SILESIAN UNIVERSITY OF TECHNOLOGY PUBLISHING HOUSE

SCIENTIFIC PAPERS OF SILESIAN UNIVERSITY OF TECHNOLOGY 2023
ORGANIZATION AND MANAGEMENT SERIES NO. 180

DETERMINANTS OF MOBILE PUBLIC TRANSPORT USE BY YOUNG CONSUMERS: A SHARING ECONOMY PERSPECTIVE

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Purpose: The purpose of this paper was to explore the determinants for which young users decide to accept or decline shared mobile transport in public spaces.
Design/methodology/approach: Research study was conducted by means of a face-to-face interview with young consumers using shared mobile transport in urban spaces.
Findings: The modern consumer aspires to be able to access goods and services rather than to have them. The research found that the positive determinants of mobile transport use included convenience, accessibility, economic aspects, ecology, entertainment, the possibility of substituting the current mode of transport, recommendation, random situations and simply wanting to get around. On the other hand, among the negative determinants, respondents indicated a low or lack of knowledge of sharing economy solutions, limited availability outside major cities, lack of conviction and negative attitudes towards shared vehicles, the desire to own and alternative strangers.
Research limitations/implications: The modern consumer aspires to be able to access goods and services rather than to have them. The research found that the positive determinants of mobile transport use included convenience, accessibility, economic aspects, ecology, entertainment, the possibility of substituting the current mode of transport, recommendation, random situations and simply wanting to get around. On the other hand, among the negative determinants, respondents indicated a low or lack of knowledge of sharing economy solutions, limited availability outside major cities, lack of conviction and negative attitudes towards shared vehicles, the desire to own and alternative strangers.
Practical implications: The results of the research indicate that the knowledge and awareness of the young generation regarding the use of SE in various business and social activities should be improved. The article contributes to the educational trend of the young generation in view of conserving natural resources through frugal/healthy living, conscious and efficient use of things. The article attempts to identify more sustainable behaviour patterns among the younger generation.
Originality/value: The article broadens the understanding of consumer motivations regarding urban transport, with a focus on environmental protection and carbon footprint reduction in public spaces. It attempts to identify more sustainable patterns of behaviour among the younger generation.

Keywords: sharing economy, shared mobile transport, determinants, motives, mobile transport, young consumers.

Category of the paper: Research paper.

1. Introduction

Sharing economy (SE) essentially refers to the evolving forms of economic exchange today, promoting the consumption of goods and services based on the principles of resource sharing, the temporary value of which is made available through technologically developed digital platforms (Belk, 2014; Ert et al., 2016; Hofmann et al., 2019). The SE concept is gaining momentum in its development and application in various economic and social activities, including business models (Belk, 2014; Ganapati, Reddick, 2018; Matharu et al., 2020). The rise in popularity of digital platforms (e.g. peer to peer or business to peer), the growing need for economic and environmental sustainability, CSR and CSV activities, and the impact of the Covid-19 pandemic and high inflation, have prompted greater interest in this topic in the public space, especially in the context of urban transport (Carillo et al., 2017; Avital et al., 2015; Codagnone et al., 2016; Cohen, Sundararajan, 2015; Ganapati, Reddick, 2018; Heinrichs, 2013; Lukasiewicz et al., 2022; Owyang et al., 2013; Rong et al., 2021; Standing et al., 2019).

Contemporary cities are overcrowded, and projections indicate that this trend will continue due to population growth and the drive for better living conditions and work opportunities (Realini, Bercovich, 2018). By 2030, according to the United Nations (UN), urban dwellers will account for almost 60% of the global population (Harrington, 2019). Rapid global urbanisation around the world poses serious threats to the economic and environmental sustainability of cities, primarily related to intensive energy consumption and greenhouse gas emissions (Cohen, Muñoz, 2016). To counter this, it is crucial that cities focus on developing new technologies that improve the management of metropolitan areas and the quality of life of their inhabitants (Realini, Bercovich, 2018). Nowadays, cities are promoting collaboration at both the public and private level, which is fostering the emergence of new business models based on sharing resources and harnessing the power of collective intelligence to find solutions to urbanisation challenges (Realini, Bercovich, 2018). The sharing economy is a tool that has contributed to solving the problems of modern cities around the world and promotes social, economic and environmental sustainability on a global scale (Fan et al., 2019; C. Wang et al., 2019; Wang et al., 2019). SE, in particular, is changing the way people move around a city, optimising transport costs and improving urban mobility (Realini, Bercovich, 2018). It is also important for city dwellers to be aware of the risks involved. They need to be aware of the need to give up ownership in favour of accessing and sharing resources with other people (Bartenberger, Leitner, 2013; Sundararajan, 2014). However, the attitude of individuals is not

always consistent with their behaviour. The inconsistency is due to various factors that can stimulate the desire to change, but also act as a barrier before adopting new habits. This aspect also affects the use of SE services.

