

Individuals' behavioral intention to use car sharing (CS): from environmental consciousness to socio-psychological drivers

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Abstract

Purpose – By scrutinizing different types of factors conducive to the behavioral intention to use car sharing (CS), the present paper looked into the influences of the environmental consciousness (i.e. environmental angle), the continuous improvement of CS platforms (i.e. technological angle), smart mobility (i.e. infrastructure angle) and the perceived benefits of CS and electronic trust in CS (i.e. individual and psychological angles).

Design/methodology/approach – On purpose to provide an integrative outlook, a questionnaire-based survey with over 400 subjects coming from young generations (i.e. Gen Y and Z) has been conducted in 2023. The collected data were processed and analyzed by means of a partial least squares structural equation modeling (PLS-SEM) technique (PLS-SEM) by employing SmartPLS 4.

Findings – The analysis allows for multiple results. Environmental consciousness, continuous improvement of CS platforms and smart mobility have a positive influence on the perceived benefits of CS. The relationship between the continuous improvement of CS platforms and the E-trust in CS and the relationship between the impact of E-trust in CS and the behavioral intention to use CS are positive. Perceived benefits of CS have a positive influence on the behavioral intention to use CS.

Originality/value – On the one hand, in terms of theoretical implications, the paper integrates multiple factors in a common framework, simultaneously considering social, psychological, technological and environmental dimensions in addressing the behavioral intention to use CS. On the other hand, the study entails practical implications and implicit takeaways for CS platform companies, which can inform business practitioners and transportation planners.

Keywords Smart mobility, E-trust, Car sharing (CS), Behavioral intention, Perceived benefits, Environmental consciousness

Paper type Research paper

1. Introduction

In 2015, Dörner and Edelman, principals in McKinsey's Munich and Boston offices, set out an integrative definition of what "digital" genuinely means, noting that "digital should be seen

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less as *a thing* and more as *a way of doing things* (. . .) creating value at the new frontiers of the business world, creating value in the processes that execute a vision of customer experiences, and building foundational capabilities that support the entire structure.” In their view, being digital implies proximity to the customer decision journeys by allowing and even striving for a pertinent comprehension of individuals’ behavioral patterns as a prerequisite of providing innovative and fine-grained services. The authors adjectively pinpoint the dynamics of the automotive industry in relation to information and communication technology (ICT), big data analytics and innovation flows, urging that “digital’s next element is rethinking how to use new capabilities to improve how customers are served.” Such a perspective is closely connected to the understanding of each step of the consumer’s journey toward the adoption of a certain service while keeping an eye on how digital capabilities can enhance the overall experience (Neamțu and Naforniță, 2022; Carneiro *et al.*, 2024; Vătămănescu *et al.*, 2018, 2022).

Building on this rationale, the present study fathoms the behavioral intention of individuals to use (CS) services as an innovative mode of transportation and as a “journey-focused innovation” (Dörner and Edelman, 2015) within the context of smart cities, given the exponential rise of the CS market and the extremely optimistic forecasts for the industry. For example, the European CS market size is estimated to cross a US\$4bn valuation by 2026 (Global Market Insights, 2023); therefore, CS companies are dared more than ever to properly organize their resources to meet stakeholders’ expectations.

With the global trend towards urbanization and the increasing need for sustainable transportation options, smart cities have emerged as an innovative solution (Biancone *et al.*, 2021; Brescia *et al.*, 2023; Chmet *et al.*, 2024). These digitally integrated cities capitalize on technology to improve efficiency, sustainability and quality of life for their residents, and the usage of CS services is gaining traction lately (Samaha and Mostofi, 2020). In this vein, the impact of smart cities on CS can be seen in multiple ways. The users can easily search for available cars nearby, book them on their smartphones and unlock them using digital keys (Ma *et al.*, 2020; Samaha and Mostofi, 2020; Le *et al.*, 2023; Carpentiere *et al.*, 2024).

The compelling progress of smart cities benefits from various advantages related to the advances of the digital ecosystem, but it is also linked with challenging issues, such as efficiently organizing emergent technologies to meet the imperatives of transportation and mobility (Turoń, 2023). The ever-transforming exigencies for communities and the urgency to have sustainable policies for urban transport have accelerated the need to search for various resolutions that could bring innovation, efficiency and sustainability altogether (Onete *et al.*, 2018). In this regard, the encouragement of the emerging reality of “new mobility” encompassed paying heed to the totality of communication behaviors related to transport requirements via the translation and organization of modern digital technologies into the classical idea of moving (Okraszewska *et al.*, 2018).

Various studies (Firnorn and Müller, 2015; Migliore *et al.*, 2020; Secinaro *et al.*, 2022; Simonofski *et al.*, 2023; Savastano *et al.*, 2023) have shown that people preoccupied with environmental issues present a bigger interest in CS, as they care about problems related to traffic emissions and CS services can have a positive impact in terms of reducing emissions. At the same time, consumers, before using new digital and mobility technologies, are thinking about their benefits and, in this case, the primary goal of the CS system is that consumers can still benefit from a private car while being simultaneously exempted from the expenses and obligations related to literally owning a car (Vătămănescu and Pinzaru, 2018; Kolleck, 2021).

In the sphere of smart mobility, a wide array of transport options is provided, which encompasses shared mobility, among others. Fostered by the intricacies of the sharing economy (Fang and Li, 2022; Zhu and Grover, 2022), these services benefit from the support of ready-to-use updated digital platforms (i.e. websites and mobile applications) put forward and tailored by CS companies. These are integrated platforms relying heavily on emerging digital systems, which, consistent with Kamargianni *et al.* (2016), are built on three pillars: the guarantee of extensive time flexibility given the accessibility of the entire variety of services for the consumer; the rating process for consumers intended to raise trust in the company’s

solutions, and the reliance on rented, shared or loaned means and tools. Taking into account modern trends, predictions about digital and technological progress and attempts to restrict individual motorization in the urban environment, CS may develop into a central category of transport in cities (Mounce and Nelson, 2019). Nevertheless, the continuous improvement of CS platforms as a prerequisite of incremental innovation is a pivotal factor for their stability and long-lastingness because this process is supposed to amplify their performance and efficiency, and it could enhance the retention rate and trust of CS consumers (Hui *et al.*, 2019).

The reinforcement of smart mobility will enhance the population's awareness about the impact of transportation systems in cities and eventually their positive attitude and trust in alternative transport practices like CS (Alonso-Almeida, 2022). An extension of the concept "trust" (hereinafter considered) is electronic trust (E-trust), also known as "digital trust" or "online trust," which refers to the level of trust that people have in the online platform, website or digital entity through which they contract the service (Guo, 2022; Kim and Peterson, 2017).

Giving credit to these conceptual pillars, this study proposes an overview of a multi-stage process starting from the influence of environmental consciousness, the continuous improvement of CS platforms and smart mobility on the perceived benefits of CS and E-trust in CS services and further on the behavioral intention of using CS services. The basic presumption is that all these factors are strong predictors of the behavioral intention to use CS, especially among younger generations who are digital natives deemed as more environmentally conscious and more oriented toward sustainable mobility practices (Amirnazmifshar and Diana, 2022; Gazzola *et al.*, 2019). By doing so, the research relies on a multi-angle scrutiny, which simultaneously gives credit to digital, technological, environmental, infrastructure and socio-psychological factors.

