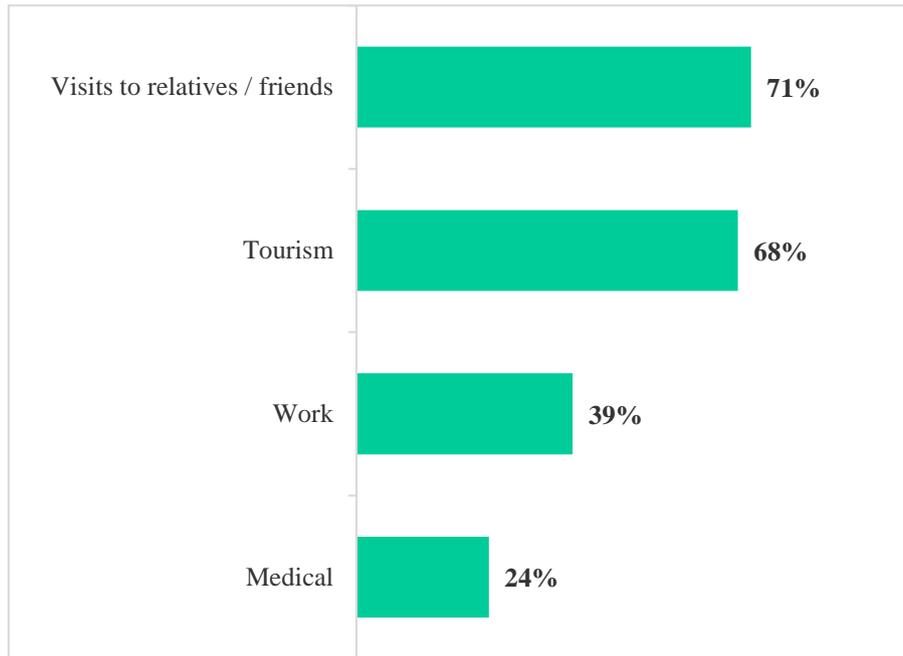


Figure 3 The main reasons for the trip

Source: Author, personal survey conducted in April - May 2017, Base: N =1627 respondents (inhabitants from Bucharest, aged 18-75)

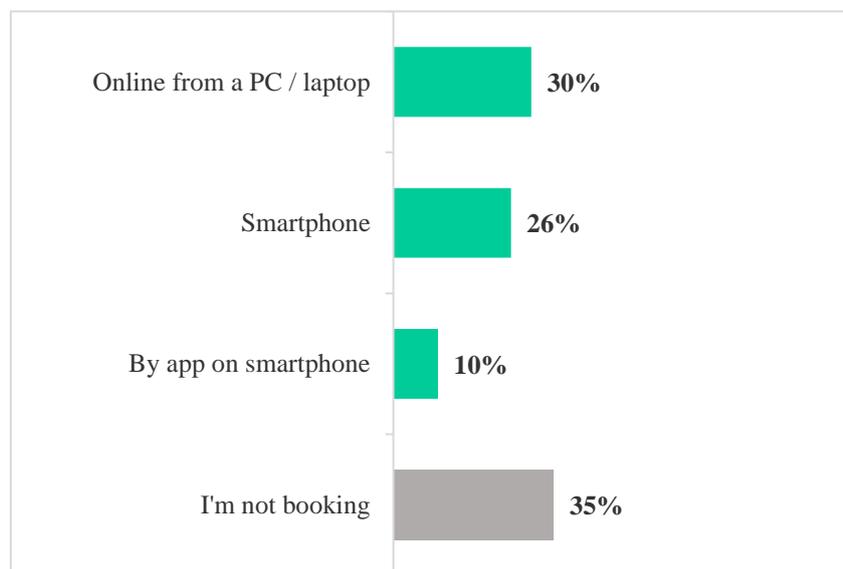


Figure 4 Method of travel booking

Source: Author, personal survey conducted in April - May 2017, Base: N =1627 respondents (inhabitants from Bucharest, aged 18-75)

