Thematic Literature Review on the Sustainable Entrepreneurship by Sustainable Development Goals

Ibrahim Sapaloglu

Istanbul Technical University, Faculty of Management, 34357, Maçka, Istanbul, Turkey

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ABSTRACT

This study examines the relationship between sustainable entrepreneurship and the Sustainable Development Goals (SDGs). It evaluates the body of previous literature to find essential themes, theoretical frameworks, empirical research, and practical consequences. The assessment highlights the importance of sustainable entrepreneurship in tackling societal and environmental issues, particularly regarding SDGs like gender equality, poverty reduction, and climate action. It examines theoretical underpinnings such as social entrepreneurship and argues how they help us understand how sustainable entrepreneurship might support the SDGs. The review also recommends areas for future research, such as the demand for additional empirical studies, and a closer look at contextual elements. Overall, this study offers insightful information for decision-makers, entrepreneurs, and researchers who are interested in advancing sustainable development through entrepreneurship. For this purpose, 251 scientific documents taken from the Scopus Database were analyzed with R.

Keywords: Sustainable entrepreneurship, SDGs, Bibliometric analysis, Thematic analysis

INTRODUCTION

Organizations are now placing a greater emphasis on sustainable approaches to efficiently utilize resources and enhance the livability of the world. Adopting environmentally-focused solutions has provided new opportunities for organizations to gain a competitive advantage by effectively utilizing their corporate assets [1]. However, these solutions and endeavors benefit organizations and have positive social and environmental implications.

Challenges such as resource scarcity resulting from population growth, environmental issues, socioeconomic disparities, and inequality require attention and resolution. modern societies' stability and survival are in danger due to climate change. More individuals are starving to death and are experiencing poverty. Gender disparities, unequal access to opportunities and resources, and the widening income disparity all persist [2]. In light of this, the United Nations established the Sustainable Development Goals (SDGs) for 2030, which serves as a global political agreement signed by 193 nations in September 2015 [3]. The 17 "sustainable development goals" that lay out a plan for a sustainable future for humanity on our shared planet form the basis of these goals. The first 16 SDGs offer a broadly accepted framework for what the great transition toward sustainability should accomplish. They include goals like "life on land" "no poverty", "climate action," and protecting "life below water" and "life on land." Additionally, the 17th SDG guides how to effect this change: 'Partnerships for the Goals.

The UN has identified entrepreneurship as a crucial component for addressing sustainable development concerns together with innovation [4]. Sustainable entrepreneurs combine economic, social, and environmental goals into their businesses in an effort to accomplish many objectives. The construction of environmental, social, and economic values is combined in sustainable entrepreneurship, which focuses on safeguarding the welfare of future generations [5].

The literature analysis reveals that several research topics, including opportunities, motivations, competencies, tactics, and business models of entrepreneurs with a focus on sustainability, have previously been extensively covered in academic literature.

There are still uncertainties regarding how entrepreneurs However, there remains a lack of comprehensive understanding regarding their specific emphasis on distinct Sustainable Development Goals (SDGs) [4]. There are still uncertainties regarding how entrepreneurs respond to sustainability issues and how these responses change, given that the world needs urgent global actions to achieve a comprehensive sustainability transition [6].

However, there is still much to learn about how entrepreneurship helps achieve the SDGs, and more study is needed to fill this knowledge gap. For this purpose, this study aims to provide foresight, give an idea, and show the similarities and differences between other studies in the literature with thematic clusters by conducting a detailed literature review. This study aims to close this scholarly gap by meticulously reviewing the thematic literature. In the context of the SDGs, the review explores key concepts, theoretical frameworks, and empirical studies of sustainable entrepreneurship.

LITERATURE REVIEW

Entrepreneurship is regarded as a means of promoting economic development but social and environmental concerns have been disregarded [7]. Shepherd & Patzelt, (2011) suggest that entrepreneurs must integrate sustainability into their business plan to build a prosperous company supporting development. Sustainable entrepreneurship has the potential to transform lives by generating jobs, enhancing goods and procedures, and founding new businesses [8]. Not only must opportunities and market threats be identified, but also the social, economic, and environmental effects that corporate behavior has on its environment and stakeholders. To create a long-term society that is truly sustainable, businesses and other stakeholders must collaborate to examine the risks and challenges in the economic, social, and environmental spheres and look for creative solutions to a variety of problems [9]. In order to meet present and future stakeholder requirements and advance sustainable development for society as a whole, the SDGs seek to motivate the operationalization and integration of sustainability within organizations around the world [10].

