

The scientific structure of the field of rural development and social entrepreneurship: A bibliometric analysis based on web of science data

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Abstract

Purpose: This study was conducted to reveal the scientific trends, thematic structures, and intellectual orientations in the literature on rural development and social entrepreneurship. The study aims to provide a comprehensive overview of current research trends by identifying the points of intersection between these two fields.

Design/Methodology/Approach: A bibliometric analysis technique was used in the research. Data was obtained from the Web of Science (WoS) database and focused on the period between 2006 and 2025. Only research articles published in the fields of Business, Management, and Economics were included in the analysis. A total of 407 articles were examined, and the annual growth rate was calculated as 20.58%.

Results: The results show that social entrepreneurship is playing an increasingly strategic role in rural development processes and that publications in the literature are concentrated around the themes of social capital, innovation, women's entrepreneurship, and sustainability. Aleksandras Stulginskis University, South China Agricultural University, and the University of Nigeria stand out among the most productive institutions. Bradford Law findings reveal that publications are concentrated around a small number of core journals. Consequently, the role of social entrepreneurship in rural development is related not only to economic growth but also to social welfare and sustainability dimensions.

Originalit/Value: This study is one of the few bibliometric analyses that jointly examine social entrepreneurship and rural development. Based on Web of Science data, it reveals the research networks, thematic trends, and future research opportunities in the field, making a significant contribution to the literature.

Keywords: Entrepreneurship, rural innovation, social innovation, scientific mapping

Kırsal kalkınma ve sosyal girişimcilik alanının bilimsel yapısı: Web of science verilerine dayalı bibliyometrik bir inceleme

Özet

Amaç: Bu çalışma, kırsal kalkınma ve sosyal girişimcilik literatüründeki bilimsel eğilimleri, tematik yapıları ve entelektüel yönelimleri ortaya koymak amacıyla gerçekleştirilmiştir. Çalışma, bu iki alan arasındaki kesişim noktalarını belirleyerek mevcut araştırma yönelimlerinin kapsamlı bir görünümünü sunmayı hedeflemektedir.

Tasarım / Metodoloji / Yaklaşım: Araştırmada bibliyometrik analiz tekniği kullanılmıştır. Veriler, Web of Science (WoS) veri tabanından elde edilmiş ve 2006–2025 yılları arasındaki döneme odaklanılmıştır. Analize yalnızca Business, Management ve Economics alanlarında yayımlanan araştırma makaleleri dâhil edilmiştir. Toplamda 407 makale incelenmiş, yıllık büyüme oranı %20.58 olarak hesaplanmıştır.

Bulgular: Bulgular, sosyal girişimciliğin kırsal kalkınma süreçlerinde giderek daha fazla stratejik bir rol üstlendiğini ve literatürdeki yayınların sosyal sermaye, yenilikçilik, kadın girişimciliği ve sürdürülebilirlik temaları etrafında yoğunlaştığını göstermektedir. En üretken kurumlar arasında Aleksandras Stulginskis University, South China Agricultural University ve University of Nigeria öne çıkmıştır. Bradford Yasası bulguları, yayınların az sayıdaki çekirdek dergi etrafında yoğunlaştığını ortaya koymuştur. Sonuç olarak, sosyal girişimciliğin kırsal kalkınmadaki rolü, ekonomik büyüme kadar toplumsal refah ve sürdürülebilirlik boyutlarıyla da ilişkilidir.

Özgünlük / Değer: Bu çalışma, sosyal girişimcilik ve kırsal kalkınmayı birlikte ele alan nadir bibliyometrik analizlerden biridir. Web of Science verilerine dayalı olarak alanın araştırma ağlarını, tematik eğilimlerini ve gelecekteki çalışma fırsatlarını ortaya koyarak literatüre önemli katkı sağlamaktadır.

Anahtar Kelimeler: Girişimcilik, kırsal yenilik, sosyal yenilik, bilimsel haritalama

INTRODUCTION

Rural development has been considered a priority policy area for many countries for many years. Although this concept is generally associated with the economic empowerment of producers and farmers, it actually encompasses a much broader perspective. Rural development is a comprehensive process that aims to improve the agricultural, economic, and social living conditions of individuals living in a specific rural area, while also increasing their environmental awareness. Individuals living in rural areas mostly sustain their livelihoods through agriculture, animal husbandry, and low value-added activities, so their living standards are generally low. This situation causes problems such as poverty, income inequality, and migration in rural areas. For this reason, many countries are seeking solutions to these problems by developing rural development policies that include economic and social dimensions. However, the failure to achieve adequate rural development can negatively affect countries' sustainable growth targets and deepen social imbalances. Therefore, it is crucial for each country to create development policies appropriate to its own socioeconomic structure and to implement these policies in a consistent manner (Uzan, 2023).

Rural development aims to improve living standards in rural areas and reduce the development gap between rural and urban areas. At the same time, it seeks to bring together agriculture and industry, strengthen infrastructure such as education, health, and transportation, and promote local handicrafts and cultural values (Kuşat, 2014). The growing interest in this approach is closely related not only to population density in rural areas but also to urban problems such as unemployment, intense urbanization, poverty, etc., which are closely linked to the neglect of rural areas. Empowering rural areas can bring about change for the individuals living there. Unfortunately, sustainable development is hardly possible without empowering marginalized groups; therefore, improving rural areas is critical for long-term development goals (Yar and Musadiq, 2024).

In recent years, social entrepreneurship has come to the fore as an important approach that strengthens rural development efforts. Social entrepreneurship is a model that aims to create both economic and social value by producing innovative and sustainable solutions to social problems. Peredo and McLean (2006) define social entrepreneurship as a process in which individuals or groups aim to create social value, have the ability to recognize and evaluate opportunities, develop innovative ideas, and act decisively by taking risks with limited resources. Social entrepreneurship is seen as a rapidly developing field because it prioritizes social benefit while ensuring economic sustainability (Aktaş and Akdeve, 2024).

Although social entrepreneurship is not a new phenomenon, interest in the concept has increased significantly in recent years. At the core of this approach is the goal of producing innovative solutions by adopting an entrepreneurial perspective on social problems. The most important factor that distinguishes social entrepreneurs from other entrepreneurs is their mission, which focuses on social development and prioritizes social benefit (Kılıç Kırılmaz, 2014). The development of social entrepreneurship is closely related to countries' capacity for entrepreneurship and innovation; this enables social enterprises to offer lasting solutions to social problems (Gökbunar et al., 2018).

