

INNOVATIVE PATHWAYS TO A CIRCULAR ECONOMY: ENTREPRENEURSHIP & SUSTAINABILITY

¹*Dr. Richa Jain, ²Dr. Madhu Thakur, ³Sneha Motlani and ⁴Sneha Choudhary

^{1,2,3,4}Assistant Professor, Prestige Institute of Management and Research Bhopal.

Article Received on 26/05/2024

Article Revised on 16/06/2024

Article Accepted on 06/07/2024



*Corresponding Author

Dr. Richa Jain

Assistant Professor, Prestige
Institute of Management
and Research Bhopal.

ABSTARCT

Purpose: The UN noted that entrepreneurship is essential for tackling issues related to sustainable development, coupled with innovation. This paper examines existing literature pertaining to "Sustainable Entrepreneurship" with the aim of delineating research directions within this field. Additionally, it investigates the impact of technology and innovation, along with entrepreneurial challenges and opportunities, on fostering a circular economy.

Design/Methodology/Approach: Google Scholar and ERIC are discovered for research papers/articles by searching the terms "sustainable entrepreneurship", "sustainable Artificial Intelligence and entrepreneurship" and "sustainable entrepreneurship and innovation". We employed a systematic literature review (SLR) technique to select a sample of 48 papers (that were published between the year 2000 and 2024) is extracted and then analyzed for underlying themes and trends in current research. **Findings:** Research papers are categorized in order to better understand the path of this field's research. **Originality/Value:** The two most often used databases for literature reviews are Google Scholar and ERIC. The search terms "sustainable entrepreneurship" and "sustainable entrepreneurship and innovation" produce the greatest number of results when used in combination with these databases. The method we used was focused on identifying themes and sub-themes from the most cited papers from previous decades. In doing so, the researcher can identify patterns and knowledge gaps in the field.

KEYWORDS: Sustainability, Entrepreneurship, Systematic Literature Review.

1. INTRODUCTION

The goal of today's producers and consumers is to create a cleaner, greener environment. (Linnanen, 2002, Sumathi et al., 2014) and there is evidence of a growing dedication to sustainable principles and an increase in the market for green goods and services (Gliedt and Parker, 2007, Sumathi et al., 2014). The need to include environmental issues and sustainability in "considerations of the bottom line" has been acknowledged by society (Allen and Malin, 2008,). The idea of sustainable development has gained significant attention from environmentalists worldwide. Sustainable development has become more and more well-liked since the Brundtland Report was released, and it is now one of the most significant environmental discourses and numerous scientific disciplines are actively researching entrepreneurship. The Brundtland Report serves as the foundation for consideration of environmental issues (Sneddon et al., 2006), as well as introducing academics and professionals to the three pillars of sustainable development—ecology, society, and economy (Crals and Vereeck, 2005). The UN recognized innovation and entrepreneurship as essential components for tackling issues related to sustainable development. People are aware of the challenges of social and environmental sustainability in the dynamic and demanding world of today. To create a more sustainable world, everyone must simultaneously take greater responsibility for the environment, society, and economy (Khizar et al., 2021) in order to create a more sustainable future (Jurgita Raudeliūnienė et al., 2014). Haldar, S. (2019) highlights that all-encompassing phrase used to describe how entrepreneurial endeavors help address social and environmental issues is "sustainable entrepreneurship." Gawęł, A. (2012) unearth the link between sustainability and enterprise, particularly entrepreneurship oriented.

The objective of this paper is to bridge this void by conducting a literature review on entrepreneurship and sustainability, thereby advancing research in this domain. To achieve this, we examine and evaluate papers pertaining to entrepreneurship and sustainability available on Google Scholar. Our analysis entails presenting an overview of the various perspective's authors have taken in conceptualizing entrepreneurship within the sustainability context. This study aims to investigate three primary research questions. (RQs).

RQ1- What is the current status of sustainable entrepreneurship research?

RQ2- In the spectrum of sustainable entrepreneurship, which are the main theme areas?

RQ3- What are the limits and gaps in the research about sustainable entrepreneurship?

The RQ1 seeks to emphasize the general traits or characteristics like publications frequency over the time, author and journal related information, research methodology, information related to Industry as well as country context of the research. RQ2 intends to determine the major themes around sustainable entrepreneurship. RQ3 aims to identify the limitations and research gaps in this topic. This study aims to deepen our comprehension of the connection between entrepreneurship and sustainability, alongside the challenges encountered from an Economy perspective. Such an investigation holds the potential to yield valuable insights for both managers and policymakers.

2. METHODOLOGY

Pittaway et al. (2004) and Rousseau et al. (2008) outlined the study that was structured to offer a clear methodology for conducting the review. The main objective was to identify and examine pertinent literature that addresses both sustainability and entrepreneurship simultaneously. This research endeavor facilitated the provision of a descriptive and evaluative overview of the existing knowledge base concerning the intersection of these two subjects. A systematic literature analysis was conducted to unearth the various themes and sub themes of sustainability and entrepreneurship.

This methodology ensured a thorough and organized approach to collect, assess, and integrate pertinent information from diverse sources. The research sought to delve into the complexities inherent in sustainability and entrepreneurship within the business environment, investigating the nuances between these concepts and their ramifications for organizational strategies. The aim was to gain a comprehensive understanding of the evolving correlation between sustainability and entrepreneurship challenges, research gaps, and implications for contemporary business practices.

