

Mapping Global Research Trends in Social Entrepreneurship and Sustainable Development: A Bibliometric Review for Nonformal Education and Community Empowerment

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Abstract

Background – Social entrepreneurship research has experienced rapid growth alongside increasing attention to sustainable development. However, systematic mapping, particularly examining the interrelationships between the two, remains limited, making it difficult to identify development directions and research gaps.

Research Urgency – Research on social entrepreneurship and sustainable development is growing rapidly and producing influential work, but it remains dominated by fragmented conceptual approaches. The lack of longitudinal bibliometric mapping has left gaps in understanding the structure of knowledge, the dynamics of themes, and patterns of research collaboration.

Research Objectives – This study aims to map publication growth, collaboration patterns, intellectual structure, and thematic evolution of research on social entrepreneurship and sustainable development during 2015–2025.

Research Method – A bibliometric analysis was conducted using 268 English-language journal articles indexed in Scopus. Data were collected on 14 January 2026 using the search string: TITLE-ABS-KEY ("social entrepreneurship" AND "sustainable development"), limited to journal articles (2015–2025). Bibliometric analysis was performed using Biblioshiny and VOSviewer to examine publication trends, collaboration networks, keyword co-occurrence, and thematic development.

Research Findings – The findings indicate a significant annual growth rate of 23.37%, reflecting rapid expansion of the field. The dataset involved 752 authors across 163 journals, with an international collaboration rate of 27.24%. Sustainable development emerged as the most central concept in the keyword network, while social entrepreneurship functioned as an operational mechanism within the broader sustainability framework. SDGs, governance, and social innovation were identified as developing themes, indicating conceptual fragmentation.

Research Conclusion – This study confirms that social entrepreneurship has become an important instrument of sustainable development, but strengthening conceptual and empirical integration, especially related to SDGs and social innovation, is still needed.

Research Novelty/Contribution – The novelty of the research lies in the ten-year longitudinal bibliometric mapping that reveals publication dynamics as well as strategic thematic gaps as a basis for formulating a future research agenda.

Keywords: social entrepreneurship, sustainable development, bibliometric analysis.

How to Cite:

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INTRODUCTION

Social entrepreneurship is understood as a form of entrepreneurship oriented toward the creation of social value through the sustainable utilization of market mechanisms (Bataineh et al., 2023; Li et al., 2022; Oberoi et al., 2021). Within the framework of sustainable entrepreneurship theory, social entrepreneurship functions as a bridge between economic innovation and sustainable development goals by balancing economic, social, and environmental dimensions (Anand et al., 2021; Ashari et al., 2022; Sreenivasan & Suresh, 2023; Benavides-Sánchez et al., 2025; Scartozzi et al., 2025). This perspective positions social entrepreneurship not merely as an alternative economic activity, but as an instrument of social transformation that is highly relevant within the global Sustainable Development Goals (SDGs) agenda.

From the perspective of social innovation theory, social entrepreneurship is viewed as a process of generating new solutions to social problems that are more effective, sustainable, and equitable than conventional approaches (Ayoungman et al., 2025; Pratono et al., 2023; Raman et al., 2025; Vig, 2023). A number of empirical studies indicate that social innovations generated by social entrepreneurs contribute to community empowerment, the strengthening of social capital, and the improvement of welfare among vulnerable groups (Méndez-Picazo et al., 2021; Osabohien et al., 2023; Nagdev et al., 2025). These findings reinforce the argument that social entrepreneurship plays a strategic role in supporting the achievement of sustainable development across various contexts.

However, from the perspective of the theory of scientific development, the fields of social entrepreneurship and sustainable development continue to evolve unevenly. Existing studies predominantly focus on case analyses, inter-variable relationships, or impact evaluations within specific contexts. This has resulted in partial and fragmented understandings. Such conditions indicate the need for a knowledge synthesis approach capable of mapping the intellectual structure and research dynamics more comprehensively.

