

Blockchain Technology and Its Role in Value Creation and Capture: A Comprehensive Bibliometric Review

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Keywords

Blockchain, Value Creation, Business Model Innovation, NFTs, Smart Contracts, Decentralized Finance

Purpose

This study aims to analyze the role of blockchain technology in value creation and capture mechanisms, examining how its emerging applications – including smart contracts, NFTs, and cryptocurrencies – are transforming business models. The existing literature has addressed the topic of blockchain in various contexts, initially focusing on the financial sector, as the first application of this technology was bitcoin. However, in recent years, research attention has expanded to sectors such as supply chain management, circular economy, digital transformation, and the sharing economy (Dutta et al., 2020; Pazaitis et al., 2017; Upadhyay, 2021; Massaro, 2023). Several literature reviews have focused on blockchain technology in different contexts. Some have identified the key themes connecting blockchain to the business world, others have analyzed the interdependencies required for the adoption of blockchain technology, while others have examined blockchain's contributions to the internet of value (Sun et al., 2022; Yuthas and Appleyard, 2022; Sestino et al., 2022).

Methodology

The methodology used in this study is based on a bibliometric review of the literature, using the Scopus database. Peer-reviewed articles in the field of Business and Management were selected, using keywords such as "blockchain," "NFT," "smart contract," and terms related to value creation and capture, such as "value creation" and "value capture." Bibliographic coupling and co-occurrence analyses were then conducted using the VOSviewer software to highlight the main thematic interconnections between the articles (van Eck & Waltman, 2010).

Findings

The bibliographic coupling produced eight distinct thematic clusters. The most significant clusters emerging from the analysis concern value systems, the evolution of business models, sustainability and efficiency, as well as digital platforms, highlighting that these themes are now well-established in the literature. These topics represent well-developed focal points in blockchain studies, confirming their central role in analyzing value and business model innovation. In contrast, clusters related to digital

transformation and the emergence of new business models are less represented, with a limited number of available studies. However, the documents belonging to these clusters are characterized by very recent publication dates, suggesting that they may represent emerging topics in the literature, likely to attract growing attention from the academic community. The results of the co-occurrence analysis show that blockchain is increasingly associated with emerging concepts such as decentralized finance (DeFi) and Web 3. The temporal visualization of keywords highlights that the link between blockchain and these new terms is relatively recent, suggesting a shift in academic focus toward these topics.

Conclusions and implications

The study reveals that blockchain plays a fundamental role as a driver of innovation in business models, as well as a tool for the creation of integrated digital ecosystems. The implications for business management require a strategic approach that considers blockchain as a catalyst for structural transformations in business models. From an academic perspective, greater attention is needed to the impact of emerging blockchain applications, such as NFTs and DeFi, and their potential to transform competitive dynamics in various industrial sectors. Future studies should explore the barriers to blockchain implementation and develop frameworks for its effective adoption.

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