This study focuses on sharing mobile forms of urban transport, which often replace or complement traditional public transport modes (Le Vine et al., 2014). Research to date on SE mobile transport tends to focus on evaluatively older forms, such as bikesharing or carsharing (Cohen, Kietzmann, 2014; Standing et al., 2019). These studies indicate that the majority of SE service users are young people, (usually representatives of generations Y and Z), with developed digital competences (Hamari et al., 2016; Suchanek, Szmelter-Jarosz, 2019; Tilley, Houston, 2016). Therefore, the main focus of this study is on this group of users of shared urban mobile transport solutions.

The purpose of this study is to identify the determinants that determine young users' decision to accept or reject shared mobile transport solutions. An attempt is made to find out the personal situations that may induce young market participants to use mobile shared transport services in urban areas. In the final part of the paper, recommendations are made for the further development of shared mobile public transport offerings, together with the limitations of the research conducted.

2. Sharing economy: literature review

2.1. Sharing economy: definition

There is a wide range of definitions of the 'sharing economy' in the literature (Cohen, Kietzmann, 2014; Cohen, Sundararajan, 2015; Hofmann et al., 2019; Möhlmann, 2015; Schor, 2014). This diversity is due to the combination of different terms that refer to specific aspects or dimensions of SE (Ganapati, Reddick, 2018; Graham et al., 2017). These terms include collaborative consumption (Hamari et al., 2016; Lampinen et al., 2015; Möhlmann, 2015) collaborative economy (Cohen, Muñoz, 2016; Owyang et al., 2013), crowd-based capitalism, gig economy (Graham et al., 2017), on-demand economy (Cockayne, 2016) platform economy and circular economy (Ganapati, Reddick, 2018). A list of the authors' definitions can be found in Table 1.

Table 1.
Selected definitions of the sharing economy from the literature review

Issue	Definition	Source
Collaborative consumption	"peer-to-peer-based activities of obtaining, giving, or sharing access to goods and services, coordinated through community-based online services"	(Schor, 2014; Suchanek, Szmelter-Jarosz, 2019)
Collaborative economy	"an economic model where ownership and access are shared between corporations, startups, and people. This results in market efficiencies that bear new products, services, and business growth"	(Owyang et al., 2013)
Crowd-based capitalism	„"an economic system with the following five characteristics: Largely market-based; (…) High-impact capital; (…) Crowd-based 'networks' rather than centralized institutions or 'hierarchies'; (…) blurring lines between the personal and the professional: the supply of labor and services often commercializes and scales peer-to-peer activities like giving someone a ride or lending someone money, activities which used to be considered 'personal'; blurring lines between fully employed and casual labor, between independent and dependent employment, between work and leisure"	(Sundararajan, 2016)
Platform economy	"a growing number of digitally enabled activities in business, politics, and social interaction"	(Stephany, 2015)
On-demand economy	"digital platforms that connect consumers to a service or commodity through the use of a mobile application or website (…) usually refers to digital media firms that connect users through two-sided platform-based marketplaces"	(Sundararajan, 2016)
Circular economy	"a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended"	(Ganapati, Reddick, 2018; Rinne, 2015)
Gig economy	"an economic development strategy to bring jobs to places that need them, it becomes important to understand better how this might influence the livelihoods of workers" (Graham et al., 2017, p. 135)	(Cockayne, 2016)

Source: Own elaboration.

SE is growing due to the prevalence of digital platforms such as social media and digital ecosystems (Carillo et al., 2017; Owyang et al., 2013). For the most part, SE focuses on mobile device users, hence the popular term 'mobile first'. With mobile apps, users can access sharing economy services from anywhere and anytime (Ganapati, Reddick, 2018). Digital platforms contribute to lower transaction costs and enable the exchange of information between users who do not know each other (Hamari et al., 2016). The sharing economy also supports sustainable consumption practices (Heinrichs, 2013). SE is influencing cultural and attitudinal change as people are increasingly willing to give up ownership in favour of accessing and sharing goods (Botsman, Rogers, 2010). It is an alternative form of consumption that focuses on ethical aspects such as over-consumption, ecological use of resources and environmental protection. It is mainly based on short-term rentals, which can range from non-commercial sharing within a community to the exchange of market values through short-term commercial rentals (Belk, 2014; Ganapati, Reddick, 2018).

SE is also characterised by its environmental friendliness, choosing to combat climate change and resource wastage, and contributes to the public sector (easier movement in the public area) and the social sector (isolation, over-consumption, economic scarcity) (Bartenberger, Leitner, 2013; Hamari et al., 2016; Matharu et al., 2020; Rinne, 2015; Stephany, 2015). SE enables the use of goods and services at a relatively low cost, without the need for ownership, and does not transfer ownership of the good or service (Belk et al., 2019; Martin, 2016; Zvolska, Mont, 2015). The authors of the study, for the purposes of research, define SE as short-term transactions in the consumer market (peer to peer and business to customer) (Goudin, 2016), that enable goods and services to be made available through online platforms and mobile applications (Stephany, 2015).