Many studies in the literature deal with sustainable entrepreneurship and SDGs separately and make bibliometric analyses. In this regard, Muñoz & Cohen, (2018) did a structured review and searched the Web of Science database using sustainable entrepreneurship, green venturing, and sustainable innovation. Fellnhofer et al., (2014) evaluated various databases, including Scopus, using the search terms “entre” and “sustain.” Using Scopus, Thananusak, (2019) built his research on searches for sustainable entrepreneurship. PRISMA and VosViewer were used by the author, and their analysis included publications released up through March 2019. Using search terms like “sustainable entrepreneur” or “sustainopreneurship,” Terán-Yépez et al. (2020) conducted a bibliometric review of sustainable entrepreneurship. They looked for documents published between 2002 and 2018 in the Scopus database. Through their analysis, they were able to pinpoint a number of potential research areas, including entrepreneurship, sustainable business, sustainable management, business development, entrepreneurial ecosystem, opportunity recognition, environmental entrepreneurship, developing nations, stakeholder, economic and social effects, human resource, dynamic capabilities, and entrepreneurial universities.

If we examine the SDGs in terms of literature without considering both main topics together, Yamaguchi et al., (2023) stated out; energy, transdisciplinary, and general sustainability concerns were thought to be the most pertinent, with the majority of evaluations concentrating on these areas. Based on citation analysis, SDG 9, which is connected to artificial intelligence—was found to be the most pertinent. The study found a lack of integration among studies conducted in the same field. The most productive nations in terms of SDG review papers were England, the USA, and Australia, although international cooperation and partnership with developing nations were more significant. In the literature that was reviewed, words like “health,”

"climate change," "food," "energy," and "water" were frequently used. Co-occurrence analysis determined Technology and economic expansion as crucial components of important relevance. The study found gaps in the assessments of the literature, particularly in areas like reduced inequality, gender equality, and subaquatic life. Gusmão Caiado et al., (2018) examined the SDGs in both a focus group and a comprehensive literature review. In the study, concepts such as stakeholder participation and co-creation were emphasized.

The literature emphasizes the crucial part that sustainable entrepreneurship plays in advancing the SDGs. Sustainable entrepreneurs can have a beneficial influence and support many SDGs at once by tackling societal and environmental issues through novel business models, goods, and services. For instance, it has been demonstrated that sustainable entrepreneurship advances gender equality, tackling climate change, responsible consumption, and responsible production. Sustainable innovation helps us understand how sustainable entrepreneurial practices might connect with the SDGs [16], [17]. Many different types of entrepreneurship that integrate profit production with conservation and social protection are inspired by the Sustainable Development Goals (SDGs). These SDGs will also show how to establish new businesses in 2030 that merit consideration and promotion [18]. Various theoretical approaches support the relationship between sustainable entrepreneurship and the SDGs. In contrast to dynamic start-ups, however, big, global corporations evolve relatively slowly. These emerging sustainable entrepreneurs are passionate about starting mission-driven businesses that aim to contribute to the SDGs in addition to making a profit [19].

In the study of Raman et al., (2022) from the whole sample of 3157 articles, they found 843 publications centered on women entrepreneurs and SDGs, and they chose SDG 10, SDG 8, and SDG 5, which made up 90% of publications. To learn where each nation stands in terms of fulfilling the 17 SDGs, they also looked at the Sustainable Development Report. They displayed historical patterns in SDG publications using the VOS viewer's overlay feature.

Benavides-Sánchez et al., (2022) provide a bibliometric study based on 102 scientific publications about sustainable entrepreneurship and SDGs that were published between 2015 and 2020 in journals that were indexed by WoS and Scopus. Their findings show that since 2018, research on this subject has grown steadily. Additionally, partnerships between universities are particularly important among academics from Germany, Spain, and the United States.

METHODOLOGY

This review aims to shed light on the subject of sustainable entrepreneurship by SDGs. A rigorous methodology was used to accomplish the above objective. The review also aims to answer the following research questions.

The research questions are:

RQ1: How is the development of the topic (publications over time) characterized?

RQ2: Which journals are the most pertinent to the subject?

RQ3: According to two indicators—the number of papers published on sustainable entrepreneurship by SDGs and the number of papers cited by other papers—who are the most influential authors on the topic?