Social entrepreneurship combines both “social” and “entrepreneurial” elements. The entrepreneurial dimension ensures that problems and opportunities are properly embraced, while the innovative aspect emerges through the capacity to generate solutions by taking risks. The social dimension, on the other hand, focuses on the entrepreneurial approach responding to social needs and problems. In this context, it is crucial to give due importance to social capital, for organizations to engage in socially-oriented activities, and for social entrepreneurs to adopt a community-focused approach (Akar and Üstüner, 2017).

Social entrepreneurship activities are seen as an effective tool for generating solutions to social, economic, and cultural problems, particularly in rural settlements. Local social entrepreneurship contributes to sustainable development by bringing dynamism to rural economies. Identifying the resources that fuel social entrepreneurship is critical for development in rural areas. In this regard, social capital stands out as one of the most fundamental resources of social entrepreneurship, and a strong relationship between the two concepts is evident (Keleş and Dilmaç, 2017).

A review of the existing literature reveals a limited number of examples, and consequently, the interaction between rural development and social entrepreneurship has not been sufficiently addressed. This gap highlights that rural development policies and practices have not been able to derive sufficient benefits from social entrepreneurship. Therefore, this study argues that research conducted in the field of rural development and social entrepreneurship should be systematically reviewed. Bibliometric analysis methods were used to reveal scientific trends in the literature on rural development and social entrepreneurship. Thus, it aims to provide a comprehensive overview of the current

state of social entrepreneurship practices in rural development, areas that need to be developed, and future research directions.

CONCEPTUAL FRAMEWORK

This section addresses the conceptual framework of the study. The concepts of rural development and social entrepreneurship that form the content of the study, along with the theoretical background related to these concepts, have been examined through a literature review appropriate to the purpose of the study.

Rural development

The concept of rural development is defined in various ways by different researchers in the literature. Moseley (2003) defines rural development as the process of raising the living standards and economic well-being of individuals living in less densely populated and relatively isolated areas. Singhanian and colleagues (2022), on the other hand, evaluate rural development as an approach that focuses on society and all stakeholders while producing solutions to problems encountered in rural areas, aiming to raise the living standards of economically and socially disadvantaged groups. Similarly, Tolunay and Akyol (2009) define rural development as a set of activities aimed at eliminating environmental factors that negatively affect life in rural areas (Çukur and Çukur, 2017).

In general terms, rural development refers to a multidimensional process initiated through the joint efforts of public institutions and individuals living in rural areas. This process aims to protect agricultural production, which is the primary source of income for individuals living in rural areas; to overcome existing restrictions on land ownership and use; and to ensure economic, social, and environmental improvement. Rural development aims to prevent migration from rural areas to cities, ensure the provision of services covering all aspects of life in these regions, and involve rural communities in a sustainable development process. Countries' levels of development lead to the adoption of different approaches in defining the areas covered by rural development. Developed countries include the population living in urban areas and nearby rural settlements when defining rural development areas, while developing countries generally consider only the rural population living in villages (Yıldırak, 1991). This difference leads to variations in the content and priorities of rural development policies from country to country.

While rural development policies are determined and implemented by central authorities in some countries, in others they are implemented through local government mechanisms. The geographical dispersion of rural areas and limited transportation options make it difficult to effectively implement development policies planned from the center. This situation necessitates the development of more effective and inclusive policies in the field, as rural development is among the priority policies of countries (Şengül, 2013).

Historically, the content and priorities of rural development policies have changed significantly depending on the economic, social, and technological approaches of the periods. While modernization theory and the dual economic model were at the forefront in the 1950s and 1960s, the basic needs approach and the integrated rural development understanding came to the fore in the 1970s and 1980s. After 1990, microcredit applications, participatory rural appraisal, and environmental sustainability policies developed; since the 2000s, the concepts of sustainable livelihoods, local governance, good governance, and social protection have come to the fore. In this context, rural development is considered not only a process that supports economic growth but also a critical tool for increasing social welfare and achieving sustainable development goals (Ellis and Biggs, 2001).

Rural development also encompasses processes such as increased product and service diversity, the emergence of new markets, and the restructuring of rural economies due to technological advances. In this context, rural development is defined as a multidimensional process that includes the transformation of the agricultural structure, the increase in economic power, and the development of the social-cultural structure (Van der Ploeg et al., 2000).

In recent years, rural tourism and geographically indicated products have been quite important in terms of rural development. Özçatalbaş and colleagues (2019) state that tourism practices carried out in rural areas, particularly in areas such as local cuisine, cultural interaction, and recreation, lead the way in important opportunities for rural development. Similarly, ENDR (2013) emphasizes that rural tourism makes regions economically attractive. Non-agricultural activities of individuals living in rural areas also encourage them to invest in rural areas (Çukur et al., 2019). Supporting rural tourism promotes the introduction of region-specific products to the wider market and encourages consumers to choose them. In this regard, geographically indicated products are a crucial tool for the rural economy and inspire consumer confidence. Geographical indications encourage consumers by focusing on the quality

and historical connections of products. They also increase producers' incomes and provide various job opportunities for rural communities (Gökovalı, 2007).

Research shows that rural tourism and geographically indicated products have a mutually supportive structure and a positive impact on rural development. Çukur and Çukur (2024) reveal that geographically indicated products protect local production, transmit cultural heritage between generations, and positively affect the economy in the area. Thus, the interaction between rural tourism and geographically indicated products makes a strong contribution to rural development in both economic and cultural dimensions.

When the definitions in the literature are examined as a whole, it is understood that rural development aims not only at economic growth but also at comprehensive progress in social, environmental, and cultural areas. Approaches that have emerged in different periods show that rural development is not static but a constantly changing process that adapts to conditions. From this perspective, an effective understanding of rural development should be based on a sustainable and inclusive management model that integrates local community participation, environmental sensitivity, and innovative practices.

Social entrepreneurship

Although individuals' needs are infinite, the resources available to meet these needs are limited. Therefore, when establishing a balance between needs and available resources, the level of benefit to be gained from meeting those needs must be taken into account. Since society is made up of individuals, this balance must also be maintained at the societal level; meeting basic needs must become a priority in order to ensure social continuity. It is at this point that social enterprises have emerged to contribute to meeting the needs of individuals and communities (Tomur, 2022).