Our research methodology comprised a systematic literature review encompassing peer-reviewed journals, conference proceedings, and books. We conducted thorough searches utilizing keywords such as "sustainability and entrepreneurship". Articles were meticulously chosen based on their titles, abstracts, and keywords, with a focus on relevance and methodological robustness. We evaluated the quality of the studies and extracted essential information, organizing findings into thematic categories concerning people development and startups within modern business environments. This methodological approach facilitated a comprehensive examination of their interplay in today's dynamic global business arena. The subsequent actions have been executed. (Pittaway et al., 2004); (Spender et al., 2015).

The figure above (Figure 1) analysis key themes of 48 research papers on Sustainability and Entrepreneurship. Prominent areas of interest encompass the correlation between Sustainability and Entrepreneurship, as well as the Entrepreneurial opportunities and challenges encountered by new ventures. Scholars investigate the challenges faced by entrepreneur, analyzing methods to alleviate resource constraints and investigating approaches for attracting and retaining talent. This comprehensive examination highlights the diverse and ever-changing traits of entrepreneurs, sustainable development, and the economy.

Table 1: Papers description in terms of authors, year of publication, Title, Journal.

S.NO	TITLE	JOURNAL	AUTHORS
1	Sustainable entrepreneurship and sustainability innovation	Business strategy and the environment	(Stefan Schaltegger & Marcus Wagner, 2011)
2	Business models for sustainability: A co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation	Organization & environment	(Schaltegger, S., et al., 2006)
3	Sustainable innovation through an entrepreneurship lens.	Business strategy and the environment	(Larson, 2000)
4	Sustainability-oriented innovation	Journal of cleaner production	(Richard Adams et al., 2015)
5	Sustainable development and entrepreneurship: Past contributions and future directions	Journal of Business Venturing	(Jeremy K. et al., 2010)
6	The role of sustainable entrepreneurship in sustainability transitions: A conceptual synthesis against the background of the multi-level perspective	Administrative sciences	(Jacob Hörisch, 2015)
7	Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions.	Journal of Cleaner Production	(J Gast et al., 2017)
8	Sustainable entrepreneurship: A convergent process model. Business Strategy and the Environment	Business Strategy and the Environment	(Frank Martin Belz ¹ * and Julia Katharina Binder, 2017)
9	Sustainability entrepreneurs, ecopreneurs and the development of a sustainable economy	Greener management international,	(D Gibbs, 2006)
10	Social Entrepreneurship and Sustainability: A Conceptual Framework	Journal of Social Entrepreneurship	(Mohammed Faiz Kamaludin et al., 2021)
11	Market imperfections, opportunity and sustainable entrepreneurship.	Journal of business venturing	(Boyd Cohen et al., 2021)
12	Greening Goliaths versus emerging Davids—Theorizing about the role of	Journal of business venturing,	(Kai Hockerts a et al., 2010)

	incumbents and new entrants in sustainable entrepreneurship.		
13	Sustainable entrepreneurship research: Taking stock and looking ahead	Business Strategy and the Environment	(Muñoz, P., & Cohen 2018)
14	Sustainability entrepreneurs: Could they be the true wealth generators of the future?	Greener Management International	(Fiona Tilley & William Young, 2006)
15	Social innovation and social entrepreneurship: A systematic review.	Group & Organization Management	(Wendy Phillipset al., 2015)
16	Learning apart and together: towards an integrated competence framework for sustainable entrepreneurship in higher education.	Journal of Cleaner Production	(Thomas Lanset al., 2014)
17	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	(Dean A. et al., 2011)
18	Promoting sustainable development: The role of entrepreneurship education	International Small Business Journal	(Fernando Lourenço, et al., 2013)
19	Entrepreneurship and innovation systems: Towards a development of the ERIS/IRIS concept	Enacting Regional Dynamics and Entrepreneurship	(Håkan Ylinenpää, 2013)
20	Sustainable entrepreneurship and sustainability innovation: categories and interaction	Business strategy and the environment	(Stefan Schaltegger1 et al., 2011)
21	Towards a conceptual understanding of sustainability-driven entrepreneurship	Responsibility and Environmental Management	(Stuti Haldar, 2019)
22	Sustainability-driven entrepreneurship: a literature review.	University of Leeds	(Bradley D. Parrish, 2008)
23	Entrepreneurship and sustainability: The need for innovative and institutional solutions.	Technological Forecasting and Social Change	(Adel Ben Youssef et al., 2018)
24	Sustainability in entrepreneurship: A tale of two logics.	International Small Business Journal	(Stefan Schaltegger et al., 2016)
25	Psychological capital and entrepreneurship sustainability.	Frontiers in Psychology	(Tang, J. J., 2020)
26	Entrepreneurship as a platform for pursuing multiple goals: A special issue on sustainability, ethics, and entrepreneurship.	Journal of Management Studies	(Markman, G. D., et al., 2016)
27	Entrepreneurship and sustainability: do they have anything in common?	Economics and Business Review	(Gaweł, A., 2012)
28	Factors affecting entrepreneurship and business sustainability.	Sustainability	(Tur-Porcar, A et al., 2018)

