

Marketing Activities of Cities in Urban Mobility Management

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Abstract

Dynamic urban development and lifestyle changes, as well as increased awareness of the negative impact of transport on the environment, result in continuous growth and changing transport needs. Changes in transport behaviour are closely related to congestion, traffic accidents, emissions of exhaust fumes and noise, which in turn affects the quality of life. Therefore, a sustainable approach to urban mobility and transport planning is becoming more and more common in all EU countries. The concept of sustainable urban mobility assumes the modelling of the urban transport system according to the principles of sustainable development. The recommendations for urban mobility, as set out in the European Union documents, require many actions, including those related to the promotion of the desired transport behaviour of urban residents. Promotional activities are an indispensable tool for building social acceptance of the introduced changes and engaging and encouraging inhabitants to co-create urban transport system compliant with the concept of sustainable mobility. The aim of the article was to analyze selected marketing activities in the context of urban mobility. The author made a critical analysis of the literature on sustainable urban mobility, and also created her own definition of it, showing the way to its creation. In the next part of the article, she reviewed selected marketing activities aimed at balancing urban mobility, showing the progress made over the years. The conclusion of the analysis is that city dwellers are increasingly aware of the negative impact of transport on the environment and their quality of life and are therefore willing to use sustainable urban mobility tools through appropriate marketing measures. An overview of sustainable urban mobility with the marketing activities selected by the author and their analysis has been not carried out until now, which gives added value to the work.

Keywords: marketing activities, sustainable urban mobility, sustainable development.

JEL classification: M38

Introduction

Dynamic urban development and lifestyle changes, as well as increased awareness of the negative impact of transport on the environment, result in continuous growth and changing transport needs. Changes in transport behaviour are closely related to congestion, traffic accidents, emissions of exhaust fumes and noise, which in turn affects the quality of life. Therefore, a sustainable approach to urban mobility and transport planning is becoming more and more common in all EU countries. The concept of sustainable urban mobility assumes the modelling of the urban transport system according to the principles of sustainable development. Recommendations on urban mobility, which are based on European Union documents, require many actions, including those related to the promotion of the desired transport behaviour of urban residents. Promotional activities are an indispensable tool for building social acceptance of the introduced changes and involving and encouraging inhabitants to co-create urban transport system compliant with the concept of sustainable mobility.

The essence of sustainable urban mobility

Continuous urban development generates an increase in demand for efficient, fast and safe transport, taking into account the specific requirements of stakeholders as well as legal and organisational conditions. Increased road traffic in urban areas brings a continuous increase in pollution in the form of solid, liquid and gaseous substances, which are harmful to human health, the environment and spatial structures. In 2016, transport accounted for a quarter of

total greenhouse gas emissions in the EU. According to data, the share of passenger car in transport sector emissions was 44%, while truck and bus emissions were 18% (EU Publications Office, 2016). Therefore, numerous initiatives are being taken at international and national level to reduce the negative impact on the environment. The United Nations Conference in Rio de Janeiro in 1992 played an important role in the introduction of the concept of sustainable development. At that time, the so-called "Rio Declaration" was signed. It contains 27 principles of sustainable development and clean production. At the same time the Global Action Programme "Agenda 21" was approved, which includes a joint declaration of 178 countries on the conduct of national policy in such a way as to encourage the solution of global social, economic and ecological problems. The broad approach to sustainable development is reflected in the difficulty of measuring it. Sustainability indicators can be based on a comprehensive view of economic, social and environmental processes in a measurable and comparable way (Joumard and Gudmundsson, 2010). Balancing economic processes ("economic sustainability") should therefore be complemented in balancing social sustainability and environmental sustainability. In the context of the demands for improved living conditions and sustainable urban development, sustainable urban mobility is considered to be an element conducive to this concept.

