

PSPC (PERSONAL, SOCIAL, PSYCHOLOGICAL, CULTURAL) FACTORS AND EFFECTS ON TRAVEL CONSUMER BEHAVIOUR

Mihaela Stet¹, Alexandra Rosu²

¹Western University "Vasile Goldis" of Arad, miha9s@yahoo.com

²Western University "Vasile Goldis" of Arad, alexandra_al_rosu@yahoo.com

crossref <http://dx.doi.org/10.5755/j01.em.17.4.3019>

Abstract

The paper analyzes the influence of PSPC factors (personal, social, psychological, cultural) on consumer behaviour regarding passenger transport services in order to identify determinant issues for decisions related to selection of transport mode. In this context, there are revealed influences both on the internal and international transport demand, local, short and long distance routes, taking in account also the travel purpose.

The study highlights the importance of understanding the consumer behaviour not only for transport companies, but also for a number of actors, directly or indirectly influenced, as municipalities, policy makers and transport infrastructures.

On the other side, attempts to reduce the negative impact of transport on the environment by influencing people in choosing less polluting modes of transport require knowing the motivations underlying the use of transport mode. For this, it must identify factors that might influence choice decisions for commuting in urban area.

Keywords: transport, passenger, service, behavior, consumer, travel.

JEL Classification: R41, M30, M39.

Introduction

In a world in constant evolution and change, transports have known also many changes in recent years. Whether among the current transport means we find about the same those our ancestors used by them two centuries ago or from the beginning of the last century, certainly with improved performance parameters, not the same can be said about their use.

Significant changes are found in the structure of transport means use, determined by changes in demand and consumer behavior, thanks to the influence of a variety of PSPC (personal, social, psychological, cultural) factors. For example, since World War II, plane flights have experienced strong growth, the plane being no longer a luxury means of transport, with a prohibitive price, but one that is preferred not only for travel speed, but also for safety and comfort. More than that, it is distinguished by good organization and running of traffic.

It becomes therefore important, in addition to the quantitative analysis used to identify problems that transports need to face, the qualitative analysis performed on the consumer behavior in passenger transport services, particularly important to identify its effects on different modes of transport. Once the problems generated by the consumer behavior have been identified, solutions can be set to respond to consumer demands, or to influence behavior through different strategies.

In this context, based on reasons for travels, the paper aims to identify which are the consumer preferences for transport services, which are their actual choices on travel modes, the frequency of trips and motivations underlying the choice of transport mode. Study has been conducted in three medium size cities, in order to reveal the travel behaviour of people, which in some ways is significantly different from that of that from large urban agglomerations, aiming also to identify ways in which individuals can be influenced to choose public transport, cycling or walking, for their urban travels.

Besides the analysis of urban travel preferences, there were also investigated the trends in interurban trips, structured in short, medium and long travels, and those in international transport, attempting to explain the travel behaviour under the influence of PSPC factors.

Research methodology

The study was realized using qualitative methods, based on information collected through a survey in three northern Romanian towns.

The research was an exploratory nature, using interviews as a form of investigation. The results were analyzed using tools of SPSS Statistics 17.0

The scientific approach combined the descriptive perspective - with the empirical concept, using external observation and comparative method.

In addition, the authors used focus group as a means of investigating the factors that could cause changes in travel behaviour.

Literature review

There are a number of studies on goods consumer behaviour, but the number of studies on consumers of services is considerably lower and even the lower is the number of studies on consumer behavior for transport services.

As regards the passenger transport, we can identify studies that reveal the impact of neighbourhood design on travel behaviour (Aditjandra et. al, 2009). But there are major differences between developed and developing countries. For instance, another study (Astrop, 1996) analyzes factors influencing transport demand of the population with low incomes and tries to explain urban travel behavior of women in this population, considered disadvantaged compared to people in terms of access to transport.

Another study is based on a questionnaire on selection modes taking into account a number of components of lifestyle, such as reading habits, the use of leisure time, and participation in a variety of outdoor activities and sports, entertainment, events, and hobbies (Kitamura, et al., 1994).

On the other hand, Handy and Yantis (1997) analyzed the impacts of telecommunications technologies on nonwork travel behaviour. Handy, et al. (1998) presents also a study of shopping and walking trips in six neighbourhoods.

Other studies are concerned only by the reasons of mobility behaviour of population. Some go even further with the analysis, trying to identify the reasons that cause change of people behavior and move towards less polluting vehicles. An ongoing study in several European countries aims to identify the factors that influenced the transition from mono-modal transport with personal vehicles to multimodal public transport (Krautscheid, 2011).

Relying on the theory of planned behaviour (Ajzen, 1991), another article examines the effects of an intervention designed to increase bus use, and explores in this context the influence of past behavior on choice of travel mode (Bamberg et al, 2001).