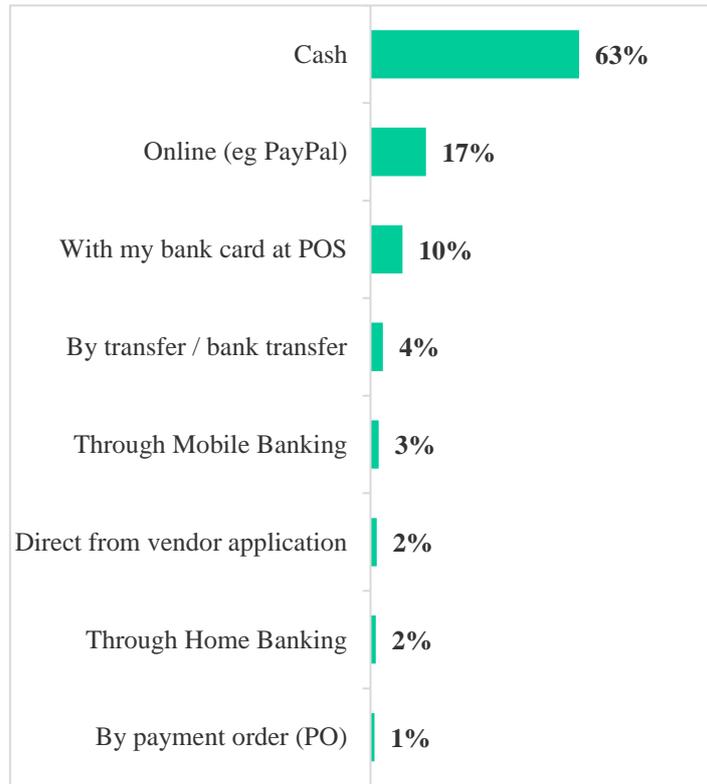


Figure 5 Method of travel payment

Source: Author, personal survey conducted in April - May 2017, Base: N =1627 respondents (inhabitants from Bucharest, aged 18-75)

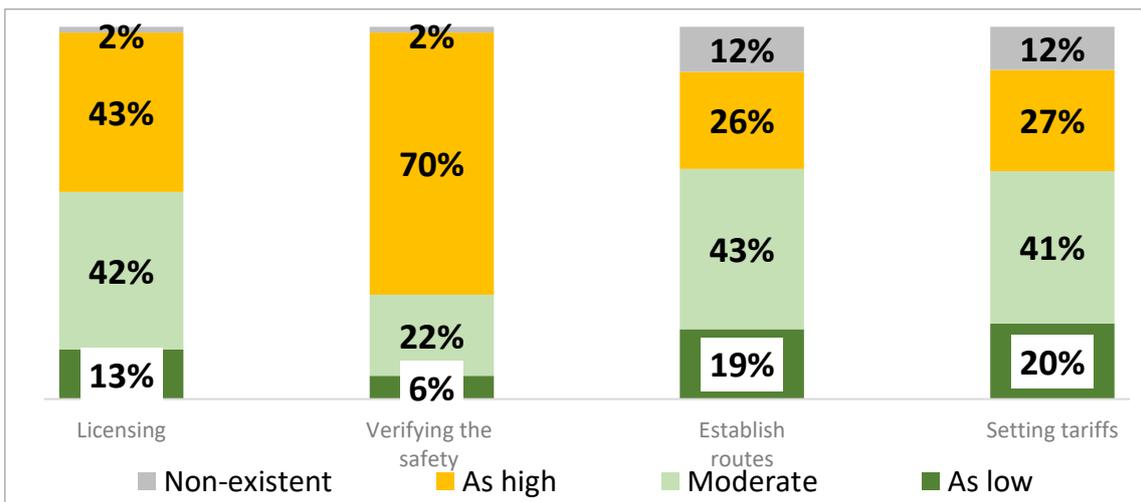


Figure 6 The role of the state in the field of transport companies

Source: Author, personal survey conducted in April - May 2017, Base: N =1627 respondents (inhabitants from Bucharest, aged 18-75)