RQ4*:* Which articles on the subject are the most pertinent?

From the Scopus Database, pertinent scientific papers were chosen using a methodical process, yielding 251 papers for analysis. Due to its thorough coverage of scholarly literature, data sources were limited to the Scopus Database. A thorough screening process was used to eliminate duplicates, non-English papers, and

papers that were not related or had tenuous connections from the chosen documents. A final dataset of 245 documents for analysis was produced through this process.

The dataset was subjected to thematic analysis using R to identify significant themes and clusters in the literature. The identification of thematic evolution, trend topics, and cross-national collaboration patterns was made possible by this methodology.

For the bibliometric analyses stage of the study, The Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) flow chart served as the foundation for the qualitative content analysis procedures that were used in the systematic literature review. In the first of three stages of the bibliometric section, I found 251 papers. After scanning Step 2 and selecting 3 duplicate documents, I discovered partially Chinese, and Spanish documents in Step 3. After this step, I studied the paper abstracts and eliminated the total 6 unrelated or loosely connected papers (Steps 4 and 5).

Figure 1 shows the steps on the Prisma flowchart.

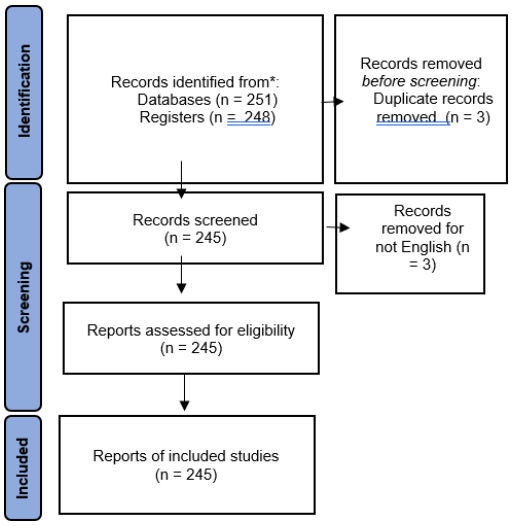

Figure 1: Prisma Flow Chart

FINDINGS

In this part of the study, 251 scientific documents taken from the Scopus Database are analyzed with R. As stated in the Methodology section, these 251 documents were screened and analyzed on the remaining 245 documents. The tables and graphics below provide information about publications.

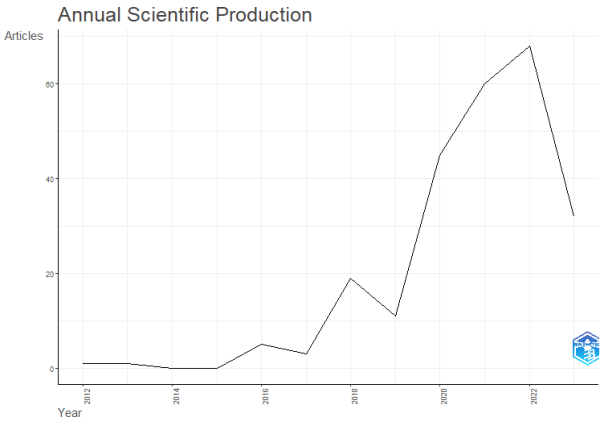

Figure 2: Annual Scientific Production

In the period examined in the study, it is seen that there was a series of publication consultancy only in recent years, and there was a large research gap before. As seen in Figure 2, 2022 is the year when the number of publications peaked.

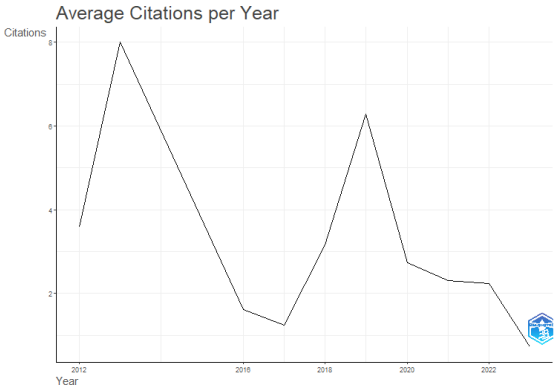

Figure 3: Average Citation per Year

The graph in Figure 3 shows the annual average number of citations. It seems to be low in some years.