Entrepreneurship plays a key role in the economic and social development of communities. In this context, social entrepreneurship can be defined as a type of entrepreneurship based on social solidarity, non-profit-making, and aiming to create social benefit. Social entrepreneurs produce innovative solutions to social problems by effectively using existing resources and contribute to supporting sustainable development. Professional associations, foundations, and non-governmental organizations can be cited as examples of social business models in this context (Kumcu and Çetinel, 2022; Esmer and Çınar, 2020).

Social entrepreneurship is a dynamic process that evaluates opportunities arising to promote social change and meet various social needs; in this process, it brings together existing resources effectively to develop innovative and creative solutions (Mair and Marti, 2006). Considered an important tool in solving fundamental social problems and accelerating the process of social transformation, social entrepreneurship creates small-scale changes in the short term while supporting more comprehensive and lasting transformations in the long term (Alvord et al., 2004).

Social entrepreneurs typically operate in unjust environments where groups lacking financial resources and political influence are marginalized or excluded. These individuals demonstrate inspiration, creativity, direct action, courage, and resilience by identifying opportunities and developing social value propositions; they aim to alleviate the problems experienced by target groups by challenging existing stable state structures. In this regard, social entrepreneurs create a new balance that will provide a more equitable and sustainable future for both the target audience and society; at the same time, they strive to build a sustainable ecosystem around this balance (Martin and Osberg, 2007).

In the literature, some researchers address social entrepreneurship in the context of non-profit organizations, associations, and social structures; they evaluate such entrepreneurial activities through the lens of how the non-profit sector interacts with commercial practices (Mort and Weerawardena, 2003). Dees (1998) and colleagues, who focus on the characteristics of social entrepreneurs, emphasize the importance of social entrepreneurs adopting an innovative approach and stress that a successful social enterprise must pay attention to certain critical points. Accordingly, the feasibility and dissemination potential of the proposed innovation should be assessed in advance; the target audience's response to the innovation should be analyzed; and the resources necessary for the sustainability of the initiative should be correctly identified and secured. Furthermore, the negative effects that may arise in the event of the innovative idea being implemented incorrectly or failing should be anticipated in advance; the social enterprise should aim not only to reach wider audiences but also to provide more effective and higher-quality services to the target group (Dees, 1998).

In this context, social entrepreneurship stands out as a dynamic process that supports social transformation beyond individual entrepreneurship. The literature shows that social entrepreneurs can meet social needs and create

long-term impact with innovative and sustainable solutions. In this context, social entrepreneurship can be considered a multidimensional field that requires addressing economic and social development from a holistic perspective.

METHOD

This section of the study examines the manner in which the research was conducted and the methods used. It provides an overview of the topics covered by the research, its objectives, and its methodology.

Research type and purpose

The purpose of this study is to examine the publication characteristics and development of academic studies that address the concepts of rural development and social entrepreneurship together. Bibliometric analysis techniques were used in the analyses in line with the purpose of the study. Bibliometric analyses are conducted to reveal the development of a subject or concept in a specific field over time and to reveal the intellectual structure of the literature in question (Donthu et al., 2021). The bibliometric analysis method allows for the visualization of the general structure of the concept under examination in the literature and enables the evaluation of the overall performance of journals, key concepts, institutions, articles, and researchers related to the subject. Furthermore, bibliometric analysis distinguishes itself from literature review by revealing how concepts and topics trend over a specific time period, identifying the direction in which academic research in the field is evolving, determining researchers and inter-researcher connections related to the topic, and enabling the identification of intersections with other concepts. In this regard, it is possible to determine the development of research concepts over time, evaluate research results, and identify research gaps (Zupic and Čater, 2014).

Selection of research data source

The selection of the data source is important in terms of ensuring the scientific quality and universal validity of the research. Web of Science, Scopus, Google Scholar, and Microsoft Academic are some of the frequently used databases that are universally accepted for their scientific validity and reliability (Moral-Muñoz et al., 2020). The rapid increase in productivity in academic studies and the fragmentation of publications parallel to this increase make it difficult to follow the literature. For this reason, scientific classification is important in bibliometric analyses, as it is in all fields (Aria and Cuccurullo, 2017). In this context, the Web of Science (WoS) database, whose scientific validity and reliability have been universally proven, was preferred in order to minimize the complexity of information in the literature and to provide researchers in the field with a systematic overview. Data on research articles addressing the concepts of rural development and social entrepreneurship together were obtained from the WoS database on October 8, 2025.

Ethical dimension of the research

Since the data type used in the study is secondary data, no ethical committee approval is required.

Research questions

This study sought answers to the following questions related to the research problem.

- What is the scope of rural development and social entrepreneurship studies in the Web of Science database?
- What are the prominent and generally accepted views in rural development and social entrepreneurship studies?
- How have publication and citation trends in rural development and social entrepreneurship evolved over the years?
- What are the prominent journals, authors, and key concept matches in rural development and social entrepreneurship studies?
- In which countries are the prominent researchers in rural development and social entrepreneurship concentrated?
- Which studies on rural development and social entrepreneurship have received the most citations?
- Which authors and institutions collaborate most frequently on rural development and social entrepreneurship?

- How have the thematic clusters that have emerged over time in the rural development and social entrepreneurship literature changed?

Procedure for obtaining research data

Research data was obtained by searching the Web of Science database for research articles published on rural development and social entrepreneurship. First, the concepts of rural development and social entrepreneurship were searched in the WoS database without any time restrictions. In addition, a search strategy based on subject area (TS) was adopted, and considering the conceptual diversity in the literature, the concepts “rural development” OR “rural innovation” OR “rural economy” OR “rural community” OR “rural sustainability” were combined with the concepts “social entrepreneurship” OR “social enterprise” OR “social entrepreneur” OR “community entrepreneurship” OR “inclusive entrepreneurship” concepts AND connector. The selection of the key concepts expressed was made by considering the key concepts in the studies on rural development and social entrepreneurship in the literature. No filters were used in the initial search, and a total of 2330 studies were found. In the evaluation step, a filter was applied for studies on rural development and social entrepreneurship conducted in the disciplines of Business, Economics, and Management, resulting in 517 studies. In the third step of the research data collection procedure, a search was conducted excluding other compilations, book chapters, symposiums, and early access publications other than research articles, and it was determined that there were 431 research articles that addressed the concepts of rural development and social entrepreneurship together. The reason for selecting only research articles for analysis is that, in terms of peer review processes, research articles undergo a more rigorous, multi-stage, and scientifically quality-focused review process compared to other types of publications. Research articles generally contain original data, methods, and findings, so a rigorous scientific verification process is applied before they are submitted to journals, including a formal preliminary review followed by blind peer review (single or double-blind review). During this process, the research methodology, data analysis, contribution to the literature, and degree of scientific innovation are evaluated in detail. In contrast, the peer review process for other publication types, such as reviews, conference proceedings, book chapters, or technical reports, is generally more limited, sometimes conducted only at the editorial review level. Such publications are geared more toward compiling and sharing existing information or discussing a specific theme than toward scientific contribution. Therefore, selecting only research articles in bibliometric analyses ensures that studies with high scientific reliability, peer-reviewed, and directly contributing to knowledge production are examined. A language restriction has been applied to reduce the risk of sample bias in the analysis and to ensure the consistency, usability, and analyzability of the data. This is because keywords, abstracts, and citations used in multilingual data sets may differ. This leads to incorrect clustering, especially in keyword matching analyses such as co-word, co-citation, or co-authorship. Therefore, bibliometric analysis was performed on the remaining 407 studies after excluding studies written in languages other than English. Figure 1 shows the procedure for obtaining research data, indicating the inclusion and exclusion criteria.

