



How persuasive is ‘free’ public transport? A survey among commuters in the Brussels Capital Region

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ABSTRACT

In Belgium, several cities have been experimenting with ‘free’ public transport based on the concept of a third payer system. This study explores the modal shift potential of this measure for commuters by means of a large-scale survey. The results indicate that there is still a margin for a further modal shift, but in order to make public transport more attractive to car users, the price paid by the commuter should be lowered, the quality and capacity of the public services should be improved and the mobility policy of the companies should be adjusted in favour of public transport.

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1. Introduction

The continuous growth of transport demand along with the increased traffic congestion has potential detrimental impacts, which threaten the environment, the economic competitiveness and the social cohesion in Europe. The new mobility requirements motivated the European Commission to take radical steps for the development of sustainable urban transport systems. Providing a reliable public transport service is considered to be an important element for creating sustainable mobility (European Commission, 2004).

The key policy issue of an efficient and sustainable urban transport system lies in reconciling two major objectives: minimizing traffic and its detrimental impacts, while fulfilling the demand for accessibility in support of economic and social goals. Public transport can serve both of them. Also, because of the way it is organized, public transport is very suitable for regular and repeating trips made to and from (big) cities, in other words, for commuting. Although most commuters have this useful transport mode at their disposal, several of them do not use it.

In Belgium, data from the National Institute of Statistics reveal that 72% of the commuters use the car and only 6% use the train to go to work. For commuting trips to the Brussels Region, the percentage of car users is already lower, but still 63%, and the proportion of train users is significantly higher (17%) than it is for commuting in Belgium in general. Being a major area of employment and very well served by public transport, Brussels already attracts more train commuters. Nevertheless, one-third of the

commuters working in a company with good public transport access in the Brussels Region still use the car to go to work (CRB, 2007). There is a growing concern about dependence on the car and at the same time a growing recognition by the policy makers and citizens that more sustainable modes of transport should be promoted and used.

Several Belgian cities have been experimenting with ‘free’ public transport based on the concept of a third payer system. This implies that the price of public transport is not paid by the user or provider, but partially or completely by a third party, such as local authorities, other public organizations and private organizations. ‘Free’ public transport is actually a form of revenue redistribution and that is why we put ‘free’ between quotation marks, because in the end there is always someone paying for it. In general, the third party pays for public transport for a specific target group in a specific area. Given that at first the targeted groups were not the biggest car users (seniors, children and students), the measure was often rather socially than economically inspired. Recently, the focus has also shifted to commuters. Since 2005, private companies can enter into a third payer agreement to allow their employees to commute for ‘free’: the government pays 20% of the cost, the company 80%. Since 2007, the federal government provides ‘free’ public transport for all civil servants. These ‘free’ public transport measures were introduced to persuade more commuters to using public transport in order to relieve the pressure on the roads and to stimulate sustainable development.

The goal of this paper is to examine whether making public transport for ‘free’ is attractive enough to persuade more commuters to use public transport instead of the car. To do so, it is important to investigate whether price is a key factor in the transport mode decisions of commuters. Research on the impact of ‘free’ public transport for students on their travel behaviour has

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already revealed that ‘free’ public transport does indeed stimulate the use of public transport, but that there are also other important factors besides price influencing travel behaviour and mode choice (De Witte et al., 2006; Macharis et al., 2006; Steenberghen et al., 2006). In this paper, we want to explore the case for commuters working in the Brussels Capital Region. This Region is the largest employment area of Belgium and provides employment for 650,000 people. An important part of the employment is situated in the public sector (26%), because a vast majority of the various administrations is located in Brussels. These authorities attract other service companies (13.7%). Other important employment sectors in Brussels are education (12.6%), transport (12.5%) and also the financial sector (10.9%) (Brussels Hoofdstedelijk Gewest, 2006). There is a huge concentration of jobs in Brussels and only half of these jobs are filled in by people living in the Brussels Region, the other half by commuters, most of them living in the Flemish Region. In total, there are more or less 360,000 people who commute to and from the Brussels Capital Region every weekday for their work (Coppens, 2005).

This paper begins with a description of the theoretical framework we used for structuring the factors influencing commuting mode choice. In the following section, the research questions are presented. Section 4 deals with the methodology and in Section 5 the results of the study are described and discussed. Section 6 presents the conclusions.

