Tracing the development of platform economy research: key trends and insights

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Abstract: In recent years, the platform economy has transformed how individuals share and conduct transactions in digital spaces. This phenomenon has attracted scholars from various diverse fields and disciplines into an emerging research area. This study aims to explore the trends and key insights in the literature on the platform economy through a bibliometric approach. The analysis includes research articles published between 2000 and 2024 on the platform economy. Using publications available on the Web of Science, this study identifies influential journals, institutions, landmark papers, and citation bursts. In addition to researchers in management, business, and economics, scholars from sociology, communication, law, and computer science are increasingly contributing to platform economy research. The findings reveal that the focus of platform research has evolved over time. This research will serve as a basis for future discussions on the crucial roles played by digital platforms in the platform economy.

Keywords: Platform economy, Scientific research, Bibliometric analysis

1 Introduction

The platform economy represents a distinct economic paradigm characterised by two-sided markets functioning within the broader context of traditional market economics. [1] examine the evolution of the platform economy, which is propelled by advancements in digital technologies, including the Internet, cloud computing, big data, and the Internet of Things [2]. Central to this transformation are platform enterprises that create and manage extensive digital ecosystems, facilitating connections between consumers and service providers while transforming industry dynamics.

The platform economy exerts a profound influence on both upstream and downstream enterprises, striving to lower transaction costs by optimising organisational structures and service mechanisms. This shift fosters a new model of economic integration, in which resource allocation becomes increasingly synchronised with traditional industries. Since the 1990s, the emergence of large-scale digital platforms employing data-driven business models has revolutionised global markets. Pioneering companies such as Google, eBay, Alibaba, Baidu, Tencent, and JD.com have played a pivotal role in shaping this economic transformation, redefining market structures, competitive behaviours, and industry landscapes [3].

Furthermore, the platform economy transcends national boundaries, facilitating cross-border and cross-regional business models that accelerate global economic integration. The exponential growth of platform enterprises has stimulated extensive academic inquiry, driving in-depth research into their economic, technological, and regulatory implications. As digital platforms continue to evolve, they present both opportunities and challenges, necessitating ongoing scholarly analysis to understand their long-term impact on economic structures and market dynamics.

Given the rapid expansion of the platform economy, a comprehensive and systematic review of its development over the past two decades is essential. This study employs a bibliometric approach to enhance the theoretical and empirical understanding of trends and insights in the platform economy by examining its evolution from 2000 to 2024. Furthermore, the findings will contribute to the growing body of literature by refining analytical frameworks and supporting the creation of more effective, data-driven decision-making strategies for academia and industry. Such an analysis will synthesise existing knowledge, map prevailing research trajectories, identify critical gaps, and provide insights to inform future scholarly inquiry and policy-making.

This study is structured into five sections. Introduction section highlights the significance of the platform economy, its evolution, and the objectives of this systematic review. Section 2 – Theoretical Overview of bibliometric analysis in platform economy. Section 3 - Methodology details the data sources (Web of

Science) and bibliometric tools (VOSviewer 1.6.20) employed for analysis. Section 4 - Results presents key findings, including keyword trends, number of publications, citation analysis, and collaboration patterns, using visual representations. Section 5 - Conclusion summarizes the main findings, provides recommendations for advancing platform economy research, and emphasizes the importance of interdisciplinary approaches and future research directions.

2 Literature review

Bibliometric analysis has become increasingly prominent in business research, primarily due to advances in accessible analytical tools such as Gephi and VOSviewer and comprehensive databases like Scopus, Web of Science, and Dimensions.ai [4-6]. Its growing adoption reflects not only methodological innovation transferred from information science but also its practical value in managing large datasets and generating high-impact insights. Bibliometric analysis is a useful resource for researchers seeking to uncover emerging trends, collaboration networks, and the intellectual framework of a research field [4]. Examining extensive amounts of objective data, like citation counts, publication metrics, and keyword frequencies, facilitates both quantitative performance assessments and qualitative thematic interpretations. Previous literature has documented certain publications that utilized bibliometric analysis within the platform economy and its applications in other scientific fields.