In the traditional transport economics, mobility was understood as the mobility of individuals and households (Profilidis, 2006), although already in the 1970s, the complexity of the issue was perceived as a socio-technical system whose essential element, apart from infrastructure and transport technology, is people and their behaviour (De Greene, 1973; Margherita, Elia and Secundo, 2012). The multiplicity of the concept of "mobility" has been highlighted by K. Zuziak (2010, pp. 79), who stated that "it concerns migration phenomena, is an attribute of resources and location-based behaviours; it refers to capital flow, as well as communication behaviours, i.e. various manifestations of spatial mobility that is of interest to traffic engineering, transport policy and urban planning". The concept of sustainable mobility is therefore an attempt to adapt the characteristics of any system that can be considered sustainable to existing and planned functional and spatial forms, such as regions, cities and metropolitan areas (Volk, 2014, pp. 289-398). The definition provided by the World Business Council for Sustainable Development (2004) provides a fairly broad outline of the concept of sustainable mobility, in terms of ensuring that society is able to move, access, communicate, trade and interact freely in a socially, environmentally and economically sustainable way.

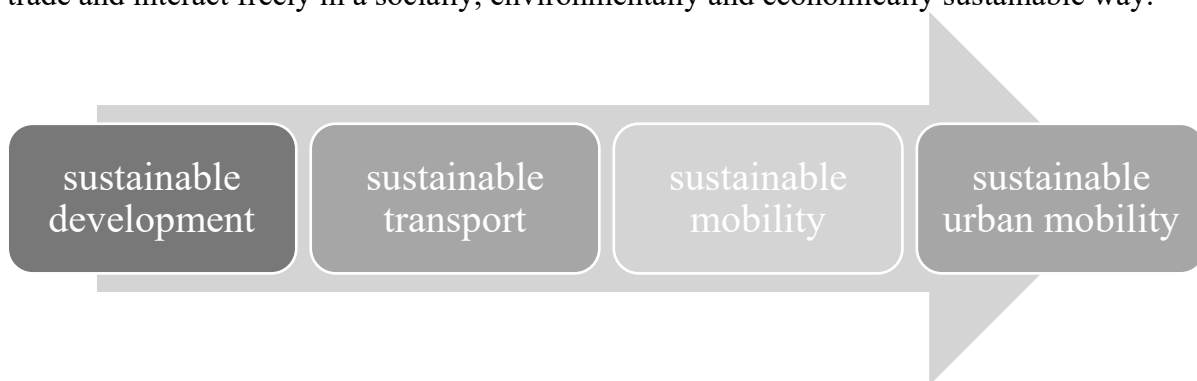


Figure 4. Sustainable development and sustainable urban mobility

Source: own study based on: Wołek, 2014, pp. 393.

Therefore, the concept of sustainable urban mobility adapts the concept of sustainable mobility to urban areas, including the complexity of urban systems and the strong relationship between land-use and transport (World Business Council for Sustainable Development, 2004). In conclusion, the concept of sustainable urban mobility includes the social, economic, environmental and spatial context in relation to the city or urban area, thus assigning

significance to public and individual transport, shaping their mutual relations, as well as the quality of life of the inhabitants and the condition of the environment, by reducing the external costs of transport.

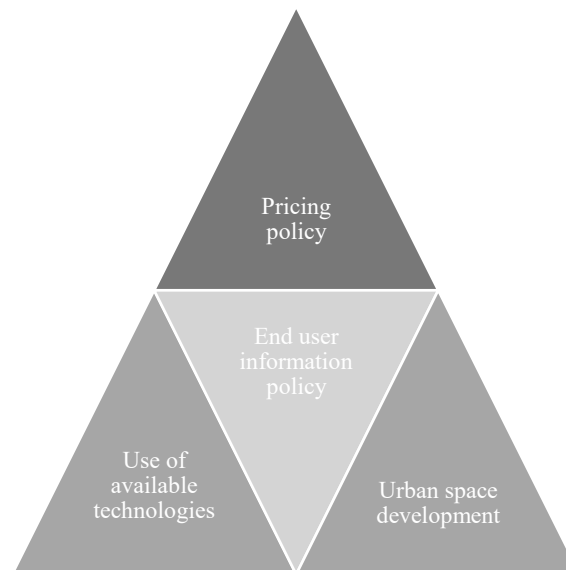


Figure 5. Key elements of the sustainable urban mobility paradigm

Source: own study based on: Bannister, 2018, pp. 78-79.