The bibliometric approach, rooted in science mapping theory, enables a systematic analysis of the evolution of a scientific field through the measurement of publication patterns, collaboration networks, and the emergence of research themes (Donthu et al., 2021; Klarin, 2024; Stefanis et al., 2025). Previous bibliometric studies have identified trends and thematic clusters in social entrepreneurship and sustainable development across related but still partly fragmented research streams (Cardella et al., 2021; Kaushik et al., 2023; Trabskaia et al., 2023; Coronel-Pangol et al., 2023; Chebo & Dhlwayo, 2024; Miah et al., 2024; Sottini et al., 2025; Uzzol & Uddin, 2025; Budumuru & Paruchuru, 2025). However, most of these studies have not explicitly integrated the two theoretical frameworks into a unified longitudinal mapping.

Within the framework of research agenda setting theory, the absence of an integrated mapping of social entrepreneurship and sustainable development may hinder the development of more coherent theoretical and practical directions. In particular, limited research has identified the positioning of strategic themes such as the SDGs, social innovation, sustainable social business models, digitalization, and environmental dimensions within the global knowledge structure (Satar et al., 2023; Arya et al., 2024; Carmona Solaz et al., 2025). Yet, these themes hold high relevance in policy and development practice contexts.

For nonformal education and community empowerment, this global mapping is also relevant because recent studies in the Journal of Nonformal Education connect social entrepreneurship, entrepreneurship-oriented learning, rural enterprise development, creative-economy learning communities, partnership-based life-skills training, and entrepreneurial competence with community capacity and empowerment (Irvansyah et al., 2023; Widodo et al., 2024; Hadiyanti et al., 2024; Yusmanto et al., 2024; Nurhaida et al., 2024; Suminar et al., 2024; Hermawan et al., 2025; Ambarini et al., 2025; Ilyas et al., 2025). These studies provide a direct nonformal-education context for interpreting the broader research trends mapped in this bibliometric review.

Based on this theoretical foundation, the present study aims to conduct a comprehensive and longitudinal bibliometric analysis of the literature on social entrepreneurship and sustainable development for the period 2015–2025. Utilizing the Scopus database along with Biblioshiny and VOSviewer software, this study maps publication growth trends, scientific collaboration patterns, and the thematic structure of research.

Theoretically, this study contributes to strengthening the understanding of the evolution and future direction of social entrepreneurship research within the sustainable development framework. Practically, the findings provide an empirical basis for formulating more focused and evidence-based research agendas and sustainable development policies.

METHODS

Design and Data Collection

The data for this study were obtained from the Scopus database, selected due to its position as a large, curated, multidisciplinary bibliographic repository for peer-reviewed scientific literature (Pranckutė, 2021; Singh et al., 2021). Scopus provides broad global and regional journal coverage while maintaining structured source-selection and indexing procedures. Its standardized metadata and export functions support transparent and replicable bibliometric mapping (Donthu et al., 2021; Stefanis et al., 2025).

The data collection process was conducted on 14 January 2026 using the initial keywords “social entrepreneurship” and “sustainable development.” The initial search yielded 638 documents. These documents were subsequently filtered based on predefined inclusion criteria, including keywords, publication year range, language, and document type. The publication year range was limited to 2015–2025. The year 2015 was selected as the starting point because it marked a significant milestone in the global development agenda with the adoption of the Sustainable Development Goals (SDGs), which substantially stimulated research related to social entrepreneurship and sustainable development. The end year of 2025 was chosen to capture the most recent research trends-- and to ensure that the findings reflect the latest developments in the field.