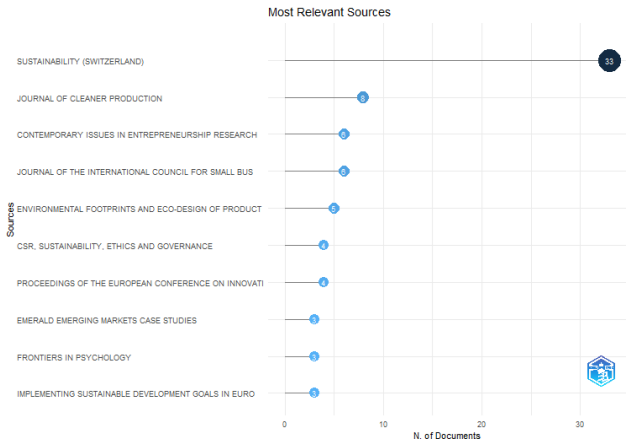

Figure 4: Most Relevant Sources

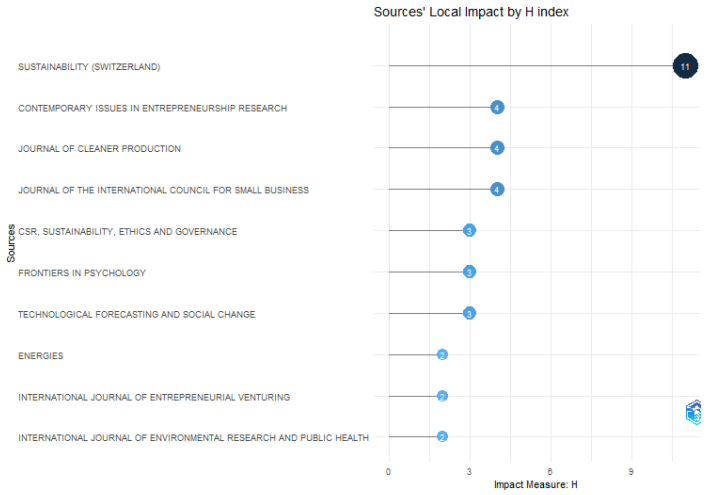

Figure 5: Sources by H index

When the graphics in Figure 4 and Figure 5 are examined, it is noticed that both the h index and the number

of publications of the "Sustainability" journal are relatively high.

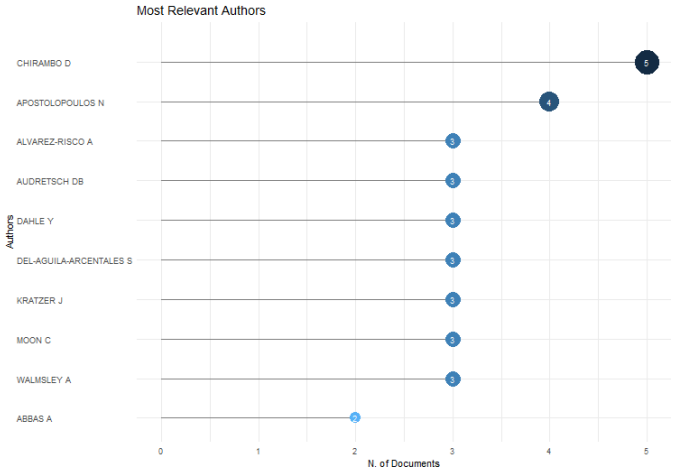

Figure 6: Most Relevant Authors

In the most relevant authors graph in Figure 6, it is seen that Chirambo, D. published relatively more.

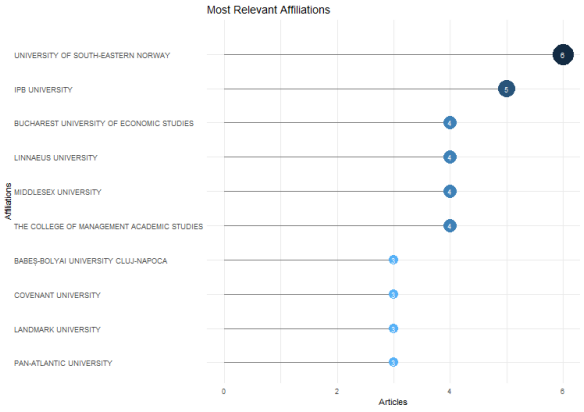

Figure 7: Most Relevant Affiliations

When the most relevant affiliations in Figure 7 are examined, it is seen that European universities are more common. This is not surprising given that Europe already has a desire to be a leader in green transformation.