PSPC factors and their influence on travel behaviour

There are many reasons for the study of travel behaviour. First of all, for the transport companies that are often in a fierce competition, it is necessary to identify methods that can achieve customer satisfaction, satisfaction that in many cases is not only subjective, but even irrational. One of the effects of consumer satisfaction is the loyalty to the service provider, which can cause sometimes even the loyalty to a transport mode. For this, it is necessary to know the reasons that cause people to choose a particular means of transport and reasons that might influence the choice of a transport company in meeting the need for travel. It is also important to know who, why, where, and how often they use transport services.

On the other hand, attempts to reduce the negative impact of transport on the environment by influencing people in choosing less polluting modes of transport require knowing the motivations underlying the use of transport mode. In urban transport, traffic congestions determine municipalities to seek solutions for reducing them without significant investment in new transport infrastructure, by encouraging use of public transport, cycling or walking.

For these, it must identify factors that might influence decisions to select of a transport mode or a transport company:

P*Personal* factors - Most polls, surveys take into account when analyze behavior the correlations between this and personal factors, namely age, occupation and some economic circumstances, in general, individual income of the respondents. Also, individual lifestyle and personality are factors that are necessary to be taken into account in relation to travel behavior;

S*Social* factors, respectively those that exert influence on travel behavior of a consumer like membership and reference groups, orientation family and procreation family. Social changes are currently the most important factors influencing people's travel behavior;

P*Psychological* factors - Consumer behaviour can be influenced and consumer can learn or change its attitudes and behavior. Motivations underlying the choice of a transport mode or a particular type of transport service can be rational, induced by logical reasoning, and emotional generated by impressions

that consumers formed about a particular type of transport service. Once triggered the motivation, how the consumer will act depends on how he perceives information about that mode of transport.

C Cultural factors. Last but not least, cultural factors, that all cultural elements which determine travel behaviour, namely culture, subculture, social class to whom individuals of a population belong, are factors that have a significant influence on travel behavior. So, there are people more likely to travel as a result of ancestral roots, peoples' migration, or their expansionist tendencies. For example, for Romanians, a people certified as the oldest in the South-Eastern Europe, movement was made not on own initiatives or for pleasure, but almost always forced by circumstances. Certainly, there were also other influences that had effect on travel behaviour, like international travel limitations in the communist period, people's lack of money. All these have made their mark on sedentary habits of the Romanian people, which can be still highlighted, even if the freedom of movement is much higher, due to the opening borders, the evolution of communication and information technology, the low cost alternatives and the greater accessibility of people to purchase a proper means of transport.

Passengers' transport demand is determined by a variety of reasons. A quantitative survey was conducted with a random sample of residents of three towns from the North of Romania: Baia Mare, Satu Mare and Zalau. Survey questions are structured in several directions: preference on travel, motivation and frequency of trips, accessibility of means of transport, security and safety of trips, information system regarding travels. Because the differences between the three cities were not significant regarding most of the pointed aspects, data collected have been aggregated and processed together, except some relevant issues. In addition, the authors used focus group as a means of investigating the factors that could cause changes in travel behaviour.

To some extent, travel behaviour can be predicted by processing and aggregating the responses of a survey. From all information that can be obtained through surveys, it can be understood, explained and predicted the future travel behavior. Certainly, it should take into account what has been observed over time, respectively, that there are only very few absolute rules for human behavior, the attitudes and preferences of consumers being considered additional predictors of travel behaviour.

Therefore, given that most of times the logical reasoning or intentions will not only determine travel behavior in analyzing travel behaviour, it has to be taken into account all the elements that lead to this behaviour: behaviour that consumers adopt and also perceptions, impressions on the transport modes and environmental influences, all of them putting their stamp on the choice of travel mode. A series of key events, like getting driver license, a car or a bike, change of work or residence place, could also determine the change of transport mode. The choice of a transport mode depends on personal characteristics like age, educational level. The multitude of influence factors determines a dynamic travel behavior of consumers.

Economic prosperity and technological change play an important role in transport of people. Differentiations between social classes increasingly striking are translated in the travel behaviour. From strictly necessary trips to luxury cruises, the reasons of travels have become extremely diverse.

Urban trips are generally travels to work, school, for shopping, leisure or for solving different kind of problems. Regarding the preference for means of transport in urban trips 43,5 % of respondents have used the latest travel car, followed by bus 25,5 %, while only 8,87 % use bicycles as a means of travel. There are considered essential motivations underlying the choice of personal vehicle as a means for urban travel the safety by 42,43 % of respondents, followed by comfort by 37,7% of them. Although in the first analyzed city there were concerns of municipality for setting of cycle paths, there are no significant differences from the other two cities in the use of bicycle.