Table 1. Search Strategy

Database	Search String
Scopus	TITLE-ABS-KEY ("social entrepreneurship" AND "sustainable development") AND PUBYEAR > 2014 AND PUBYEAR < 2026 AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (DOCTYPE, "ar"))

The accuracy of bibliometric analysis is highly dependent on the appropriate selection of keywords, as search terms shape information retrieval and the validity of the resulting corpus (Yuki et al., 2025; Klarin, 2024). Non-English publications were excluded to maintain terminological consistency and to avoid interpretive bias in the analysis. After the screening process, a total of 268 documents were retained for further analysis using a bibliometric approach (Donthu et al., 2021; Abuhassna et al., 2022).

Bibliometric Software and Data Analysis

Bibliometric analysis was conducted using VOSviewer version 1.6.20 and Biblioshiny. VOSviewer and Bibliometrix/Biblioshiny are established tools for network mapping (co-authorship, co-citation, and co-word analysis) and descriptive bibliometric analysis, with documented procedures that support replicability (Donthu et al., 2021; Klarin, 2024; Stefanis et al., 2025). VOSviewer was employed to construct and visualize bibliometric networks, including co-authorship networks, country collaboration networks, and keyword co-occurrence networks. In these visualizations, nodes represent authors, countries, or keywords, while the thickness of the lines and the size of the nodes indicate the strength of relationships between items (link strength), and colors reflect thematic clusters within the network.

Meanwhile, Biblioshiny was used to analyze descriptive bibliometric statistics, such as annual publication trends, the distribution of countries and journals, and citation patterns. The combined use of these two software tools was intended to complement quantitative and visual analyses, thereby providing a more

comprehensive overview of the intellectual structure and development of research on social entrepreneurship and sustainable development.

The validity and reliability of the analytical process were ensured through several steps (Donthu et al., 2021; Klarin, 2024; Stefanis et al., 2025). First, search and screening criteria were clearly defined and consistently applied. Second, analyses were conducted using standardized and replicable procedures in VOSviewer and Biblioshiny. Third, result interpretation was performed through analytical triangulation by integrating annual publication trend analysis, collaboration network analysis, and thematic keyword mapping. The findings are presented in the form of tables, graphs, and visual maps to enhance clarity and readability.

RESULTS AND DISCUSSION

General Information and Growth Trends

An overview of the bibliometric data in this study is presented in Table 1. A total of 268 articles were analyzed, authored by 752 scholars and published in 163 international journals. Of these, 47 articles were written by single authors, indicating that research in this field tends to be collaborative in nature. The collaboration index is reflected in an average of 3.01 authors per document and an international collaboration rate of 27.24%, suggesting a considerable level of cross-country engagement.

The annual publication growth rate was recorded at 23.37%, demonstrating rapid and consistent expansion in research on social entrepreneurship and sustainable development. Furthermore, the average citation per document of 26.21 indicates that this topic has a relatively high scientific impact within the international literature. The average document age of 4.26 years also suggests that the field is dominated by recent publications and remains highly relevant to contemporary issues.

Table 2. Data Overview

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2015:2025
Sources (Journals, Books, etc)	163
Documents	268
Annual Growth Rate %	23.37
Document Average Age	4.26
Average citations per doc	26.21
References	0
DOCUMENT CONTENTS	
Keywords Plus (ID)	576
Author's Keywords (DE)	837
AUTHORS	
Authors	752
Authors of single-authored docs	47
AUTHORS COLLABORATION	

Description	Results
Single-authored docs	48
Co-Authors per Doc	3.01
International co-authorships %	27.24
DOCUMENT TYPES	
article	268