2.2. Forms of shared mobile transport in public spaces

Systematising the definitions and classifications of the different mobile forms of sharing in transport is problematic, due to the rate of evolution and overlap of concepts (Clewlow, Mishra, 2017; SAE International, 2022; Standing et al., 2019). According to SAE International, shared mobility is "the sharing of a vehicle, motorbike, scooter, bicycle or other mode of travel when needed" (SAE International, 2022). Types of sharing are classified on the basis of on-demand self-rental or membership requirements (Standing et al., 2019). Acceptance of technology, such as apps and SE platforms, is also important when using this form of transport (Cockayne, 2016). From a business context, this form of transport is referred to as 'ridesourcing' services, which consist of on-demand paid transport services where drivers and passengers connect via digital apps (Cohen, Kietzmann, 2014). The SAE International Committee on Shared and Digital Mobility has undertaken to standardise terms and definitions related to shared mobility, such as Bikesharing, Carsharing, Microtransit, Ridesharing and Scooter sharing (SAE International, 2022).

Table 2.
Terms and definitions for mobile forms of shared transport according to SAE International

Issue	Definition	Examples
Bikesharing	‘provides users with on-demand access to bicycles at various pick-up and return locations for one-way or return trips. Bike-sharing fleets are typically implemented in a network in a metropolitan region, city, district, employment centre and/or university campus’	Nextbike, Veturilo, Roovee, Freebike, Citi Bike
Carsharing	‘offers members access to vehicles by joining an organisation that provides and maintains a fleet of cars and/or light trucks. These vehicles can be located in neighbourhoods, public transport stations, employment offices, universities, etc. The carsharing organisation usually provides insurance, petrol, parking and maintenance. Members who join a carsharing organisation usually pay a fee each time they use the vehicle’	Autolib, Stadtmobil, Zipcar, CityBee, 4Mobility, EasyShare, MiiMove, Panek, CarSharing, Traficar oraz TrafiCargo, Wwozisz, Car2go, Innogy, MiiMove, CityBee, eCarTauron

Cont. table 2.

Ridesharing (carpooling, vanpooling) and ride-hailing - Transportation Network Companies (TNCs) services	'formal or informal ridesharing between drivers and passengers with similar pairs of departure and destination points. Ridesharing includes vanpooling, which consists of 7 to 15 passengers who share the cost of the van and operating costs, and may share driving responsibilities. Ride-hailing - the rider hires a personal driver to take them exactly where they want to go. The vehicle is not shared with other users, nor are there several stops along the route'	BlaBlaCar, inOneCar, JedziemyRazem, Uber, GoCar Share, Via, UberPool, Lyft Shared
Microtransit - improves public transport	'a private or public technology-enabled transit service that typically uses shuttles or vans with multiple passengers/pools to provide on-demand or fixed-schedule service with a dynamic or fixed route'	Lifetango, L.A. Metro Micro, Crossroads Connect, COTA Plus, Via, Chariot
Scooter sharing (types of scooters with electric drive (e-scooters) and internal combustion (mopeds)	'scooter sharing allows individuals to access scooters by joining an organisation that maintains a fleet of scooters at various locations. Scooter sharing models can include a variety of powered and non-powered scooters. The scooter service provider usually provides petrol or a fee (in the case of motorised scooters), maintenance and may include parking as part of the service. Users usually pay a fee each time they use the scooter'	Blinkee.city, EcoShare, Hop.City, Lime, Naminuty.pl, Logosharing, slidescooters, Bird, Dott, Quick, Freenow, Voltscooters, Bolt, Hulaj, Tier

Source: Own elaboration based on: (Ganapati, Reddick, 2018; Le Vine et al., 2014; SAE International, 2022).

The above-mentioned forms of mobile transport are often alternatives or complements to public transport such as commuter trains, buses and light rail (Clewlow, Mishra, 2017; Ganapati, Reddick, 2018; Le Vine et al., 2014). Carsharing and bikesharing are the most popular forms of urban transport, with the other forms being the result of an evolution of this type of activity (Clewlow, Mishra, 2017; Cohen, Muñoz, 2016; Le Vine et al., 2014; Standing et al., 2019). These forms not only enable efficient mobility, but also integrate societies, cities, actors (Ganapati, Reddick, 2018).

2.3. Determinants motivating and limiting the use of mobile transport

Literature and market reports increasingly state that SE services are changing customers' consumption behaviour. Instead of buying new products and services, customers are starting to share or reuse them (Jeon et al., 2020; Rong et al., 2021). The modern consumer is more interested in accessing goods and services than in owning them (Falcone, Imbert, 2017). Research by Hamari et al. (2016) confirms young people's engagement with the sharing economy and their intentions to use it (Hamari et al., 2016). Kim et al. (2018) demonstrated that SE awareness positively influences consumer attitudes and behaviour (Guo, Zhang, 2021; Kim et al., 2018). On the other hand, Eccarius and Lu (2020) indicate that a lack of alignment with mobility needs, lifestyles and personal values may influence low intention to use sharing services. Awareness of the sharing system and environmental values indirectly influences intention to use (Eccarius, Lu, 2020). The gap between attitudes and consumer behaviour can be explained by the lack of motivators for SE use, such as appreciation or enjoyment (Goldstein

et al., 2008; Hamari et al., 2016). Positive attitudes towards collaborative consumption may influence intention to participate, but this phenomenon plays a lesser role when dealing with actual rather than declared participation (Hamari et al., 2016). There is a need for further research, as attitude does not always translate into user behaviour, although it is a major determinant of change (Ajzen, 1991).