29	Ecological entrepreneurship: sustainable development in local communities through quality food production and local branding.	Geoforum	(Marsden, T., & Smith, E., 2005)
30	Entrepreneurship and small business sustainability.	Southern African Business Review	(Ligthelm, A. A., 2010)
31	How Artificial Intelligence Drives Sustainable Frugal Innovation: A Multi theoretical Perspective	IEEE Transactions on Engineering Management	(Kannan Govindan, 2024)
32	Artificial intelligence components and fuzzy regulators in entrepreneurship development*	Entrepreneurship and sustainability center	(Sergii Bogachov et al., 2020)
33	Analysis of artificial intelligence-based technologies and approaches on sustainable entrepreneurship	Technological Forecasting and Social Change	(Brij B. Gupta et al., 2023)
34	Artificial intelligence and business models in the sustainable development goals perspective: A systematic literature review.	Journal of Business Research	(Di Vaio, A., et al. 2020)
35	Artificial intelligence for sustainability: Challenges, opportunities, and a research agenda.	International Journal of Information Management	(Nishant, R., et al., 2020)
36	Artificial Intelligence in the Urban Environment: Smart Cities as Models for Developing Innovation and Sustainability	Sustainability	(Anabel Ortega-Fernández et al., 2020)
37	Artificial Intelligence in the Industry 4.0, and Its Impact on Poverty, Innovation, Infrastructure Development, and the Sustainable Development Goals: Lessons from Emerging Economies?	Sustainability	(David Mhlanga, 2021)
38	Use of Artificial Intelligence in Terms of Open Innovation Process and Management.	Sustainability	(Kuzior, A., et al., 2023)
39	What contributions of Artificial Intelligence in Innovation?	Sustainability	(Yassine Barakat et al., 2021)
40	Achieving the Success of Sustainability Development Projects through Big Data Analytics and Artificial Intelligence Capability	Sustainability	(Haili Zhang, et al., 2020)
41	Artificial intelligence and business models in the sustainable development goals perspective: A systematic literature review	Journal of Business Research	(Assunta Di Vaio et al., 2020)
42	Artificial intelligence in innovation research: A systematic review, conceptual framework, and future research directions	Technovation	(Marcello M. Mariani et al., 2023)

43	How can artificial intelligence impact sustainability: A systematic literature review	Journal of Cleaner Production	(Arpan Kumar Kar et al., 2022)
44	Smart Manufacturing Systems and Applied Industrial Technologies for a Sustainable Industry: A Systematic Literature Review	Sustainability	(Raffaele Cioffi et al., 2020)
45	Barriers to the Adoption of Innovations for Sustainable Development in the Agricultural Sector—Systematic Literature Review (SLR)	Sustainability	(Laura Restrepo et al., 2023)
46	Influence of Artificial Intelligence in Civil Engineering toward Sustainable Development—A Systematic Literature Review	Sustainability	(Bilal Manzoor et al., 2021)
47	A solution looking for problems? A systematic literature review of the rationalizing influence of artificial intelligence on decision-making in innovation management	ELSEVIER	(Maria Cristina Pietronudo et al., 2022)
48	Employment of AI Tools in Achieving Sustainable Development Goals: Trends and Future Scope	Springer	(Sharma, S. 2024)
49	Business Process Management and Digital Innovations: A Systematic Literature Review	Sustainability	(Tahir Ahmad & Amy Van Looy, 2020)
50	A Role of Artificial Intelligence in the Context of Economy: Bibliometric Analysis and Systematic Literature Review	International Journal of Membrane Science and Technology	(Majida Jrad, 2023)
51	The Promise of Entrepreneurship and Innovation as a Strategic Response to Global Turmoils	FIIB Business Review	(Raj K. Kovid, 2022)
52	Entrepreneurship and Innovation: How Leadership Style Makes the Difference?	Vikalpa	(Satyabir Bhattacharyya, 2006)
53	Book review: Social entrepreneurship and innovation in rural Europe	International Small Business Journal: Researching Entrepreneurship	(Ralph Richter et al., 2020)

Source: Developed for the purpose of the study

3.2 Current Trends in Entrepreneurship and Sustainability

Research trends show that a wide range of subjects, including finance, technology, economy, innovation, and artificial intelligence, have been thoroughly examined in relation to sustainability and entrepreneurship. These studies' diverse scope emphasizes the need for a

thorough grasp of sustainable development and entrepreneurship. In particular, there is a noticeable emphasis on elucidating the financial ramifications of sustainability and entrepreneurship, indicating the increasing recognition of innovation's economic significance. Several research works examine the relationship between sustainability and entrepreneurship, illustrating the changing environment in which economy is crucial.

Sub-themes like Entrepreneurial hurdles and significant risk factors in startup ventures demonstrate the notable interest in integrating startups into various corporate frameworks. This illustrates a deliberate attempt to apply sustainability concepts to decision-making procedures. Researchers are also actively looking at the intersections between sustainability and entrepreneurship and global challenges, which shows that this is a relevant and timely way to understand how current events affect sustainable development.

Themes revolving around Sustainable Entrepreneurship, sustainable innovation, Technology, Artificial Intelligence and AI with sustainability reflect an acknowledgment of their societal impact and the crucial role of consumer perceptions in fostering sustainable business practices. A rising understanding of the complex relationship between innovation, technology, and economics is indicated by the inclusion of subjects like sustainability and entrepreneurship alongside innovation and technology. Scholars are examining the ways in which inventive tactics and advances in technology might promote the goals of startups.