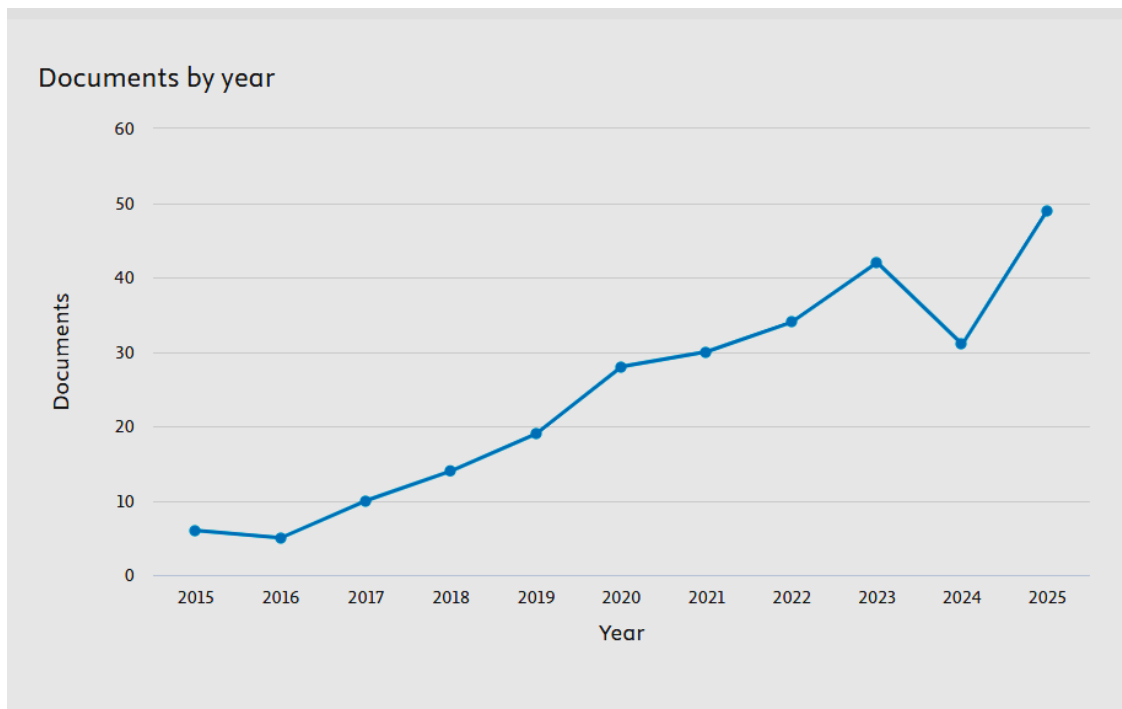


Figure 1. Publication Growth

Figure 1 illustrates the publication growth trend in research on social entrepreneurship and sustainable development during the 2015–2025 period. In the initial phase (2015–2016), the number of publications was relatively low, with 6 and 5 documents respectively, indicating that the topic had not yet become a primary research focus. A gradual increase became evident during the 2017–2019 period, rising from 10 to 19 documents, in line with growing attention to issues of community empowerment, social innovation, and sustainability.

A more significant surge occurred during 2020–2021, with publications reaching 28 and 30 documents. This period coincided with heightened global attention to social and economic resilience in the aftermath of the pandemic. The peak growth was observed during 2022–2025, with the highest number of publications recorded in 2025 (48 documents). This trend confirms that social entrepreneurship has evolved into a strategic issue that is not only academically relevant but also significant within the context of public policy and global development.

