Gamification and service quality to incentivize shared micro-mobility services in Italy. An empirical study.

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Purpose. The present study aims to understand user perceptions of service quality and gamification mechanics in shared micro-mobility services.

In the last years, there has been a growing interest in sharing mobility for the potentiality to generate a positive impact on sustainability and a greater awareness of environmental issues. In addition, the COVID-19 pandemic had a crucial effect on the actors involved in the transport sector, accelerating interest in issues related to sustainability. Furthermore, the Agenda 2030 recognized sustainable mobility as a priority connected to service quality management practices: it's necessary to improve the safety and quality of the service provided (SDG-11.2), and promote an accessible and flexible solution that reduces emissions (SDG-13).

Sharing mobility, disruptive technologies and quality management are related to pursuing sustainable development. In this regard, several mobile applications have implemented gamification mechanics to create and increase user engagement and influence users' behaviour, such as encouraging sustainable practices.

Methodology. The authors developed a theoretical framework that investigates the service quality role on user satisfaction on shared micro-mobility services and analyzes whether the intention to reuse these services changed after the pandemic. In addition, the effect of game mechanics on users' loyalty and service quality is analyzed. The research performed the qualitative analysis with in-depth interviews and quantitative analysis (questionnaire). Thereafter, the theoretical model was analyzed through structural equation modelling (SEM) statistical techniques.

Findings. Findings confirmed that service quality, synthesized in quality of means and platform, is an antecedent to user satisfaction, influencing services loyalty. Gamification improves service quality and directly affects users loyalty.

Practical implications. The study highlighted the crucial role of service quality and gamification to promote and incentivize shared micro-mobility. To encourage sustainable mobility, the service quality must be improved considering users' needs: convenience, reliability, safety and availability of vehicles and the ease of use and security of the platforms. Gamification mechanics educate users to report broken or badly parked vehicles, generating useful information for mobility operators.

Originality. This study uniquely contributes to an understanding of the linkage between service quality and gamification. The results provide insights for mobility operators to improve the service quality and for policymakers to promote sustainable mobility and support the recovery from COVID-19. The study highlighted that gamification is a useful tool for changing transport habits, generating knowledge of environmental issues by educating and raising awareness among citizens.

Key words: service quality; gamification; sharing mobility; micro-mobility

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