Even though prior literature was dedicated to the study of these factors, their comprehension into a unitary framework is still in an embryonic phase. As Illgen and Höck (2019) posit, CS systems have evolved notably in the past decades. The main factors of this growth are entertainment, infrastructure and the advancement of emerging digital technologies by the more and more competitive CS companies. In the last decade, CS has emerged from a moderately explored issue into a noteworthy and much talked-about solution for prospective city mobility. Pursuant to Mavlutova *et al.* (2023), various studies have recognized the issue of sustainable transport in urban areas and have explored diverse models and solutions. While many researchers focus on technical solutions and innovative business models, behavioral aspects are often examined to a lesser extent. Through extensive literature analysis, the authors pointed to the relevance of analyzing new vehicle technologies and their environmental impact and of embracing innovations in shared mobility. Likewise, Turoń (2023) points to the consistent challenges of transportation and mobility within the context of innovative smart cities, thus claiming for need for further explorations in this field.

To this end, the present endeavor relies on a questionnaire-based survey with 403 subjects from Generation Y and Generation Z, as indicative populations of a digitally and sustainability-oriented vision and conduct. The empirical findings were analyzed via a partial least squares structural equation modeling (PLS-SEM) technique in an effort to capture the underlying relationships among the proposed latent variables and to advance a novel perspective on the CS phenomenon in the broader contexts of innovative smart cities and shared mobility.

The paper was organized as follows. The conceptual framework and the hypotheses formulation were argued, and then the material and methods were introduced. The results and the discussion of the findings were depicted, while the final section looked into the conclusions, implications, research limits and future avenues of theoretical and empirical exploration.

2. Theoretical foundation of research hypotheses

The sharing economy is regarded as an evolution in the direction for a more sustainable future while availing new challenges for business model innovation and organizing varied digital

transformations (Cheng *et al.*, 2018; Vătămănescu and Pinzaru, 2018). Alongside digital factors, issues about the environmental effect of vehicle use have been accentuated as a significant basis for taking part in CS and seeing CS as a beneficial approach from various perspectives. This concern translates into environmental consciousness, which was founded on a shortened five-item version of the broadly used New Environmental Paradigm, developed by Dunlap and Van Liere (1978) and subsequently reappraised to face current deliberations about global warming and greenhouse gas emissions (Dunlap, 2008).

A recent study developed by Hjortset and Böcker (2020) revealed that environmental consciousness produces a serious, straight, positive impact on CS preoccupation, and for this reason, the overall influence from environmental consciousness on perceiving the use of CS services is presumed positive. Individuals with a solid environmental consciousness may have a higher intention to use CS due to its potential positive impact on reducing carbon emissions and promoting sustainable transportation (Hjortset and Böcker, 2020). The study also showed that people with more academic preparation usually have more knowledge and information about the environment and consequently their attention to CS is more prominent. Another research developed by Acheampong and Siiba (2020) revealed that pro-environmental mindsets link positively with the perceived benefits of CS, pointing out that users who properly acknowledged the human impact on the environment viewed CS as a durable option compared to car ownership. Given prior developments that confirmed that people with environmental orientation are more aware of the benefits of CS, the first hypothesis was formulated in this sense:

H1. Environmental consciousness has a positive influence on the perceived benefits of CS.

When addressing CS via the organization and advancement of new digital platforms, electronic trust (E-trust) and perceived benefits are two processes that co-occur at the individual level. While this study understands the perceived benefit as the consumer's evaluation of the functional and symbolic uses of sharing a car over the Internet (Chun *et al.*, 2019), E-trust relies on the user's perception of the digital platform regarding security, privacy protection, reputation or social proof (Kim *et al.*, 2009; Neamțu, 2013). Since a user contracts the CS service on a digital platform that minimizes the possible losses from the online transaction (Kim *et al.*, 2009), both the perception of benefit and E-trust are expected to happen simultaneously. Therefore, contrary to what Kim *et al.* (2008) suggest, in E-trust, the perceived benefit of the service or product is not an initial step as in conventional trust (Kim *et al.*, 2008). Unlike what happens with traditional trust, which is more focused on the provider, in E-trust, the service provider (e.g. the owner of the vehicle) is just another user of the public platform who creates his(her) own faith and beliefs in online environments, systems, services and transactions (Kim *et al.*, 2009).

A somehow connected issue deserving consideration stands in the fact that contracting CS services implies trade with people consumers do not know, which entails a higher incidence not only of E-trust but also of trust. Conventional trust emerges as a conceptual pillar in sociological studies, being variedly described by researchers in the absence of a unanimous agreement (Guo, 2022; Kim *et al.*, 2009; Kim and Peterson, 2017).

Trust holds an important function in social interactions, and to have trust in a person is commonly outlined as being "vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor" (Kee and Knox, 1970). As a result, both trust and E-trust have been recognized as relevant factors in the scholarly analysis of the sharing economy (Guo, 2022; Kim *et al.*, 2009; Kim and Peterson, 2017; Vătămănescu and Alexandru, 2018).

According to a study carried out by Hartl *et al.* (2018) and Hartl and Hofmann (2022), sustainability-oriented approaches appear to play a significant part in CS access to the extent that users who perceive sharing a car as more environmentally friendly than owning a car also tend to trust the service more and perceive it as less risky. Although it is difficult to extrapolate

what happens with conventional trust to E-trust, it can be expected that people concerned with environmental protection, climate change or biodiversity entrust a bit more in the operating model of CS along with its processes and structures, and they believe it is safer (Räsänen *et al.*, 2021). Based on these considerations, it was presumed that:

H2. Environmental consciousness has a positive influence on the E-trust in CS.

Another recurrent idea in the debates about CS is the process of continuous improvement as a form of incremental innovation, which stands as a management philosophy that was implemented by various CS companies in order to consistently organize and improve one or more operational procedures to raise clients' satisfaction (Vătămănescu and Pînzaru, 2018). Bessant and Caffyn (1997) remarked that consistent improvement encompasses a systemic process that is more constructive and viable than disruptive innovations, and at the same time, it also embodies the foundation of total quality management. CS platforms have not yet arrived at the peak of digital progress, and consequently, their emerging digital applications still have considerable room for improvement. By applying the principles of continuous improvement, CS platforms could regularly and uniformly enhance the provided amenities, improve proficiency and refine the user's overall experience with the CS services (Wang *et al.*, 2017).

In Dörner and Edelman's (2015) view, "digital isn't about just working to deliver a one-off customer journey. It's about implementing a cyclical dynamic where processes and capabilities are constantly evolving based on inputs from the customer, fostering ongoing product or service loyalty." The main assumption is that the ever-increasing number of positive consumer interactions leads to a consistent stream of intelligence, whereas the ICT advances will become a proxy for an innovative intertwining of digital and physical experiences. The journey-focused innovation therefore becomes an expression of how companies become more innovative by efficiently serving their consumers.

