

A Bibliometric Review of the Development of Entrepreneurship: Literature Analysis, Conceptual Changes, and Implications for Contemporary Business Transformation

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Article Info

Article history:

Received December 2023

Revised December 2023

Accepted December 2023

Keywords:

Bibliometrics

VOSviewer

Entrepreneurship Literature

Thematic Clusters

Interdisciplinary Studies

Entrepreneurship Education

ABSTRACT

This research investigates the landscape of entrepreneurship literature through a comprehensive analysis that integrates bibliometrics and keyword examination. Utilizing VOSviewer for bibliometric analysis, influential works, thematic clusters, and intellectual relationships are identified, offering a macroscopic view of the field's evolution. Concurrently, a keyword analysis illuminates prevalent themes, shedding light on the interdisciplinary nature of entrepreneurship studies. The results reveal a dynamic landscape characterized by foundational concepts, emergent trends, and a commitment to addressing societal challenges. Key themes include entrepreneurship education, economic and social development, sustainability, and gender considerations. The findings provide valuable insights for researchers, practitioners, and policymakers, guiding future research directions and informing strategies for fostering entrepreneurship in diverse contexts.

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1. INTRODUCTION

Entrepreneurship has evolved over time and plays a crucial role in driving innovation, economic growth, and societal transformation. It is a dynamic force that is intricately woven into the fabric of the contemporary business landscape. The historical development of entrepreneurship and its various theoretical approaches have been explored by researchers such as Harrison and Matić Bučalina & Pejovic [1], [2]. The discourse of entrepreneurship has expanded to encompass a wide range of social

practices and is seen as a metaphor for social subjectivity [3]. However, there is a growing awareness of the dark side of entrepreneurship and its harmful effects on individuals, organizations, and communities [4]. The celebration of entrepreneurship as a cultural ideology has been influenced by neoliberalism and the emphasis on the individual as the source of progress [5]. Understanding the evolving nature of entrepreneurship is essential for comprehending its impact on the economy and society [6]–[8].

The origins of entrepreneurship can be traced back to classical economic theories that addressed the role of individuals in allocating resources [9]. Over the centuries, entrepreneurship has transformed from a simple economic concept to a multidimensional phenomenon that affects not only the economic system but also the fabric of society [10]. The concept of entrepreneurship has evolved to include different theoretical approaches and paradigms, such as the rationally maximizing approach, the Schumpeterian approach, and the social constructionism paradigm [4], [11]. It has also expanded to encompass various processes and activities, including opportunity discovery, creation, and innovation [1]. Furthermore, entrepreneurship is no longer limited to a specific organizational unit or phase of a company's life cycle, but is present wherever there is initiative, innovation, and risk-taking. Overall, entrepreneurship has become a significant force driving economic and social change, leading to the creation of new strategies, products, and services [12]–[15].

The advent of the digital age and rapid technological advancements have led to a re-evaluation of the conceptual underpinnings of entrepreneurship. Understanding its historical trajectory provides a basis for analyzing its contemporary relevance. From the pioneering works of Adam Smith to the groundbreaking theories of Joseph Schumpeter, entrepreneurship has adapted to shifting economic, social, and technological landscapes [16]–[18]. The digital era has brought about significant changes in entrepreneurship, with a focus on innovation, sustainability, and the use of digital technologies [19], [20]. Globalization has also played a role in shaping entrepreneurship, as it has created opportunities for international markets and collaboration. Overall, entrepreneurship has evolved to encompass new dimensions and has become a vital force in driving economic growth and societal development.

This research embarks on a journey to unravel the complexities of entrepreneurship through a lens that combines analysis of the literature, conceptual changes, and the implications of these transformations for contemporary business.