Bannister (2008) defines four main thematic areas which are the starting point for sustainable urban mobility actions (Figure 3). Among them, it is worth noting the call for the optimised use of existing, available and proven technologies, which, thanks to process and product innovations, create a new impetus for the development of a sustainable distribution of transport tasks in urban areas, while the heart of the action includes an element of marketing strategies - information policy of end users.

Analysis of the marketing activities of the cities

Marketing research, marketing and educational activities are tools used in the context of urban mobility management concepts that aim to influence the transport awareness and behaviour of city dwellers, so that the demand for car travel decreases and the interest in public transport, cycling, walking and car sharing increases.

The reasons for using marketing research information in sustainable mobility planning are related to the participatory and evaluation principles applied in this process and the need to forecast the transport behaviour of city dwellers. One of the necessary forms of citizen participation is to get to know their needs, preferences and attitudes towards transport, as well as their opinions on various solutions for sustainable urban mobility through marketing research. It is important to first understand and then anticipate how citizens will behave in choosing how to be mobile in certain conditions that depend on or are independent of them. Therefore, it is not possible to develop a mobility plan and then evaluate its effects without methodological marketing studies. The essence of urban mobility research is, first of all, its size and diagnosis of the specific needs of the inhabitants. The study of postulates related to public transport is of exceptional importance, because only with this knowledge is it possible to build an optimal plan for it to be compatible with sustainable urban mobility (Wołek, 2016, pp. 68-69).

Due to their correlative nature, educational and marketing activities are often used together. Education is aimed at increasing the awareness of residents in terms of the existence of sustainable types of mobility and their ability to meet transport needs. Thanks to these initiatives, residents possess the knowledge that their communication choices can strongly

influence the quality and way of moving around the city, in the near and long term. Information activities, on the other hand, aim to promote forms of transport alternative to individual communication by means of a wide range of marketing strategies (Nosal, 2011). An overview of the activities of the aforementioned information measures is presented in Fig. 1.

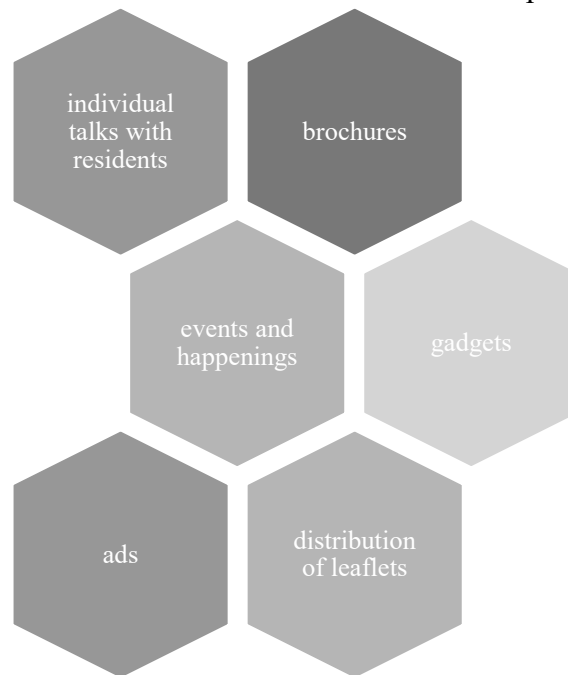


Figure 6. Marketing strategies to promote alternative transport means

Source: own study based on: Nosal, 2011; Nosal and Starowicz, 2010.

The mission of marketing and educational activities, apart from changing transport views and behaviours, is to explain the impact of travel on people's health and the environment, and often also to advertise new mobility policies and local transport plans. The need to communicate them was included in the Green Paper "Towards a new culture for urban mobility". (Green Paper, 2007), 25 September 2007. According to the above document, a new culture of urban mobility requires educational and information activities or campaigns to increase the awareness of citizens about sustainable urban development.

The most popular form of marketing and educational activities are campaigns organized on an international, national, regional and urban scale, focused on specific groups of recipients, popularizing cycling and walking, using public transport or carpooling technique (Nosal, 2011). The most frequently organised events are: "**Mobility week**" and "**Car-Free Day**", which take place every year in cities around the world. During the Car-Free Day, drivers are encouraged to leave their car for one day and travel by other sustainable means of transport. The idea behind this project is not only to promote alternative forms of transport to individual communication, but above all to encourage the integration of land-use planning and transport planning in such a way that places of residence, workplaces and services are located in close proximity, within walking distance (Eurocities, European Mobility Week, 2019. [online] Available at: <<http://www.mobilityweek.eu>> [Accessed 10 July 2019]).