Motives for and barriers to using shared mobile transport services

Motivation is a key factor in the success of initiatives (SE) and can be extrinsic and intrinsic (Acquier et al., 2017; Möhlmann, 2015). Research shows that intrinsic motivation influences attitude, but it is extrinsic motivation that is an important predictor of intention to use SE services over the long term (Hamari et al., 2016). Participants' motivations for shared mobile transport vary and depend on a variety of factors such as form of transport, city, country, people's preferences and socio-demographic and psychological characteristics (Davidson et al., 2018; Hossain, 2020). Although Barnes and Mattsson (2016) indicate that economic, environmental, political, social and technological factors are the main motivators of SE (Barnes, Mattsson, 2016)

Motives

Research on the motives for using shared mobile services indicates that utilitarian (useful) motives play a major role (Bardhi, Eckhardt, 2012; Lamberton, Rose, 2012; Moeller, Wittkowski, 2010). In empirical studies, economic value and convenience are the most important determinants of participation in shared mobile services (de Luca, Di Pace, 2015; Lindloff et al., 2014). Other studies point to lifestyle and environmental awareness as additional motives for using services such as B2C carsharing (Bardhi, Eckhardt, 2012; Burkhardt, Millard-Ball, 2006; Schaefers, 2013). Research on US carsharing users identifies four primary motives: value-seeking, convenience, lifestyle and environmental motive (Wilhelms et al., 2017).

A study by Wilhelms et al. (2017a) showed that the environmental motive is not the dominant motive for carsharing use. Instead, the value-seeking motive and the convenience motive have a stronger influence on user behaviour (Wilhelms et al., 2017).

Some researchers suggest that social motivations play a limited role in SE (Hüttel et al., 2018), while others consider social value as an important factor is an important motive for individuals to engage in SE types (Benoit et al., 2017; Joo, 2017). In the context of shared mobile transport, social value is the reduction of noise and road congestion (Hossain, 2020). Studies show that services such as ride-hailing and carsharing complement public transport, solve parking problems and reduce greenhouse gas emissions (Ganapati, Reddick, 2018).

Motivations for using different forms of micromobility also vary. In the case of bikesharing, the key factors are convenience, easy access to bikes, health benefits, economic benefits and the experience of fun (Franckle et al., 2020; Shaheen, Cohen, 2019; Zhang et al., 2019). E-bikes are mainly used for the first and last mile and for commuting directly to different destinations, especially to work (Bartkowiak et al., 2021; He et al., 2019; McKenzie, 2019).

E-scooters, as the newest form of urban transport (as of 2017), are comfortable, provide a pleasant driving experience and have flexibility. Studies suggest that e-scooters could replace traditional cars (Guo, Zhang, 2021).

For e-scooters, the main motivations for use among regular users in the US are speed compared to walking (especially in hot weather), convenience, enjoyment, the ability to get to a destination without a car, low cost, environmental benefits and a sense of safety (Sanders et al., 2020).

A study by Eccarius et al. (2020) indicates that the motivations for using e-scooters in Taiwan are environmental issues, convenience, accessibility without owning a vehicle, saving money, flexibility and price (Eccarius, Lu, 2020). In Spain, on the other hand, the main reasons for using e-scooters are easy parking, flexibility to avoid traffic jams, efficient operation of the system, competitive prices and environmental awareness (Aguilera-García et al., 2020, 2021).

Despite the growing popularity of micromobility, the literature still has a limited amount of research on the determinants of use of these services among Polish users (Bartkowiak et al., 2021). A study of Polish e-scooter users indicated that the main motivations for use are convenience and lack of cost of parking in the city (Bartkowiak et al., 2021). Other studies have confirmed that e-scooters are often used for recreational purposes (Bieliński, Ważna, 2020).