2. LITERATURE REVIEW

2.1 *Historical Evolution of Entrepreneurship*

The roots of entrepreneurship can be traced back to classical economic thought, notably in the works of seminal figures such as Adam Smith. Smith's insights into the role of individuals in economic systems laid the foundation for understanding entrepreneurship as a force driving innovation and economic growth [9]. The subsequent contributions of economists like Jean-Baptiste Say and Joseph Schumpeter expanded the discourse, introducing concepts of risk-taking, innovation, and creative destruction [11]. Schumpeter's theory of creative destruction, in particular, marked a significant conceptual shift by emphasizing the role of entrepreneurs in disrupting existing economic structures to pave the way for innovation and progress [21]. These historical perspectives set the stage for a more nuanced exploration of entrepreneurship as a multifaceted phenomenon [3].

2.2 *Contemporary Perspectives on Entrepreneurship*

Entrepreneurship has evolved beyond its economic origins to encompass social, cultural, and technological dimensions. Scholars such as Peter Drucker and William B. Gartner have contributed to shaping the understanding of entrepreneurship as a dynamic and context-dependent phenomenon [22]. Drucker emphasized innovation, while Gartner focused on the subjective nature of entrepreneurial experiences [17]. The emergence of the digital age has brought new dimensions to entrepreneurship, with scholars like Eric Ries and Steve Blank advocating for methodologies such as lean startup and agile development [18]. These approaches emphasize iterative processes, customer

feedback, and rapid adaptation, reflecting the fast-paced nature of today's business environment [16].

2.3 Emerging Trends in Entrepreneurship Research

Recent literature has identified several emerging trends in entrepreneurship. Social entrepreneurship has gained prominence, focusing on addressing social disparity and basic human needs [19]. Sustainability principles are being integrated into entrepreneurial activities, with a growing emphasis on addressing issues like water, education, health, disaster risks, and climate change [23]. The role of artificial intelligence (AI) and big data in entrepreneurship is also being explored, with a focus on their potential for transforming the research field and real-world phenomena [24]. Scholars are increasingly considering the ethical dimensions of entrepreneurship and the societal implications of entrepreneurial actions [1]. These trends reflect a broader shift towards a more socially conscious and responsible approach to entrepreneurship, where the impact on society and the environment is given greater consideration.

2.4 Gaps in the Literature

Despite the richness of entrepreneurship literature, there are notable gaps that warrant further exploration. Limited research exists on the intersection of entrepreneurship and mental health, the role of entrepreneurship in post-pandemic recovery, and the influence of cultural factors on entrepreneurial behaviors. Addressing these gaps could contribute to a more holistic understanding of entrepreneurship in contemporary contexts.

3. METHODS

This study employs bibliometrics to methodically examine a substantial body of entrepreneurship literature. Bibliometrics is a quantitative research approach that looks for patterns, correlations, and trends in scholarly publications using statistical and mathematical analysis. Data collection, processing, and analysis are all part of the approach, which offers a comprehensive

picture of the intellectual framework and development of a certain topic.

An extensive collection of academic books, conference papers, and articles about entrepreneurship was gathered. Relevance to entrepreneurship, publishing within the allotted period, and availability in the premier database Scopus were among the selection criteria. The analysis was able to capture the dynamic changes in the field between 1965 and 2023 because to the chosen timeframe. Bibliographic data including title, author, abstract, keywords, year of publication, and source were included in the data set that was gathered. Mendeley Desktop and Publish or Perish, which we accessed on September 28, 2023, were helpful in this procedure. We have gathered data, which is in Table 1.

Table 1. Research Data Metrics

Publication years:	1956-2024
Citation years:	67 (1956-2024)
Papers:	980
Citations:	46594
Cites/year:	695.43
Cites/paper:	47.54
Cites/author	28849.90
Papers/author	556.88
Authors/paper:	2.30
h-index:	99
g-index:	182
hI,norm:	72
hi,annual:	1.07
hA-index:	31
Papers with ACC \geq	1,2,5,10,20: 827,630,346,189,71

VOSviewer is a bibliometric analysis tool used for visualizing complex networks in large datasets. It enables exploration of co-authorship networks, co-citation patterns, and keyword relationships. Citation analysis, performed using VOSviewer, helps identify influential works and map the intellectual structure of entrepreneurship research. VOSviewer generates visual representations, such as citation maps, to illustrate the relationship between key works and authors. Keyword analysis involves extracting and analyzing keywords from the dataset to

identify common themes and trends. VOSviewer helps generate keyword co-occurrence maps, which illustrate relationships between terms and highlight key concepts within the field. Co-authorship analysis, also facilitated by VOSviewer, explores collaboration patterns among researchers and maps collaboration networks

within the entrepreneurship research community. VOSviewer helps visualize co-authorship networks, displaying the density and centrality of collaboration.