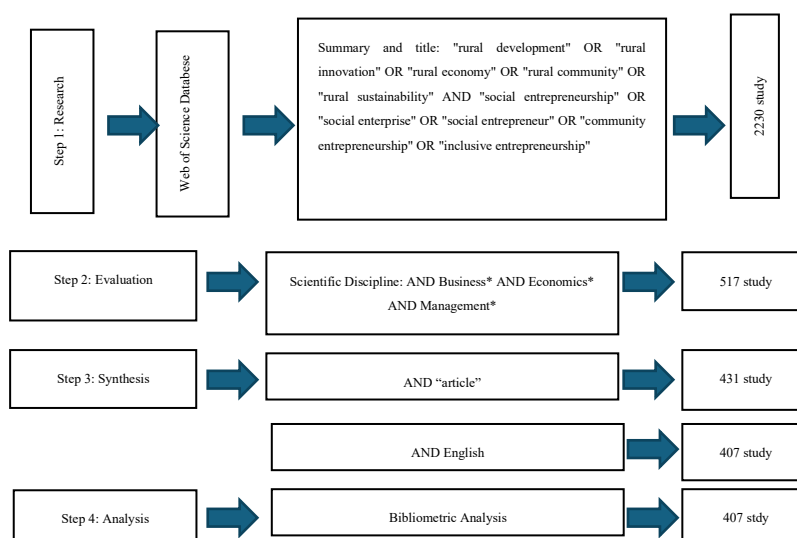


Figure 1. Steps in the SALSA data selection and analysis procedure.

Evaluation of research data

Visualization in bibliometric analyses can reveal similarity matrices, classifications, and relationships between elements. In addition to these, perspective analyses, researcher analyses, conceptual structure analysis, publication analysis, intellectual structure analysis, and network analyses can be performed (Moral-Muñoz et al., 2020). Bibliometric analyses were performed using the R and R Studio programs. Visualizations of conceptual relationships and similarities were presented in the visualization analyses (Aria and Cuccurullo, 2017). Data visualization is based on the number of clusters, the number of co-occurrences, and the relationships between different variables. Network analyses were performed by revealing citation counts. In addition, relationships between different metrics were revealed through network analyses (Low and Siegel, 2019). Searches were performed in the WoS database using keywords identified in conceptual structure analyses. The data obtained were used in bibliographic analyses. Researchers contributing to the relevant topic were identified in intellectual structure analyses. Different perspectives emerging over time were evaluated through citation and co-citation analyses. Research topics, authors, and relationships between institutions were examined through network analyses, and knowledge connections were revealed and interpreted (Mendes et al., 2017).

RESULTS

According to the analysis results, there are 407 documents in the data obtained from a total of 151 different sources. The annual growth rate was calculated as 20.58%. There were contributions from 1144 authors during the period examined, and 57 of these documents consisted of single-authored studies. The international co-authorship rate was 29.48%. The average number of authors per document is 3.11. The total number of keywords used by the authors is determined as 1465. There are 21,566 citations in the studies, the average age of the documents is 5 years, and the average number of citations per document is 18.18. The data obtained are presented in Figure 2.



Figure 2. Key information.

Source: Obtained from R studio.

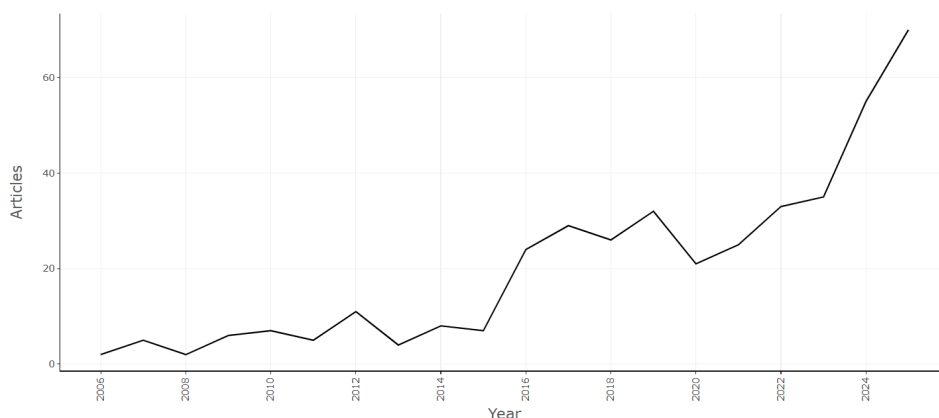


Figure 3. Trends in scientific publications for the period 2006–2025.

Source: Obtained using R studio.

Figure 3 shows the change in the number of articles published between 2006 and 2025 by year. When examining the graph, it can be seen that article production remained low between 2006 and 2014, with no significant increase during this period. However, a clear upward trend began in 2015, with a particularly noticeable increase in the number of articles in 2016. Although there were fluctuations in the number of articles between 2016 and 2020, the overall trend was upward. A steady rise in article production has been observed since 2021, with a noticeable acceleration in the rate of increase in 2023 and 2024. The year 2025 stands out as the year with the highest number of articles in the analysis period.