[7] identify the rise of digital platforms as one of the three defining events of the digital revolution, fundamentally reshaping production, daily life, and cognitive processes. The platform-based model has become a cornerstone of modern business, with many of the most successful enterprises exhibiting platform attributes [8]. Serving as intermediaries that facilitate interactions and value exchange among participants, platforms have transformed traditional market dynamics. Consequently, major technology companies are predominantly structured as platform-based enterprises, leveraging network effects to drive innovation, scalability, and competitive advantage [9]. [10] indicates that the sharing economy offers potential for economic growth and enhanced sustainable resource use.

According to [11] the sharing economy has garnered significant scholarly attention, prompting a need to systematically map its intellectual structure and research trends [21, 22]. Through a bibliometric analysis of 416 articles published between 2013 and 2018, the authors identify key thematic clusters, influential publications, and leading contributors in the field. Their findings reveal that research on the sharing economy is interdisciplinary in nature, with growing emphasis on sustainability, digital platforms, business models, and user behavior.

The sharing economy plays a growing role in promoting sustainable development, prompting [12] to conduct a bibliometric analysis to explore research trends in this area. By analyzing 975 publications from 2010 to 2020, the study identifies key research hotspots such as collaborative consumption, climate change, renewable resources, and the circular economy. The findings reveal a steady increase in academic interest, particularly in China, and point to underexplored areas like the bioeconomy and urban mobility. The authors emphasize the need for further research to better understand the sharing economy's impact on environmental, social, and economic sustainability. Analyzing 440 publications from 2009 to 2022, [13] identified major research themes in operations research, including pricing strategies, resource allocation, platform design, and demand forecasting, within the context of the sharing economy. Through a systematic review of 175 scientific articles, [14] examined drivers and barriers to participation in the sharing economy, focusing on environmental, economic, and social motivations. Their findings suggest that while environmental concerns play a role in driving participation, other factors such as trust, convenience, and financial incentives are also critical. [12] deal with the platform economy in the context of sustainable development, applying bibliometric analysis to explore how sharing economy research contributes to sustainability discourse. By examining 975 academic publications from 2010 to 2020, the authors identify major thematic areas such as collaborative consumption, climate change, renewable resources, and the circular economy.

3 Methodology

The bibliometric analysis uses literature from the publication database to create a scientific and coherent network and structural representation [15]. This method is essential and effective for illustrating, analyzing, and summarizing existing research in relevant fields. Through techniques such as cluster analysis, co-citation analysis, and visual analysis, bibliometrics evaluates the relationships among papers, authors, and keywords, providing credible research insights for scholars [16]. This paper applied bibliometric analysis to quantitatively evaluate the literature review concerning the platform economy.

3.1 Data collection

The data was collected from the Web of Science (WoS) webserver, a resource widely used by scholarly researchers in the field of bibliography [15-17]. „Web of Science Core Collection“ database was used, which encompasses over 34000 journals, books, and conferences, totaling more than 134 million research materials [18]. Academics value the WoS database for its reliable archiving of high-quality sources and the rich collection of materials referenced in numerous prior studies.

WoS, maintained by Clarivate Analytics, is recognized as the most extensive scientific research platform and was previously known as ISI Web of Science.

This research utilizes a bibliometric analysis method to examine studies on the platform economy from 2000 to 2024. Data was obtained from Web of Science by using the search conditions were set as follows: the topic is „platform economy" and the document type is designated as "Article." A total of 10322 documents were retrieved. Using the export function of WoS, all records were exported to "txt" format, including the title, keywords, abstract, author, year, foundation programs, and source journal of each article. All articles were analyzed with VOSviewer to uncover publication trends, co-authorship networks, and thematic patterns [19]. Essential analyses included citation impact, keyword mapping, and collaboration clusters. Non-peer-reviewed papers and unrelated domains were excluded from consideration. The results offer valuable insights into trends, key contributors, and research gaps within the platform economy literature.

4 Results

The analysis of the top research categories highlights the diverse applications of the platform economy (Figure 1).