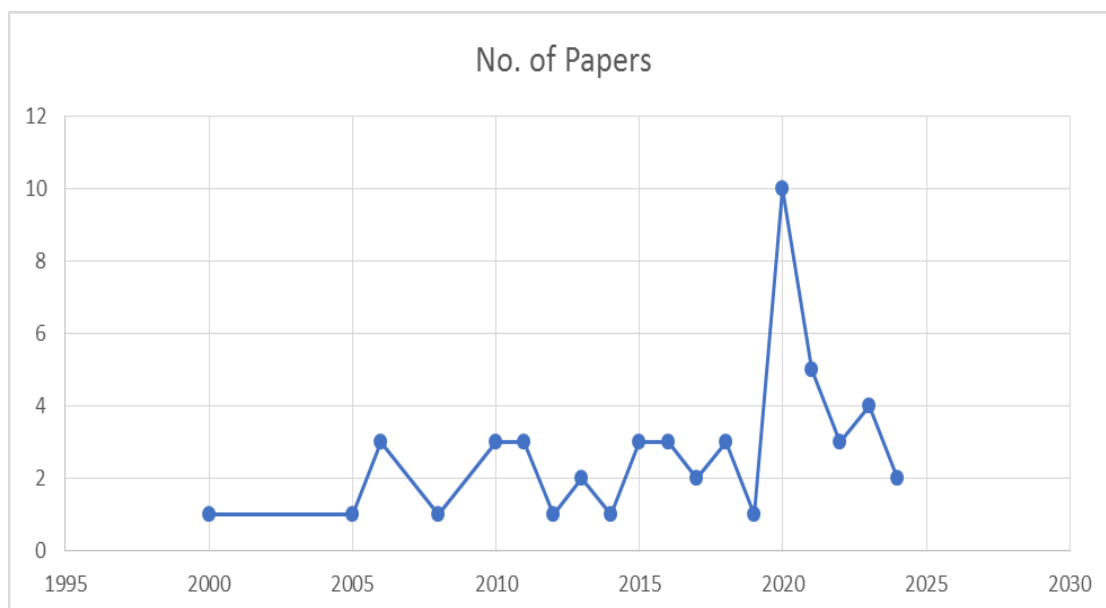


Figure 2: Figure showing the year and frequency of occurrence for the given research papers.

The above figure (Figure 2) represents the distribution of publications across various years. It indicates the number of research papers published each year, ranging from 2000 to 2024. There are 48 articles overall, with significant peaks in 2020 that indicate the fluctuations in the amount of research produced over the years.

3.3 Search Strategy

Table 2: Search Strategy (Keywords, Databases, And Inclusion/Exclusion Criteria).

A – KEYWORDS (KW)	KW1 – “entrepreneurship sustainability”
	KW2 – “entrepreneurship sustainable development”
	KW3 – “entrepreneurship + sustainability + INNOVATION + artificial intelligence”
	KW4 – “Entrepreneurship+ Innovation + Sustainability”
	KW5 – “entrepreneurship + sustainability”
B – SEARCH ENGINES/ DATABASES (DB)	DB1 – Google Scholar
	DB2 - ERIC
C1 – EXCLUSION CRITERIA (EC)	EC1 – any of the selected keywords not appeared in the title, abstract, keywords, full text
	EC2 – Books, conference preceding, editorials
	EC3 – Not in English
	EC4 – duplicate studies
C2 – INCLUSION CRITERIA (IC)	IC1 – any of the selected keywords appeared in the title, abstract, keywords, full text
	IC4 – be in the English language

Source: Developed for the purpose of the study

3.4. Distribution of Research Studies by Region

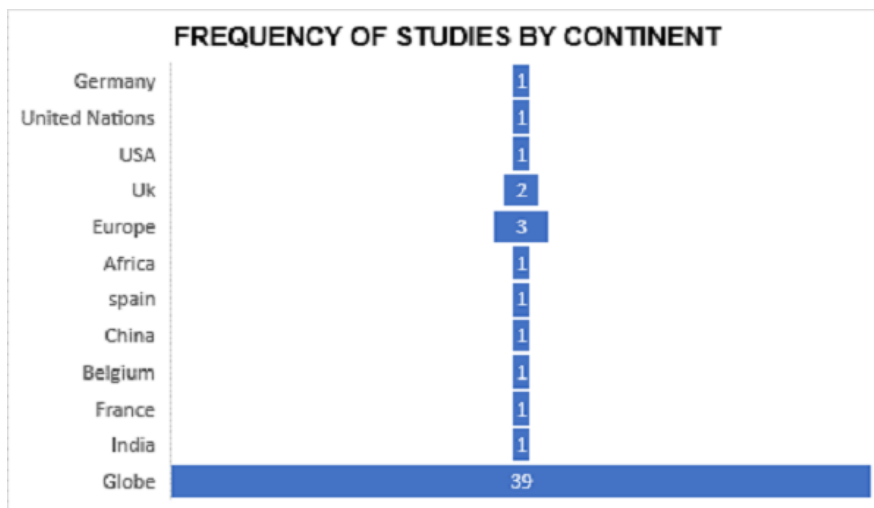


Figure 3: Frequency Distribution by Continent.

Source: Developed for the purpose of the study

The figure above highlights that the majority of research studies focus on the Sustainable Entrepreneurship at a global level. In terms of regional studies, the highest number have been conducted in Europe, followed by UK, and then studies that span multiple continents. The global focus on Sustainable Entrepreneurship reflects a growing recognition of the importance of addressing the challenges faced by the Economy for sustainable development worldwide.