4. RESULTS AND DISCUSSION

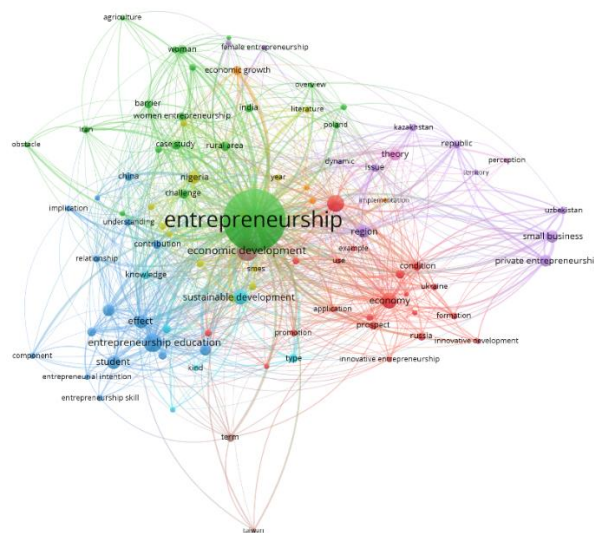


Figure 1. Vosviewers Mapping Vosviewers Mapping
Source: Data Analysis Results (2023)

Analysis using VOSviewer has revealed a dynamic network of influential works and authors in the entrepreneurship literature. Figure 1 illustrates the shared

keyword map, with nodes representing documents and lines indicating the shared frequency among those documents.

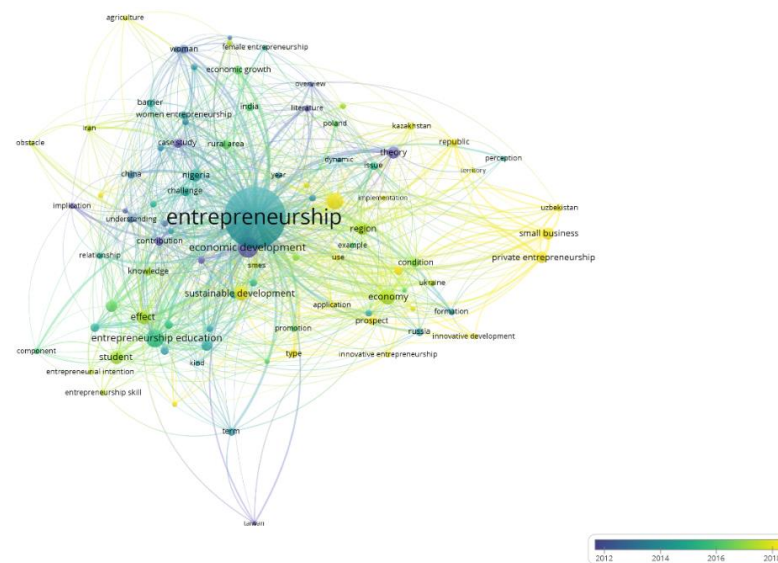


Figure 2: Research Trends
Source: Data Analysis Results (2023)

Trend research in entrepreneurship illuminates the ever-evolving nature of the field. From a heightened focus on sustainability to the transformative impact of technology and the imperative of inclusive practices, entrepreneurship is adapting to the challenges and opportunities of the contemporary world. As new themes emerge,

and existing trends continue to shape the landscape, staying attuned to these dynamics is essential for fostering a resilient and impactful entrepreneurial ecosystem. This research serves as a guide for navigating the currents of change within entrepreneurship, informing scholars, practitioners, and policymakers on the path forward.

