

THE SMART CITY AS A DRIVER FOR THE SUSTAINABLE DEVELOPMENT GOALS ACHIEVEMENT

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Introdução

Smart cities are integrated, participatory, and multidimensional urban environments based on Sustainable Development that can challenge the building of our future cities. Since the smart city concept proposes development and sustainability in its core, it is possible to connect with the Sustainable Development Goals (SDGs). However, the authors are not yet massively engaged with this perspective or in carrying out studies on the dimensions that can strengthen the SDGs.

Problema de Pesquisa e Objetivo

We were guided by the research question: "How can the smart city contribute to achieving the Sustainable Development Goals?". This study aims to identify how the smart city may drive to the Sustainable Development Goals achievement in Brazil.

Fundamentação Teórica

Sustainable Development is a fundamental goal for governments that want to end poverty, guarantee prosperity, and create better health, education, and social needs. The main initiative introduced by policymakers to encourage socio-environmental sustainability is from the United Nations Agenda for 2030. As such, smart cities solutions are expected to provide tools to support cities in achieving these goals, helping stakeholders to monitor the state and manage progress towards achieving the SDGs through universally accepted indicators.

Metodologia

This study aims to identify how the smart city may drive the Sustainable Development Goals achievement in Brazil through a qualitative exploratory-descriptive methodology. We performed a Direct Content Analysis to code the secondary data from the Institute of Applied Economic Research report (Silva, 2018) and link Giffinger et al (2007) smart city dimensions to the SDGs. Also, we analyzed how the Smart City contributes to the SDGs achievement using the coded data, linking it to the Brazilian reality.

Análise dos Resultados

The smart city is composed by six interconnected smart dimensions that act toward the SDGs. As such, we could categorize the objectives, goals, and targets from the SDGs together with Brazilian indicators from the Institute of Applied Economic Research report into each smart dimension. Also, we suggested improvements to Brazilian Smart Cities based on the Literature Review.

Conclusão

Despite some differences in the concept, we conclude that the smart city is an ecosystem composed of Technology, Sustainability and Community driven by multiple stakeholders to build an integrated, participatory, and multidimensional urban environment based on Sustainable Development. When a city acts toward the achievement of the SDGs, it is becoming sustainable and builds a path for smartization. The other way around is also accurate; when a city acts to become smart, it may achieve the SDGs, thus reaching Sustainable Development.

Referências Bibliográficas

Giffinger, R., Fertner, C., Kramar, H., Kalasek, R., Pichler-Milanovic, N., Meijers, E., (2007). Smart Cities Ranking of European Medium-Sized Cities. Centre of Regional Science. 303-320. URL http://www.smart-cities.eu/download/smart_cities_final_report.pdf (assessed 5.6.2021). Silva, E. R. A. da. (2018). AGENDA 2030: ODS - Metas Nacionais dos Objetivos de Desenvolvimento Sustentável. https://www.ipea.gov.br/portal/index.php?option=com_content&view=article&id=33895 (last accessed 5.5.21).