3.5 Types of studies

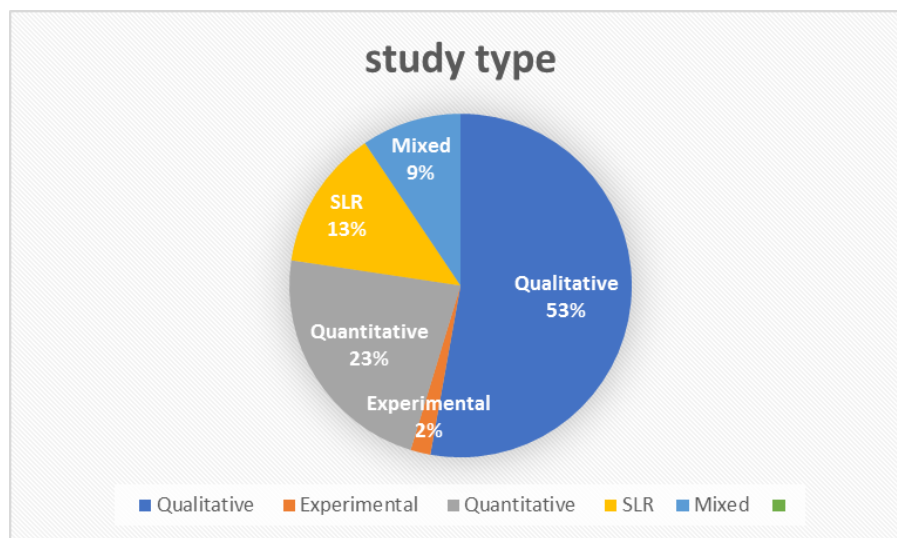


Fig 4: Types of Studies.

Source: Developed for the purpose of the study

The different study types that were part of the analysis are broken down in Fig 4. There are 53% of qualitative research, which suggests that the literature places a high priority on in-depth investigation and comprehension of phenomena. with over 53% Additionally common were quantitative studies that emphasized numerical data and statistical analysis. While less popular, other study types including systematic literature reviews (SLR) with 13%, mixed-methods approach with 9%, and experimental with 2% nonetheless made a significant contribution to the body of knowledge on sustainable entrepreneurship.

3.6 Major Journals supporting the Research

The graph (Figure 5) displays how many times papers about Sustainable Entrepreneurship have been published in various journals. It is the "Sustainability" journal that puts out the

most, with 09 publications. The journal "Business Strategy and the environment" puts with 05 and "Journal of Cleaner Production" has come out 04 times. The "International Small Business Journal," "journal of business venturing", "Technological Forecasting and social change" all these come out with 03 and the "Journal of Business Research", Administrative Sciences, Economics and business Review have also written about this subject, though not as often (one publications in each). This demonstrates that there is a significant quantity of research being carried out and published in a variety of journals on the subject of Sustainable Entrepreneurship. This is a reflection of the significance and interest that is being shown in this area of educational research.

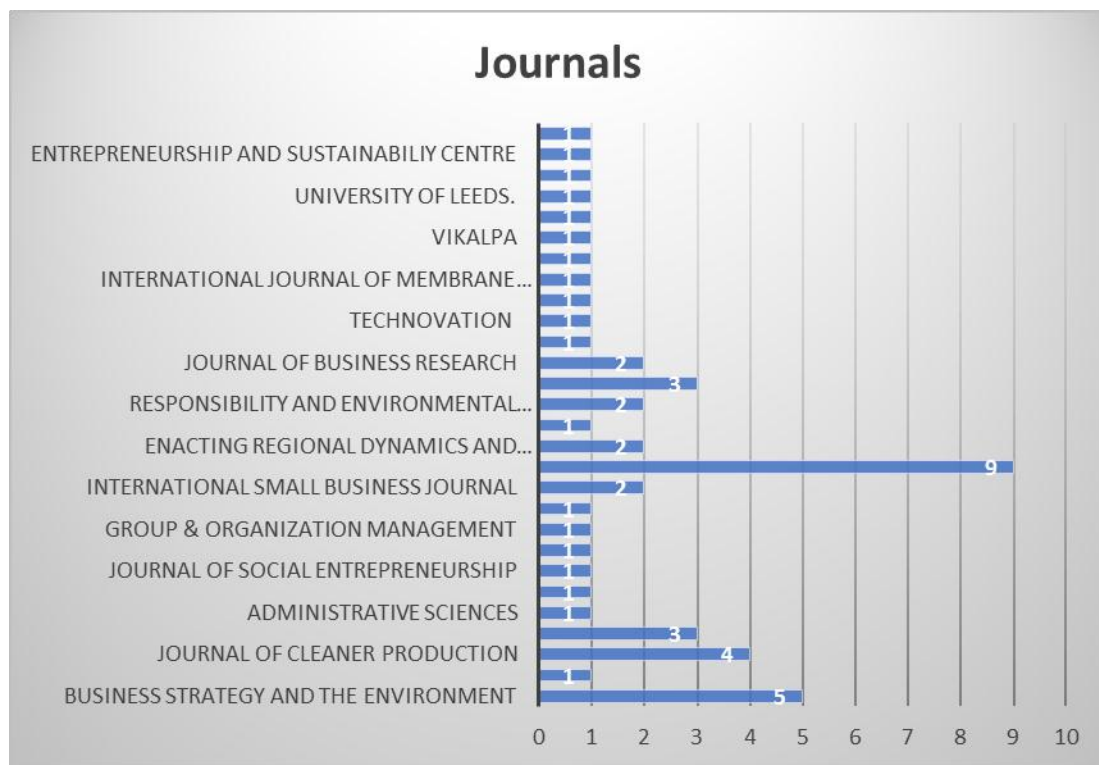


Figure 5: Frequency of Publication in various Journals.