Documents by subject area

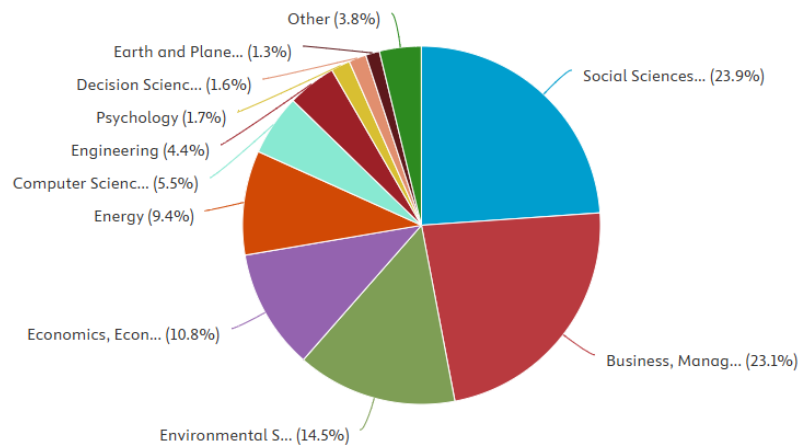
**Figure 2.** Subject Areas

Figure 2 presents the distribution of subject areas in research on social entrepreneurship and sustainable development. The Social Sciences dominate the field, accounting for 24.39% (152 documents). This finding confirms that social entrepreneurship is primarily conceptualized as a social phenomenon closely related to societal transformation, public policy, and community development.

Business, Management, and Accounting rank second (23.1%), followed by Environmental Science (14.5%) and Economics, Econometrics and Finance (10.8%). This distribution indicates that social entrepreneurship is positioned as a multidisciplinary field that integrates social, economic, and environmental dimensions. The involvement of disciplines such as Energy, Computer Science, and Engineering suggests an expanding research focus toward technological and innovative solutions to support sustainable development. Comparable recent bibliometric studies likewise describe sustainable entrepreneurship as increasingly multidisciplinary and connected with environmental education, digitalization, innovation, and development agendas (Arya et al., 2024; Chebo & Dhliwayo, 2024; Sreenivasan & Suresh, 2023).

The Five Most Cited Papers

Table 3 presents the five most cited papers in the dataset. The most highly cited article was authored by Belz and Binder, with a total of 502 citations.

Table 3. The Five Most Cited Papers

Author	Title	TC	TC/Y
Belz & Binder — 2017	Sustainable Entrepreneurship: A Convergent Process Model	502	50.20
Johnson & Schaltegger — 2020	Entrepreneurship for Sustainable Development: A Review and Multilevel Causal Mechanism Framework	272	38.86
Rahdari et al. — 2016	Achieving sustainability through Schumpeterian social entrepreneurship: The role of social enterprises	229	20.82
Littlewood & Holt — 2018	Social Entrepreneurship in South Africa: Exploring the Influence of Environment	212	23.56
Méndez-Picazo et al. — 2021	Effects of sociocultural and economic factors on social entrepreneurship and sustainable development	204	34.00

The article by Johnson and Schaltegger, with 272 citations in the analyzed dataset, occupies a significant position as a conceptual study linking entrepreneurship and sustainable development through multilevel causal mechanisms. This study expands the understanding of social entrepreneurship by integrating individual, organizational, and systemic levels of analysis, and has become a key reference for research emphasizing a systemic approach. Meanwhile, the study by Rahdari and colleagues, with 229 citations in the analyzed dataset, highlights a Schumpeterian perspective on social entrepreneurship, emphasizing the role of social entrepreneurs as change agents in generating sustainable innovation. This contribution strengthens the actor-centered dimension within the social entrepreneurship discourse.

Keyword Co-occurrence Analysis

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Figure 3 presents the keyword co-occurrence network in research on social entrepreneurship and sustainable development. The size of each node represents the frequency of keyword occurrence, while the connecting lines indicate the strength of relationships between concepts. Different colors signify thematic clusters formed based on conceptual proximity. The visualization results indicate that *sustainable development* is the most central and dominant concept within the network, reaffirming its position as the primary framework in social entrepreneurship studies. The main cluster emphasizes economic development, social impact, and governance, suggesting that social entrepreneurship is largely understood as an instrument for achieving sustainable development goals.

Other clusters reflect research attention to academic contexts, community participation, and entrepreneurial and financial dimensions. However, the relatively peripheral position of the social entrepreneurship cluster suggests that the development of social entrepreneurship concepts and models has not yet become the central focus of literature. Overall, the network structure demonstrates that research on social entrepreneurship is multidimensional but remains fragmented. These findings highlight significant opportunities for future research to integrate policy, community, and financial dimensions into a more comprehensive social entrepreneurship framework to better support sustainable development.