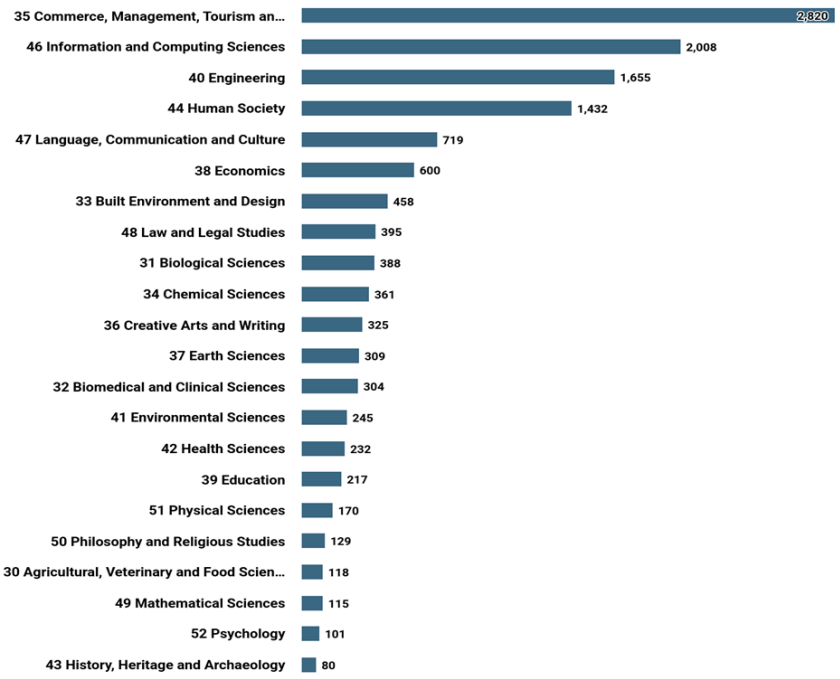

Figure 1

Flowchart of number of publications in the fields of (ANZSRC 2020)

Commerce, Management, Tourism, and Services lead with 2820 publications, emphasising how the platform economy leverages digital technologies to enhance efficiency, connectivity, and innovation in these sectors, thereby creating new opportunities and challenges. Information and Computing Sciences follow with 2008 research studies, serving as the backbone of the platform economy by developing technologies, enabling efficient data usage, and ensuring secure, innovative, and scalable digital ecosystems for platforms in operation. Engineering ranks third with 1655 publications, emphasizing its pivotal role in optimizing processes, advancing infrastructure development, and adapting to the demands of the platform economy, which drives innovation, fosters the integration of cutting-edge technologies, and reshapes traditional engineering practices to meet the needs of a rapidly evolving digital landscape. Other prominent categories include Human Society (1432), Language, Communication and Culture (719), Economics (600), and Built Environment and Desing (458) further demonstrate the applicability of the platform economy across domains such as community and cultural development, management, economic policy, and urban planning. This diversity underscores the importance of the platform economy in modern society.

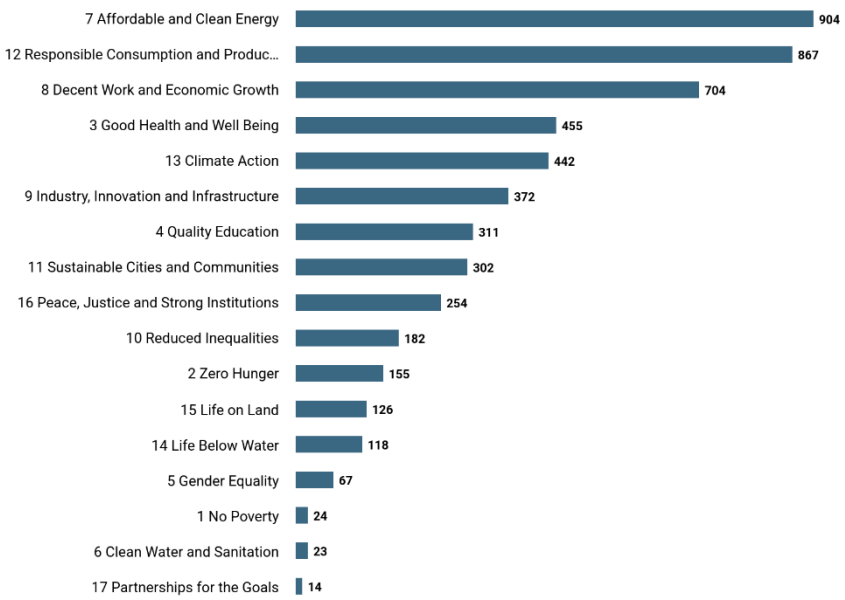

Figure 2

Flowchart of number of publication in the fields of Sustainable Development Goals

