



Mapping the Research on Artificial Intelligence and Entrepreneurship: A Bibliometric Review From Scopus Database


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ABSTRACT

Despite the increasing popularity and research focus on the application of artificial intelligence (AI) in entrepreneurship, no comprehensive bibliometric analysis of relevant papers has been conducted. Our review examines 127 Scopus-indexed publications from 2007 to October 2023. The inquiry explores thematic progression, geographical production trends, and seminal works shaping the discourse. Notably, while authors from Asia, mainly China, lead in publication volume, influential works from the USA, the UK, and Australia attract significant scholarly attention. The analysis reveals a prominent trend: highly cited papers often lack theoretical frameworks, with literature reviews and conceptual analyses prevailing over empirical investigations. When theoretical foundations are present, diverse theories are often amalgamated. In conclusion, our review highlights numerous avenues for future academic exploration in this domain. Pragmatically, our effort, the first of its kind, consolidates fragmented insights, providing a cohesive understanding of AI's pivotal role in entrepreneurship.

KEYWORDS

Artificial Intelligence, Bibliometric Review, Entrepreneurship, Future Research Directions, Methodology, Theories

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INTRODUCTION

Entrepreneurship is an endeavor to provide goods and services that incorporate innovative approaches aimed at meeting the evolving demands of society (Cueto et al., 2022). In recent times, however, digital technology has revolutionized the type and extent of this endeavor (Nambisan, 2017; Purbasari et al., 2023; Younis et al., 2020). A notable aspect of digitization is the application of artificial intelligence (AI) to automate tasks that require substantial human involvement and exertion (Jarrahi, 2018). In the context of entrepreneurship, AI has revolutionized entrepreneurial action, enabling sophisticated, adaptable algorithms to perform tasks that typically require the human intellect (Townsend & Hunt, 2019). For example, AI has assumed a central role in entrepreneurship, profoundly impacting various facets of business creation, operation, and growth (Weber et al., 2022).

Thus, AI's importance in this context cannot be overstated. It provides entrepreneurs with data-driven insights that are crucial for making informed decisions (Battisti et al., 2022). By analyzing extensive datasets, it uncovers trends, consumer preferences, and market opportunities. This gives entrepreneurs a competitive advantage in developing innovative products or services. Moreover, AI enables automation, alleviating the load of routine and time-consuming tasks (Chalmers et al., 2021). This not only streamlines operations but also permits entrepreneurs to dedicate time to more strategic, value-adding activities. For example, AI-powered chatbots improve customer service by offering consistent 24/7 support, a vital feature in today's global business environment (Cheng & Jiang, 2020). AI-driven personalization and recommendation systems enhance the user experience by tailoring it to individual preferences, which in turn amplifies customer retention, loyalty, and satisfaction (Cheng & Jiang, 2020). Additionally, AI is instrumental in risk assessment and fraud detection, ensuring that entrepreneurial ventures are shielded from potential threats and investment losses (Mirza et al., 2023).

Given the significance of AI in entrepreneurship, a noticeable growth in literature in this domain is evident, covering a variety of areas such as healthcare start-ups (Garbuio & Lin, 2019), big data (Obschonka & Audretsch, 2020), digital entrepreneurship (Upadhyay et al., 2022), and entrepreneurial education (Nuseir et al., 2020). The scattered and emergent nature of the extant literature in this important research domain necessitates a rigorous and bibliometric review to consolidate the current knowledge base and explore knowledge trajectories, key research clusters, and opportunities for future research.

While AI has long been studied within entrepreneurship (Obschonka & Audretsch, 2020), there is no study that quantitatively examines the intellectual structure of the area to elucidate how it has evolved. To the best of our knowledge, the only bibliometric review on the subject focused on presenting a drill-down of AI in entrepreneurial management with a concentration on start-ups (Li et al., 2022). In addition, the authors focused on the web of science (WoS) database, which has relatively fewer scholarly publications than Scopus. Li et al. (2022) admitted that the results of their review are limited by their choice of keywords and coverage of the WoS database. Moreover, beyond the quantitative representation of the trajectory of publications, citations, and knowledge structure in the existing work of Li et al. (2022), there is a missing link concerning the methodological and theoretical focus of studies that have been conducted on the subject. This is something we sought to shed light on in this study.

Our study bridged the gaps by providing a thorough review of the literature on the relationship between AI and entrepreneurship. We employed bibliometric analysis, which allowed for the automatic identification of research trajectory, clusters, and themes, facilitating the structured evaluation of extant studies. Our review was anchored by five main research questions:

1. What has been the publication trajectory of AI and entrepreneurship research?
2. What is the scientific landscape of publications' (countries, journals, articles, and authors) patterns for research on this topic?

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