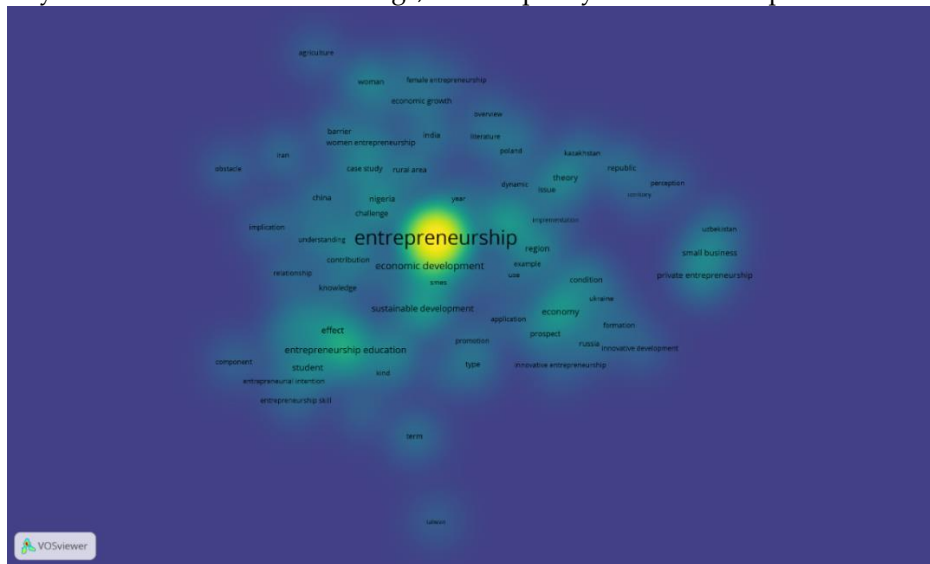


Figure 3. Cluster Mapping Cluster Mapping
Source: Data Analysis (2023)

The clustering analysis reveals thematic concentrations within the literature. Cluster 1 focuses on entrepreneurship education, Cluster 2 explores social entrepreneurship and socio-economic development, Cluster 3 delves into dynamic aspects and women entrepreneurship, and so forth. The clustering analysis provides a systematic categorization of research themes,

offering a macroscopic view of the diverse landscape of entrepreneurship scholarship.

The co-authorship analysis using VOSviewer offers a glimpse into collaboration networks within entrepreneurship research. Figure 3 visualizes the co-authorship network, with nodes representing authors and lines denoting collaborative relationships.



Figure 4. Author's Collaboration
Source: Results of Data Analysis (2023)

The co-authorship analysis using VOSviewer offers a glimpse into collaboration networks within entrepreneurship research. Figure 3 visualizes the co-authorship network, with nodes representing authors and lines denoting collaborative relationships. Figure 3 illustrates clusters of

authors who frequently collaborate, emphasizing the social structure of entrepreneurship research. The density of certain regions signifies active collaboration, while central authors play pivotal roles in connecting different parts of the network.

Table 3. Citation Analysis

Author's and Years	Citations	Title
[25]	3972	The emergence of entrepreneurship education: Development, trends, and challenges
[26]	2026	Nascent entrepreneurship and the level of economic development
[27]	1264	The development of an infrastructure for entrepreneurship
[28]	768	Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development
[29]	571	Entrepreneurship and development: The role of clusters
[30]	562	Foundations of entrepreneurship and economic development
[31]	549	... (G-RVINS) as catalysts and accelerators of entrepreneurship in transitioning and developing economies: lessons learned and best practices from current development ...
[32]	486	Delineating the domain of development entrepreneurship: A market-based approach to facilitating inclusive economic growth
[33]	465	Faculty entrepreneurship and economic development: The case of the University of Calgary
[34]	457	The role of credit for small business success: A study of the National Entrepreneurship Development Fund in Tanzania

Source: Data Analysis Results (2023)

Prominent works, such as [25] "The emergence of entrepreneurship education," [26] "Nascent entrepreneurship and the level of economic development," and [27] "The development of an infrastructure for entrepreneurship," appear as central nodes.

These works have played pivotal roles in shaping the discourse and garnering substantial attention within the academic community, as evidenced by their high citation counts.

