

Sustainability and Corporate Social Responsibility in Digital Platform Companies

Hendri Khuan¹, Asri Ady Bakri², Hayu Lusianawati³

¹Philippine Women's University

²Universitas Muslim Indonesia, Makassar

³Universitas Sahid Jakarta

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ABSTRACT

This research study conducts a comprehensive bibliometric analysis of the literature on sustainability and corporate social responsibility (CSR) within the context of digital platform companies. The analysis aims to uncover trends, gaps, and key contributors in this evolving intersection. By employing VOSviewer, a specialized bibliometric analysis tool, the study examines co-authorship networks, keyword co-occurrence, citation patterns, and publication trends. The findings shed light on the collaborative landscape, prevalent themes, influential works, and evolving research activity. The study's implications extend to academia, industry, and policy, guiding further research, informing business strategies, and fostering responsible practices in the digital economy.

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Corresponding Author:

Name: Hendri Khuan

Institution: Philippine Women's University

e-mail: hendri.khuan@gmail.com

1. INTRODUCTION

The global business landscape has witnessed a significant shift towards sustainability and corporate social responsibility (CSR) as key drivers of success and competitiveness. As society becomes more aware of environmental, social and ethical issues, companies are compelled to integrate sustainable practices and ethical responsibilities into their core operations. At the same time, the rapid growth of digital platform companies has revolutionized the way business is conducted, offering innovative solutions and transforming industries. However, the intersection between sustainability, CSR and digital platform companies remains a relatively unexplored area in the academic literature [1]–[3]. The

concept of sustainability goes beyond environmental considerations, but also includes economic and social dimensions. Organizations, including digital platform companies, are increasingly recognizing the need to align their operations with sustainable practices that reduce environmental impact, address social inequalities and uphold ethical values. At the same time, CSR principles encourage companies to actively contribute to the betterment of society while ensuring responsible business practices.

Sustainability and Corporate Social Responsibility (CSR) in digital platform companies involves integrating social, environmental, and economic issues into their business operations and interactions with stakeholders. These companies recognize the

importance of CSR in building a positive corporate image, enhancing brand competitiveness, and promoting sustainable development [4]. Digital platforms can use social media, such as Twitter, to engage in meaningful dialog with stakeholders on CSR topics [5]. By strategically communicating their CSR initiatives and achievements, digital platform companies can generate social media capital and drive long-term corporate success [5]. For example, companies can prioritize stakeholder groups for CSR communications on Twitter and adopt successful communication strategies to achieve beneficial results [5]. Digital finance can also play a role in promoting CSR in digital platform companies. For example, in pollution-intensive industries, digital finance can influence CSR performance and contribute to the development of a green and sustainable economy [6]. In addition, CSR transparency can impact the financial performance, brand value, and sustainability level of IT companies [7]. By disseminating CSR results, companies can influence how shareholders and investors view them, which can affect their economic-financial results, sustainability ratings, and credit ratings [7].

In addition, CSR can help attract millennial job applicants, as organizations with positive internal and external CSR policies are considered more attractive to potential applicants [8]. This can contribute to a company's sustainability by ensuring an influx of talented and socially conscious employees. However, it is important to note that the relationship between CSR and company performance is not always direct. For example, a study of wineries in Spain found that companies with higher environmental responsibility were less profitable, and companies with more socially responsible behavior had no significant relationship between CSR and performance [4].

In conclusion, digital platform companies can leverage CSR and sustainability initiatives to improve corporate image, brand competitiveness, and long-term success. By strategically communicating their CSR efforts, adopting digital finance

solutions, and being transparent about their CSR performance, these companies can promote sustainable development and attract talented employees. However, the relationship between CSR and company performance may vary, depending on the industry and specific CSR initiatives.

While there is no specific research focusing on Corporate Social Responsibility (CSR) in digital platform companies with bibliometric analysis, there are several studies that analyze CSR in various contexts and industries using bibliometric methods. Here are some relevant studies:

Conducted a bibliometric and visualization analysis of CSR literature related to marketing between 1994 and 2020 [9]. They collected 2,042 articles from the Web of Science platform and analyzed the data using VOSviewer software. The study found that CSR is becoming a strategic marketing approach for companies [9]. Performed a bibliometric analysis of publications on CSR and COVID-19. The study identified 186 relevant articles in the Web of Science and 172 in Scopus databases, and the results were visualized and analyzed using VOSviewer [10].