Unfortunately, people are less inclined to adopt a protective attitude towards the environment. This is because the perception of many persons that would mean certain efforts or additional constraints. Moreover, for some is seen as a reduction in benefits, in quality of life. Others are not aware about how they might act, being necessary to inform and guide them by media or government institutions. Some consider that population simply don't have anything to do with environmental issues.

Even in conditions in which respondents face a number of issues related to their urban movements by personal cars, such as parking costs, lack of parking facilities, oil prices, traffic congestion or road works, car remains the preferred means for their travels.

The respondents consider as means that could determine or influence them to use bicycle, bus or walking, the financial incentives – 29 %, colleagues – 26,47 %, friends – 25,3 %. Other means that can stimulate the use of public transport could be the actions of making different forms of public transport faster,

more comfortable, attractive, with routes covering all areas of the city. Lack of adequate routes for some urban zones determines the consumers to choose private car or taxi, especially when it is too far for walking.

Poor information about public transport services can be considered one of the causes of reduced use of public transport. Only 37% of respondents consider that media provides sufficient information on public transport, while just 51.9% considered street display allows tracking of public transportation means.

Travels outside the urban area are made for different purposes: tourism travels, travel to relatives, friends, moving to solve problems, travels for working or school.

Choosing a specific manner for travel is determined by the advantages it offers in consumer perception, like speed, price, safety, comfort, service quality, and circumstantial situations: weather, health, number of accompanying family members, journey purpose.

Regarding the preference for means of transport, in the top of preference of the respondents it is the road transport, car travels being in first position (figure 1). Although this is the preferred transport means, car is used predominantly only for local and the short distances travels (≤ 50 km). For medium and long-distance, travels by train and by bus have taken the place of private vehicles. In international transport an increasing share it is held by the air transport.

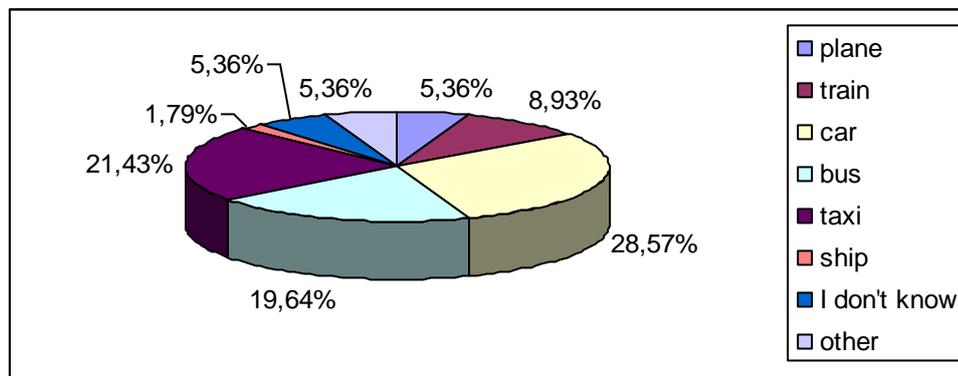


Figure 1. Preference in terms of transport mode

Travel habits and frequency of trips are significantly influenced by income person. The decrease in revenues can cause reduce the number of trips, and switching to cheaper ways. Income growth leads to a transfer to higher quality modes rather than the increasing of number of trips. In general, price changes cause the transition to other modes of transport, only when they are significant.

In terms of price for a transport means or another, the ticket price is not the only factor in analyzing the costs of transport. Consumers often perform an analysis of total costs, including travel costs to the rail station or airport, by taxi or other means of transport. Moreover, some of them take into account the waiting time intervals, measured and quantified in monetary terms by these.

Selection of a transport mode is influenced by the perception of different modes attributes, based on their characteristics in past time periods, the consumer choosing a transport service, which is supposed to satisfy the current requirements.

Regarding the travels for working, if twenty years ago there were a significant number of trips to work, particularly from suburban areas to industrial centers, the disappearance of large industrial enterprises have caused a considerable decrease of these kind of travels. Also, fewer children per family have led to a reduction in demand for travel to school.

But not only the number of travels has been changed, also changes occurred in preferences regarding the choice of the transport mode. In these trips, the train has no longer dominant position, passengers focusing on buses, due to their journey time, higher frequency or their program better adapted to consumer demand.

In what it concerns traveling for tourism, this is perceived as a representative aspect of life quality. Certainly, there are a number of additional factors associated to them that contribute to the increase of trips for this purpose: sometimes significantly higher income for those with a higher level of education and culture, changing family structure (fewer children), the length of annual holidays, reduction of the workweek, increasingly knowledge of at least one foreign language in case of international travels. But a

major change in travel behavior is that, apart from mass tourism, Romanians began to find pleasure travels, flying in a weekend for shopping abroad, to a concert or any destinations offered by low cost airline.