The orientation toward continuously organizing the CS platforms involves gathering data and using that information to allow users to make informed decisions, which reinforces the reputation of CS as a service that provides high vehicle and minimal land use, significant reduction of expenses and large environmental prospects (Ma *et al.*, 2020). Simultaneously, the process of continuous improvement of CS demonstrated positive effects on reducing environmental issues as more and more consumers perceived the service as a tool to determine whether to reduce the amount of money they spend on transportation and the need to own a car and to make them take into consideration CS as a feasible alternative for work trips (Gurumurthy and Kockelman, 2020). Conflating these arguments, we infer that:

H3. Continuous improvement of CS platforms has a positive influence on the perceived benefits of CS.

The continuous improvement of CS platforms and digital innovations is expected to fuel more and better customer – company interactions, create more information and increase the trust-based relationship between stakeholders. Nevertheless, the insufficiency of clients' E-trust has been widely identified as a constraint for a more extended spread of emerging digital services and online commerce practices (Guo, 2022; Kim *et al.*, 2009; Kim and Peterson, 2017; Ma *et al.*, 2020). Because CS services combine elements of both trust and E-trust, it has been observed that numerous users may hesitate to engage in using CS services due to not having enough E-trust practices (Ma *et al.*, 2020).

However, there are different ways to build up E-trust among the users of CS services. Users often get involved with the two main components of the CS businesses: online peer-to-peer platforms and drivers (Ma *et al.*, 2020). This is why it is essential to strengthen E-trust by improving digital communication between the participants (e.g. drivers, platforms and riders) within CS services. E-trust can benefit clients by suppressing risk and doubts (Kim *et al.*, 2009) and eventually convincing them to call upon online services (Gao *et al.*, 2017). Whenever CS platforms improve the way they update their cars, they provide updates of users' ratings, they continuously lay emphasis on the cars being in good technical conditions or they solve the

encountered problems or complaints from the consumers' part in a feasible timespan, all these measures supporting a positive influence on consumers' E-trust in the respective companies (Ma *et al.*, 2020). Consequently, we advance that:

H4. Continuous improvement of CS platforms has a positive influence on the E-trust in CS.

Smart mobility refers to the integration of technology, data and innovation in transportation systems to improve efficiency, sustainability and accessibility (Kehagia, 2021; Rachmat and Mangkoesobroto, 2022). All these contribute to sustainable development in the automobile industry and promote social-ecological innovation, ultimately providing greener and smarter mobility solutions to individuals (Rokicki *et al.*, 2021). Also, these emerging technologies have a synergistic effect on each other, with the implementation of one technology leading to increased adoption and acceptance of the others.

Smart sustainable cities stand out as a big challenge for contemporary society. One major point when touching on digitally evolved cities embodies the challenges of mobility and transportation networks (Wawer *et al.*, 2022). The idea of smart mobility is closely connected to the concept of smart cities and has been investigated in relation to the innovative use of ICT for sustainable transport technologies (Albino *et al.*, 2015).

Pursuant to Giffinger *et al.* (2007), smart mobility components cover infrastructure and transport, which may be appraised by instruments like the readiness to use the ICT infrastructure, durable, secure and integrated transport solutions and national and worldwide openness and convenience. Citizens who are interested in alternative solutions for public transport (which are consuming less resources) or people who are preoccupied with solutions regarding infrastructure and solutions to limit road traffic are likely to be more aware of the advantages of CS use. As derived from these theoretical developments, we infer that:

H5. Smart mobility has a positive influence on the perceived benefits of CS.

According to Alderete (2021), since CS is a business integrated in the larger umbrella of shared mobility, a proper knowledge of smart mobility is a good predictor of the active or passive approach of individuals to such services. The municipality authorities' strategy of consolidating the population's knowledge on the multifaceted nature of smart mobility can be a productive instrument for involving citizens in smart proposals, thus leading to lower anxiety regarding CS use. Also, it is worth mentioning that all applications of emerging digital technology include an element of risk, if only due to the introduction of the novel into a system.

Nevertheless, this risk is amplified in smart city projects by the fact that much of the digital technology is designed to have a direct impact on a community (Paweloszek, 2022). However, it may be noted that people who are already familiar with the alternatives of smart mobility concerning transportation (i.e. eco-friendly alternatives for transportation such as bicycles, electric scooters, walking or green trains) are more open to trusting in the integrity of the car, the cleanness and hygiene issues and the insurance issues of the CS service (Barros and Pádua, 2019; Safdar *et al.*, 2022).

CS creates a new mobility experience that enhances a positive development in minimizing traffic and road safety. For this reason, trust in the system (i.e. E-trust) can increase significantly in the following years due to the evolution and consolidation of existing and proven assistance platforms and technologies (Del-Real *et al.*, 2023). Based on these arguments, the following hypothesis was proposed:

H6. Smart mobility has a positive influence on E-trust in CS.

In the past decades, the urbanization process that changed the quality of life in towns for the better has been followed by a fulminant growth in transport mobility. The preponderance of auto vehicles works with harmful combustion systems, which are linked to unfavorable effects like traffic jams, intensive noise, parking challenges and carbon emissions. The demanding

task for local decision-makers is to fulfill consumers' necessities without losing sight of the sustainable imperatives for towns. Therefore, CS services have emerged as an answer to battle the negative effects of urban mobility and are supposed to be assisted by lines of autonomous vehicles (Li and Zhang, 2023).

According to two studies developed by Curtale *et al.* (2021, 2022), there are some characteristics of individuals interested in CS, i.e. people from younger generations living in bigger cities. In this front, previous studies (Kapser *et al.*, 2021) have approached the influence of ride enjoyment on behavioral intention to resort to alternative transport options. The benefit yielded by CS digital platforms to users is an essential component in growing their commitment to the service. The advantages that a user believes he can get or create from using CS have a positive influence on their decision to use the service again and suggest it to other potential users. Various analyses have shown that the observed benefits directly reach a user's behavioral loyalty (Saeed *et al.*, 2020). Therefore, the seventh hypothesis was formulated:

H7. Perceived benefits of CS have a positive influence on the behavioral intention to use CS.

Morgan and Hunt (1994) asserted that consumers' trust implies their confidence in the trustworthiness and coherence of a particular service, which has a notable role in inducing users' loyalty. According to Hartl and Hofmann (2022), trust is seen as one of the most compelling factors that promote CS participation, also emerging as a key factor in studies on the sharing economy as a whole. Prior research has advanced that the interest in using shared cars is higher among those who are more receptive and trustful toward new technologies (Potoglou *et al.*, 2020).