Barriers

Similarly, as there are motives for using SE solutions, there are reasons why people avoid shared mobile transport. The most common barriers to using shared mobile transport stem from personal beliefs, as well as oversights on the part of the providers of this type of service. Barriers to participation in shared mobile transport in urban areas, like motives, are diverse and depend on a number of factors, such as location and environment. A significant reason for all forms of mobile sharing is the lack of consistent legal solutions, especially in the case of micromobility, i.e. scooters, scooters, which often exclude certain groups of users from sharing (e.g. due to lack of appropriate age, driving licence, bicycle card, etc.). Safety of use has been identified as the biggest barrier, especially related to accidents (Bartkowiak et al., 2021). In the case of bikesharing, barriers to use include lack of helmet, rental/return problems, traffic safety concerns, adverse weather conditions and inconvenient stations (Franckle et al., 2020). Barriers to e-scooter/scooter use relate to safety concerns (e.g. risk of hitting or being hit, lack of safe places to ride, feeling unstable/risk of falling off), practicality (e.g. lack of space for luggage or carrying passengers, unsuitability for longer routes) and equipment (e.g. damage to e-scooter, difficulty finding it when needed, incomplete battery, concerns about equipment failure/malfunction) (Sanders et al., 2020). Users of e-scooters/scooters also pay attention to the cleanliness of the vehicle, accessibility/distance to the next e-scooter, price and speed (Eccarius, Lu, 2020).

3. Methods

The study was conducted on a purposive sample of 29 respondents, with age as the selection criterion. The authors focused mainly on young people, due to their more active use of SE solutions, including shared mobile, compared to older groups (Guo, Zhang, 2021; Shaheen, Cohen, 2019; Suchanek, Szmelter-Jarosz, 2019). These are the people (representatives of the Millenials and Z generation) who are attributed with greater digital skills and driving force in the development of mobile forms of shared urban transport (Suchanek, Szmelter-Jarosz, 2019; Vaughan, Daverio, 2016; Warwas et al., 2022). The research was conducted in the central Poland region, where forms of shared mobile such as e-scooters, scooters, bicycles and cars are available.

The study was qualitative and conducted through IDI interviews, using an interview scenario with open-ended questions on the determinants and motives for using shared mobile transport in urban spaces.

The choice of interview method was determined by the fact that a declared attitude of shared consumption can positively influence participation in shared mobile transport, but this can change when people consider actual rather than declared participation (Hamari et al., 2016).

Based on the literature review, the following research questions were formulated:

- RQ1 - Are respondents familiar with the concept of shared mobile and do they use shared vehicles?
- RQ2 - What are the determinants of the use and non-use of shared mobile solutions?
- RQ3 - In which situations do respondents use shared mobile solutions?

Following the process of collecting the results, the authors reviewed the responses of the respondents and then attempted to synthesise the results of the survey resulting in overarching categories for each response to organise the data collected (Gibbs, 2015).

The study group consisted of 29 subjects, of whom 18 were women and 11 men. The median age was 23 years. Seventeen people had a tertiary education, while 12 had a secondary education.

4. Results

In the first part of the survey, the authors asked respondents whether they had ever encountered the term shared mobile and whether they had used shared mobile. It turned out that 20 had encountered the term before and 19 had used shared mobile solutions, while 10 had no such experience. Among the respondents, 4 forms of shared vehicles were mentioned that they had used. These were: city bike, electric scooter, scooter and car.

The respondents were then asked about the determinants of the use of shared mobile services. The survey included factors that positively motivate the use of shared mobile solutions, as well as factors that negatively influence decisions not to use these transport services.

The positive determinants are shown in the figure below.

