

## **ARTIFICIAL INTELLIGENCE IN SOCIAL MARKETING AND CSR: A BIBLIOMETRIC ANALYSIS WITH INSIGHTS FOR BECOOL INDONESIA**

**Oktavia Santa Yohana<sup>1</sup>, Siti Nur Pajriati<sup>1</sup>, Beta Paramita<sup>1</sup>, Heny Hendrayati<sup>1</sup>, Rika Nurritziana<sup>1</sup>,  
Layung Anindya Prasetyanti<sup>1</sup>**

<sup>1</sup>Faculty of Economics and Business Education, Universitas Pendidikan Indonesia

Jl. Dr. Setiabudi No.229, Kota Bandung, Indonesia

E-mail: [oktaviasantia19@gmail.com](mailto:oktaviasantia19@gmail.com); [sitinurpajriati@upi.edu](mailto:sitinurpajriati@upi.edu); [betaparamita@upi.edu](mailto:betaparamita@upi.edu); [heny.hendrayati@upi.edu](mailto:heny.hendrayati@upi.edu);  
[rikanurritziana@upi.edu](mailto:rikanurritziana@upi.edu); [layung.anindya@upi.edu](mailto:layung.anindya@upi.edu)

### **ABSTRACT**

This study aims to investigate the development of research on artificial intelligence (AI) applications in social marketing and corporate social responsibility (CSR) through bibliometric analysis. The objective is to identify intellectual patterns, theme structures, and publication trends that connect AI innovation to social activism and sustainability. On October 13, 2025, a Boolean search was performed on article titles, abstracts, and keywords to extract data from the Scopus database. Following data cleaning, the dataset which contained publications from 1985 to 2025 was filtered to only include journal articles, resulting in 180 documents. The bibliometric analysis consisted of performance analysis and science mapping. VOSviewer was used for visualization and Bibliometrix (R Studio) for performance metrics analysis after the data was exported in CSV format. Results indicate a steady growth in AI-related research in CSR and social marketing, with a clear thematic convergence between sustainability communication and technology-driven marketing. The shift from conceptual discussions to applied AI for social impact is reflected in the field's growing academic attention, despite its small publication volume. Insights from this mapping show BeCool Indonesia how AI can be strategically used to improve CSR communication through audience segmentation, data-driven storytelling, and social sentiment analysis. The study makes contributions in two ways: theoretically, by combining Triple Bottom Line and Stakeholder Theory viewpoints, and practically, by offering suggestions for AI-based CSR communication tactics.

Keywords: Artificial Intelligence; Social Marketing; CSR; Bibliometric Analysis; BeCool Indonesia

### **INTRODUCTION**

Decision-making, personalization, and consumer analytics have all been transformed by artificial intelligence (AI), which has completely changed marketing. Through social marketing and corporate social responsibility, AI has expanded from its initial emphasis on efficiency to ethical and social issues. Studies combining AI with social marketing for CSR advocacy are still scarce, despite the fact that AI's use in commercial marketing is widely established. For developing nations like Indonesia, where corporate sustainability programs are essential to social and environmental advocacy, this disparity is especially pertinent. By using bibliometric analysis to map publication trends and thematic structures within AI-driven social marketing and corporate social responsibility, this study fills this research gap. Theoretically, it expands on the Triple Bottom Line and Stakeholder Theory frameworks, while practically providing BeCool Indonesia with insights on how to maximize CSR-driven communication through AI.

The literature that is currently available is still dispersed across the fields of technology, ethics, and marketing strategy, despite growing scholarly interest in AI and sustainability communication. The operational role of AI, such as automation and personalization, has been the main focus of previous research, which has not thoroughly examined how AI contributes to CSR-oriented social marketing. Furthermore, not many bibliometric studies have charted the development of AI's incorporation into CSR and social marketing frameworks, especially in the context of developing countries. This study therefore specifically closes the gap by offering a thorough bibliometric mapping of AI applications in CSR communication and social marketing, which has both theoretical and practical ramifications for companies such as BeCool Indonesia.