2. Theoretical framework

In order to structure the factors we focused on during our research, we used the theoretical framework presented by Kaufmann (2002). He analysed mobility as a broad phenomenon, in which making trips depends on the fulfilment of several factors, considered as potential factors allowing to understand why a particular journey has or has not been undertaken. These factors can be grouped into three categories (access, skills and appropriation) and they constitute the travel potential of an individual: the individual’s ‘motility’ (Fig. 1).

This analysis framework has the advantage not to focus on one main explanatory factor of travel behaviours, but to explore these behaviours by paying attention to a wide range of factors that influence the demand for a certain transport mode.

2.1. Access

Access factors are linked to the availability of different alternatives or travel modes. Therefore, it is conditioned by the location and accessibility to transportation networks of the various origins and destinations of the journey (Kaufmann, 2002). In general, urban areas are better served with public transport than rural regions. The supply of transport comprises the number of cars in a household and the supply of public transport.

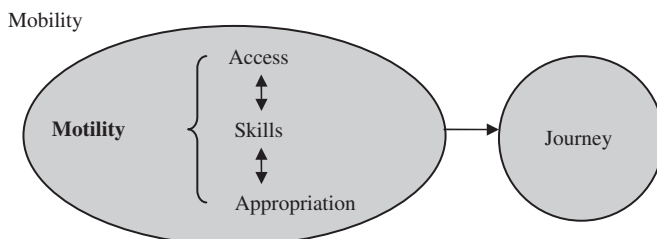


Fig. 1. Diagrammatic conceptualization of Kaufmann's concepts of mobility and motility. Source: translation of Kaufmann (2002).

Besides availability, there are also financial and time issues. Several studies indicate that the demand for travel is income related (Dijst and Van Wee, 2002). In general, transport is considered to be a normal good in the sense that more is demanded at higher levels of income. This generalization does not apply to all modes of transport or to all situations. There is a positive relationship with car use and an inverse relationship with public transport use. As incomes rise, people will buy more cars, and at the same time lower their demand for public transport. Mainly persons with lower incomes tend to be more concerned by the price of transport. This may stimulate them to modify their mobility behaviours according to this criterion (Hine and Scott, 2000).

Prices of travel modes, and consequently travel budgets, are difficult to assess. The assessments of car costs by individuals are often biased: the costs of a car are underestimated compared to the price of public transport for the same journey. This observation could be explained by the fact that only some variable costs are taken into account (mainly fuel) when assessing the price of the car (Hine and Scott, 2000; Frenay, 1994).

As far as time budgets are concerned, consumers have limited time budgets and different types of persons have different values of time. The motive for travelling is also important to assess the value of travel time: it is the highest for professional journeys, lower for home–work trips and lowest for other travel motives (Dijst and Van Wee, 2002).

2.2. Skills

Skills are developed by individuals relative to mobility and to the different means of travel. These skills can be physical, acquired or organizational. Acquired skills are linked to the knowledge users have developed of the various means of travel at their disposal and of the space in which mobility takes place. These skills facilitate the use of the considered means of travel. Skills may also result from organisational abilities developed by an individual with regard to time and space arrangements and to budget management (Kaufmann, 2002).

Daily travel behaviour is influenced by the position of the person in the lifecycle and her/his life-style choices (Axhausen et al., 2001). The position in the lifecycle depends on the age of the person. Differences in household income over the lifecycle can explain the pattern of increasing car ownership and car use as the head of the household grows older. This pattern continues until the head reaches his or her early fifties and starts to decline afterwards (Dargay, 2007).

Life-style choices include decisions on education and occupation. Both are related to income and car ownership. Higher educated people are more likely to have higher income levels and use the car to go to work (Pickery, 2005; Dijst and Van Wee, 2002). As far as occupation is concerned, the type of work influences the use and the need for a car. Commercial functions for instance imply a lot of trips during the day making the use of a car necessary for the job. In Brussels, however, an important part of the employment is created by public authorities and administrations often located nearby public transport stops, making the use of the car less essential.

The influence of life-style choices is also related to choices determining the access to the different transport alternatives, such as residential location (urban, rural, city centre, urban fringe, etc.), workplace, driving licence and car availability. These choices made with regard to access factors influence the development of skills concerning the different travel modes. For instance, when deciding on the residential location, the commuting mode choice is one of the factors taken into account. As such, the current

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