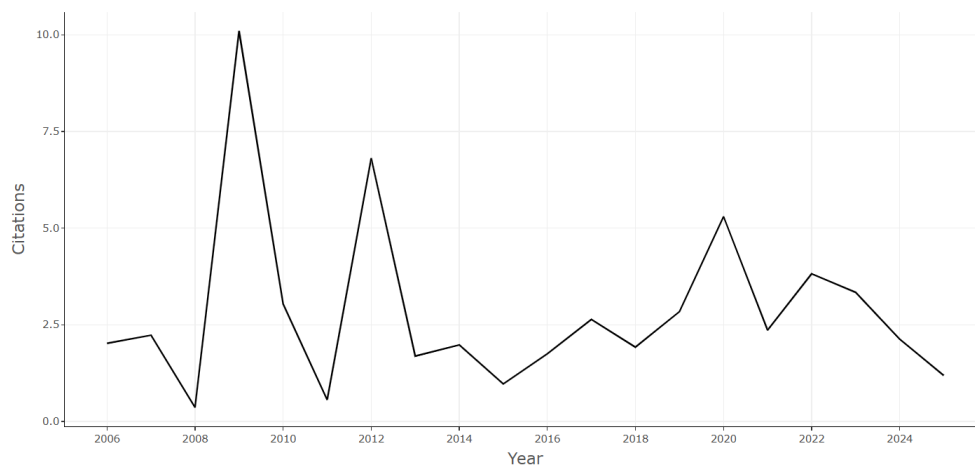


Figure 4. Change in annual average citation numbers between 2006 and 2025.

Source: Obtained by R studio.

Figure 4 shows the change in annual average citation numbers over time between 2006 and 2025. The graph shows that citation counts followed a fluctuating trend. A distinct peak occurred in the 2008–2009 period, with citation counts exceeding 10. However, this period was followed by a sharp decline in 2010–2011, with a brief increase observed in 2012.

Since 2013, citation counts have generally fluctuated at lower levels, showing a slight upward trend between 2016 and 2020. After 2021, citation counts began to decline, with a marked decrease observed between 2023 and 2025.

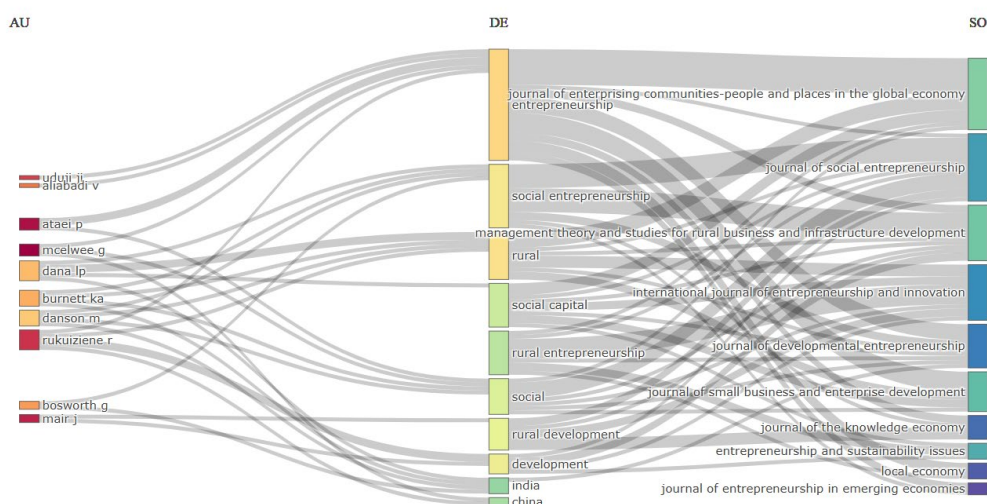


Figure 5. Three-Field Graph

Source: Obtained from R studio.

Figure 5 reveals the interaction network between prominent authors, themes, and journals in research articles that address the concepts of rural development and social entrepreneurship together. Upon examining the diagram, Dana L.P. is seen to occupy a central position in the “rural” theme, while Rukuizine R. occupies a central position in the ‘development’ themes. Boswort G., Danson M., Burnett K.A., and Dana L.P. have preferred the “social entrepreneurship” theme. The fact that entrepreneurship, social entrepreneurship, rural development, and social capital concepts are among the most frequently studied topics in the field shows that the rural entrepreneurship literature has not only an economic but also a social dimension. In addition, it has been determined that a significant portion of the studies were published in journals such as the Journal of Enterprising Communities and the Journal of Social Entrepreneurship.

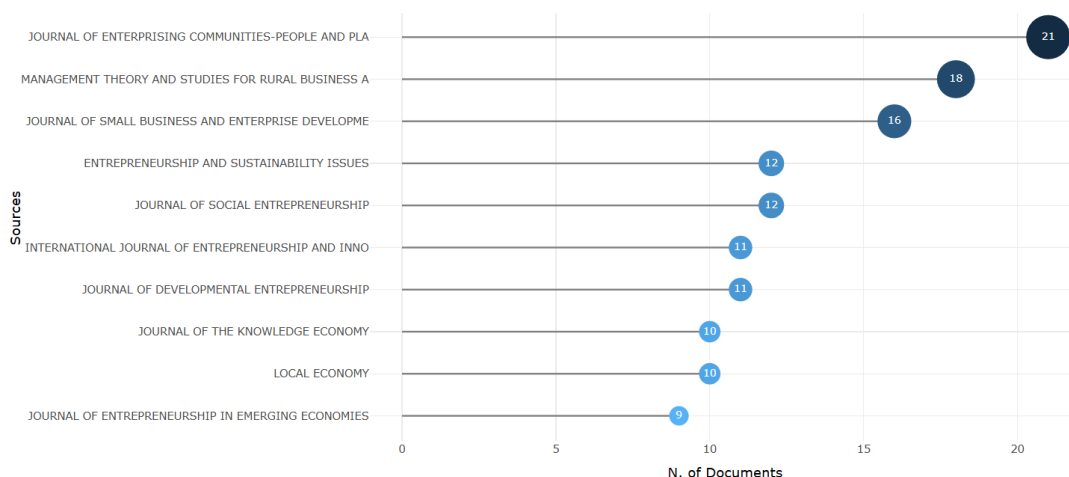


Figure 6. Most productive journals in the field of rural and social entrepreneurship.

Source: Obtained by R studio.

Figure 6 shows the journals with the highest number of publications in the field of rural and social entrepreneurship and the number of articles in these journals. The journal with the highest number of publications is the Journal of Enterprising Communities: People and Places in the Global Economy, with 21 articles. It is followed by Management Theory and Studies for Rural Business and Infrastructure Development (18 articles) and the Journal of Small Business and Enterprise Development (16 articles). Other prominent journals include the Journal of Social Entrepreneurship and Entrepreneurship and Sustainability Issues. This distribution shows that the literature is concentrated around certain journals and that the Journal of Enterprising Communities, in particular, is the most influential publication platform in the field.