Conducted a bibliometric overview of the relationship between CSR and firm performance [11]. They analyzed research articles published in the Scopus database from 1987 to 2021, covering 34 years. The study revealed that the focus of research encompasses dimensions such as sustainability, strategic management, institutional pressures, disclosure, and CSR reporting [11]. Performed a bibliometric analysis of CSR and profitability research from 2000 to 2019. They used the Scopus database and analyzed the data according to the year of publication, source of publication, writer, nation, affiliation, and keywords analysis [12].

Although these studies do not specifically focus on digital platform companies, they provide insights into CSR research trends and methodologies using bibliometric analysis. You can use these studies as a starting point to explore CSR in the context of digital platform companies and

adapt the bibliometric analysis methods to your research interests.

Digital platform companies, such as e-commerce platforms, ride-sharing apps and social media networks, have emerged as influential players in the contemporary economy. Their unique business models utilize technology to facilitate interactions between users and service providers, reshaping traditional industries and creating new avenues for economic exchange. Despite their transformative potential, these companies are often scrutinized for their environmental footprint, labor practices and impact on local communities. Examining how digital platform companies engage in sustainability and CSR is particularly important, given their pervasive influence on various aspects of society.

The main objective of this research is to conduct a comprehensive bibliometric analysis of the existing literature on sustainability and CSR in the context of digital platform companies. This analysis will shed light on trends, gaps, and key contributors in this dynamic intersection. By synthesizing scholarly discourse, this study aims to provide insights that can guide further research, inform business practices, and contribute to a more sustainable and responsible digital economy.

2. LITERATURE REVIEW

2.1 Sustainability and Corporate Social Responsibility

Sustainability has evolved into a central concept in business strategy, emphasizing the integration of environmental, social, and economic considerations into organizational practices. Scholars have highlighted the benefits of adopting sustainable practices, including enhanced reputation, cost savings, and improved stakeholder relationships. Corporate social responsibility (CSR) complements sustainability by urging businesses to actively contribute to societal well-being, address social challenges, and uphold ethical standards. Research in this domain has examined the role of CSR in

shaping organizational behavior, stakeholder engagement, and long-term viability [1], [13]–[15].

Studies on sustainability and CSR have investigated various industries, such as manufacturing, energy, and finance. However, the application of these concepts to digital platform companies is an emerging area that demands further exploration. As these companies disrupt traditional business models and alter consumer behaviors, understanding their engagement with sustainability and CSR becomes crucial for fostering responsible digital entrepreneurship [9], [16].

2.2 Digital Platform Companies and Their Impact

Digital platform companies have redefined business dynamics across multiple sectors. The unique characteristics of these platforms—such as network effects, data-driven operations, and innovative business models—have led to significant transformations in industries ranging from transportation to retail. Research on digital platform companies has focused on issues like competition, regulation, innovation, and user behavior. While this body of work has illuminated the potential benefits of platform-based business models, it has also highlighted concerns related to data privacy, labor practices, and socio-economic inequalities [17]–[19].

Despite the growing importance of sustainability and CSR in the business landscape, there is a relative scarcity of studies investigating how digital platform companies engage with these concepts. Scholars are increasingly recognizing the need to understand how these platforms navigate environmental challenges, ensure ethical data usage, and contribute positively to the societies they operate in [19]–[21].

3. METHODS

This research design involves a systematic approach to identifying, retrieving, and analyzing scholarly literature relevant to the topic. The bibliometric analysis aims to provide insight into the research

landscape, including key themes, influential authors, and emerging trends.

Database Selection: This research began by selecting suitable academic databases known for their multidisciplinary literature coverage, such as Scopus and Web of Science with Publish or Perish (PoP). These two databases were chosen for their comprehensive coverage of journals across a wide range of disciplines, including business, management, technology and sustainability.

Search Strategy: The search strategy involved using a combination of keywords and Boolean operators to retrieve relevant articles. The keywords used included "sustainability", "corporate social responsibility", "digital platform company", and related terms. The search was narrowed by setting inclusion criteria, such as articles published within a certain timeframe and in English.