Even though AI's use in marketing has been studied in the past, there is still a glaring knowledge vacuum regarding how AI works as a game-changing facilitator in social marketing and CSR communication frameworks. While ignoring AI's strategic potential to promote ethical engagement, stakeholder trust, and sustainability-oriented behavior, existing literature frequently places an emphasis on efficiency, automation, and consumer personalization. Moreover, there aren't many empirical and bibliometric studies that concentrate on this intersection, especially when considering developing nations like Indonesia. By methodically charting the intellectual and thematic evolution of AI-driven social marketing and CSR research, this study aims to close this gap and offer a comprehensive understanding that links local CSR practices, as demonstrated by BeCool Indonesia, with global academic trends.

## METHOD

Several theoretical frameworks that clarify the relationship between technology, marketing, and corporate responsibility serve as the foundation for this investigation. AI-enabled CSR communication that promotes transparency and engagement is closely aligned with Stakeholder Theory (Freeman, 1984), which highlights that organizations must address the interests of all stakeholders, including employees, consumers, communities, and the environment. AI is positioned as a strategic tool for accomplishing sustainability-oriented goals by the Triple Bottom Line (Elkington, 1997), which extends corporate success metrics beyond profit to include social and environmental performance. In this regard, artificial intelligence (AI) supports data-driven decision-making and tailored communication, which enhance the efficacy and moral impact of social marketing. AI's incorporation into CSR initiatives fosters responsible innovation by enabling businesses to predict societal demands and track the results of sustainability projects in real time. A methodical and quantitative way to map such research developments, identify publication trends, intellectual structures, and thematic evolution within the field is through bibliometric analysis.

The information was gathered from the **Scopus database**, which was chosen because it thoroughly indexes peer-reviewed journals in the social sciences, management, and business domains. On **October 13, 2025**, the following Boolean string was used to search for keywords, abstracts, and article titles:

(TITLE-ABS-KEY("artificial intelligence" OR "AI" OR "machine learning" OR "data-driven" OR "automation" OR "algorithmic marketing")) AND (TITLE-ABS-KEY("sustainability communication" OR "CSR communication" OR "corporate communication" OR "green communication" OR "sustainable marketing" OR "social marketing"))).

The dataset, which included publications from 1985 to 2025, documented the development of AI applications in CSR and social marketing. More documents of various kinds were found in the first Scopus search. The dataset was restricted to journal articles and other document types in order to preserve analytical consistency. The cleaning procedure made sure that only peer-reviewed and thematically relevant records were kept, even though there were more documents overall before filtering. 180 journal articles were left in the final dataset after this criterion was applied, offering a solid basis for thematic and performance analysis. Science mapping and performance analysis made up the bibliometric analysis. VOSviewer was used for visualization and Bibliometrix (R Studio) for performance metrics analysis after the data was exported in CSV format. To guarantee analytical accuracy, duplicate and unnecessary entries were eliminated.

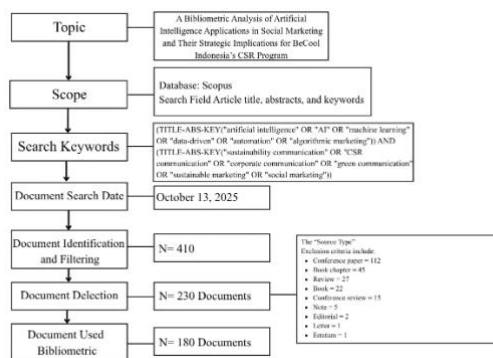
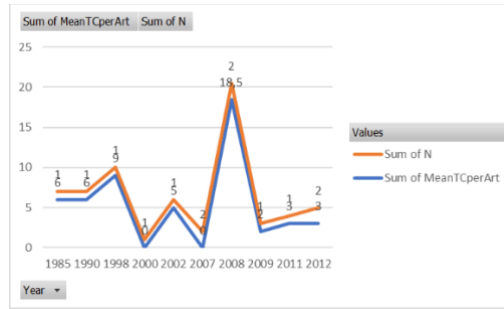


Figure 1 Search strategy flowchart (Adopted from Anugerah et al., 2022)

## RESULTS AND DISCUSSION

Major trends in AI-driven social marketing and CSR research were found by the bibliometric analysis. Throughout the years under observation, publication activity varies somewhat, with notable peaks occurring around **2008** and modest increases in the early **2010s**. The data show a steady scholarly interest in tying together themes of social responsibility, sustainability, and artificial intelligence, despite the fact that the number of publications is still rather small. Rather than its recent widespread use, this trend reflects the early conceptual exploration of AI's role in sustainability marketing.