As with collaborative consumption, engaging in CS requires a degree of trust in both CS services and unknown individuals (Hjorteset and Böcker, 2020). When it comes to customer behavior and adoption intentions for new technologies, trust has been brought forward as a pivotal antecedent (Kuhn *et al.*, 2021). In this regard, E-trust has also been seen as a trigger for sharing personal information (Guo, 2022), making online purchases (Kim *et al.*, 2009), engaging in online banking (Kim and Peterson, 2017) or disclosing sensitive data (KPMG, 2021). In the digital ecosystem of CS services, consumers deal with high purchase risks and uncertainty. Numerous users hesitate to use CS because they are not eager to give access to private details to the CS companies and to make deposits (Ma *et al.*, 2020). Therefore, provided that the CS platforms organize themselves better and invest more in strengthening consumer E-trust, it is likely that prospective passengers perceive less service risk and their propensity increases.

Some studies about gender differences in approaching CS showed that female subjects attach more importance to safety aspects of the service, which might reduce their intention to use it. Therefore, building confidence in females about the safety of the service might also increase their acceptance (Curtale *et al.*, 2021). At the same time, users of such services tend to display higher confidence in sharing mobility, which is further conducive to overall acceptance (Tran *et al.*, 2019). CS platforms should offer users a trustworthy and steady service and solve the problems that users run into in a prompt way. This approach could build an emotional connection and develop passenger E-trust (Ma *et al.*, 2020). Consequently, the following hypothesis was formulated:

H8. E-trust in CS has a positive influence on the behavioral intention to use CS.

Summing up all the inferred relationships, an integrative research model was proposed below, connecting three constructs that happen at the social level (i.e. environmental consciousness, the continuous improvement of CS platforms and smart mobility) with the individual intention to use CS through the perceived benefits of CS and E-trust that happen at the individual level into a unitary framework (Figure 1).

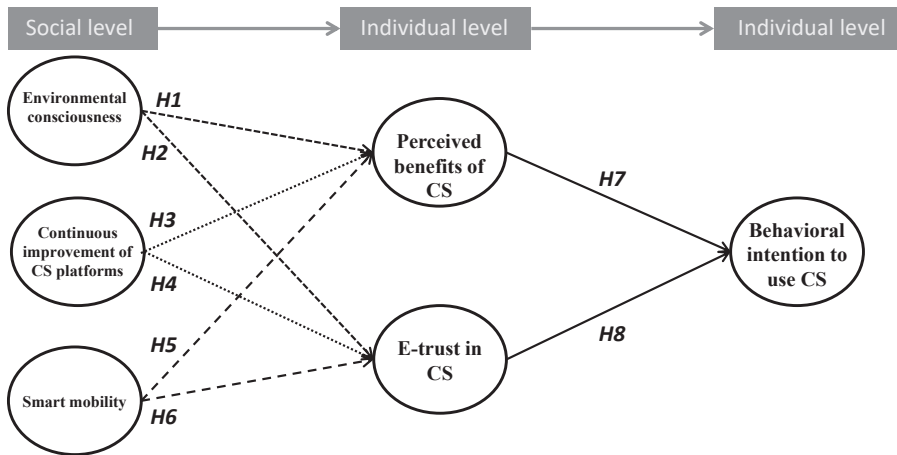


Figure 1. Conceptual model. Source: Authors' own work

3. Materials and method

3.1 Research sample

The current study sets out to explore the relationships among several main constructs, namely environmental consciousness, continuous improvement of CS platforms, smart mobility, E-trust in CS, perceived benefits of CS and behavioral intention to use CS (see Figure 1). The authors relied on convenience sampling in an effort to elicit as many responses as feasible. Nevertheless, the targeted populations were Generation Y and Generation Z, considered to be indicative of the sustainability-based view and approach of all today's phenomena. The process of data collection unfolded between March and May 2023. In order to estimate the minimum sample size, the G*Power Analysis was employed (Cunningham and McCrum-Gardner, 2007). A priori test with a linear multiple regression setting was conducted to compute the required sample size. The results concluded that a sample of 74 questionnaires is required for an f^2 size effect of 0.15. Finally, a total of 403 Italian subjects filled in the research instrument. The average age of the sample was 23 years old, covering 59.80% women and 40.20% men. Asked whether they have ever used the CS service, almost 84% of the respondents confirmed having resorted to CS, thus also validating the previous experience apposite for knowledgeable consumers.

To minimize data bias, a comparison between the first responses of the first 200 and the 203 responses was made in terms of behavioral intention to use CS. An independent sample t -test did not reveal significant differences between the two groups ($p = 0.559$; $F = 0.342$), so we concluded that non-response bias was not a problem in this study (Armstrong and Overton, 1977). In line with Podsakoff *et al.* (2003), a confirmatory factor-analytic approach to the Harman one-factor test was employed to assess the presence of bias. An unsuitable fit for the one-factor model would indicate that common method variance is not relevant in this case. The one-factor model reported a Satorra–Bentler $\chi^2_{(189)} = 1579.33$; $\chi^2/\text{d.f} = 8.35$ (compared with the measurement model, which yielded a Satorra–Bentler $\chi^2_{(175)} = 394.36$; $\chi^2/\text{d.f} = 2.25$). Consequently, the fit is substantively worse for the one-dimensional model than for the measurement model, proving that there is not any substantial common method bias (Armstrong and Overton, 1977).

3.2 Technique and procedure

The study is based on empirical quantitative research conducted via questionnaires disseminated by the authors across a number of social media platforms and through the

formal dissemination system availed by the universities. An SEM analysis of the conceptual model was performed using SmartPLS 4.0 (Ringle *et al.*, 2022) (see Figure 2). In accordance with the specialized literature (Hair *et al.*, 2010), various analyses were conducted on the indicators and the investigated constructs. After evaluating the measurement model, the structural model was further assessed.

3.3 Measures

The variables were conceived as reflective given that their indicators stand for different facets of the construct. Therefore, all these measures were operationalized as composites of Type A. Six main constructs were considered within the conceptual model, namely environmental consciousness, continuous improvement of CS platforms, smart mobility, E-trust in CS, perceived benefits of CS and behavioral intention to use CS.

Environmental consciousness initially comprised eight items, according to Hjortset and Böcker's (2020) and Acheampong and Siiba's (2020) operationalizations. Continuous improvement of CS platforms consisted of six items according to Ma *et al.* (2020), Huang *et al.* (2011) and Aloini *et al.* (2011), and smart mobility included four items as proposed by Wawer *et al.* (2022). Previous studies by Ma *et al.* (2020) provided guidance in developing electronic trust (E-trust) items. Five items were used to assess users' trust perceptions, confidence in online transactions, beliefs about security and privacy measures and satisfaction with the overall online experience. Perceived benefits of CS included nine indicators as advanced by Acheampong and Siiba (2020) and behavioral intention to use CS was composed of six indicators consistent with Curtale *et al.*'s (2021, 2022) taxonomies. After performing the reliability and validity tests, several items were dropped.

Table 1 displays the constructs and indicators included in the model, as well as the psychometric properties supporting each of the scales, in an effort to clarify the makeup of each variable and its corresponding measurements. All variables were modified to small degrees to accommodate the research focus.