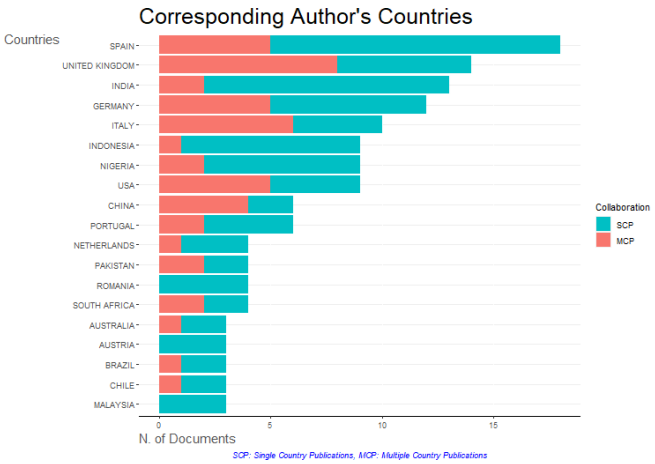

Figure 8: Corresponding Author's Countries

The corresponding author's countries table in Figure 8 shows that Spain, England, India, and Germany

dominate. USA and China lagged behind them. Surprisingly, this is the case, mainly when many sustainability and circularity studies exist in China.

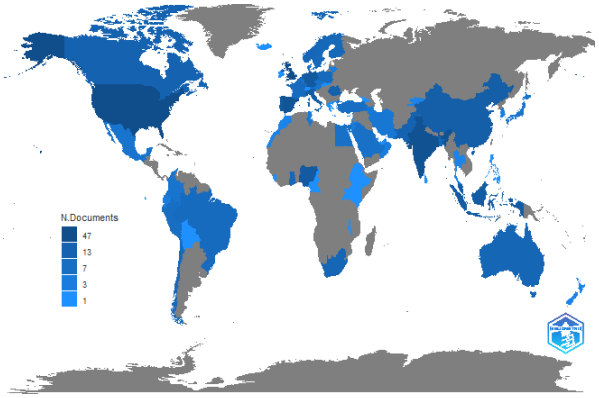

Figure 9: Publication Number by Country

In the publication number by the country graphic in Figure 9, countries are indicated from light blue to dark blue. The graph shows that Turkey has very few publications.

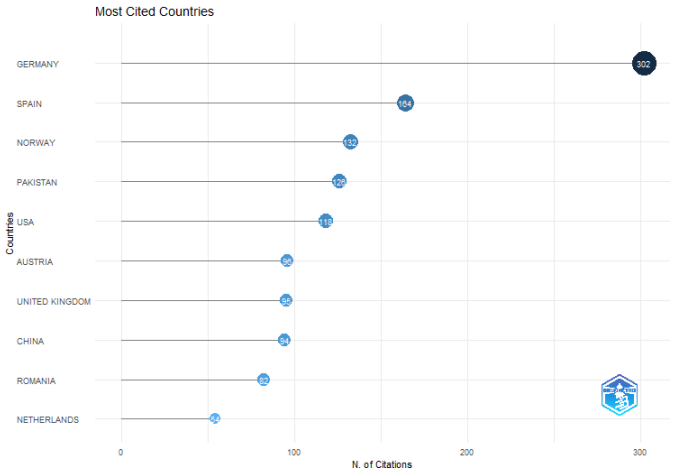

Figure 10: Most Cited Countries

When the Most cited countries graph is examined, it is seen that Germany has a serious advantage, although the number of publications is less than Spain. This perhaps illustrates the magnitude of the impact his publications have had.

Figure 11: Word cloud of documents

While preparing the word cloud in Figure 11, some words frequently used in the studies examined, such as sustainable development, study, findings, development, etc., have been excluded. In this way, it is aimed to determine the underlying issues of the studies. Annex 1 contains a list of these words. Innovation, education, women's rights, ecosystem, opportunities, agriculture, employment opportunities, and environmental topics draw attention. These words also show the subjects that the studies concentrate on. On the other hand, words such as stakeholder and government show stakeholder roles and co-creation.

