

Qualitative Evaluation of a Management System Implementation for Regulated Rotating Parking: The EstarDigi in the Municipality of Pato Branco – PR/Brazil

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Abstract

As a result of urban population growth, the number of vehicles and the demand for transport also increases in cities, causing traffic and parking problems, what requires smart management solutions. In this sense, the objective of this study was to qualitatively assess the effects of implementing a management system for regulated rotating parking. Based on the DeLone and McLean (D&M) Information Systems Success Model, two questionnaires and an interview script were elaborated, and applied to the Traffic Department of the municipality of Pato Branco - PR, and to the system developer. The interview was recorded, transcribed, and subsequently applied to thematic analysis in the light of the seven dimensions defined by the D&M IS Success Model: information quality, system quality, service quality, intention to use, use of the system, user satisfaction and net benefits. Qualitative information was coded according to each dimension, in order to identify specific topics relevant to the research. The main results showed that there was an improvement in agility in the parking process for drivers, expansion of payment options, and the remote management of the parking space use was enabled. For traffic managers, the possibility of issuing reports was expanded, as well as real-time information management, and the inspection of vehicle regularity became easier. The research points out the need for future studies to verify the vision of other stakeholders, and the global impacts of the use of these systems in urban mobility.

Keywords

Urban Mobility, Regulated Parking, Information Systems Success and Smart Cities.

Acknowledgements

The authors gratefully acknowledge Federal Technological University of Paraná for the financial and research support for the project.

Biographies

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Gilson Ditzel Santos holds a PhD in Business Administration from the Faculty of Economics, Administration and Accounting of the University of São Paulo (2009), and a Master's degree in Business Sciences and Public Policy Studies from Tsukuba University (2001), Japan. He is a professor of graduate programs in Regional Development (Doctor and master degrees) and Production Engineering and Systems (master degree). He is a professor at the Federal Technological University of Paraná, since 1994. He has academic experience in the areas of IT and Smart and Sustainable Cities Management, working mainly on the following topics: innovation, evaluation of process/service performance.