How do Smart City projects define and deliver value? A classification of business modelling characteristics to support design and development

Original

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Abstract

Managing problems such as energy consumption, pollution, traffic congestion while improving the attractiveness, livability, and economic competitiveness of their city is a critical twofold objective for public administrators, who have been seeking to tackle these challenges via increasingly investing in promising Smart City solutions. However, despite a growing scholarly interest and booming market of solutions and technologies, there is still the need to unlock the value that Smart City projects can bring to cities and communities and, in particular, to understand how these projects define and deliver value to their stakeholders.

To fill this gap, this study presents an empirical qualitative analysis of the business modelling characteristics of 1600 Smart City projects implemented internationally. Projects have been gathered and their characteristics have been classified on a framework of key business modelling elements. The variety of projects characteristics have been iteratively analyzed to identify general concepts and discarding redundant information. Finally, a classification of business modelling characteristics for Smart City projects is given, illustrating the main benefits and objectives of Smart City projects and how these benefits are generated and distributed among stakeholders.

The resulting implications are double. First, this classification effort helps scholars providing a rich dataset and a common reference to design Smart City projects. Second, it supports the decision-making processes of practitioners from both public and private organizations and acts as a best practice for the design and execution of innovative Smart City projects.