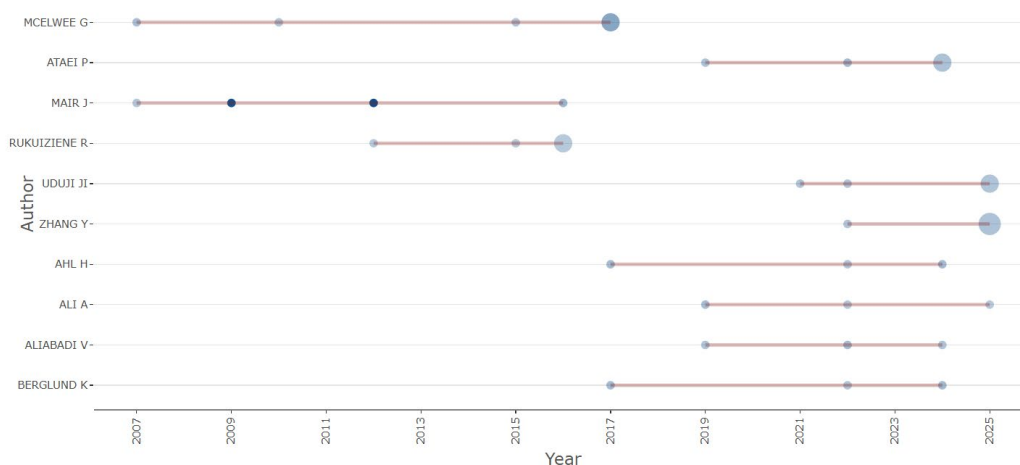


Figure 7. Authors' production over time.

Source: Obtained using R studio.

Figure 7 shows the publication trends over time of the most productive authors in the field of rural development and social entrepreneurship. The horizontal lines in the figure show the years during which each author published and the duration of their academic activity in this field. The size of the circles reflects the number of publications by authors in specific years, while the darkness of the colors reflects the citation level of the studies during that period. According to the findings, McElwee G. and Mair J. are among the pioneers who produced early work in the field. In particular, Mair J. published multiple studies in 2012 and 2016. Rukuziene R. increased her activity after 2015. Ataei P. was found to have published again in 2024. The studies of researchers such as Uduji J. I., Zhang Y., Ali A., and Aliabadi V. appear to have intensified after 2021. In addition, Berglund K. and Ahl H. stand out for their long-term productivity, regularly publishing since 2017.

Affiliation	Articles	
ALEKSANDRAS STULGINSKIS UNIV	16	
SOUTH CHINA AGR UNIV	12	
UNIV NIGERIA	12	
ALL RUSSIAN RES INST AGR ECON	11	
SOUTHEAST UNIV	9	
UNIV BEIRA INTERIOR	9	
UNIV HUDDERSFIELD	9	
NATL INST TECHNOL JAMSHEDPUR	8	
SCH RURAL DEV	8	
Affiliation	Year	Articles
		8

Figure 8. Most productive institutions.

Source: Obtained by R studio.

Figure 8 shows that Aleksandras Stulginskis University is the most productive institution in the field in terms of publications. This institution ranks first with a total of 16 articles. It is followed by South China Agricultural University and the University of Nigeria; both institutions have demonstrated significant productivity with 12 articles each. The All Russian Research Institute of Agricultural Economics ranks fourth with 11 articles.

Additionally, Southeast University, the University of Beira Interior, and the University of Huddersfield each published 9 articles, demonstrating a similar level of productivity. The National Institute of Technology Jamshedpur and the School of Rural Development complete the list with 8 articles each.

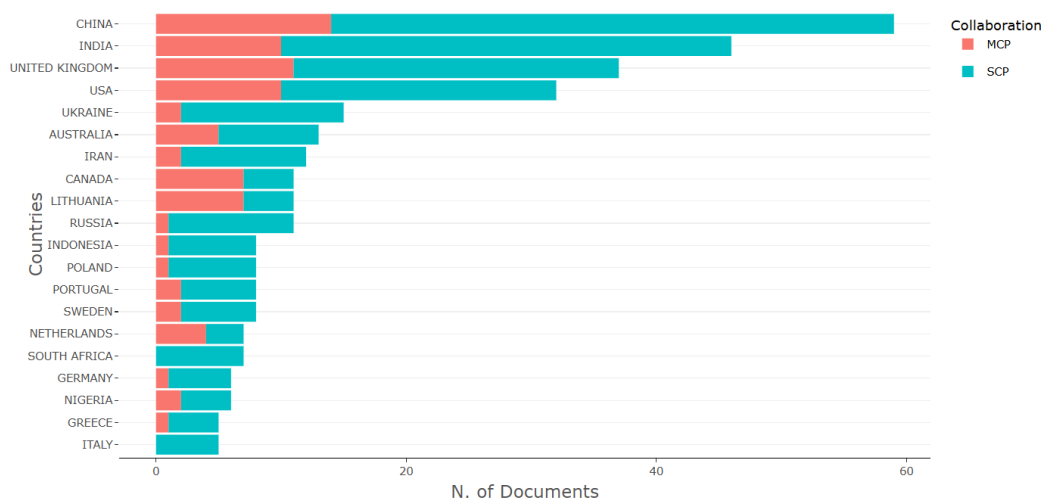


Figure 9. Publication distribution by country and levels of international collaboration.

Source: Obtained by R studio.

According to Figure 9, China has the most publications, and the vast majority of these publications are national-level (SCP) studies. India, the United Kingdom, and the United States are also among the countries with high publication numbers, and again, the proportion of studies involving national collaboration is higher in these countries. Ukraine, Australia, and Iran show medium levels of productivity, and generally, their national-level proportions are slightly higher than their international collaboration proportions. In Canada, Lithuania, and the Netherlands, international collaborations play a more prominent role. Countries at the bottom of the list (e.g., Italy, Greece, Nigeria, Germany, and South Africa) have produced fewer documents, but the majority of these are national-level publications.