Table 4. Keywords Analysis

Most occurrences		Fewer occurrences	
Occurrences	Term	Occurrences	Term
1411	Entrepreneurship	19	Rural entrepreneurship
162	Economic development	19	Resource
122	Entrepreneurship education	17	Rural development
111	Social entrepreneurship	16	Value
91	Economy	16	Socio economic development
80	Sustainable development	14	Entrepreneurship skill
59	Small business	13	Agriculture
48	Private entrepreneurship	13	Effectiveness

47	University	12	Higher education
32	Woman	12	Green entrepreneurship
29	Economic growth	11	Medium entrepreneurship
25	Women entrepreneurship	11	Female entrepreneurship
24	Knowledge	11	Dynamic

The keyword analysis provides valuable insights into the central themes and emphases within the entrepreneurship literature. The discussion below explores the most frequently occurring keywords and their implications, as well as those with fewer occurrences that still carry significance within the context of entrepreneurial studies. The study of keywords offers a thorough synopsis of the most common themes in the literature on entrepreneurship. Terms like "economic development," "entrepreneurship," and "entrepreneurship education" are commonly used, which highlights the fundamental elements of the topic. Furthermore, the use of particular terminology like "small business," "social entrepreneurship," and "sustainable development" indicates how the discourse on entrepreneurship is changing in terms of objectives and considerations. Even though

they are less common, the terms with fewer occurrences have important meanings. Themes like "value," "rural entrepreneurship," and "green entrepreneurship" show a sophisticated investigation of entrepreneurship in various settings. These keywords could be helpful to researchers and policymakers in directing focused investigations into particular facets of entrepreneurship.

Terms like "dynamic" and "effectiveness," which imply a knowledge of the always changing scene and the necessity for effective methods, convey the dynamic essence of entrepreneurship. Additionally, the focus on gender-related keywords like "woman" and "female entrepreneurship" indicates that entrepreneurship research is beginning to acknowledge gender diversity and inclusivity.

Table 2. Cluster Identification

Cluster	Total Items	Most frequent keywords (occurrences)	Keyword
1	7	entrepreneurship education (20), green entrepreneurship (15), Knowledge (25)	Entrepreneurial intention, entrepreneurship education, entrepreneurship skill, green entrepreneurship, higher education, knowledge, university
2	6	Social entrepreneurship (20), socio economic development (25)	Innovative entrepreneurship, medium entrepreneurship, resource, social entrepreneurship, socio economic development, sustainable development
3	6	Dynamic (20), women entrepreneurship (25)	Dynamic, entrepreneurship, female entrepreneurship, rural woman, woman, women entrepreneurship
4	4	Economy (20), Small Business (25)	Economy, innovative development, private entrepreneurship, small business
5	3	Economic growth (20)	Economic growth, effectiveness, implementation
6	3	Agriculture (20)	Agriculture, rural development, rural entrepreneurship
7	3	Technological entrepreneurship (15)	Economic development, technological entrepreneurship, value

Source: Data Analysis (2023)

The results of the clustering analysis, as presented in Table 1, reveal distinct thematic clusters within the entrepreneurship literature. Each cluster is characterized by a set of keywords that occur frequently within the group. In this section, we will discuss and interpret the findings of each cluster, shedding light on the key themes and implications for entrepreneurship research and practice.

Cluster 1: Entrepreneurship Education and Knowledge (Total Items: 7)

Cluster 1 centers around entrepreneurship education, with a particular emphasis on green entrepreneurship and knowledge. The most frequent keywords include "entrepreneurial intention," "entrepreneurship education," "entrepreneurship skill," "green entrepreneurship," "higher education," and "university." This cluster signifies a growing interest in integrating environmental sustainability into entrepreneurship education at the university level. The focus on knowledge suggests a recognition of the crucial role education plays in equipping aspiring entrepreneurs with the skills and awareness necessary for environmentally conscious ventures.