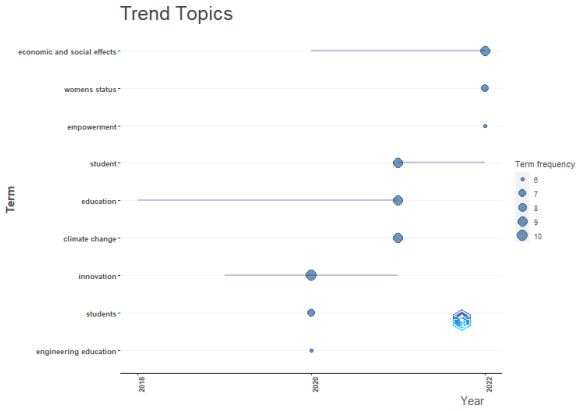

Figure 12: Trend Topics

When the trending topic in Figure 12 is examined, empowerment, the status of women, and social effects have been trending in recent years. Innovation and environmental problems remained in the background. This shows that besides the environmental targets of the SDGs, other goals are also on the agenda.

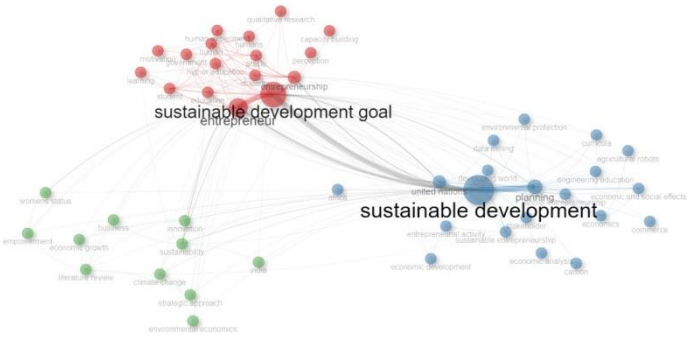

Figure 13: Clusters by topics based on their thematic evaluation

When Figure 13 is examined, it is seen that there are mainly 3 clusters.

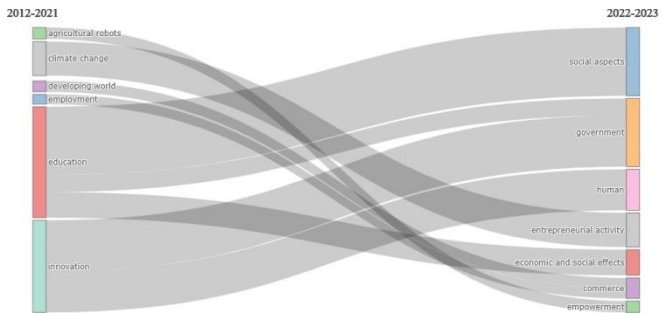

Figure 14: Thematic Evolution

When Figure 14 is examined, it is seen that there is a transition from issues such as innovation and environmental problems to more social problems, as seen in Figure 12. In the past, environmental issues, resource use, and innovation agenda, which was a way to achieve this, are now more frequently mentioned in the literature.

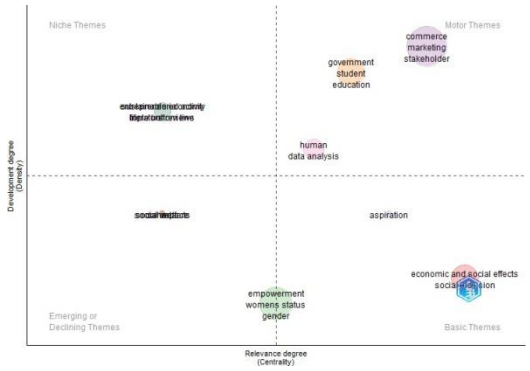

Figure 15: Clusters by topics based on their thematic evaluation

According to the clusters by topics based on their thematic evaluation table in Figure 15, social issues are still a niche area and there are still not enough studies in this area. On the other hand, commercial issues such as marketing, commerce, and stakeholder are referred to as motor themes.