Paper	DOI	Total Citations	TC per Year	Normalized TC
MAIR J, 2009, J BUS VENTUR	10.1016/j.jbusvent.2008.04.006	941	55.35	5.48
MAIR J, 2012, ACAD MANAGE J	10.5465/amj.2010.0627	796	56.86	8.35
CHEN Y, 2020, AM ECON REV	10.1257/aer.20191414	306	51.00	9.62
BHAGAVATULA S, 2010, J BUS VENTUR	10.1016/j.jbusvent.2008.10.006	249	15.56	5.11
BAU M, 2019, ENTREP THEORY PRACT	10.1177/1042258718796089	136	19.43	6.83
MICHELINI L, 2012, SOC RESPONSIB J	10.1108/17471111211272129	120	8.57	1.26
STEINEROWSKI AA, 2012, LOCAL ECON	10.1177/0269094211429650	97	6.93	1.02
VESALA KM, 2007, J SMALL BUS ENTERP DEV	10.1108/14626000710727881	95	5.00	2.24
KHOSHARAM M, 2020, J SMALL BUS MANAG	10.1111/jsbm.12501	90	15.00	2.83
VENKATARAMAN H, 2016, ORGAN STUD	10.1177/0170840615613370	87	8.70	4.97

Figure 10. Most globally cited documents.

Source: Obtained by R studio.

According to the data in Figure 10, the study with the highest number of citations is the article published by Mair J in 2009, which has received a total of 941 citations. In second place is another article by Mair J, published in 2012, which received 796 citations. Chen Y's article, published in 2020, stands out with 306 citations and has the highest normalized citation value of 9.62. Bhagavatula S's 2010 study received 249 citations, and Bau M's 2019 article received 136 citations. Micheline L's 2012 article received 120 citations, Steinerowski AA's 2012 study has 97 citations, Vesala KM's 2007 article has 95 citations, Khoshmaram M's 2020 article has 90 citations, and Venkataraman H's 2016 study has 87 citations.



Figure 11. Word cloud.

Source: Obtained by R studio.

Figure 11. The most emphasized concept in the word cloud is “entrepreneurship,” indicating that the theme of entrepreneurship is at the center of the research. Concepts such as “social entrepreneurship,” “rural entrepreneurship,” “development,” “rural development,” and “social capital” stand out around this concept. The figure generally shows that the studies focus on topics related to social and rural entrepreneurship and development.

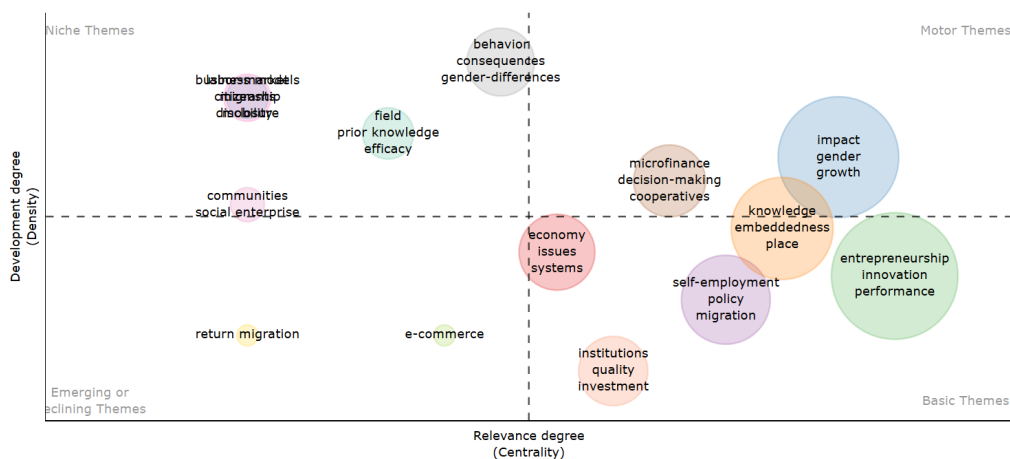


Figure 12. Thematic map.

Source: Obtained by R studio.

Figure 12 classifies the importance and maturity levels of themes in the research field. Themes such as “entrepreneurship, innovation, performance,” and “impact, gender, growth” in the upper right corner of the map are both well-studied and central driving themes in the field. The themes in the lower right corner, such as “knowledge, embeddedness, place,” and “self-employment, policy, migration,” are presented as important but underdeveloped fundamental themes. The niche themes in the upper left corner, “behavior, consequences, gender-differences,” are themes that focus on specific topics but have limited relevance to the general literature. The themes in the lower left corner, “return migration, e-commerce,” appear to be concepts that are still underdeveloped or have lost their importance.

The distribution of journals in the literature on a specific topic is described by Bradford's law (Bradford, 1934). According to this law, scientific studies published on a specific topic are concentrated in a small number of journals, while the remaining studies are distributed among other journals in an ever-increasing manner. According to Bradford's law, the literature is divided into three regions. A limited number of journals are in the first zone. The number of journals in the second and third zones increases exponentially. It is assumed that the number of journals in these zones is distributed at a ratio of 1: n : n^2 (Egghe and Rousseau, 1990).

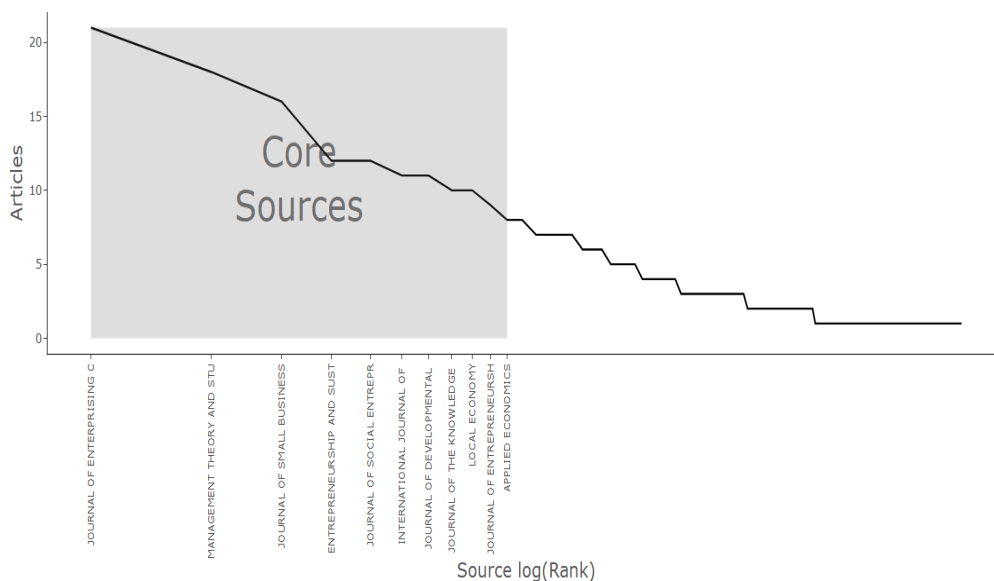


Figure 13. Brodford's law.