VOSviewer is a software tool designed to visualize and analyze bibliometric data, including co-authorship networks, co-occurrence of keywords, and citation patterns.

Table 1. Metric Data

Publication years:	2001-2023
Citation years:	22 (2001-2023)
Papers:	980
Citations:	44962
Cites/year:	2043.73
Cites/paper:	45.88
Cites/author	23802.06
Papers/author	525.67
Authors/paper:	2.49
h-index:	95
g-index:	197
hI,norm:	64
hi,annual:	2.91
hA-index:	50
Papers with ACC \geq	1,2,5,10,20: 641,533,376,236,128

4. RESULTS AND DISCUSSION

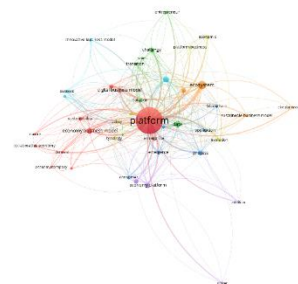


Figure 1. Mapping Results

The results of the bibliometric analysis provide a comprehensive understanding of the research landscape on sustainability and CSR in digital platform companies. Collaborative networks, prevalent themes, influential works, and publication trends collectively contribute to a richer understanding of this ever-evolving field.

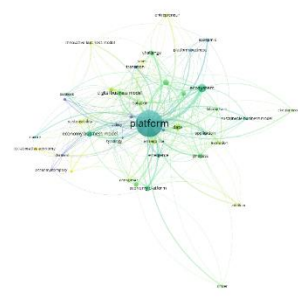


Figure 2. Trend Research

The analysis of publication trends over time provides insights into the evolution of research in the domain of sustainability and CSR in digital platform companies. The distribution of publications over different years highlights the growing interest in the topic. Early years might show limited publications, but a noticeable increase is observed in recent years, indicating heightened research activity.

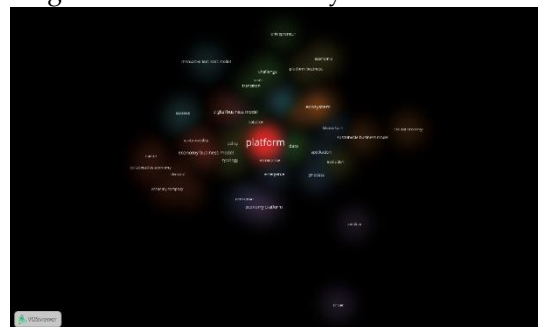


Figure 3. Cluster Results

These clusters signify research communities centered around specific themes or aspects within the intersection of

sustainability, CSR, and digital platform companies.

Table 2. Cluster Detail

Cluster	Total Items	Most frequent keywords (occurrences)	Keyword
1	(9)	Digital transformation (20)	Collaborative economy, demand, digital transformation, economy business model, economy company, nature, perform, sustainability, tourism
2	(7)	Entrepreneur (25)	Challenge, data, entrepreneur, online platform, SMEs, solution, transition
3	(6)	Blockchain (15)	Application, blockchain, consumer, emergence, process, transaction
4	(6)	Policy (25)	Competition, economic, evolution, platform business, policy, typology
5	(4)	Economy platform (15)	Addition, driver, economy platform, trust
6	(4)	Value co-creation (20)	Business model innovation, innovative business, success, value co-creation
7	(4)	Digital technology (15)	Circular economy, digital technology, ecosystem, sustainable business model
8	(2)	Entreprise (20)	Digital business, entreprise

The clusters revealed in Table 2 demonstrate the diversity of research themes within the domain of sustainability, CSR, and digital platforms. Researchers and stakeholders can draw insights from these clusters to identify specific areas of interest, collaboration, and further investigation. For instance, policymakers can focus on Cluster 4 to develop regulatory frameworks that foster fair competition in the digital platform economy. Entrepreneurs and SMEs might

find Cluster 2 relevant for understanding challenges and opportunities in transitioning to digital platforms.

