A SYSTEMATIC LITERATURE REVIEW ON INNOVATION ECOSYSTEMS USING THE LATENT DIRICHLET ALLOCATION ALGORITHM (LDA) AND TERM-FREQUENCY-INVERSE DOCUMENT FREQUENCY (TF-IDF)

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Introdução

This paper presents a systematic literature review on Innovation Ecosystems by analyzing 7.045 non-duplicated articles from Scopus. Papers were filtered with Term Frequency-Inverse Document Frequency and Latent Dirichlet Allocation algorithms. A sample of 350 abstracts passed through a qualitative-descriptive analysis. They highlight the importance of governance mechanisms, strategic alignment, and partner diversity in driving innovation and entrepreneurship. Future research should explore their management implications. The study's limitations rely on the chosen pipeline process.

Problema de Pesquisa e Objetivo

This article aims to apply Latent Dirichlet Allocation to systematically analyze and identify thematic structures within the Innovation Ecosystem literature. It is expected to uncover underlying research trends, categorize significant topics, and provide a comprehensive overview of the IE domain. The research question was as follows: How effective is the LDA technique in enhancing the accuracy and efficiency of systematic literature reviews on Innovation Ecosystems, and what are the methodological challenges and limitations associated with its implementation?

Fundamentação Teórica

In Innovation Ecosystems, interdependent and co-evolving relationships among actors co-create and capture value in a complex network of specializations and complementary resources (Grandstrand & Holgersson, 2020). This research applied the Systematic Literature Review (SLR) of Briner and Denyer' (2012), facilitating its process by identifying relevant studies through LDA, a prominent and innovative approach to extracting meaningful information from unstructured textual data (Blair et al., 2020).

Discussão

The dimensions discussed in the paper underscore innovation ecosystems-related policies, intersecting governance, actors' interactions, and performance. They also develop social innovations and the role of ecosystems in promoting businesses – their models and thus value creation and capture are also discussed, optimizing it through knowledge exchange. Finally, the impacts of digital technology adoption on different aspects of innovation ecosystems are presented.

Conclusão

Governance mechanisms and the role of non-focal actors are essential factors in Innovation ecosystem management. Partner diversity, regional innovation environments, and partnership heterogeneity influence innovation performance. Tensions between value creation and appropriation must be balanced through fair value distribution. A comprehensive measurement framework for studying collaborative relationships among ecosystem constituents must be built to understand innovation dynamics success in IE further.

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