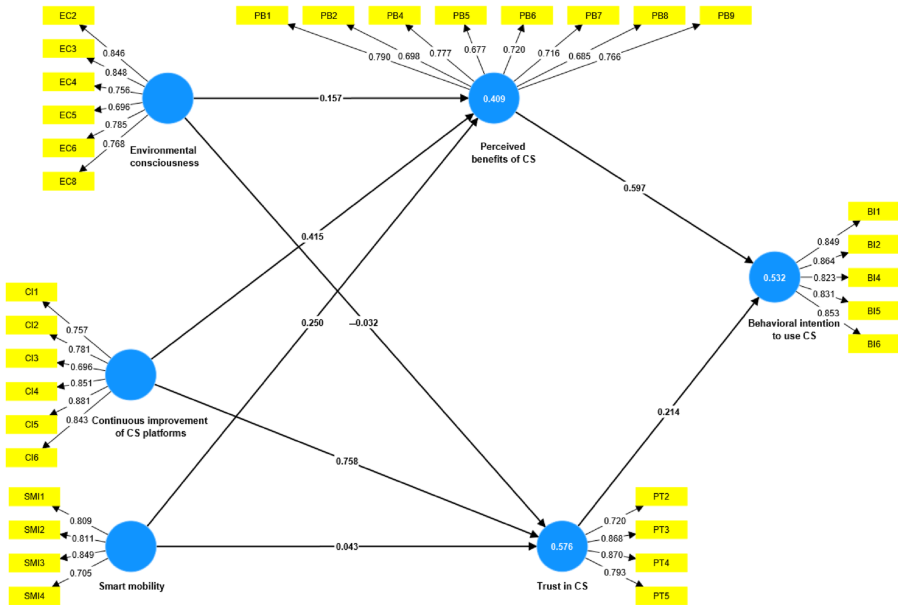


Figure 2. Structural model. Source: Authors' own work

Table 1. Constructs and fit indices

Item	Construct	Item loading	Cronbach's alpha	AVE	Composite reliability (CR)
<i>Environmental consciousness</i>					
EC1	Views environmental protection as an important social policy task	Dropped	0.876	0.616	0.891
EC2	Is willing to reduce consumption for the sake of the environment	0.846			
EC3	Worries about climate change	0.848			
EC4	Views protecting nature and biodiversity as important	0.756			
EC5	Prefers protecting the environment over economic growth	0.696			
EC6	Preoccupied with the environmental destruction and climate change	0.785			
EC7	Willing to spend a bit more to buy a product or use a service that is more environmentally friendly	Dropped			
EC8	Changes behavior based on concern for the environment	0.768			
<i>Continuous improvement of CS platforms</i>					
CI1	Public CS platform companies make improvements in updating their vehicles	0.757	0.889	0.647	0.899
CI2	Public CS platform companies continuously pay attention to the cleanliness of the interior of the vehicle and strive to keep the vehicle in good technical condition	0.781			
CI3	I did not experience vehicle battery power problems (or fuel shortage) during the use of the vehicle which has affected the travel situation	0.696			
CI4	When encounter problems using the car, public CS platform companies address them in a more timely way	0.851			
CI5	Response rates and improvements in addressing customer complaints have improved	0.881			
CI6	After the driving trip, public CS platforms conduct a timely follow-up with passengers and adopt their suggestions	0.843			
<i>Smart mobility</i>					
SMI1	Interest in ecological solutions in public transport	0.809	0.805	0.633	0.803
SMI2	Openness to amenities for passengers and residents	0.811			
SMI3	Openness to alternative public means of transport which are consuming less resources	0.849			
SMI4	Interest in limiting road traffic	0.705			
<i>E-trust in CS</i>					
PT1	Public CS platform companies can effectively and continuously improve their services	Dropped	0.829	0.633	0.838
PT2	Public CS platform companies have the knowledge and skills needed to continuously improve their services	0.720			
PT3	Public CS platform companies are truthful in their disclosure of continuous improvement information	0.868			
PT4	Public CS platform companies sincerely continue to improve services	0.870			
PT5	The continuous improvement in the service provided by public CS platform companies is oriented to meet the needs of the public, rather than self-interests	0.793			

(continued)

Table 1. Continued

Item	Construct	Item loading	Cronbach's alpha	AVE	Composite reliability (CR)
<i>Perceived benefits of CS</i>					
PB1	CS is a good alternative to owning a car	0.790	0.874	0.533	0.877
PB2	CS could reduce environmental pollution	0.698			
PB3	CS would be safe	Dropped			
PB4	CS would be the fastest option to travel	0.777			
PB5	CS could reduce traffic congestion by reducing car ownership	0.677			
PB6	CS would be flexible	0.720			
PB7	CS would reduce the need for a personal vehicle	0.716			
PB8	CS can reduce spending on transport	0.685			
PB9	CS would be suitable for work trips	0.766			
<i>Behavioral intention to use CS</i>					
BI1	Intention to use CS occasionally	0.849	0.899	0.713	0.900
BI2	Intention to use CS when there are promotions	0.864			
BI3	Intention to use CS when not having other options	Dropped			
BI4	Intention to use the CS for my regular trips	0.823			
BI5	Intention to be a member of the CS platforms	0.831			
BI6	Intention to encourage friends/colleagues to use CS	0.853			

Note(s): Factor loading > 0.65; Cronbach's alpha > 0.7; Average variance extracted (AVE) > 0.5; Composite reliability > 0.7

Source(s): Authors' own work

4. Findings

4.1 Assessment of the measurement model

In the first step of the measurement model evaluation, data validity and reliability were computed using Cronbach's alpha, average variance extracted and composite reliability. In addition, the item loadings (see [Table 1](#)) and variance inflation factors (VIFs) were reported. [Table 2](#) illustrates the discriminant validity using the Fornell–Larcker and heterotrait-monotrait (HTMT) criteria, which is also displayed ([Table 3](#)). All generated values fall below the prescribed minimum and/or maximum thresholds, allowing the variables and constructs to be regarded as valid ([Hair et al., 2010](#); [Henseler and Sarstedt, 2013](#)). Due to the fact that all

Table 2. Analysis of discriminant validity (Fornell–Larcker)

Constructs	Behavioral intention to use CS	Continuous improvement of CS platforms	Environmental consciousness	Perceived benefits of CS	Smart mobility	E-trust in CS
Behavioral intention to use CS	0.844					
Continuous improvement of CS platforms	0.489	0.804				
Environmental consciousness	0.392	0.356	0.785			
Perceived benefits of CS	0.706	0.534	0.467	0.730		
Smart mobility	0.383	0.255	0.649	0.457	0.795	
E-trust in CS	0.517	0.758	0.266	0.508	0.215	0.815

Source(s): Authors' own work

Table 3. Analysis of discriminant validity (Heterotrait-Monotrait – HTMT)

Constructs	Behavioral intention to use CS	Continuous improvement of CS platforms	Environmental consciousness	Perceived benefits of CS	Smart mobility	E-trust in CS
Behavioral intention to use CS						
Continuous improvement of CS platforms	0.545					
Environmental consciousness	0.426	0.396				
Perceived benefits of CS	0.792	0.606	0.512			
Smart mobility	0.444	0.303	0.763	0.538		
E-trust in CS	0.598	0.876	0.294	0.600	0.265	

Source(s): Authors' own work

thresholds fall within the required range, the model was deemed accurate and the constructs exhibiting convergent validity legitimate (Chin, 1998).