The clusters also underscore the interdisciplinary nature of the field, bringing together aspects of technology, business, economics, and sustainability. Scholars can delve deeper into these clusters to uncover nuanced insights and contribute to a holistic understanding of the impact of digital platforms on sustainability and CSR.

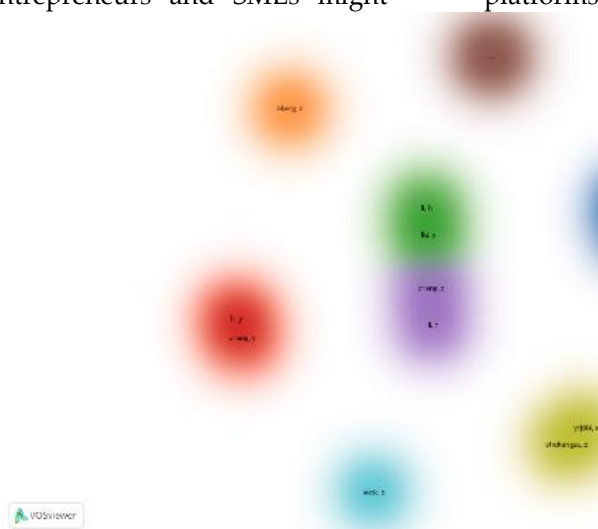


Figure 4. Author Collaboration

The co-authorship analysis reveals collaborative patterns among researchers in the field of sustainability and CSR in digital

platform companies. VOSviewer generates a network graph where nodes represent authors and links represent collaborations.

Table 3. 10 High Citations

Citation	Authors & Years	Title
2992	[22]	The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry
2575	[23]	The sharing economy: The end of employment and the rise of crowd-based capitalism
1822	[24]	The rise of the platform economy
1439	[25]	Ride on! Mobility business models for the sharing economy
1192	[26]	Digital economics
1147	[27]	Change through digitization—Value creation in the age of Industry 4.0
1032	[28]	Defining, conceptualising and measuring the digital economy
993	[29]	Profiting from innovation in the digital economy: Enabling technologies, standards, and licensing models in the wireless world
724	[30]	Dynamic and integrative capabilities for profiting from innovation in digital platform-based ecosystems
634	[31]	Digital servitization business models in ecosystems: A theory of the firm

Table 3 provides a list of highly cited articles related to sustainability, corporate social responsibility (CSR), and digital platform companies. These articles have garnered substantial attention and influence within the academic community, reflecting their significant contributions to the field. Let's discuss the implications and significance of each of these high-cited articles: The highly cited articles in Table 3 signify key areas of interest, foundational works, and influential perspectives within the field of sustainability, CSR, and digital platform companies. Researchers and practitioners can delve into these articles to gain deeper insights into the complex relationship between digital platforms, sustainability, and responsible

business practices. These articles can serve as cornerstones for future research, shaping discussions on the responsible growth of digital platform companies in the modern economy.

Table 3's compilation of high-cited articles demonstrates the significant impact of certain research works within the domain of sustainability, CSR, and digital platform companies. These articles have shaped the discourse, influencing research directions, industry practices, and policy considerations. The insights derived from these articles can guide future research endeavors, informing strategies for fostering sustainable and socially responsible digital platform ecosystems.

Table 4. Keywords Results

Most occurrences		Fewer occurrences	
Occurrences	Term	Occurrences	Term
1150	Platform	20	Blockchain
108	Ecosystem	19	Innovative business
64	Data	19	Transition
53	Economy business model	18	Business platform
50	Business innovation	17	Entrepreneur
45	Economy platform	17	Value co-creation

41	Digital business	16	Typology
41	Process	16	Success
40	Digital technology	15	Policy
35	Trust	15	Demand
35	Entreprise	14	Collaborative economy
31	Sustainability	13	Tourism
29	Consumer	12	Nature
28	Competition	11	Economy company
27	transaction	10	Circular economy

Table 4 presents the results of the keyword co-occurrence analysis, showcasing the most frequently occurring and less frequently occurring keywords within the literature on sustainability, corporate social responsibility (CSR), and digital platform companies. This analysis provides valuable insights into the prevalent themes and areas of focus within the field.