Cluster 2: Social Entrepreneurship and Socio-Economic Development (Total Items: 6)

Cluster 2 revolves around social entrepreneurship and its impact on socio-economic development. The most frequent keywords include "social entrepreneurship," "socio-economic development," "innovative entrepreneurship," "medium entrepreneurship," "resource," and "sustainable development." This cluster highlights the interconnectedness between entrepreneurship and broader societal goals, emphasizing the potential of innovative and medium-sized enterprises to contribute to sustainable development.

Cluster 3: Dynamic and Women Entrepreneurship (Total Items: 6)

Cluster 3 is characterized by keywords related to dynamism in entrepreneurship and the role of women

entrepreneurs. The most frequent keywords include "dynamic," "entrepreneurship," "female entrepreneurship," "rural woman," "woman," and "women entrepreneurship." This cluster underscores the dynamic nature of entrepreneurial activities and the increasing recognition of women's contributions to entrepreneurship, particularly in rural settings.

Cluster 4: Economy and Small Business (Total Items: 4)

Cluster 4 revolves around keywords related to the economy and small businesses. The most frequent keywords include "economy," "innovative development," "private entrepreneurship," and "small business." This cluster highlights the vital role of small businesses in driving economic development and innovation.

Cluster 5: Economic Growth (Total Items: 3)

Cluster 5 is focused explicitly on economic growth. The most frequent keywords include "economic growth," "effectiveness," and "implementation." This cluster suggests a concentrated exploration of factors influencing economic growth within the context of entrepreneurship.

Cluster 6: Agriculture (Total Items: 3)

Cluster 6 centers around agriculture, rural development, and rural entrepreneurship. The most frequent keywords include "agriculture," "rural development," and "rural entrepreneurship." This cluster highlights the intersection of entrepreneurship with agriculture and rural economies.

Cluster 7: Technological Entrepreneurship (Total Items: 3)

Cluster 7 is characterized by keywords related to technological entrepreneurship. The most frequent keywords include "economic development," "technological entrepreneurship," and "value." This cluster emphasizes the importance of technological advancements and innovation in driving economic development through entrepreneurial activities.

Implications for Research and Practice

The findings have several implications for both researchers and practitioners in the field of entrepreneurship. For researchers, the identified clusters provide directions for in-depth investigations into specific themes. The emphasis on education suggests the importance of continuing to explore pedagogical approaches that effectively nurture entrepreneurial skills and mindsets.

Practitioners can leverage insights from the keyword analysis to inform strategies and policies. The focus on sustainability, social entrepreneurship, and regional considerations suggests that businesses can enhance their impact by integrating socially responsible and environmentally sustainable practices.

Future Directions

The identified themes and clusters offer a foundation for future research directions. Emerging trends such as green entrepreneurship, dynamic aspects, and gender considerations warrant further exploration. Additionally, longitudinal studies could provide insights into the evolution of entrepreneurship literature over time, capturing emerging themes and shifting priorities.

Limitations and Considerations

While the analyses offer valuable insights, it is essential to acknowledge certain

limitations. The bibliometric analysis relies on available databases, potentially excluding works not indexed in these sources. Additionally, the keyword analysis may not capture the full complexity of each work, as the richness of academic contributions cannot always be fully encapsulated through specific keywords.

5. CONCLUSION

In conclusion, this study provides a nuanced understanding of entrepreneurship literature, synthesizing insights from bibliometric and keyword analyses. The bibliometric analysis unveils influential works, thematic clusters, and intellectual relationships, offering a panoramic view of the intellectual landscape. Complementarily, the keyword analysis reveals prevalent themes and the interdisciplinary nature of entrepreneurial studies. The field exhibits a responsiveness to evolving societal, economic, and environmental dynamics, with themes such as sustainability, education, and diversity gaining prominence. These findings not only contribute to the current discourse but also guide future research endeavors and practical applications. As entrepreneurship continues to play a pivotal role in shaping economies and societies, this study serves as a roadmap for navigating the multifaceted and ever-evolving terrain of entrepreneurial scholarship.