The analysis categorizes platform economy research contributions based on alignment with the United Nations Sustainable Development Goals (SDGs), highlighting a significant focus on environmental sustainability and responsible consumption (Figure 2). The most addressed SDG is Affordable and Clean Energy (SDG 7), with 904 studies emphasizing renewable energy and optimization. Responsible Consumption and Production (SDG 12) follows with 867 studies, while Decent Work and Economic Growth (SDG 8) has 704. Contributions to Good Health and Well Being (SDG 3) and Climate Action (SDG 13) include 455 and 442 studies, respectively. Lesser-researched SDGs include Industry, Innovation and Infrastructure (SDG 9), Quality Education (SDG 4), and Sustainable Cities and Communities (SDG 11), highlighting gaps and future opportunities for research.

During the initial phase (Figure 3) from 2000 to 2010, the research landscape was nascent, with annual publications remaining small, ranging from 16 to 91 (Table 1). This reflects the early exploration of the platform economy, with limited academic and industrial adoption. However, a modest increase in the period 2011-2014 marked the beginning of growing interest in the platform economy. Digital platforms like Uber, Airbnb, and Amazon became dominant in the global economy during that period. The development of the Internet, mobile technologies and cloud computing have enabled the growth of business models based on digital platforms. The period from 2015 to 2019 witnessed gradual but consistent growth, as annual publications rose from 215 in 2015 to 848 in 2020. From 2021 to 2024, the field entered a maturity phase and sustained high productivity, with annual publications

exceeding 1000. A slight plateau was observed in 2023, and this stability reflects the field's saturation in certain domains, accompanied by continuous expansion into emerging areas like generative artificial intelligence, Web3, and blockchain economies. 2024 saw the highest number of publications, reaching 1504, underscoring platform economies' critical role in interdisciplinary research areas like digital law, digital communication, and circular economy.

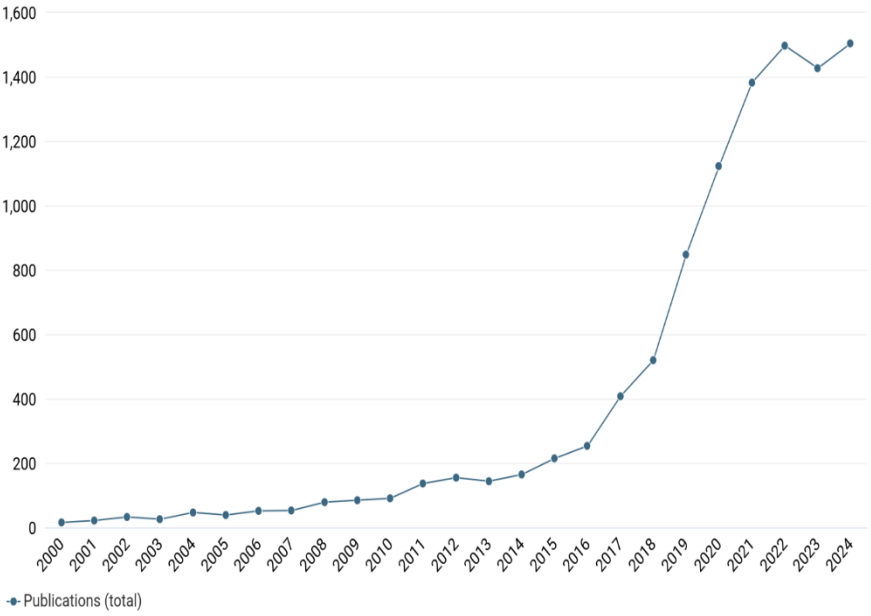

Figure 3

The number of publications published in each year (2000 - 2024)

Keywords reveal the primary message of the related paper. Based on the analysis of the keyword findings reveal four unique clusters (Figure 4), each depicted in a different color. The most frequently used topic word is „platform economy. Other most frequent keywords are "gig economy", „sharing economy", „digital platforms" and „colaborative consumption".