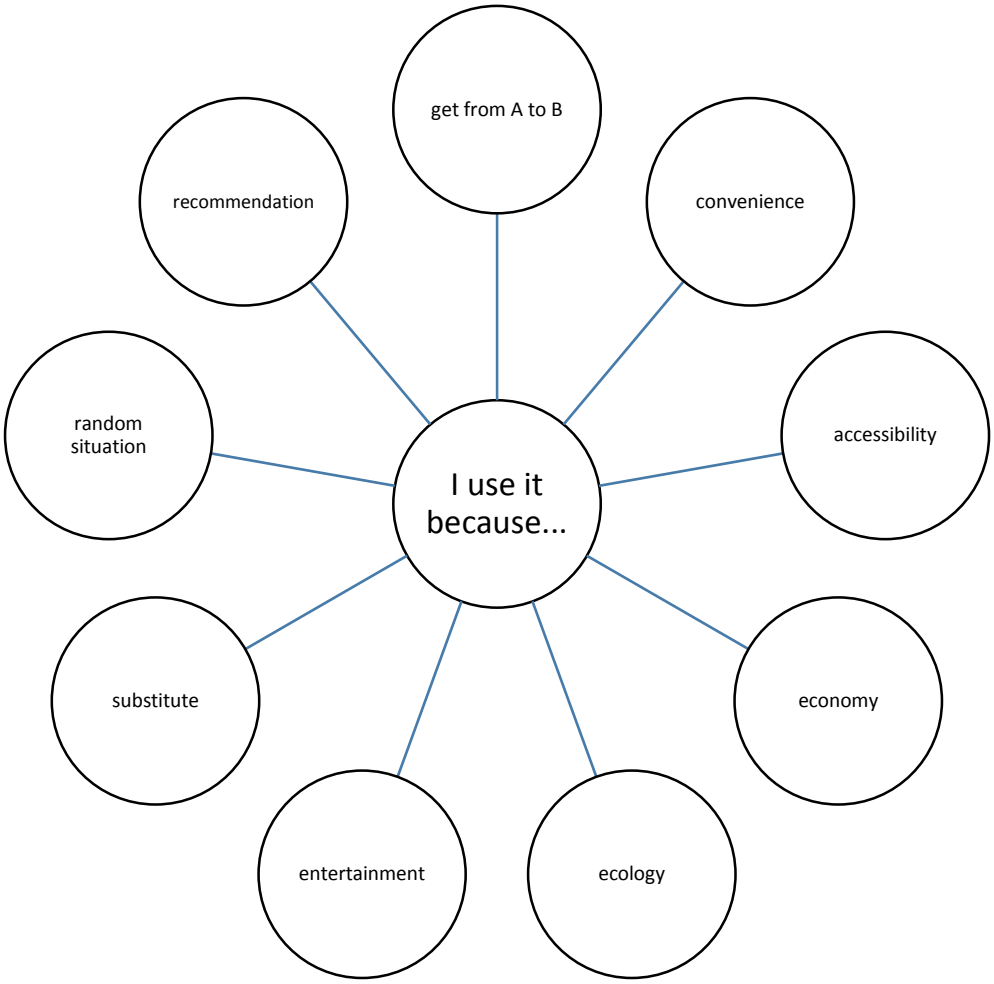

Figure 1. Categories of positive determinants driving the use of shared mobile solutions.
Source: Own elaboration based on empirical research.

The key positive factor determining the use of shared mobile services, indicated by respondents, was the desire to 'get from point A to point B', whether this was to work, home or related to the need for transport in a new city.

Respondents also cited aspects related to the 'convenience' category, which relates to the use of shared mobile vehicles. They valued both the ease of driving these vehicles and the convenience resulting from the preparation for driving, for example through a dedicated app.

In the next category of determinants, i.e. 'accessibility', respondents indicated that vehicles based on the shared mobility model are readily available, especially in large cities where several different vehicle forms and brands are available. Respondents mentioned vehicles where several different vehicle forms and brands are available. The most frequently mentioned forms of vehicles were an electric scooter, an electric scooter, a bicycle and a car.

In the category 'economics', the authors included respondents' answers focusing on issues related to the charges for using shared vehicles, considering them a cheaper alternative than having their own means of transport. In addition, they highlighted time savings that allowed them to reach their destination faster compared to traditional means of transport, such as avoiding traffic jams with electric scooters.

The "ecology" determinant stemmed from the pro-environmental attitudes of respondents, who considered that the use of shared vehicles contributes to a reduction in consumerism and helps take care of the environment by reducing CO2 emissions, and reducing the demand for own vehicles.

In the 'entertainment' category, it emerged that one of the determinants of the use of such solutions is the sheer experience of entertainment, the desire to try something new and satisfy curiosity.

Respondents also indicated a 'substitution' factor, which referred to the use of shared vehicles as an alternative to both owned vehicles and public transport or taxis.

In random situations, i.e., when something happened to the current means of transport or when the respondents were running late, the use of shared vehicles was also indicated as a solution to the problem, it was classified in the "random situations" category.

The last positive determinant of shared vehicle use is the 'recommendation' category. Respondents often mentioned that they used these services based on referrals to friends or family members.

The negative determinants are shown in the figure below.