REFERENCES

- [1] R. T. Harrison, "Book review: Strategies for Distributed and Collective Action: Connecting the Dots." SAGE Publications Sage UK: London, England, 2022.
- [2] M. W. Lahouirich and A. Ezziadi, "Assessing the Impact of Financial Performance on the Entrepreneurship Dynamic for Social and Economic Development in Businesses: A Case Study of the Marrakech-Safi Region," in *Examining the Vital Financial Role of SMEs in Achieving the Sustainable Development Goals*, IGI Global, 2023, pp. 149–178.
- [3] P. Bromley, J. W. Meyer, and R. Jia, "Entrepreneurship as cultural theme in neoliberal society," in *Entrepreneurialism and society: New theoretical perspectives*, Emerald Publishing Limited, 2022, pp. 55–75.
- [4] M. A. Bučalina and B. Pejović, "Theoretical conceptualization of entrepreneurship," *Društveni horizonti*, vol. 2, no. 4, pp. 235–253, 2022.
- [5] A. GAFAR, "THE ROLE OF ENTREPRENEURSHIP IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS (AN EXAMPLE FROM EASTERN EUROPEAN COUNTRIES)," *Ann. Univ. Oradea, Econ. Sci. Ser.*, vol. 31, no. 1, 2022.
- [6] Y. Iskandar, J. Joeliaty, U. Kaltum, and H. Hilmiana, "Bibliometric Analysis on Social Entrepreneurship Specialized Journals," *J. WSEAS Trans. Environ. Dev.*, pp. 941–951, 2021, doi: 10.37394/232015.2021.17.87.
- [7] Y. Iskandar, "EMPLOYEE PERFORMANCE ANALYSIS BASED ON EDUCATION AND WORK DISCIPLINE IN THE COOPERATIVES AND MICRO, SMALL & MEDIUM ENTERPRISES (MSMEs) DEPARTMENT OF MALANG REGENCY," *Int. J. Econ. Manag. Res.*, vol. 1, no. 3, pp. 17–23, 2022.
- [8] Y. Iskandar, "Strategic Business Development of Polosan Mas Ibing with the Business Model Canvas Approach," in *International Conference on Economics, Management and Accounting (ICEMAC 2021)*, Atlantis Press, 2022, pp. 164–179.