Country Contributions

Figure 4 illustrates the distribution of countries based on the corresponding authors' affiliations in publications on social entrepreneurship and sustainable development, distinguishing between Single Country Publications (SCP) and Multiple Country Publications (MCP). This visualization provides insights into both national productivity research and patterns of international collaboration within the field.

The analysis shows that India, Spain, and China are the countries with the highest number of publications. The dominance of SCP in these countries indicates strong domestic research capacity and a focus on nationally rooted contexts. This pattern suggests that social entrepreneurship is frequently examined as a response to specific socio-economic challenges faced by individual countries.

In contrast, countries such as Italy, Brazil, and the United States demonstrate a relatively higher proportion of MCP, reflecting stronger levels of international collaboration. This pattern indicates openness to cross-national knowledge exchange and efforts to develop comparative perspectives in social entrepreneurship research (Budumuru & Paruchuru, 2025; Uzzol & Uddin, 2025).

Several countries, including Indonesia, Malaysia, and Thailand, show moderate contributions with a predominance of SCP. These findings suggest the potential for strengthening international collaboration to enhance research visibility and impact in the field of social entrepreneurship. Overall, the distribution confirms that although research on social entrepreneurship is expanding globally, the intensity and patterns of international collaboration remain uneven, thereby presenting strategic opportunities to expand cross-context research networks in support of sustainable development.