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Publications	16	22	33	26	47	39	52	53	79	85	91	137	155
Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Publications	144	165	215	254	408	520	848	1123	1382	1497	1427	1504	/

Table 1

Publications trend analysis (2000 - 2024)

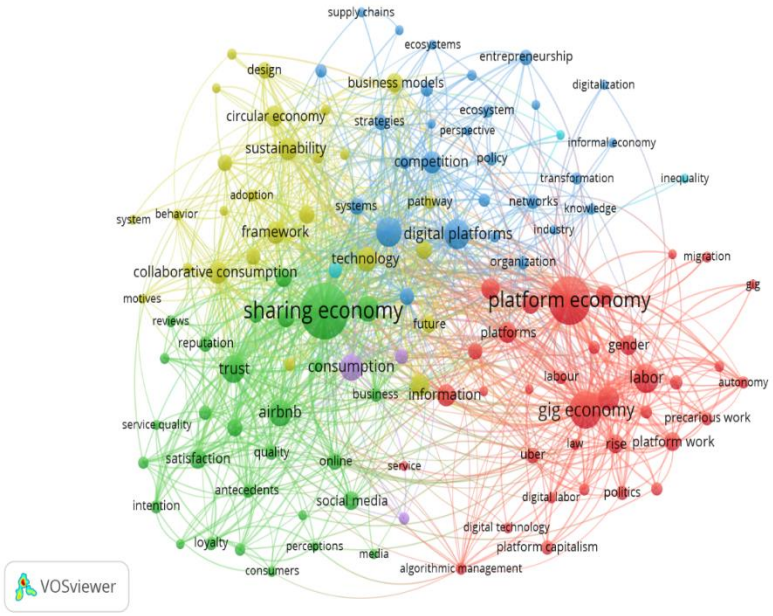

Figure 4

Word cloud map of the keywords on platform economy with network visualization mode

Co-author analysis examines the collaboration among researchers by studying the publications they co-authored. Tools like VOSviewer create visual networks where nodes represent authors and edges demonstrate their collaborative connections. This method highlights key researchers, collaboration patterns, and clusters of academic partnerships. Additionally, it evaluates collaboration at various levels, including

between nations and organizations, providing valuable insights into research dynamics and strengthening academic ties [5, 20].

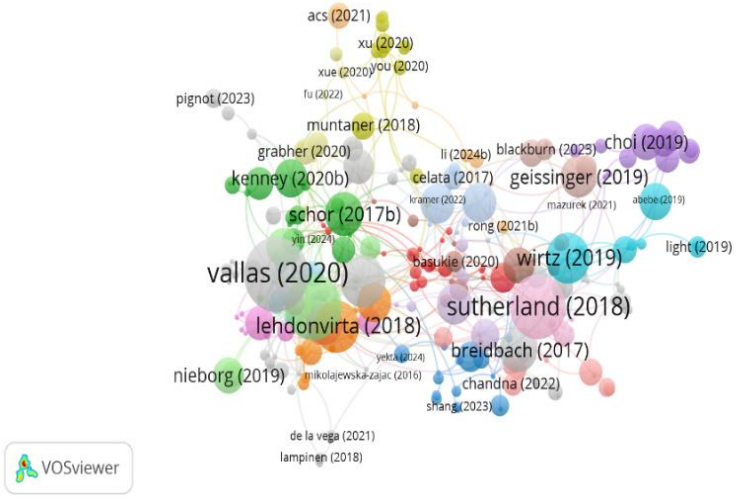

Figure 5

Bibliometric map on co-authorship unit of authors with network visualization mode

The analysis of the leading authors (Figure 5) in platform economy research highlights their crucial roles in shaping the field through significant contributions, influential citations, and academic impact. Notable scholars include Vallas (2020), Wirtz (2019), Wood (2019), Lehdonvirta (2018), Sutherland (2018), and Graham (2017).