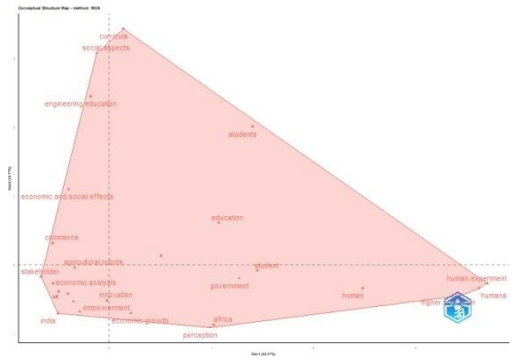

Figure 16: Factorial Analysis

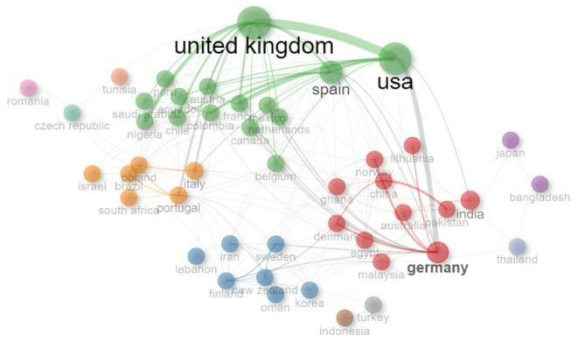

Figure 17: Collaboration between Countries

When Figure 17 is examined, it is seen that there are clusters among some countries and some countries are the center of these clusters. On the other hand, it is seen that Turkey only has links with Indonesia and Korea. UK, USA, Spain and Germany are countries that have links with so many countries relatively to Turkey.

DISCUSSION

Considering the bibliometric analysis results, the study's research questions (RQ1, RQ2, RQ3 and RQ4) answered. It was also useful to be able to give these answers and to exclude the words presented in Annex 1 during the analysis. As can be seen in the thematic and topical analyzes, issues such as social issues and gender equality are being studied more and it is seen that there is a shift from environmental issues such as innovation and resource efficiency. This is also seen in the thematic evolution graph in Figure 14.

The findings in the study show that Germany, Spain, and the USA are the leaders in publication, just as in the studies of Benavides-Sánchez et al., (2022). Of these countries, Germany is also the most cited country. On the other hand, it is seen that the number of studies in countries such as Turkey is low. This study aims to help close this gap.

Again, the findings show that; co-creation, cooperation, and stakeholders are among the prominent topics in the subject of sustainable entrepreneurship by SDGs under review. Gusmão Caiado et al., (2018) found similar findings in their study.

CONCLUSION

This review has illuminated the intricate relationship between sustainable entrepreneurship and the SDGs.

The results highlight the value of sustainable entrepreneurship in tackling social and environmental issues. The shifting thematic environment denotes a shift toward broader societal issues and highlights the multifaceted function of sustainable entrepreneurship. While this study answered 4 research questions with its findings, it also tried to fill the research gap that was noticed in previous studies and this study.

In summary, this study thoroughly investigates how sustainable entrepreneurship aligns with the SDGs. Future studies can delve deeper into the specific SDGs that have been discussed in the literature and look at how sustainable entrepreneurship differs regionally. This study seeks to advance theory and practice in sustainable development through entrepreneurship.

Future studies may illustrate which SDGs focused on the reviewed publications and also may reveal whether this focus is related to countries or not. Regional comparisons can be made in future studies.

REFERENCES

1. R. Wüstenhagen and M. Starik, "Sustainable Innovation and Entrepreneurship Reducing permitting risks of large wind energy projects in Switzerland View project UNISG former research work View project," 2008, doi: 10.4337/9781848441552.00001.
2. L. Ploum, V. Blok, T. Lans, and O. Omta, "Toward a validated competence framework for sustainable entrepreneurship," Organ Environ, vol. 31, no. 2, pp. 113–132, 2018.
3. C. S. Pedersen, "The UN Sustainable Development Goals (SDGs) are a Great Gift to Business!," Procedia CIRP, vol. 69, pp. 21–24, 2018, doi: https://doi.org/10.1016/j.procir.2018.01.003.
4. M. Filser, S. Kraus, N. Roig-Tierno, N. Kailer, and U. Fischer, "Entrepreneurship as catalyst for sustainable development: Opening the black box," Sustainability (Switzerland), vol. 11, no. 16, Aug. 2019, doi: 10.3390/su11164503.
5. A. R. Anderson, "Cultivating the Garden of Eden: Environmental entrepreneuring," Journal of Organizational Change Management, vol. 11, no. 2, pp. 135–144, 1998, doi: 10.1108/09534819810212124.
6. D. Tunçalp and N. Yıldırım, "Sustainable Entrepreneurship: Mapping the Business Landscape for the Last 20 Years," Sustainability (Switzerland), vol. 14, no. 7, Apr. 2022, doi: 10.3390/su14073864.