Source: Developed for the purpose of the study.

3.7.Thematic Analysis

Table 3.

<i>Theme</i>	<i>Source</i>	<i>Frequency</i>	<i>Paper Numbers</i>
<i>Sustainable Entrepreneurship and Innovation</i>	(Stefan Schaltegger & Marcus Wagner, 2011; Schaltegger, S., et al., 2006; Larson, 2000; Håkan Ylinenpää, 2013; Stefan Schaltegger1 et al., 2011; Raj K. Kovid, 2022)	6	1,2,3,19,20,51
<i>Sustainable Innovation</i>	(Richard Adams et al., 2015; Laura Restrepo et al., 2023; Tahir Ahmad & Amy Van Looy, 2020)	3	4,45,49
<i>Sustainable entrepreneurship</i>	(Jeremy K. et al., 2010; Jacob Hörisch, 2015; J Gast et al., 2017; Frank Martin Belz1 & Julia Katharina Binder, 2017; D Gibbs, 2006; Boyd Cohen et al., 2021; Kai Hockerts a et al., 2010; Muñoz, P., & Cohen 2018; Fiona Tilley & William Young, 2006; Thomas Lanset al., 2014; Dean A. et al., 2011; Fernando Lourenço,et al., 2013; Stuti Haldar, 2019; Bradley D. Parrish , 2008; Adel Ben Youssef et al., 2018; Stefan Schaltegger et al., 2016; Tang, J. J, 2020; Gawel, A., 2012; Tur-Porcar, A et al., 2018; Marsden, T., & Smith, E., 2005; Ligthelm, A. A. , 2010; Raffaele Cioffi et al., 2020)	22	5,6,7,8,9,11,12,13,14,16,17, 18,21,22,23,24,25,27,28,29, 30,44,
<i>Sustainable and Social entrepreneurship</i>	(Mohammed Faiz Kamaludin et al., 2021; Markman, G. D., et al., 2016; Kuzior, A., et al., 2023)	3	10,26,50
<i>Social entrepreneurship and Innovation</i>	(Wendy Phillipset al., 2015; Ralph Richter et al., 2020)	2	15,53
<i>AI and Sustainability Entrepreneurship</i>	(Kannan Govindan, 2024; Sergii Bogachov et al., 2020; Brij B. Gupta et al., 2023)	3	31,32,33
<i>AI and Sustainability</i>	(Di Vaio, A., et al. 2020; Nishant, R., et al., 2020; Anabel Ortega-Fernández et al., 2020; David Mhlanga, 2020; Haili Zhang, et al., 2020; Assunta Di Vaio et al., 2020; Arpan Kumar Kar et al., 2022; Bilal Manzoor et al., 2021; Sharma, S. 2024)	9	34,35,36,37,40,41,43,46,48
<i>AI and Innovation</i>	(Yassine Barakat et al., 2021; Marcello M. Mariani et al., 2023; Maria Cristina Pietronudo et al., 2022; Satyabir Bhattacharyya, 2006)	4	38,39,42,47

Source: Developed for the purpose of the study

The table above (Table 3) provides a comprehensive breakdown of research papers across various themes related to Sustainable Entrepreneurship in the field of business and economy. It outlines the number of papers associated with each theme, offering insights into the distribution of academic focus. The table indicates that researchers have delved into a diverse range of topics within this domain.

For instance, the theme of "Sustainable Entrepreneurship" is a prominent area of exploration, with 22 papers addressing this aspect. Similarly, the "Artificial Intelligence" theme has garnered attention with 9 papers. Other theme, such as "Sustainable Entrepreneurship and Innovation" draw the attention by 6 papers. Similarly, "Artificial Intelligence and Innovation", "Sustainable Innovation", "Social Entrepreneurship and Innovation", and "Artificial Intelligence and Sustainable Entrepreneurship" each represent specific dimensions explored in the academic landscape.

The table reflects a comprehensive and multifaceted exploration of Sustainable Entrepreneurship topics, showcasing the breadth of research within the broader context of Sustainable Entrepreneurship and Economy. It shows that the researchers are evidently investigating various facets, including disclosure and reporting, financial implications, firm characteristics, investment strategies, innovation, social impacts, challenges, and integration into valuation models.

4. CONCLUSION AND LIMITATIONS

To conclude this paper, the research on sustainable entrepreneurship has experiences a considerable development during the last few years or we can say that after the Brundtland report. Given the demanding need for the detailed sustainable evolution, a more productive development of this field is essential. This paper provides an overview of the state of business literature research on sustainability orientation. To determine the parameters of this research, we first formulated three research questions. Subsequently, we utilized the SLR technique to provide a comprehensive overview of the corpus of information generated in this area of research thus far. In order to determine the descriptive and thematic foci of the 53 published works on this subject, we employed a clear and rigorous review methodology. Using content analysis, we discovered a few major themes, that is, sustainable and social entrepreneurship, sustainable innovation, AI and sustainability entrepreneurship, AI and innovation. Additionally, this review goes beyond summarizing the state of the art. It

makes recommendations for future directions for study to overcome constraints and gaps in knowledge in order to further advance in within this area of study.