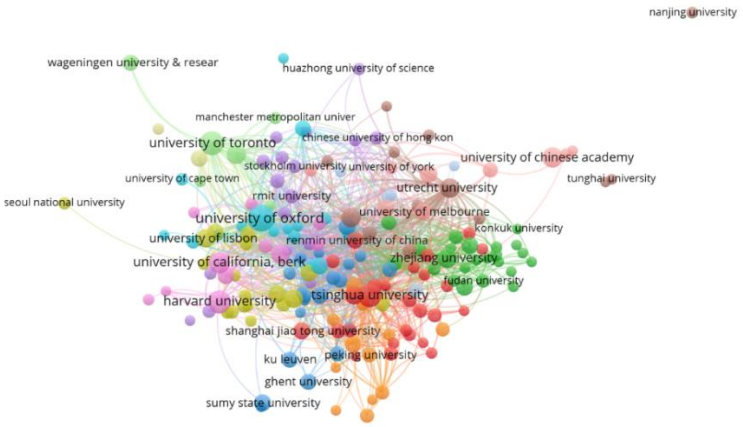

Figure 6

Bibliometric map on organization with network visualization mode

The analysis of leading organizations in platform economy research underscores their substantial contributions to scholarly productivity, citation impact, and collaborative networks. The findings identify 11 distinct research clusters, each represented by a different color (Figure 6), highlighting the diverse institutional engagement in this field. Several organizations stand out as key contributors to platform economy research. Among the most prominent are Tsinghua University, Harvard University, the University of Oxford, Sichuan University, the University of Toronto, and Stockholm University, each playing a pivotal role in advancing knowledge, fostering interdisciplinary collaboration, and shaping the academic discourse on digital platforms.

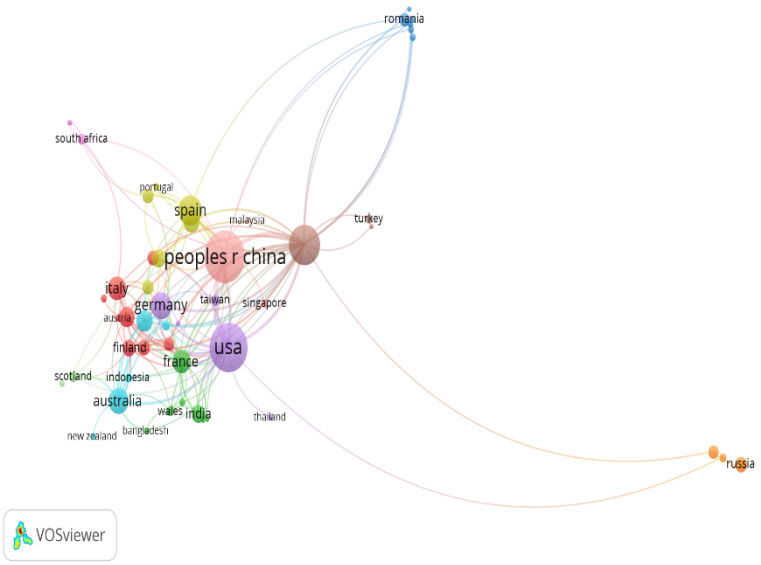

Figure 7

Bibliometric map on county with network visualization mode

The bibliometric analysis of leading countries in platform economy research (Figure 7) highlights the significant contributions of specific nations in terms of publication output. China stands out as the clear leader with 3,214 publications, reflecting a strong research focus and investment in digital platforms and data-driven economies. Spain follows closely with 3,031 publications, indicating a high level of academic engagement and interest in platform-based business models within the European context. The United States ranks third with 2059 publications, underscoring its long-standing role in the development of digital platforms, technological innovation, and regulatory frameworks in this field. England is in fourth place with 1557 publications, reaffirming its substantial contribution to

research on digital economies, including analyses of platform labor and socioeconomic implications. South Korea, with 970 publications, ranks fifth, emphasizing its focus on technological advancements and the rapidly growing platform economy in the Asia-Pacific region.

Conclusion

The paper reveals that the platform economy is a research hotspot of growing popularity, as demonstrated by bibliometric and visual analyses of the academic references sourced from the Web of Science between 2000 and 2024. It aims to identify the research hotspots and trends in this domain by examining major fields, the number of publications, authors, keywords, countries, and organizations. This research not only maps the current academic landscape but also provides a strategic foundation for guiding future scholarly and policy-oriented efforts in this increasingly relevant field.

The contribution of this study is reflected in the unification of recent scientific publications on the platform economy, providing a comprehensive overview of key research trends, influential authors, and institutional collaborations.

While this study has yielded valuable information and significant findings, it is important to acknowledge certain limitations. Firstly, the academic articles pertaining to the platform economy included in this research are not comprehensive, possibly omitting valuable references from journals not indexed in the Web of Science. Secondly, there may be an unavoidable linguistic bias since all retrieved articles are in English. To address these limitations, future research on the bibliometric analysis of the platform economy should consider several key improvements. First, expanding the dataset by incorporating articles from additional databases such as Scopus, Dimension.ai, and regional indexing services could provide a more comprehensive overview of the field. This would help capture relevant studies published in journals not indexed in the Web of Science, thereby reducing potential publication bias.

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