In the initial phase of the events described above, during the 1973 oil crisis, they were organised on an ad hoc basis, and only in October 1994, at the International Ciudades Accesibles international conference in Toledo, Spain, did the need for such events arise (Eurocities, European Mobility Week, 2019. [online] Available at: <<http://www.mobilityweek.eu>> [Accessed 10 July 2019]).

In the next few years, the "Car - Free Day" was celebrated in Reykjavík (Iceland), Bath (UK) and La Rochelle (France), and to support the organisation of the event worldwide, a Consortium for a World Car Free Day was established in 1995. The first national campaign, launched in 1997 in the UK gave rise to the French campaign "In town, without my car!", which the European Commission announced in 2000 as a European initiative. In the same year, the event's timeframe was extended to include the "European Mobility Week", always taking place from 16 to 22 September, with the "Car- Free Day" to mark the end of the campaign on 22 September. In 2000, the "Car Free Day" was organised globally as the "World Car Free Day".

At that time, the "Mobility Week" and the "Car -Free Day" were the largest of their kind in the world. Each year, thousands of European cities and metropolises from outside the continent take part, mainly from Brazil, Argentina, Canada and Japan. The 2012 edition was joined by 1727 cities, including 41 from Poland (Eurocities, European Mobility Week, 2019. [online] Available at: <<http://www.mobilityweek.eu>> [Accessed 10 July 2019]).

In 2018, the event was joined by 54 countries from all over the world, 2791 cities, including 160 Polish cities. A detailed plan of participation of countries and cities in the "Week without a car" is presented in Figure 4, while Table 1 adds Poland's position to the world ranking.

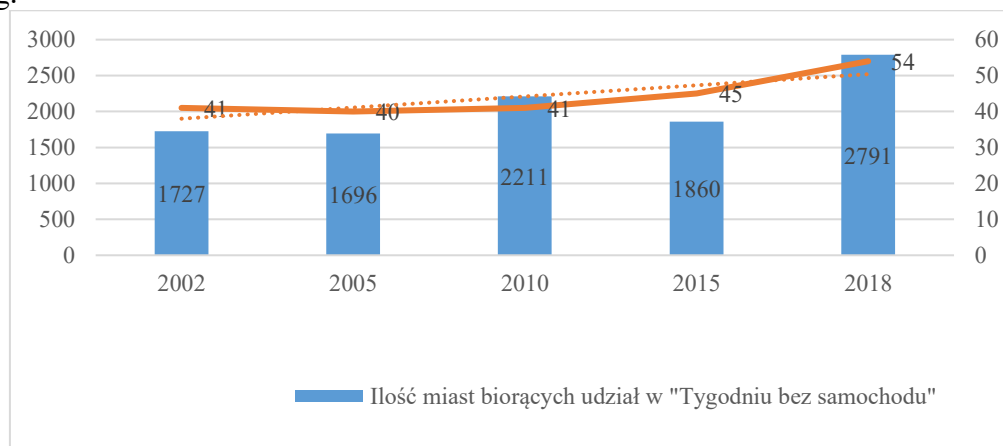


Figure 4. Number of cities and countries participating in the "Week without a car" campaign in selected years

Source: own study based on: Eurocities, European Mobility Week, 2019. [online] Available at: <<http://www.mobilityweek.eu>> [Accessed 10 July 2019].

Table 4. Number of cities and countries participating in the "Week without a car" campaign in selected years, including Poland

Year	Number of cities participating in "Week without a car".	Number of countries participating in "Week without a car".	Number of cities participating in "Week without a car" in Poland
2002	1727	41	41
2005	1696	40	86
2010	2211	41	114
2016	1860	45	30
2018	2791	54	160

Source: own study based on: Eurocities, European Mobility Week, 2019. [online] Available at: <<http://www.mobilityweek.eu>> [Accessed 10 July 2019].