At the final stage with other studies, this paper has its limitations. First, being comprehensive in its kind, this SLR may not include all the work related on “sustainable development”, and “Sustainable Entrepreneurship” as well as related areas and therefore could be evaluated. However, by means of a thorough and clear search process, an as complete as possible literature sample was identified and analyzed subsequently. Second, we collect the articles only from Google scholar and ERIC, as we are not having access to Scopus and Web of Science or other related articles.

REFERENCES

1. Ahmad, T., & Van Looy, A. Business process management and digital innovations: A systematic literature review. *Sustainability*, 2020; 12(17): 6827.
2. Barakat, Y., Bourekadi, S., Khouli, S., & Kerkeb, M. L. What contributions of Artificial Intelligence in Innovation?. In *E3S Web of Conferences*, 2021; (234: 00105). EDP Sciences.
3. Belz, F. M., & Binder, J. K. Sustainable entrepreneurship: A convergent process model. *Business Strategy and the Environment*, 2017; 26(1): 1-17.
4. Bhattacharyya, S. Entrepreneurship and Innovation: How Leadership Style Makes the Difference? *Vikalpa*, 2006; 31(1): 107-116.
5. Bogachov, S., Kwilinski, A., Miethlich, B., Bartosova, V., & Gurnak, A. Artificial intelligence components and fuzzy regulators in entrepreneurship development. *Entrepreneurship and Sustainability Issues*, 2020; 8(2): 487.
6. Campuzano, L. R., Hincapié Llanos, G. A., Zartha Sossa, J. W., Orozco Mendoza, G. L., Palacio, J. C., & Herrera, M. Barriers to the adoption of innovations for sustainable development in the agricultural sector—systematic literature review (SLR). *Sustainability*, 2023; 15(5): 4374.
7. Cioffi, R., Travaglioni, M., Piscitelli, G., Petrillo, A., & Parmentola, A. Smart manufacturing systems and applied industrial technologies for a sustainable industry: A systematic literature review. *Applied Sciences*, 2020; 10(8): 2897.
8. Cohen, B., & Winn, M. I. Market imperfections, opportunity and sustainable entrepreneurship. *Journal of business venturing*, 2007; 22(1): 29-49.

9. De Clercq, D., & Voronov, M. Sustainability in entrepreneurship: A tale of two logics. *International Small Business Journal*, 2011; 29(4): 322-344.
10. Di Vaio, A., Palladino, R., Hassan, R., & Escobar, O. Artificial intelligence and business models in the sustainable development goals perspective: A systematic literature review. *Journal of Business Research*, 2020; 121: 283-314.
11. Gast, J., Gundolf, K., & Cesinger, B. Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions. *Journal of cleaner production*, 2017; 147: 44-56.
12. Gaweł, A. Entrepreneurship and sustainability: do they have anything in common?. *Economics and Business Review*, 2012; 12(1): 5-16.
13. Gibbs, D. Sustainability entrepreneurs, ecopreneurs and the development of a sustainable economy. *Greener management international*, 2006; 55: 63-78.
14. Govindan, K. (2022). How artificial intelligence drives sustainable frugal innovation: A multi theoretical perspective. *IEEE Transactions on Engineering Management*.
15. Gupta, B. B., Gaurav, A., Panigrahi, P. K., & Arya, V. Analysis of artificial intelligence-based technologies and approaches on sustainable entrepreneurship. *Technological Forecasting and Social Change*, 2023; 186: 122152.
16. Haldar, S. Towards a conceptual understanding of sustainability-driven entrepreneurship. *Corporate Social Responsibility and Environmental Management*, 2019; 26(6): 1157-1170.
17. Hall, J. K., Daneke, G. A., & Lenox, M. J. Sustainable development and entrepreneurship: Past contributions and future directions. *Journal of business venturing*, 2010; 25(5): 439-448.
18. Hockerts, K., & Wüstenhagen, R. Greening Goliaths versus emerging Davids—Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of business venturing*, 2010; 25(5): 481-492.
19. Hörisch, J. The role of sustainable entrepreneurship in sustainability transitions: A conceptual synthesis against the background of the multi-level perspective. *Administrative Sciences*, 2015; 5(4): 286-300.
20. Jrad, M. A role of artificial intelligence in the context of economy: Bibliometric analysis and systematic literature review. *International Journal of Membrane Science and Technology*, 2023; 10(3): 1563-86.
21. Kamaludin, M. F., Xavier, J. A., & Amin, M. Social entrepreneurship and sustainability: A conceptual framework. *Journal of Social Entrepreneurship*, 2024; 15(1): 26-49.