7. D. A. Shepherd and H. Patzelt, "The new field of sustainable entrepreneurship: Studying entrepreneurial action linking 'what is to be sustained' with 'what is to be developed,'" Entrepreneurship theory and practice, vol. 35, no. 1, pp. 137–163, 2011.
8. P. Sarango-Lalangui, J. L. S. Santos, and E. Hormiga, "The development of sustainable entrepreneurship research field," Sustainability (Switzerland), vol. 10, no. 6, Jun. 2018, doi: 10.3390/su10062005.
9. L. Zu, "International Perspective on Sustainable Entrepreneurship," in Sustainable Entrepreneurship: Business Success through Sustainability, C. Weidinger, F. Fischler, and R. Schmidpeter, Eds., Berlin, Heidelberg: Springer Berlin Heidelberg, 2014, pp. 67–100. doi: 10.1007/978-3-642-38753-1_6.
10. L. M. Fonseca, J. P. Domingues, and A. M. Dima, "Mapping the sustainable development goals relationships," Sustainability (Switzerland), vol. 12, no. 8, Apr. 2020, doi: 10.3390/SU12083359.
11. P. Muñoz and B. Cohen, "Sustainable entrepreneurship research: Taking stock and looking ahead," Bus Strategy Environ, vol. 27, no. 3, pp. 300–322, 2018.
12. K. Fellnhofer, S. Kraus, and R. B. Bouncken, "The current state of research on sustainable entrepreneurship," Int. J. Bus. Res, vol. 14, no. 3, pp. 163–172, 2014.
13. T. Thananusak, "Science mapping of the knowledge base on sustainable entrepreneurship, 1996–2019," Sustainability, vol. 11, no. 13, p. 3565, 2019.
14. N. U. Yamaguchi, E. G. Bernardino, M. E. C. Ferreira, B. P. de Lima, M. R. Pascotini, and M. U. Yamaguchi, "Sustainable development goals: a bibliometric analysis of literature reviews," Environmental Science and Pollution Research, vol. 30, no. 3, pp. 5502–5515, 2023, doi: 10.1007/s11356-022-24379-6.
15. R. G. Gusmão Caiado, W. Leal Filho, O. L. G. Quelhas, D. Luiz de Mattos Nascimento, and L. V. Ávila, "A literature-based review on potentials and constraints in the implementation of the sustainable development goals," J Clean Prod, vol. 198, pp. 1276–1288, 2018, doi: https://doi.org/10.1016/j.jclepro.2018.07.102.
16. N. M. P. Bocken, S. W. Short, P. Rana, and S. Evans, "A literature and practice review to develop sustainable business model archetypes," J Clean Prod, vol. 65, pp. 42–56, 2014, doi: https://doi.org/10.1016/j.jclepro.2013.11.039.
17. J. Surroca, J. A. Tribó, and S. Waddock, "Corporate responsibility and financial performance: the role of intangible resources," Strategic Management Journal, vol. 31, no. 5, pp. 463–490, May 2010, doi: https://doi.org/10.1002/smj.820.
18. F. Crecente, M. Sarabia, and M. T. Del Val, "Sustainable entrepreneurship in the 2030 horizon," Sustainability (Switzerland), vol. 13, no. 2, pp. 1–11, Jan. 2021, doi: 10.3390/su13020909.
19. D. J. Hansen and D. Wyman, "Beyond making a profit: Using the UN SDGs in entrepreneurship programs to help nurture sustainable entrepreneurs," Journal of the International Council for Small Business, vol. 2, no. 2, pp. 125–133, Apr. 2021, doi: 10.1080/26437015.2021.1881931.
20. R. Raman, N. Subramaniam, V. K. Nair, A. Shivdas, K. Achuthan, and P. Nedungadi, "Women Entrepreneurship and Sustainable Development: Bibliometric Analysis and Emerging Research Trends," Sustainability, vol. 14, no. 15, 2022, doi: 10.3390/su14159160.
21. E. P. Benavides-Sánchez, I. Moya-Clemente, and G. Ribes-Giner, "Sustainable Entrepreneurship and Sustainable Development Goals: a bibliometric analysis," Tec Empresarial, vol. 16, no. 1, pp. 101–122, 2022, doi: 10.18845/te. v16i1.5994.

APPENDICES

Annex 1

sustainable development
social entrepreneurship
data mining
conceptual framework
work
sustainability
qualitative
qualitative research
planning
entrepreneur
entrepreneurship
sustainable development goals
sustainable entrepreneurship
entipreneurial activity
economic development
economics
business
sustainable development goal
united nations
article
study
review
literature review
literature