In both discriminant validity investigations (see Table 2 – Fornell–Larcker criterion and Table 3 – criterion), the recommended thresholds are met (Henseler *et al.*, 2014); therefore, additional tests could be conducted.

The collinearity of the measurement model was then evaluated using the VIFs for each item and the inner model. The literature (Sarstedt *et al.*, 2017) suggests that the highest acceptable number is 5. In this instance, the greatest VIF for the items is 3.007 for BI2, and the highest VIF for the inner model is 1.854; hence, multicollinearity is not a problem for the sample. In order to examine the correlations between the constructs, a bootstrap with 5,000 subsamples (bias-corrected and accelerated bootstrap, two-tailed test) allowed the testing of all the hypotheses.

4.2 Assessment of the structural model

The goodness of fit of both the estimated and saturated models was evaluated (Table 4). The model proved to be appropriate with a standardized root mean square residual (SRMR) value of 0.061, whereas discrepancies were below the 99%-quantile of the bootstrap discrepancies (Hi_{95}), thus supporting a good model fit, in line with Benitez *et al.* (2020).

As 53.2% of the behavioral intention to use CS is explained by the perceived benefits of CS and by the E-trust in CS, the predictive value of the model is substantial. The R-square coefficients for the other two constructs – i.e. perceived benefits of CS and E-trust in CS – were also relevant, the retrieved values being 0.409 for the former and 0.576 for the latter (see Figure 2).

Table 4. Model fit

	Saturated model	Estimated model
SRMR	0.061	0.064
d_ULS	2.106	2.275
d_G	0.593	0.596
Chi-square	1372.508	1366.459
Normed fit index (NFI)	0.831	0.832

Source(s): Authors' own work

Going further with the evaluation of the structural model, [Table 5](#) summarizes the direct and specific indirect effects and their significance.

The first hypothesis ([H1](#)) inferred that environmental consciousness has a positive influence on the perceived benefits of CS. The results ($\beta = 0.157$, $T\text{-value} = 3.015$ and $p = 0.003$) demonstrate a favorable influence; hence, [H1](#) can be accepted.

The second hypothesis ([H2](#)) hypothesized that environmental consciousness has a positive influence on the E-trust in CS. The results ($\beta = -0.032$, $T\text{-value} = 0.751$ and $p = 0.453$) demonstrate the lack of significance in the relationship between the two variables, thus infirming [H2](#). Further, [Hypothesis 3 \(H3\)](#) assumed that the continuous improvement of CS platforms has a positive influence on the perceived benefits of CS. In this instance, the results ($\beta = 0.416$, $T\text{-value} = 7.646$ and $p = 0.000$) indicate a stronger positive and statistically significant influence, allowing the acceptance of the hypothesis.

The fourth hypothesis ([H4](#)) investigated the relationship between the continuous improvement of CS platforms and the E-trust in CS. The influence shows itself to be positive and statistically significant ($\beta = 0.758$, $T\text{-value} = 19.063$ and $p = 0.000$), displaying an even greater magnitude, thus supporting [H4](#). Smart mobility has a positive influence on the perceived benefits of CS, according to [Hypothesis 5 \(H5\)](#). This assumption was supported by the findings ($\beta = 0.250$, $T\text{-value} = 4.791$ and $p = 0.000$), which demonstrate a statistically significant positive relationship between the two constructs.

The sixth hypothesis ([H6](#)) examined the relationship between smart mobility and E-trust in CS. In opposition to what was hypothesized, the adherence to smart mobility does not entail greater E-trust in CS, with the relationship being insignificant ($\beta = 0.043$, $T\text{-value} = 1.127$ and $p = 0.260$), thus infirming the hypothesis ([H6](#)). The seventh hypothesis ([H7](#)) assumed that perceived benefits of CS have a positive influence on the behavioral intention to use CS. With a high positive and statistically significant correlation, the data ($\beta = 0.597$, $T\text{-value} = 13.761$ and $p = 0.000$) support [H7](#). The eighth and final hypothesis ([H8](#)) examined the impact of E-trust in CS on the behavioral intention to use CS. In this instance, the results ($\beta = 0.214$, $T\text{-value} = 4.251$ and $p = 0.000$) indicate a highly positive and statistically significant relationship; hence, [H8](#) is accepted.

The analysis of the specific indirect effects of environmental consciousness, continuous improvement of CS platforms and smart mobility on the behavioral intention to use CS via the perceived benefits of CS and E-trust in CS probed the positive mediation effects of the perceived benefits of CS in the relationships between the continuous improvement of CS platforms and the behavioral intention to use CS ($\beta = 0.248$ and $T\text{-value} = 6.689$ and $p = 0.000$) between smart mobility and the behavioral intention to use CS ($\beta = 0.149$, $T\text{-value} = 4.459$ and $p = 0.000$) and between environmental consciousness and the behavioral intention to use CS ($\beta = 0.094$, $T\text{-value} = 2.907$ and $p = 0.004$). Therefore, the perceived benefits of CS prove to be a noteworthy mediator between the considered independent variables and the dependent one, positively mediating all three relationships. This does not apply to the E-trust in CS, which emerges as a significant mediator only in the relationship between the continuous improvement of CS platforms and the behavioral intention to use CS ($\beta = 0.162$, $T\text{-value} = 4.136$ and $p = 0.000$).

5. Discussion of the findings

In order to depict the multidimensional predictors of the behavioral intention to use CS services by younger generations (i.e. Y and Z), the present undertaking revolved around several main factors, namely environmental consciousness, continuous improvement of CS platforms, smart mobility, perceived benefits of CS and E-trust in CS. Most of the analyses probed the significance of the inferred relationships, supporting the advancement of a robust explanatory model. The validation of the model allowed the provision of a thorough outlook of the digital, technological, environmental, psychological and infrastructure factors conducive