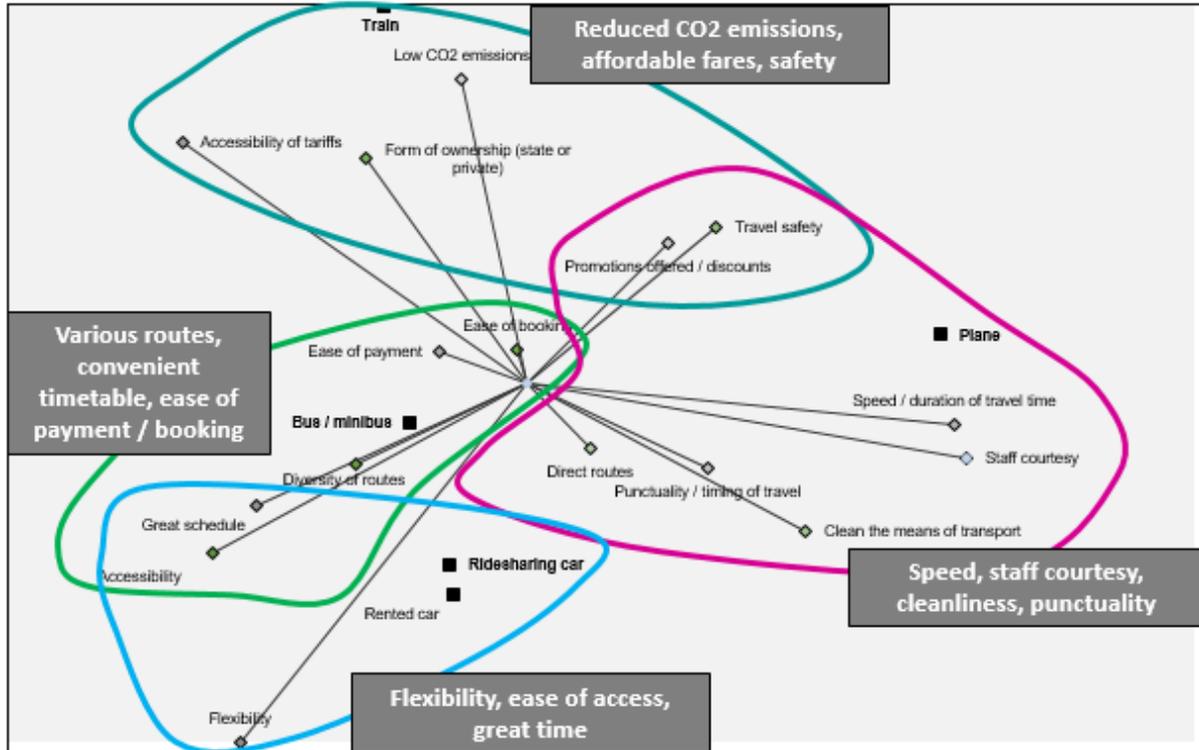


Figure 7 Map of the associations between the means of transport and their characteristics

Source: Author, personal survey conducted in April - May 2017, data processed using Biplot and Singular Value Decomposition Macros for Excel ©, Lipkovich and Smith (2002), available at <https://www.jstatsoft.org/article/view/v007i05>

Biographical sketch



PhD student at Business Administration Doctoral School, The Bucharest University of Economic Studies. My interests are business administration, service economy, deregulation and tourism. I have a keen interest in studying Austrian School of Economics, classical liberalism and free markets. My professional experience consist of several jobs in fields such as financial services and market research, the latter with focus on FMCG, telecommunication and banking industries.

E-mail: gabipaun90@gmail.com