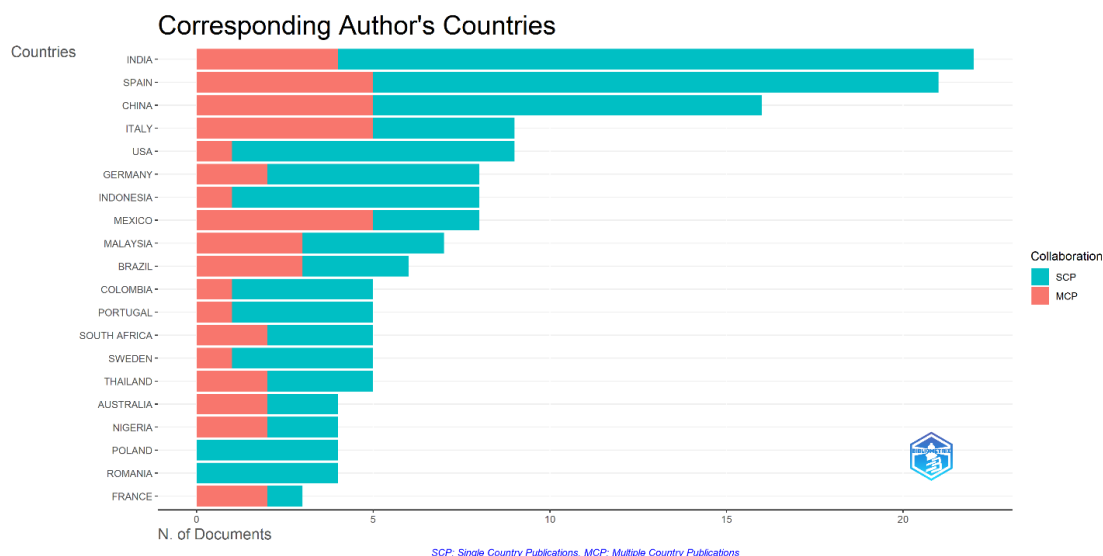


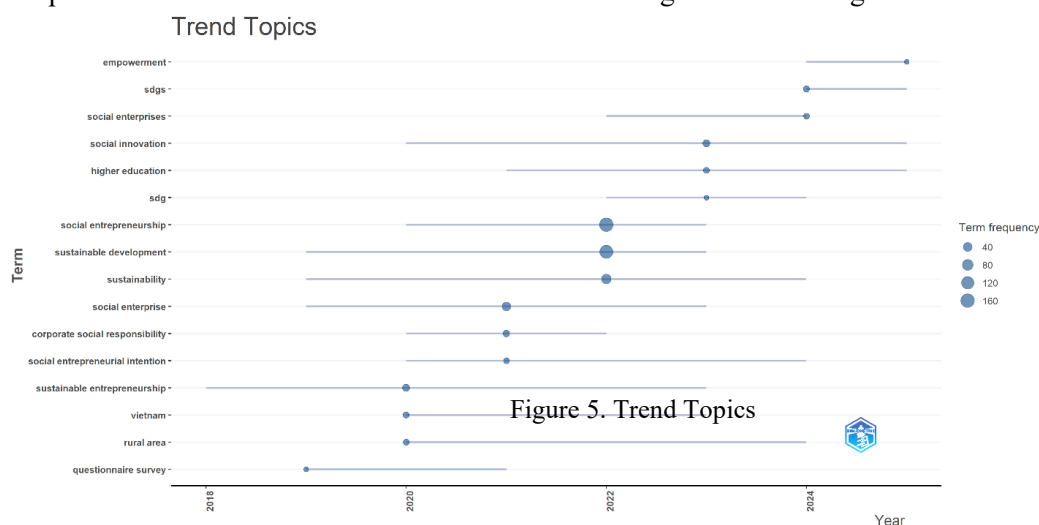
Figure 4. Corresponding Authors' Countries

Trend Topics

Figure 5 presents the visualization of trend topics based on the frequency of term occurrences over a specific time period, displayed in the form of a bubble chart. The horizontal axis represents the time span from 2015 to 2023, while the vertical axis lists various terms frequently appearing in related research and discussions. The size of each bubble reflects the frequency of term occurrence, with the legend on the right indicating the scale (e.g., 10, 20, 30, up to 40 occurrences). The visualization indicates that the term “sustainable development” has a relatively high frequency, particularly during the 2019–2021 period. This suggests that the topic became a primary focus during these years. The terms “sustainability,” “Sustainable Development Goals (SDGs),” and “government” also show significant growth in recent years, reflecting increasing scholarly attention to sustainable development policies, governance, and the achievement of the SDGs (Satar et al., 2023).

In addition, the terms “entrepreneur” and “social entrepreneurship” began to gain stronger prominence, especially after 2019 (Miah et al., 2024). This trend indicates that entrepreneurship particularly social entrepreneurship has increasingly attracted attention within the sustainable development discourse. The emergence of terms such as “innovation” and “strategic approach” further suggests that innovative strategies for advancing sustainable development have become important areas of discussion (Trabskaia et al., 2023).

On the other hand, terms such as “environmental economics” appeared earlier, before 2019, but with relatively lower frequencies compared to other dominant terms. Meanwhile, the term “China” began to appear more frequently after 2021, possibly reflecting a broader shift toward geographically diversified and digitally mediated social entrepreneurship research (Chebo & Dhlwayo, 2024; Carmona Solaz et al., 2025). Overall, this visualization illustrates how research and discussion trends on sustainable development have evolved in recent years. The primary focus remains on sustainable development, sustainability, and governance, while entrepreneurial and innovation-oriented dimensions have gained increasing attention in the more recent period.



Conceptual Thematic Map

Figure 6 presents the visualization of research trend topics in social entrepreneurship and sustainable development based on the frequency of term occurrences and their temporal distribution. The size of each bubble represents the intensity of term occurrence, while the time axis illustrates the shifting research focus across years. The analysis indicates that sustainable development, sustainability, and social entrepreneurship are the most consistent and dominant topics throughout the observation period, reaffirming their position as core themes within the literature (Cardella et al., 2021; Coronel-Pangol et al., 2023). The peak intensity of these topics occurred around 2021–2022, reflecting increased academic attention to the role of social entrepreneurship in addressing global sustainable development challenges. Topics such as SDGs, social enterprises, and empowerment show significant growth in the later period, suggesting a shift toward more

application-oriented and impact-driven research approaches (Mir Shahid & Alarifi, 2021; Satar et al., 2023). Meanwhile, the emergence of terms such as higher education and social innovation indicates the expanding discourse of social entrepreneurship within institutional and educational contexts (Chang et al., 2022; Sottini et al., 2025).