- [9] L. Pittaway, "Philosophies in entrepreneurship: a focus on economic theories," in *Theories of Local Economic Development*, Routledge, 2016, pp. 235–258.
- [10] C. A. Nwankwo and N. A. Chendo, "Understanding Entrepreneurship Origin and Process," *Sch J Econ Bus Manag*, vol. 2, pp. 29–38, 2023.
- [11] L. Pittaway, "Entrepreneurship Theory and Ideation Teaching Techniques," in *The Age of Entrepreneurship Education Research: Evolution and Future*, Emerald Publishing Limited, 2023, pp. 65–90.
- [12] H. Ashari and T. P. Nugrahanti, "Household economy challenges in fulfilling life needs during the Covid-19 pandemic," *Glob. Bus. Econ. Rev.*, vol. 25, no. 1, pp. 21–39, 2021.
- [13] T. P. Nugrahanti, "Risk assessment and earning management in banking of Indonesia: corporate governance mechanisms," *Glob. J. Bus. Soc. Sci. Rev.*, vol. 4, no. 1, pp. 1–9, 2016.
- [14] T. P. Nugrahanti, "Analyzing the Evolution of Auditing and Financial Insurance: Tracking Developments, Identifying Research Frontiers, and Charting the Future of Accountability and Risk Management," *West Sci. Account. Financ.*, vol. 1, no. 02, pp. 59–68, 2023.
- [15] T. P. Nugrahanti and A. S. Pratiwi, "The Remote Audit and Information Technology: The impact of Covid-19 Pandemics," *JABE (JOURNAL Account. Bus. Educ.*, vol. 8, no. 1, pp. 15–39, 2023.
- [16] F. Ince, "The Digital Edge for Entrepreneurship," in *Digital Natives as a Disruptive Force in Asian Businesses and Societies*, IGI Global, 2023, pp. 1–21.
- [17] T. Weiss *et al.*, "The Social Effects of Entrepreneurship on Society and Some Potential Remedies: Four Provocations," *J. Manag. Inq.*, p. 10564926231181556, 2023.
- [18] T. R. Ncube, "The effectiveness of entrepreneurship education in the selected high schools, TVET colleges and public universities in KwaZulu-Natal province." 2022.
- [19] N. Arshed, O. Aziz, R. Z. Abbas, and M. Batool, "Socio-economic Causals for Entrepreneurial Transformation," *J. Innov. Sustain. RISUS*, vol. 14, no. 1, pp. 36–54, 2023.
- [20] R. L. Lubis and S. A. Goffar, "Identifying the driving forces of digital sustainable entrepreneurship: A triple bottom line in the business model canvas to achieve SDGs," in *Sustainable Future: Trends, Strategies and Development: Proceedings of the 3rd Conference on Managing Digital Industry, Technology and Entrepreneurship, (CoMDITE 2022), Bandung, Indonesia, 24 May 2022*, Taylor & Francis, 2022, p. 57.
- [21] T. Ponedilchuk and T. Prykhodko, "METHODOLOGICAL APPROACHES TO THE DEVELOPMENT OF ENTREPRENEURSHIP IN UKRAINE," *Inst. Accounting, Control Anal. Glob. Circumstances*, no. 3–4, pp. 67–76, 2023.
- [22] S. Singh, S. Singh, and S. Dhir, "The evolving relationship of entrepreneurship, technology, and innovation: A topic modeling perspective," *Int. J. Entrep. Innov.*, p. 14657503231179596, 2023.
- [23] S. L. Cochran and D. F. Kuratko, "Future Vision: Trends in US Entrepreneurship Education Beyond The COVID-19 Pandemic," in *The Age of Entrepreneurship Education Research: Evolution and Future*, Emerald Publishing Limited, 2023, pp. 205–230.
- [24] M. Obschonka and D. B. Audretsch, "Artificial intelligence and big data in entrepreneurship: a new era has begun," *Small Bus. Econ.*, vol. 55, pp. 529–539, 2020.
- [25] D. F. Kuratko, "The emergence of entrepreneurship education: Development, trends, and challenges," *Entrep. theory Pract.*, vol. 29, no. 5, pp. 577–597, 2005.
- [26] S. Wennekers, A. Van Wennekers, R. Thurik, and P. Reynolds, "Nascent entrepreneurship and the level of economic development," *Small Bus. Econ.*, vol. 24, pp. 293–309, 2005.
- [27] H. Van de Ven, "The development of an infrastructure for entrepreneurship," *J. Bus. Ventur.*, vol. 8, no. 3, pp. 211–230, 1993.
- [28] D. F. Pacheco, T. J. Dean, and D. S. Payne, "Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development," *J. Bus. Ventur.*, vol. 25, no. 5, pp. 464–480, 2010.
- [29] H. O. Rocha, "Entrepreneurship and development: The role of clusters," *Small Bus. Econ.*, vol. 23, pp. 363–400, 2004.
- [30] D. A. Harper, *Foundations of entrepreneurship and economic development*. Routledge, 2003.
- [31] E. G. Carayannis and M. Von Zedtwitz, "Architecting gloCal (global-local), real-virtual incubator networks (G-RVINs) as catalysts and accelerators of entrepreneurship in transitioning and developing economies: lessons learned and best practices from current development and business incubation," *Technovation*, vol. 25, no. 2, pp. 95–110, 2005.
- [32] J. S. McMullen, "Delineating the domain of development entrepreneurship: A market-based approach to facilitating inclusive economic growth," *Entrep. Theory Pract.*, 2011, doi: 10.1111/j.1540-6520.2010.00428.x.
- [33] J. J. Chrisman, T. Hynes, and S. Fraser, "Faculty entrepreneurship and economic development: The case of the University of Calgary," *J. Bus. Ventur.*, vol. 10, no. 4, pp. 267–281, 1995.
- [34] J. A. Kuzilwa, "The role of credit for small business success: A study of the National Entrepreneurship Development Fund in Tanzania," *J. Entrep.*, vol. 14, no. 2, pp. 131–161, 2005.