22. Kar, A. K., Choudhary, S. K., & Singh, V. K. How can artificial intelligence impact sustainability: A systematic literature review. *Journal of Cleaner Production*, 2022; 376: 134120.
23. Klewitz, J., & Hansen, E. G. Sustainability-oriented innovation of SMEs: a systematic review. *Journal of cleaner production*, 2014; 65: 57-75.
24. Korsgaard, S. Book review: Social entrepreneurship and innovation in rural Europe Ralph Richter, Matthias Fink, Richard Lang and Daniela Maresch. *International Small Business Journal*, 2020; 38(5): 474-475.
25. Kovid, R. K., Rana, S., & Omrane, A. The Promise of Entrepreneurship and Innovation as a Strategic Response to Global Turmoils. *FIIB Business Review*, 2022; 11(1): 7-10.
26. Kuzior, A., Sira, M., & Brożek, P. Use of Artificial Intelligence in Terms of Open Innovation Process and Management. *Sustainability*, 2023; 15(9): 7205.
27. Lans, T., Blok, V., & Wesselink, R. Learning apart and together: towards an integrated competence framework for sustainable entrepreneurship in higher education. *Journal of Cleaner Production*, 2014; 62: 37-47.
28. Larson, A. L. Sustainable innovation through an entrepreneurship lens. *Business strategy and the environment*, 2000; 9(5): 304-317.
29. Ligthelm, A. A. Entrepreneurship and small business sustainability. *Southern African Business Review*, 2010; 14(3).
30. Lourenço, F., Jones, O., & Jayawarna, D. Promoting sustainable development: The role of entrepreneurship education. *International Small Business Journal*, 2013; 31(8): 841-865.
31. Manzoor, B., Othman, I., Durdyev, S., Ismail, S., & Wahab, M. H. Influence of artificial intelligence in civil engineering toward sustainable development—a systematic literature review. *Applied System Innovation*, 2021; 4(3): 52.
32. Mariani, M. M., Machado, I., Magrelli, V., & Dwivedi, Y. K. Artificial intelligence in innovation research: A systematic review, conceptual framework, and future research directions. *Technovation*, 2023; 122: 102623.
33. Markman, G. D., Russo, M., Lumpkin, G. T., Jennings, P. D., & Mair, J. Entrepreneurship as a platform for pursuing multiple goals: A special issue on sustainability, ethics, and entrepreneurship. *Journal of Management Studies*, 2016; 53(5): 673-694.
34. Marsden, T., & Smith, E. Ecological entrepreneurship: sustainable development in local communities through quality food production and local branding. *Geoforum*, 2005; 36(4): 440-451.

35. Mhlanga, D. Artificial intelligence in the industry 4.0, and its impact on poverty, innovation, infrastructure development, and the sustainable development goals: Lessons from emerging economies?. *Sustainability*, 2021; 13(11): 5788.
36. Muñoz, P., & Cohen, B. Sustainable entrepreneurship research: Taking stock and looking ahead. *Business Strategy and the Environment*, 2018; 27(3): 300-322.
37. Nishant, R., Kennedy, M., & Corbett, J. Artificial intelligence for sustainability: Challenges, opportunities, and a research agenda. *International Journal of Information Management*, 2020; 53: 102104.
38. Ortega-Fernández, A., Martín-Rojas, R., & García-Morales, V. J. Artificial intelligence in the urban environment: Smart cities as models for developing innovation and sustainability. *Sustainability*, 2020; 12(19): 7860.
39. Parrish, B. D. (2008). *Sustainability-driven entrepreneurship: a literature review*. Leeds, UK: University of Leeds.
40. Phillips, W., Lee, H., Ghobadian, A., O'regan, N., & James, P. Social innovation and social entrepreneurship: A systematic review. *Group & Organization Management*, 2015; 40(3): 428-461.
41. Pietronudo, M. C., Croidieu, G., & Schiavone, F. A solution looking for problems? A systematic literature review of the rationalizing influence of artificial intelligence on decision-making in innovation management. *Technological Forecasting and Social Change*, 2022; 182: 121828.
42. Schaltegger, S., & Wagner, M. Sustainable entrepreneurship and sustainability innovation: categories and interactions. *Business strategy and the environment*, 2011; 20(4): 222-237.
43. Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. Business models for sustainability: A co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation. *Organization & environment*, 2016; 29(3): 264-289.
44. Sharma, S. Employment of AI Tools in Achieving Sustainable Development Goals: Trends and Future Scope. In *World Conference on Information Systems for Business Management*, 2024; 363-375. Springer, Singapore.
45. Shepherd, D. A., & Patzelt, H. 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*, 2011; 35(1): 137-163.
46. Tang, J. J. Psychological capital and entrepreneurship sustainability. *Frontiers in Psychology*, 2020; 11: 527132.

47. Tilley, F., & Young, W. Sustainability entrepreneurs: Could they be the true wealth generators of the future?. *Greener Management International*, 2006; 55: 79-92.
48. Tur-Porcar, A., Roig-Tierno, N., & Llorca Mestre, A. Factors affecting entrepreneurship and business sustainability. *Sustainability*, 2018; 10(2): 452.
49. Ylinenpää, H. Entrepreneurship and innovation systems: Towards a development of the ERIS/IRIS concept. In *Enacting Regional Dynamics and Entrepreneurship*, 2013; 48-65. Routledge.
50. Youssef, A. B., Boubaker, S., & Omri, A. Entrepreneurship and sustainability: The need for innovative and institutional solutions. *Technological Forecasting and Social Change*, 2018; 129: 232-241.
51. Zhang, H., Song, M., & He, H. Achieving the success of sustainability development projects through big data analytics and artificial intelligence capability. *Sustainability*, 2020; 12(3): 949.