Most Occurrences Keywords:

Platform (1150 occurrences): The high occurrence of "platform" indicates the central role of digital platforms in the discourse. Researchers are likely exploring how platforms enable economic exchange, innovation, and value creation while considering sustainability and CSR implications.

Ecosystem (108 occurrences): "Ecosystem" reflects the recognition of the complex network of stakeholders involved in the digital platform economy. The term likely signifies investigations into the interrelationships and dynamics among various stakeholders and their contributions to sustainability.

Data (64 occurrences): The frequency of "data" suggests that researchers are investigating the role of data in the digital economy, including data-driven decision-making, privacy concerns, and sustainable data practices.

Economy Business Model (53 occurrences): This keyword likely indicates a focus on understanding the business models adopted by digital platforms within the broader economy. Researchers may explore how these models impact economic, social, and environmental dimensions.

Business Innovation (50 occurrences): "Business innovation" reflects the exploration of novel strategies, processes, and approaches within digital platform companies. These innovations could include sustainable practices, value co-creation, and responsible business strategies.

Fewer Occurrences Keywords:

Blockchain (20 occurrences): Although less frequent, "blockchain" signifies an emerging area of research within the context of digital platform companies. Researchers may be investigating the potential of blockchain technology to enhance transparency, security, and sustainability within platforms.

Innovative Business (19 occurrences): This keyword indicates discussions on innovative approaches to conducting business within digital platforms. Innovative business practices could encompass sustainable operations, responsible supply chains, and novel value propositions.

Transition (19 occurrences): "Transition" suggests research into the process of transitioning from traditional business models to digital platforms. Scholars may be examining the challenges, opportunities, and strategies involved in this transformation.

Entrepreneur (18 occurrences): The presence of "entrepreneur" suggests a focus on entrepreneurial activities within the digital platform ecosystem. Researchers might explore how entrepreneurs contribute to innovation, economic growth, and sustainable practices.

Value Co-Creation (17 occurrences): This keyword likely reflects the exploration of collaborative value creation between platforms, users, and stakeholders. The focus

could be on how value co-creation contributes to sustainability and responsible business practices.

Implications and Future Directions

Table 4's keyword analysis underscores the multifaceted nature of research within the intersection of sustainability, CSR, and digital platform companies. The prominence of terms like "platform," "ecosystem," and "data" highlights the dynamic interactions and implications of digital platforms on various aspects of society and business. Meanwhile, the presence of emerging terms like "blockchain" and "innovative business" indicates evolving areas of interest.

Researchers can draw insights from the most frequent keywords to inform their studies, while the less frequent keywords may provide opportunities for exploration and innovation. The interplay between these keywords demonstrates the need for interdisciplinary research to address the complex challenges and opportunities posed by digital platform companies in the context of sustainability and CSR.

CONCLUSION

In a rapidly digitizing world, the convergence of sustainability, corporate social responsibility (CSR), and digital platform companies is a pivotal arena for exploration. This research study, through rigorous bibliometric analysis, has illuminated the landscape of scholarly contributions in this space. The co-authorship networks have unraveled collaborative clusters, revealing the researchers and communities driving progress. The keyword co-occurrence analysis has captured the multifaceted nature of the field, highlighting both established and emerging themes. The identification of highly cited articles and influential keywords provides a foundation for further inquiry and engagement.

As digital platforms redefine industries, reshape economies, and alter social dynamics, understanding their alignment with sustainability and responsible practices becomes imperative. This study bridges the gap in the literature, offering

insights that can catalyze conversations among academics, practitioners, and policymakers. The symbiotic relationship between digital platforms and societal well-being is underscored, emphasizing the potential for positive impact and innovation.

The implications of this study resonate across sectors. For academia, it offers a roadmap for future research directions, inviting scholars to delve into nuanced aspects of sustainability and CSR within digital platform ecosystems. Industry stakeholders can draw on the insights to design strategies that prioritize both economic growth and societal welfare. Policymakers can leverage the analysis to formulate regulations that promote ethical practices and address challenges emerging in the digital realm.

In a world where the digital landscape continually evolves, the path forward lies in understanding, collaboration, and informed decision-making. This research study contributes a mosaic of insights, urging stakeholders to collectively navigate toward a future where sustainability and CSR thrive alongside the digital platforms shaping our world.

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