Table 5. Path coefficients and the validation of the hypotheses

Effects	Original sample (O)	Standard deviation (STDEV)	T-statistics	Confidence interval (CI) 2.5%	Confidence interval (CI) 97.5%	p-values	Hypothesis testing
Environmental consciousness → Perceived benefits of CS	0.157	0.052	3.015	0.057	0.260	0.003	H1 supported
Environmental consciousness → E-trust in CS	-0.032	0.043	0.751	-0.116	0.054	0.453	H2 not supported
Continuous improvement of CS platforms → Perceived benefits of CS	0.415	0.054	7.646	0.304	0.515	0.000	H3 supported
Continuous improvement of CS platforms → E-trust in CS	0.758	0.040	19.063	0.677	0.832	0.000	H4 supported
Smart mobility → Perceived benefits of CS	0.250	0.052	4.791	0.144	0.351	0.000	H5 supported
Smart mobility → E-trust in CS	0.043	0.038	1.127	-0.033	0.115	0.260	H6 not supported
Perceived benefits of CS → Behavioral intention to use CS	0.597	0.043	13.761	0.510	0.679	0.000	H7 supported
E-trust in CS → Behavioral intention to use CS	0.214	0.050	4.251	0.113	0.311	0.000	H8 supported
Continuous improvement of CS platforms → Perceived benefits of CS → Behavioral intention to use CS	0.248	0.037	6.689	0.178	0.322	0.000	-
<i>Specific indirect effect</i>							
Smart mobility → E-trust in CS → Behavioral intention to use CS	0.009	0.009	1.073	-0.007	0.027	0.283	-
<i>Specific indirect effect</i>							
Smart mobility → Perceived benefits of CS → Behavioral intention to use CS	0.149	0.033	4.459	0.084	0.217	0.000	-
<i>Specific indirect effect</i>							
Continuous improvement of CS platforms → E-trust in CS → Behavioral intention to use CS	0.162	0.039	4.136	0.084	0.238	0.000	-
<i>Specific indirect effect</i>							
Environmental consciousness → Perceived benefits of CS → Behavioral intention to use CS	0.094	0.032	2.907	0.033	0.160	0.004	-
<i>Specific indirect effect</i>							
Environmental consciousness → E-trust in CS → Behavioral intention to use CS	-0.007	0.009	0.734	-0.025	0.013	0.463	-
<i>Specific indirect effect</i>							

Source(s): Authors' own work

to the adoption of innovative CS services, subsequently prompting CS companies to acknowledge and properly organize a proper digital ecosystem for their future undertakings.

In this vein, environmental consciousness proved to exert a positive effect on the perceived benefits of CS while failing to account for the passengers' E-trust in the provided services. On the one hand, people who are willing to reduce consumption for the sake of the environment are concerned about climate change and see protecting nature and biodiversity as important, simultaneously prevailing the environment over economic growth and accommodating their behavior based on concern for the environment proves to adequately perceive the benefits of CS. They are inclined to admit that CS is a good alternative to owning a car, that it could reduce environmental pollution, reduce traffic congestion and spending on transport and that it would be the fastest option to travel, which might prove flexible and suitable even for work trips. These studies confirm prior developments (Acheampong and Siiba, 2020; Dunlap, 2008; Hjortset and Böcker, 2020), which have supported the influence of environmental orientation of individuals on the perceived benefits of CS, bringing to the fore multifaceted connections between the two constructs.

On the other hand, as previously mentioned, environmental consciousness fell short of confirming a positive influence on passengers' E-trust. It can therefore be concluded that the environmental orientations of young generations do not organically translate into their confidence in public CS platform companies in terms of their knowledge and skills to sincerely improve their services, disclose relevant information and seek public interest alongside self-interests. These findings do not complement previous studies (Hartl *et al.*, 2018; Hartl and Hofmann, 2022; Räisänen *et al.*, 2021), which meaningfully linked sustainable environmental preoccupations with a higher degree of trust in modern and innovative transport technologies, including CS services. A possible explanation is that trust in one thing and E-trust in another, even though they may be related, are different. "Trust" focuses more on personal relationships where the provider's environmental empathy and environmental care involve considering users' needs. However, E-trust relies on security measures, privacy protection, reputation or social proof (Kim *et al.*, 2009).

Other key issues approached by the current study envisioned the positive influences of the continuous improvement of CS platforms on the perceived benefits of CS and on the E-trust in CS. These relationships proved to be significant in the context of this research. By making technological improvements in updating their vehicles and paying heed to keeping the vehicles in good technical condition by timely addressing problems with the used vehicles and with customer complaints and integrating the feedback of passengers and adopting their recommendations, the digital CS platforms have succeeded in settling a good representation of the CS services among young generations and have consolidated their E-trust in resorting to such transportation options through Internet platforms. The evidence brought forward in this respect by the empirical investigation is thus indicative of earlier scrutiny regarding the perceived benefits of CS (Gurumurthy and Kockelman, 2020; Ma *et al.*, 2020), respectively, on E-trust in CS (Bardhi and Eckhardt, 2012; Gao *et al.*, 2017; Ma *et al.*, 2020; Ma *et al.*, 2020).

Evidence is therefore provided for the imperative that CS companies should properly organize and capitalize on emergent digital technologies in order to foster an innovative and trustworthy transportation ecosystem where younger generations could feel comfortable. Giving credit to Dörner and Edelman's (2015) standpoint, a proper organization of the digital challenges goes beyond delivering a one-off customer journey; it is mostly about ensuring a cyclical dynamic process and the inherent capabilities deriving from the stakeholders' insights. In this way, technological advances will become a proxy for an innovative intertwining of digital and physical experiences. The journey-focused innovation therefore becomes an expression of how companies become more innovative by efficiently serving their consumers.

When it comes to the impact of smart mobility on the perceived benefits of CS and on the E-trust in CS, the situation is slightly different. While the former relationship displays a

positive influence between the variables, the latter fails to do the same. It therefore becomes obvious that people's interest in ecological solutions for public transport and in limiting road traffic, their openness to amenities for passengers and residents and to alternative public means of transport, which are consuming fewer resources are good predictors of perceiving the advantages provided by CS, as also contended by [Wawer et al. \(2022\)](#) and [Albino et al. \(2015\)](#). Conversely, while necessary, these aspects are not sufficient for the passengers to grant credibility to public CS platforms in terms of genuinely meeting the needs of communities. At this level, the results do not converge with prior findings, which asserted the positive relationship between smart mobility and passengers' E-trust in CS (e.g. [Del-Real et al., 2023](#); [Safdar et al., 2022](#)). Once again, the explanation for these results lies in the difference between trust and E-trust. Focusing E-trust on the platform through which the provider makes available a service makes it possible for the provider not to be tied exclusively to one platform. In these circumstances, it is tough for smart mobility to be linked to E-trust in a specific digital platform since the user can find the same service through different platforms or even directly if he/she contacts the provider in case he/she knows it, has previously used the service or an acquaintance recommends it.

Finally, the study scrutinized the relationships between the perceived benefits of CS and the E-trust in CS on the behavioral intention to use CS. In this vein, individuals' behavioral intention to use CS covered their propensity towards using CS when there are promotions, towards affiliating with CS platforms toward unfolding regular trips and encouraging friends and/or colleagues to use CS. All these facets are positively influenced on the one hand by the perceived manifold benefits of CS, as also posited by [Curtale et al. \(2021, 2022\)](#) and [Kasper et al. \(2021\)](#) and on the other hand by the E-trust in CS, as also deemed by [Ma et al. \(2020\)](#) and [Tran et al. \(2019\)](#), among others.

6. Conclusions and implications

6.1 Summary of the findings

CS has progressively sprung up as a non-negligible and innovative complement to the existing transportation, being deemed as an environmentally beneficial and digitally driven alternative, which challenges the status quo in mobility options. As an innovation-oriented solution for sustainable transportation in the broader context of smart cities and smart mobility, CS is expected to impact society in several ways, that is, reducing car ownership and car use, implicitly resulting in lower CO₂ emissions and reshaping the future of mobility by encouraging the convergence of electrification and automation leading to shared automated and electric vehicle fleets.