Another reason that generates a significant number of internal and international travels is the interest of service, causing a significant increase in Romania for business travel, especially in the context of economic globalization. Even if the benefits of technological advances in the information and communications fields partially compensates the current needs of business trips, still an important part of trips are made for this purpose. Fare being paid by the company, as deductible expenses for tax purposes, the choice is not too much influenced by price, other consideration are taken in account for selection of transport mode and service, namely quality, traffic program, length of the trip. Thus, there are preferred air flights, travels by train at sleeper or first class or business travel by car. In this study we haven't included in the analysis the business travel, taking into account only travels made for personal purpose, even if they include travels to work place.

Generally, for various reasons that generate trips, most respondents prefer personal transport, after that a long period of time, there were present, in travel behaviour, the influences of the communist era, when foreign trips were reduced as number and the most popular means of transport was the train. Even they have alternative travel choices, many of them still prefer personal car use over other modes of transport.

Of course, the choice of personal car for transportation is the need for speed, safety, comfort, but besides these, there are a number of psychological factors such as image, self esteem, style or status of the person, the general elements that define quality of life: wealth, freedom of choices, independence and flexibility, often associated with possession and use of personal vehicle.

One of the reasons why people migrated to road transport, not only by car, but also by bus was the quality of transport services, both in terms of train service and the service station, as lack of facilities in rail stations. Low frequency of train flows, inadequate timetable to the consumer demand for this kind of services, wait times for transfers are among the causes that people don't use train for their journeys. Furthermore, prices are not significantly lower than those of road transport to be an attractive point for passengers.

In general, when it comes about all forms of public transports, there are highlighted by the respondents first of all their weaknesses. In a more careful investigation, it could be identified some advantages of the public transport perceived by the respondents: the opportunity to read, to use their computer, to socialize or even to rest during the journey.

It is considered, also, that it can be increased the demand for public transport improving the quality of services, increasing commercial speed or as consequence of high fuel prices.

Conclusions

There have been found significant changes in use structure of transport means, due to modifications in demand and consumer behavior, thanks to the influence of a variety of factors PSPC. The choice of means of transport is based on the need for speed, safety, comfort, but besides this there are a number of psychological factors such as image, self esteem, style or status of the person. Other considerations could not been neglected. The type of transport is determined by income of the person, the advantages it offers in consumer and circumstantial situations: weather, health, number of accompanying family members, the reason for travel.

References

1. Aarts, H., Verplanken, B., & van Knippenberg, A. (1997). Habit and information use in travel mode choices. *Acta Psychologica*, 96, 1-14
2. Aditjandra, T.P., Mulley, A.C. & Nelson, D.J. (2009). Neighbourhood design, impact on travel behavior, a comparison of US and UK experience, MIT Department of Urban Studies+Planning.
3. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
4. Astrop A., Palmer C., Maunder D. & D M Babu (1996). The urban travel behaviour and constraints of low income households and females in Pune, India. National Conference on Women's Travel Issues, Baltimore, Maryland.
5. Bamberg S., Ajzen I. & Schmidt P., (2001). Choice of Travel Mode in the Theory of Planned Behavior: The Roles of Past Behavior, Habit, and Reasoned Action

6. Bruce, J., & Werner B. (1998). Changing Travel Behaviour through Individualised Marketing: Application and Lessons from South Perth. *Proc. 22nd ATRF*, 635-647. Sydney, NSW
7. Domencich T A & McFadden D (1975). Urban Travel Demand: a Behavioural Analysis, North Holland [reprinted 1997].
8. Handy, S. and Tom Yantis (1997). The Impacts of Telecommunications Technologies on Nonwork Travel Behaviour, Report SWUTC/97/721927-1, Southwest University Transportation Center, The University of Texas at Austin, January.
9. Handy, Susan, Kelly Clifton and Janice Fisher (1998), The Effectiveness of Land Use Policies as a Strategy for Reducing Automobile Dependence: A Study of Austin Neighborhoods, Report SWUTC/98/465650-1, Southwest University Transportation Center, The University of Texas at Austin, October
10. Kitamura, R., Laidet L., Mokhtarian, P., Buckinger, C. & Gianelli F. (1994). *Land Use and Travel Behaviour*, Report UCD-ITS-RR-94-27, Institute of Transportation Studies, University of California at Davis, October
11. Krautscheid, T., (2011). D3.1Final questionnaire for phase1 and D3.2 final sample plan for phase 1 per country and region USEmobility_WP3_D3.1_3.2_110608_V04_final, USEmobility consortium