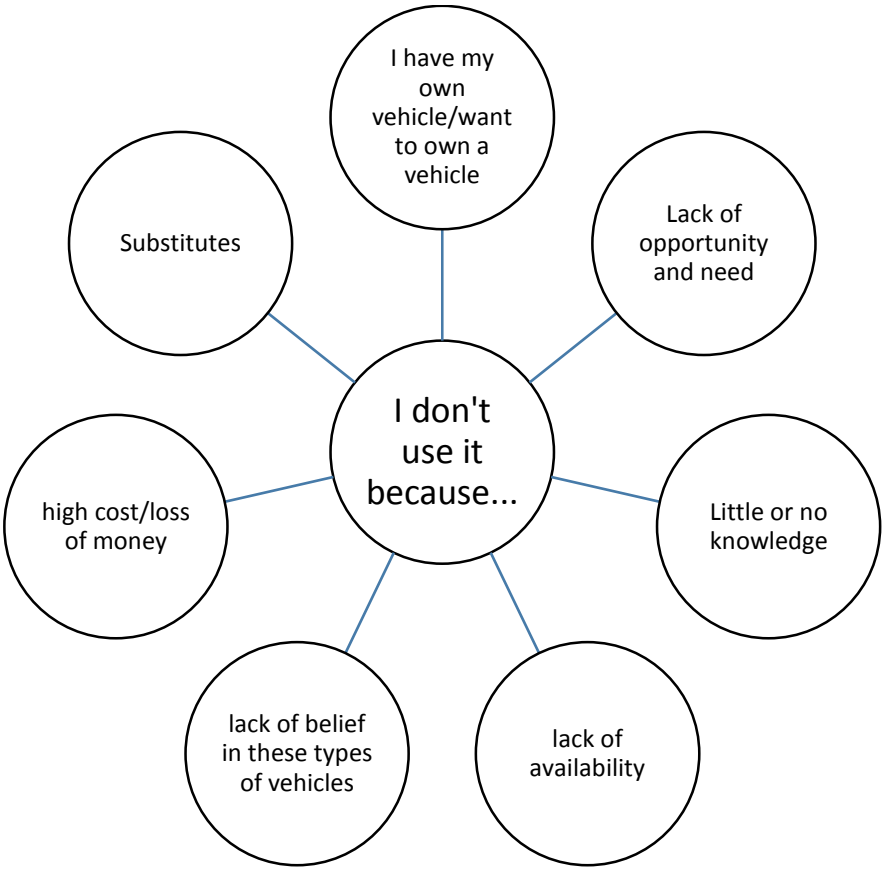

Figure 2. Categories of negative determinants causing non-use of shared mobile solutions.
Source: Own elaboration based on empirical research.

In the first category of determinants ‘I have my own vehicle/would like to own a vehicle on my own’, respondents gave various reasons for not using shared mobile solutions due to having their own car, scooter, scooter or bicycle. Often this was due to living outside the city, where respondents had to commute. Some simply preferred to have their own vehicle and were even reluctant to use second-hand or shared items.

Another category was 'no opportunity or need', where respondents indicated that they had no opportunity or need to use shared vehicles due to having their own means of transport.

In the 'little or no knowledge' category, we found that respondents cited a lack of knowledge about shared mobile solutions, both in terms of usage and the sharing economy phenomenon itself.

‘Lack of accessibility’ was also identified by respondents as a key determinant. Particularly when respondents lived outside the city, vehicles such as scooters, electric scooters or bicycles were more difficult to access, mainly being in city centres and neighbourhoods next to the city centre.

Respondents also indicated a 'lack of conviction towards these types of vehicles' and negative attitudes towards them.

Respondents highlighted economic elements, in the category of 'high costs - a waste of money'. They expressed that they considered it unprofitable to spend money on using this type of solution or pointed out the amount of fees associated with use.

The final category of negative determinants is 'substitutes', where respondents did not use shared mobility vehicles because they preferred to walk or use other forms of transport.

In the last part of the survey, respondents were asked about situations in which they use shared mobile solutions. Based on the respondents' answers, 4 categories of such situations were created (Figure 3).

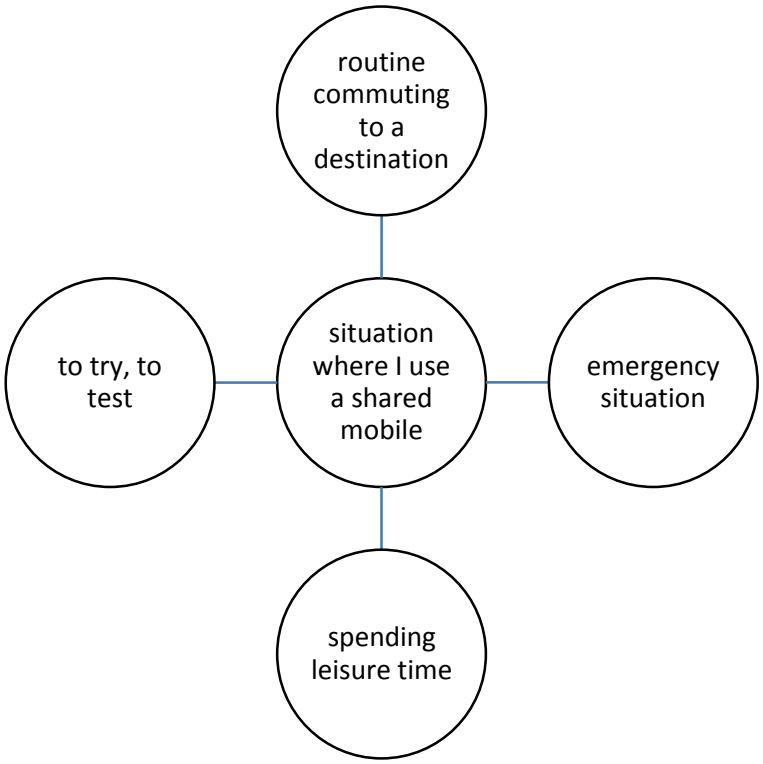

Figure 3. Categories of situations in which respondents used shared mobile solutions.
Source: Own elaboration based on empirical research.

The first category created was 'routine commuting to a destination'. The authors categorised respondents' answers to this category, which concerned the use of shared mobile solutions for daily commuting to school, work or back home.

The next category presented was 'ad hoc situation'. This category included respondents' answers that referred to the need to use a particular vehicle when no other means of transport was available or when heavy items needed to be transported. It also included respondents who mentioned the use of shared vehicles in emergency situations or for business trips. Additionally, responses related to using them for occasional outings, such as birthdays, parties, meeting friends or simply getting to the train station, were included in this category.