In this front, the behavioral intention to use CS services has emerged as a strong predictor of the actual use. Therefore, the investigation of its antecedents allows a pertinent overview of multifaceted dimensions (i.e. social, psychological, digital, technological and environmental). Giving way to this rationale, the present paper looked into the influence of prominent factors such as environmental consciousness, the continuous improvement of CS platforms, smart mobility, perceived benefits of CS and E-trust in CS services as relevant determinants of the intention to use CS services. The structural model may be considered robust, as 53.2% of the behavioral intention to use CS is explained by the explored antecedents. Moreover, as evidenced, the perceived benefits of CS served as significant mediators in the relationships between the continuous improvement of CS platforms, smart mobility and environmental consciousness and the behavioral intention to use CS, whereas E-trust in CS proved meaningful only in the relationship between the continuous improvement of CS platforms and the behavioral intention to use CS. Evidence is hereby brought to the attention of CS companies, which should manifest a keen interest in fostering a cutting-edge and trustworthy digital environment for its stakeholders by means of a suitable organization of the mobility processes and dynamic capabilities.

6.2 Theoretical and practical implications

By articulating a comprehensive model with a view to calling forth the antecedents of the behavioral intention to use CS, the current investigation extends prior developments in the field.

In terms of theoretical implications, it integrates multiple factors in a common framework, simultaneously considering social, psychological, digital, technological and environmental dimensions in addressing the behavioral intention to use CS. This approach rounds off previous empirical undertakings, which have focused either on some of these predictors or have sought to primarily discuss a certain category of variables (for example, only the technological or socio-demographic issues as key variables). Furthermore, the conceptual model gives way to a more specific construct, namely e-trust, which particularizes the scope of trust in the context of the technological advancements embodied in the mobility systems.

Consistent with Pirker *et al.* (2021), the burgeoning landscape of urban transportation is undergoing profound transformation and, consequently, the widespread adoption and sustained success of CS hinges not only on technological advancements and infrastructural enhancements but also significantly on the cultivation of robust electronic trust among prospective users. E-trust, in this context, embodies the confidence and assurance individuals possess in the dependability, security and overall integrity of CS platforms and their associated services (as also posited by Olsina and Lew, 2017). The essence of this trust is expected to lie in the intricate interplay between technological infrastructure, user experience design and the perceived risks inherent in relinquishing control over personal transportation to a shared system. As technology continues to disrupt and reshape the automotive sector, it is imperative to understand how infrastructure improvements and vehicle technology can bolster e-trust in CS services, as previously inferred by Mira-Bonnardel *et al.* (2020). Infrastructure improvements are liable to play a pivotal role in fostering e-trust within CS services by directly addressing concerns related to accessibility, reliability and security. For instance, the strategic placement of CS hubs in easily accessible locations, coupled with seamless integration with public transportation networks, can significantly enhance user convenience and foster a sense of dependability. Moreover, the implementation of robust charging infrastructure for electric vehicle fleets not only promotes environmental sustainability but also alleviates range anxiety, a prominent concern among potential users wary of vehicle limitations. Simultaneously, vehicle technology enhancements contribute to e-trust by ensuring vehicle safety, security and operational efficiency.

The study also entails practical implications and implicit takeaways for CS company owners, business practitioners and transportation planners for efficiently organizing and developing CS digital platforms to meet stakeholders' expectations and standards. The continuous improvement of CS platforms emerges as a pivotal factor in passengers' acknowledgment of the benefits of CS and in their E-trust in such service, also having an indirect positive influence on their intentions. Subsequently, the consistent digital and technological development catalyzes the whole process toward the potential adoption of a new lifestyle in terms of shared mobility, the perception of the underlying benefits being augmented by the environmental consciousness and smart mobility issues at the same time.

The goal is to establish a cyclical system in which processes and capabilities continuously adapt and improve in response to consumer feedback, hence promoting long-term loyalty to the product or service. The advancements in ICT will serve as a representation of the merging of digital and physical experiences in a creative manner. The emphasis on journey-focused innovation thus signifies how firms enhance their level of innovation by effectively meeting the needs of their consumers. From a bird's-eye view, the consistent improvements in the digital ecosystem prove to fuel the journey-focused innovation, as the step-by-step investments in fostering a valuable and mutually beneficial relationship between company and customer lead to better management of current strengths and future challenges. Serving consumers in a suitable manner allows CS companies to enhance their innovation in how they interact and sell their services to them.

CS businesses can customize their platforms to increase user loyalty and confidence by catering to environmentally conscious customers. Impact can be ensured by bolstering platform upgrades. For example, displaying vehicle efficiency information (i.e. fuel efficiency or electric range of each vehicle available for sharing) would empower users to make informed choices based on their environmental preferences. Additionally, promoting eco-friendly vehicle options like featuring a prominent selection of electric, hybrid or other fuel-efficient vehicles and offering incentives for choosing these options (i.e. discounted rates or priority booking) would emerge as a feasible approach. The same applies to sustainable routing, which would imply navigation tools that prioritize eco-friendly routes, minimizing fuel consumption and emissions. Based on the findings, policymakers could support the creation of rules that support CS services and sustainable transportation. They can also concentrate on creating regulations to boost digital literacy and confidence in emerging mobility platforms. It may be possible to promote the legal platform norms needed to support E-trust, while CS services can be incorporated by urban planners into their younger-generation-focused transportation plans.

By capitalizing on these aspects, policymakers should foster this service as an innovative and feasible present and future sustainable solution to modern transportation. Still from a practical point of view, a significant contribution is to make CS platforms (such as BlaBlaCar, Waze Carpool, Amovens, Free2Move or Zity, among others) aware of the difference between trust in the service provider and E-trust. Building loyalty and seeking a certain exclusivity among service providers is necessary to capitalize on the user's trust in the provider. Only this way will it be possible to link the user to the digital platform and the service provider simultaneously.

6.3 Limitations and further research directions

Despite having tackled multifarious aspects related to the young generations' (Gen Y and Z) behavioral intention to use CS, this endeavor is not exempt from several limitations, which may be approached by future studies. Firstly, the research sample focused on subjects coming from only one country (i.e. Italy) and from younger generations, therefore falling short of objectivizing its relevance for other national contexts and for older people. In this vein, further developments could extend the scope of the research to Generation X – for e.g. in an effort to disentangle the evidence based on relevant socio-demographic characteristics.

Secondly, the study revolved around the behavioral intention to use CS services, whereas the actual adoption was not directly envisaged. This situation calls for future explorations on the topic, which may simultaneously or separately delve into the issue of individuals' behaviors related to CS usage. Likewise, the research relied on specific scrutiny, which simultaneously gave credit to digital, technological, environmental, infrastructure and psychological factors while tangentially touching economic considerations. These issues may become the object of other analyses aiming to lay emphasis on the exact financial drivers of resorting to such services.

Thirdly, apart from considering respondents from two main age categories as classified by the classical literature, no other socio-demographic control variables were employed. Given that a handful of previous undertakings have posited the relevance of such factors, future scrutiny would benefit from integrating other personal characteristics in the research model.

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