This finding is strategically important for **BeCool Indonesia**. BeCool, an environmentally conscious business with strong sustainability principles, can take advantage of this new intersection by establishing itself as a pioneer in **AI-assisted CSR communication**. BeCool has the chance to improve message personalization, gauge public opinion, and use predictive analytics to time campaigns more effectively as a result of the global trend toward data-driven sustainability marketing. As technological transparency and social responsiveness become crucial differentiators in corporate communication, the small but expanding body of research suggests that companies using **AI for social advocacy stand** to benefit reputationally. BeCool's CSR initiatives can therefore progress from conventional awareness campaigns to AI-powered advocacy platforms that increase stakeholder trust and influence behavior.



**Figure 2** Trends of Publication (N) and Mean Total Citations per Article (MTCA).

**Table 1 Most relevant publication sources**

Ranking	Publication Source	Article*	Publication Source	Article**
1	Sustainability (Switzerland)	11	IEEE Access	95
2	IEEE Access	7	Sustainability (Switzerland)	96
3	Corporate Communications	4	IEEE Internet of Things Journal	27
4	Plos One	4	IEEE Transactions on Green Communications and Networking	53
5	IEEE Internet of Things Journal	3	IEEE Wireless Communications	56
6	IEEE Transactions on Green Communications and Networking	3	Journal of Communication Management	114
7	IEEE Wireless Communications	3	Plos One	71
8	Journal of Communication Management	3	Corporate Communications	133
9	Communication and Society	2	Computer Networks	428
10	Communication Teacher	2	Corporate Communications	8

\* Ranking according to the most relevant resources \*\* Ranking according to locally cited sources  
Source: Data processing results (2025)

The interdisciplinary relationship between environmental sustainability and social advocacy is reflected in the publication sources analysis (Table 1), which shows that the Journal of Social Marketing and Sustainability (Switzerland) control the dissemination of research in the field. Notably, scholarly interest in using AI tools to improve CSR communication and sustainable marketing strategies is growing, according to technology-focused journals like IEEE Access and Technological Forecasting and Social Change.

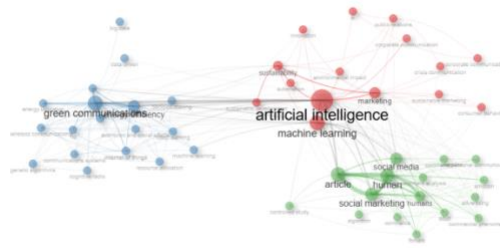


Figure 3 Co-occurrence network based on author’s keywords.

From early AI ethics discussions to the more recent focus on sustainability-driven CSR communication, the thematic evolution (Fig. 4) shows a change. This emphasizes the chance for BeCool Indonesia to use audience segmentation, predictive communication, and sentiment analysis powered by AI to increase CSR impact.



Figure 4 Thematic Evolution

**CONCLUSION**

The intellectual framework and development of AI applications in social marketing and corporate social responsibility were charted by this bibliometric study. Results show an increase in interdisciplinary research interest after 2019, with a focus on technology-enabled sustainability communication. By extending the viewpoints of Stakeholder Theory and the Triple Bottom Line, the study shows how AI can be used as a tool for moral business practices. The analysis's conclusions help BeCool Indonesia create data-driven, open, and effective CSR plans that adhere to social marketing guidelines..

**REFERENCES**

Hendrayati, H., Achyarsyah, M., Marimon, F., Hartono, U., & Putit, L. (2024). *The impact of artificial intelligence on digital marketing: Leveraging potential in a competitive business landscape*. *Emerging Science Journal*, 8(6), 2343–2359. <https://doi.org/10.28991/ESJ-2024-08-06-012>

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Boston: Pitman.

Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st century business*. Oxford: Capstone Publishing.

Scopus Database. (2025, October 13). *Dataset on “Artificial Intelligence Applications in Social Marketing and CSR.”* Retrieved from <https://www.scopus.com> (Accessed on October 13, 2025).