The 'leisure' category was created from the responses of respondents who used shared vehicles to travel, explore or discover a new city, and as a means of transport during holidays.

The last category, 'testing', was created from the responses of respondents who used these types of vehicles simply to test how the solutions work and how they are used. This was important for them to know how to operate such a process if necessary.

5. Discussion and Conclusion

Answering the research question formulated, the results for RQ1 show that the majority of respondents were already familiar with the concept of shared mobile and had used shared vehicle services, especially in the form of a bicycle, electric scooter, scooter and car. Literature studies confirm that there is a positive relationship between awareness of the sharing economy, including shared mobile, and the use of shared services (Guo, Zhang, 2021; Kim et al., 2018). This attitude usually leads to active participation in the use of these services. However, other studies show the opposite result, indicating that positive attitudes towards sharing play a lesser role when people consider real actions rather than mere declarations of participation (Hamari et al., 2016). This may be due to a lack of sufficient incentives/motivators to encourage the use of ride-sharing services (Goldstein et al., 2008; Hamari et al., 2016). Attitudes do not always automatically transfer to behaviour, but they are important determinants of change (Ajzen, 1991).

A study carried out, together with other authors in the literature, in response to RQ2 showed that there are several factors of a positive nature that can determine the degree of use from shared transport solutions. Among the main motives are convenience and economic value (Bardhi, Eckhardt, 2012; de Luca, Di Pace, 2015; Eccarius, Lu, 2020; Franckle et al., 2020; Ganapati, Reddick, 2018; Lindloff et al., 2014; Shaheen, Cohen, 2019; Wilhelms et al., 2017; Zhang et al., 2019) In addition, the study identified other factors influencing the use of shared vehicles, such as easy accessibility (Franckle et al., 2020), environmental values (Burkhardt, Millard-Ball, 2006; Schaefers, 2013; Wilhelms et al., 2017), entertainment aspect (Franckle et al., 2020; Shaheen, Cohen, 2019), the possibility of substitution and free movement for any purpose (Bartkowiak et al., 2021; McKenzie, 2019) and random situations. All these factors have a positive impact on decisions to use shared transport services and introduce potential users to this form of mobility.

In terms of negative determinants, the respondents also indicated an economic barrier, which agrees with previous research (Eccarius, Lu, 2020). However, in contrast to the other barriers mentioned, respondents highlighted the aspect of sheer awareness of the phenomenon and knowledge of shared vehicle solutions. This is an important point to consider, especially among a group that is open to such solutions. In addition, respondents describe a lack of conviction or a negative attitude towards shared vehicles as a negative determinant (Bartkowiak et al., 2021). The aspect of ownership is also worth mentioning, as some respondents stated that

they do not use such vehicles due to the fact that they need to have a sense of ownership of the mode of transport. The lack of availability of such solutions for non-urban areas is another negative determinant. It has also been written about by (Eccarius, Lu, 2020). In conclusion, there are several negative factors that may inhibit the use of shared vehicles. It is worth taking action to overcome these barriers, through education, awareness and accessibility of services in non-urban areas, to encourage potential users to use this form of transport.

In response to RQ3, respondents identified the main situations in which they use shared vehicles, such as: an emergency situation, leisure activities, a situation to try or test a new solution or a routine commute to a destination such as work or school. Consumers use shared vehicles when they have an urgent need to get from point A to point B, but do not have access to their own means of transport. This may be as a result of unexpected circumstances, such as the breakdown of their own car or a lack of parking spaces. Some users treat shared vehicles as a means of transport during recreation. This may be when they go on trips, meet up with friends or have other forms of entertainment and find shared vehicles a convenient mobility option. The willingness to test a new solution indicates consumers' curiosity about new technologies and services. It is possible that they are using shared vehicles to see how it works, to compare it with other means of transport or to assess whether such a solution would be suitable for them on a permanent basis. The regular use of shared vehicles as a means of transport to work or school suggests that for many people, traditional forms of transport such as their own car or public transport may become less attractive. This may lead to a change in urban traffic patterns and require new infrastructure solutions. The interest in shared vehicles may be the result of a growing environmental awareness. Using shared modes of transport, instead of owning one's own vehicle, can contribute to reducing greenhouse gas emissions and air pollution in cities.

The limitations of the present study are the purposeful nature of the selection of individuals for the study, which only made it possible to present a certain perspective of the phenomenon in question, and not its full scale. Furthermore, the focus was only on young people, which shows the point of view of one homogeneous group and not that of the general public. Future research should pay attention to these aspects especially in the context of the acceptability of car-sharing, taking into account the different variables moderating this relationship. In addition, it is important to delve deeper into the reasons for negative attitudes towards the sharing economy and to look for effective ways to change them. In this way, we will better understand the factors influencing decisions to use shared transport services and effectively promote this form of mobility.

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