Each year, more and more countries and cities from around the world take part in the "Week without a car" event, which confirms the necessity and effectiveness of such initiatives, manifested as marketing activities supporting sustainable urban mobility.

Carsharing is another activity, gaining more and more popularity all over the world, promoted for sustainable urban mobility through educational and marketing actions. It is worth mentioning that many solutions increasing sustainable urban mobility and the efficiency of the urban transport system, operate on the basis of modern information and communication technologies, such as carsharing, bikesharing, integrated fee management, real-time traffic management, real-time passenger information or mobile applications supporting decision making by passengers (Kos-Łabędowicz, 2016). The literature on the subject oncludes many terms describing the studied phenomenon. Van Malderen Thomas Vanoutrive and Jourquin (2010) describe it as a situation where two or more employees commute together to work in a private or company car. Massachusetts Civil Engineering and Environment (2009) defines carpooling as "the transport of two or more persons in a motor vehicle with a capacity not exceeding 15 passengers, where such transport is ancillary to the driver's principal purpose of arriving at its destination and where such transport is not intended to transport passengers for profit". On the website of the Road and Green Administration in Gdynia (2019), you can read that: "Carpooling is a system of joint, organised journeys in one car. By using this solution, more than one person travels with one car, resulting in lower travel costs (when sharing costs between travelers) and a more enjoyable journey because of the company. In the long term, the use of shared journeys leads to reduced congestion on the roads, reduced emissions and reduced parking space requirements.

To sum up, the use of carpooling is a rational form of transport, which does not require large investment outlays. It concerns the sharing of passenger cars on common routes by the driver, who decides where and when he or she intends to make the trip, and the co-passengers who want to participate in the trip, on terms set by the driver - route, date and payment. The drivers offer joint journeys through e.g. special applications or websites, providing the number of seats in the car, the cost of the journey for the passenger, the place of departure and the destination, the days and hours of the journey and contact details. Passengers, by finding a suitable trip for them, make an agreement with the driver, plan the trip together, and carry out the trip. A description of the benefits of the carpooling scheme by beneficiary is provided in Table 2.

Table 5. Benefits of carpooling by beneficiaries

Social benefits	Benefits for employers	Benefits for individual passengers
Reduced number of kilometres travelled by passenger cars	Reduced need for parking	Sharing of travel expenses
Reduced fuel consumption and greenhouse gas emissions	Improved morale and productivity of employees	Cost savings due to joint travel costs
Reducing harmful air pollution	Financial benefits	Reduced stress due to sharing of driving responsibilities and travel time related to access to HOV lane [a lane intended solely for vehicles carrying the driver and one or more passengers]
Cost savings for public agencies and employers	Fiscal benefits	Increased comfort of travel

Source: own study based on: Shaheen and Cohen, 2018.

The carpooling system has many benefits, both for carpoolers and transport seekers, and has many social benefits, reducing environmental costs, congestion, noise, the use of point and line infrastructure, thereby improving the quality of life of city dwellers and thus influencing sustainable urban mobility.

Conclusions

The measures identified both in EU documents and by the scientific community include four areas: use of modern technologies, adjustment of regulations and costs to account for external transport costs, integration of spatial planning with transport policy, ensuring public acceptance of solutions to ensure sustainable urban mobility (Banister, 2008). These actions should be undertaken simultaneously and take into account the interrelationships and impacts. The lack of a holistic approach to ensuring sustainable mobility in urban areas will have an impact on the limited effectiveness of the actions taken. From the point of view of effectiveness of the implemented measures, it is necessary to achieve social acceptance of the importance of sustainable mobility for the improvement of the quality of life and economic and social development in the urban area. All marketing and educational activities serve to ensure public acceptance. Mental change and awareness-raising on sustainable mobility should be planned in the long term, taking into account different target groups, especially children and young people, as a group not yet accustomed to the lifestyle in which the car plays an important role. It should also be emphasised that marketing activities should be carried out in a continuous and strategically planned manner, and not only by chance and in operational manner, as they will not achieve the intended long-term effect of sustainable urban mobility, but will take the form of one-off activities which will not be continued by city dwellers.

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