In contrast, contextual and methodological topics, such as questionnaire survey, rural area, and country-specific studies, demonstrate relatively lower and more temporary frequencies. These findings suggest that research in this field is progressively moving from contextual exploration toward strengthening conceptual frameworks and emphasizing the strategic implications of social entrepreneurship in advancing sustainable development (Scartozzi et al., 2025; Raman et al., 2025).

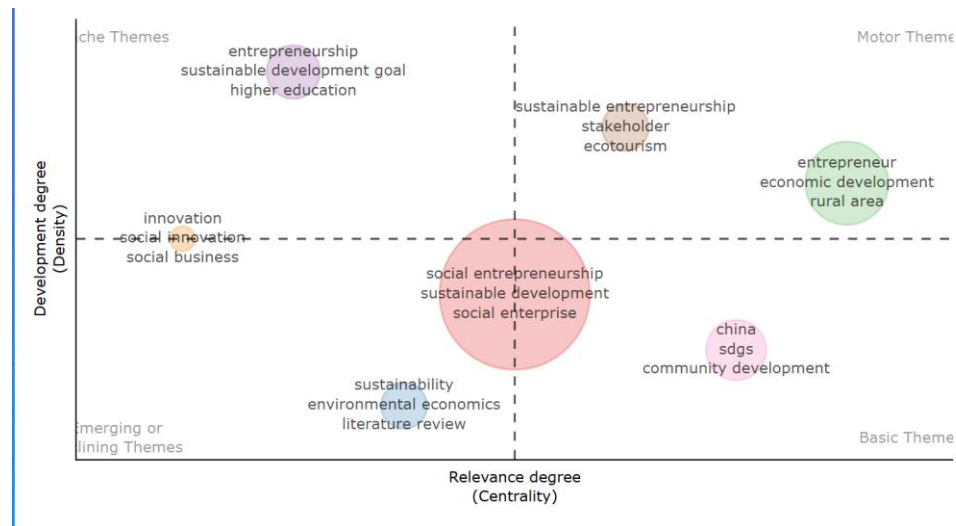


Figure 6. Thematic Map

Figure 6 shows that *sustainable development*, *sustainability*, and *social entrepreneurship* remained the most prominent and consistent themes throughout the observation period. By contrast, context-specific and methodological terms, including questionnaire survey, rural area, and country-based studies, appeared less frequently and for shorter periods. This pattern indicates that such topics function mainly as research contexts or methodological descriptors rather than as stable conceptual clusters. The temporal distribution therefore suggests a gradual movement toward stronger conceptual integration and greater attention to the strategic contribution of social entrepreneurship to sustainable development. However, term frequency alone cannot demonstrate theoretical maturity or a definitive change in research orientation. The pattern should be interpreted as a bibliometric indication that requires confirmation through content analysis.

CONCLUSION

This study shows that research on social entrepreneurship and sustainable development has grown rapidly between 2015–2025, with a 23.37% annual increase, confirming its emergence as a strategic and multidisciplinary field dominated by social sciences and business disciplines, alongside environmental studies. The findings highlight strong international collaboration, although disparities remain, and identify sustainable development as the central theme, with social entrepreneurship acting as a key operational mechanism despite its still peripheral conceptual position. This indicates gaps in integrated theoretical models and impact measurement frameworks. Overall, while social entrepreneurship is increasingly recognized as a tool for achieving development goals, further theoretical and empirical strengthening is needed. Future research should adopt more holistic, integrative approaches and expand international collaboration, particularly in developing countries, while this study is limited by its reliance on Scopus and English-language sources.

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