Source: Obtained from R studio.

The area marked in gray in Figure 13 shows the section of core journals related to rural development and social entrepreneurship concepts. The journals in this section account for a significant portion of total publications. It can be seen that the number of publications in journals outside the core journal group is rapidly decreasing and the curve is becoming horizontal. This situation, consistent with Bradford's Law, shows that a large portion of academic work is concentrated in a small number of journals, while the number of publications in a large number of journals is sparse and scattered. The fact that the rural development and social entrepreneurship literature is concentrated around a small number of highly influential journals indicates that researchers should turn to these core journals to access information.

DISCUSSION AND CONCLUSION

This study has revealed the trends, key actors, and thematic clusters of scientific production in the literature on rural development and social entrepreneurship. The findings show that the two concepts are increasingly integrated and that social entrepreneurship acts as a sustainable catalyst in rural development processes. Publication trends between 2006 and 2025 reveal a marked acceleration after 2015. This increase parallels the rise of the concepts of sustainability, inclusive growth, and social innovation in the global policy agenda (Ellis and Biggs, 2001). In particular, the United Nations' emphasis on social entrepreneurship as an agent of social transformation within the framework of the Sustainable Development Goals (SDGs) has increased academic interest in this area (Mair and Martí, 2006).

The results obtained show that the literature largely clusters around the themes of economic and social value creation, social capital, innovation, and women's entrepreneurship. This indicates a growing interest in social dimensions, not just economic indicators, in the rural development literature (Keleş and Dilmaç, 2017). The association of the social impacts of rural entrepreneurship activities with community-based development and sustainable living practices is indicative of a paradigmatic shift in the literature (Van der Ploeg et al., 2000). The annual publication growth rate (20.58%) indicates that rural development and social entrepreneurship studies are a young but rapidly growing field of research. Despite fluctuations, particularly between 2016 and 2020, the overall positive trend reveals that the topic has attracted the attention of policymakers in both developing countries and advanced economies. Highly cited works by pioneering authors such as Mair and Martí (2006) and Martin and Osberg (2007) show that the theoretical foundations of this literature are built on the concepts of social innovation, ethical responsibility, and inclusive entrepreneurship.

According to the analysis results, institutions such as Aleksandras Stulginskis University, South China Agricultural University, and the University of Nigeria stand out among the most productive institutions. This shows that research centers in Europe, Asia, and Africa play an active role in this field and form a global research network. The fact that the international collaboration rate remains at 29.48% indicates that regionally focused studies still dominate in the field of rural development and social entrepreneurship, but that more international joint research is needed. The high productivity of the *Journal of Enterprising Communities*, *Management Theory and Studies for Rural Business and Infrastructure Development*, and *Journal of Small Business and Enterprise Development* indicates that rural development and social entrepreneurship research is concentrated in business and entrepreneurship-oriented publishing platforms. This trend shows that the field has a dual perspective in terms of both economic development policies and social welfare models. According to Bradford law analysis, the literature is concentrated around a small number of core journals, and these journals are decisive in the field's knowledge production. This confirms that researchers should turn to core journals to access fundamental knowledge about the field.

When examining the thematic map, it is observed that concepts such as “entrepreneurship,” “innovation,” “impact,” and ‘gender’ are among the “driving themes” of the field. This finding reveals that rural development is integrated not only with economic policy areas but also with social policy areas such as gender equality and social impact. The presence of themes such as “knowledge,” “policy,” and “self-employment” in underdeveloped regions indicates a need for more in-depth analysis in future research, particularly in the areas of policy-making and knowledge management. Citation analyses reveal that authors such as Mair (2009), Mair and Martí (2012), and Chen (2020) have had a high level of impact in the rural development and social entrepreneurship literature. A common feature of these studies is that they transform social entrepreneurship into a theoretical framework by linking it to sustainable development goals. The general downward trend in citation counts indicates that the literature is still in its maturation phase, despite the increase in the number of publications in recent years. This suggests that citation intensity in the field will increase in the coming years, along with the development of new conceptual models and an increase in empirical research.

The results obtained show that rural development and social entrepreneurship are increasingly being addressed within the framework of social capital theory, the innovation approach, the community-based development model, and sustainable livelihood theory. The increase in studies focusing on the impact of social entrepreneurship on women's employment, income diversity, and social integration in rural areas is particularly noteworthy. This trend shows that social entrepreneurship is considered not only as a tool for economic development but also as a mechanism that strengthens social solidarity and social welfare. However, there are still areas that have not been sufficiently explored in the literature. In particular, themes such as digital entrepreneurship, sustainable agricultural technologies, e-commerce-based rural entrepreneurship, and changing migration dynamics have been identified as underdeveloped concepts or concepts that are only beginning to gain importance. This situation indicates that future research should examine the impact of technological innovations on rural economies in a more comprehensive manner.

In conclusion, this bibliometric analysis has revealed both the intellectual and thematic structure of the rural development and social entrepreneurship literature. The study emphasizes that rural development policies should focus not only on economic efficiency but also on social impact and sustainability. Emerging trends in the literature show that social entrepreneurship has the potential to generate innovative solutions and increase social welfare in rural areas. However, research in this field needs to be supported by more in-depth theoretical models, increased interdisciplinary collaboration, and, especially in developing countries, more field-based empirical research. In this context, it is recommended that future research integrate the impact of social entrepreneurship on rural development not only with economic performance indicators but also with dimensions of social resilience, social justice, and environmental sustainability. Thus, social entrepreneurship can be positioned not only as a part of rural development but also as one of its fundamental dynamics that strengthen its sustainability.

It is recommended that future research conduct an interdisciplinary comparison by integrating different databases. Furthermore, more in-depth analyses of the structural transformation of the rural development and social entrepreneurship literature can be conducted using qualitative bibliometric techniques (e.g., content analysis or theme-based text mining). Furthermore, focusing future studies on emerging themes such as digital social entrepreneurship, rural women's entrepreneurship, green innovation, and sustainable agriculture initiatives will significantly contribute to the literature. In conclusion, this study presents a pioneering framework that systematically examines the interaction between rural development and social entrepreneurship from a bibliometric perspective, establishing a fundamental reference point that will guide future research.

Researchers' Contribution Statement Summary

The authors declare that they have contributed equally to the article and that they have not plagiarized.

Conflict of Interest

In this study, it was declared that there was no conflict of interest between the authors.

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