



A BIBLIOMETRIC ANALYSIS ON ENTREPRENEURIAL EMPOWERMENT AND ENTREPRENEURIAL COMPETENCIES

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ABSTRACT

This bibliometric analysis explores the evolving landscape of research on entrepreneurial empowerment and entrepreneurial competencies, focusing on identifying key themes, influential authors, and prominent publication sources. By analyzing data from scholarly databases, we highlight the frequency of research outputs, citation patterns, and collaboration networks that have shaped the field. The study examines core concepts of entrepreneurial empowerment, such as the role of personal agency, self-efficacy, and resource mobilization, alongside entrepreneurial competencies, including skills in opportunity recognition, risk management, and innovation. Results reveal a growing emphasis on educational strategies to enhance competencies, with particular attention to entrepreneurial training in academic and professional settings. Key topics include the impact of entrepreneurial empowerment on business performance, the development of specific competencies for sustainable entrepreneurship, and the influence of policy on entrepreneurial ecosystems. This analysis provides a comprehensive overview of the intellectual structure within the field, offering insights into future research directions, emerging trends, and potential gaps that could inform strategies for fostering empowered, competent entrepreneurs in a rapidly changing global economy

KEYWORDS:-Entrepreneurial competencies,entrepreneurial empowerment,Bibliometric analysis,entrepreneurship,entrepreneurs.

INTRODUCTION

Entrepreneurial empowerment and entrepreneurial competency are pivotal concepts in the fields of entrepreneurship and business management, reflecting an entrepreneur's ability to leverage resources, skills, and self-efficacy to drive successful ventures. These themes are increasingly relevant as entrepreneurship grows globally and plays a central role in economic development and innovation.

This article aims to provide a bibliometric analysis of the literature on "entrepreneurial empowerment" and "entrepreneurial competency," identifying key trends, influential works, and emerging themes. By examining research productivity, citation patterns, and collaboration networks, this analysis sheds light on how these topics have evolved over time and highlights the essential skills and capabilities that empower entrepreneurs. The bibliometric approach offers a data-driven perspective that enhances our understanding of the critical competencies needed for entrepreneurial success and provides insights into how empowerment influences both individual entrepreneurs and the broader economic landscape.

Ultimately, this analysis seeks to inform future research and guide educators, policymakers, and practitioners in nurturing the competencies and empowerment necessary for entrepreneurial resilience and growth

RESEARCH METHODOLOGY

This methodology outlines a systematic approach for conducting a bibliometric analysis on the themes of "entrepreneurial empowerment" and "entrepreneurial competency" using the Scopus database, VOSviewer, and Biblioshiny software.

Step 1: Define Research Questions and Objectives

- **Identify the Scope:** Define specific research questions, such as:
 - What are the trends in research related to entrepreneurial empowerment and competency?



- Which authors, institutions, and countries are leading in this field?
- What are the most influential publications and journals?
- How do the concepts of empowerment and competency interrelate in existing literature?
- **Establish Objectives:** Outline the objectives of the bibliometric analysis, including mapping research productivity, citation analysis, and identifying key themes.

Step 2: Data Collection from Scopus

- **Access Scopus Database:** Use an institutional subscription to access the Scopus database.
- **Search Strategy:**
 - Construct search queries using relevant keywords, such as “entrepreneurial empowerment” and “entrepreneurial competency.”
 - Use Boolean operators (AND, OR) to refine the search and ensure comprehensive coverage.
- **Set Inclusion Criteria:**
 - Define inclusion criteria (e.g., peer-reviewed articles, published within a specific timeframe).
- **Export Data:**
 - Export the bibliographic data, including titles, authors, abstracts, keywords, citations, and references. Select the format compatible with VOSviewer and Biblioshiny (typically .csv or .ris).

Step 3: Data Preparation

- **Clean and Organize Data:**
 - Remove duplicates and irrelevant entries from the dataset.
 - Ensure consistent formatting of author names, publication years, and keywords.
- **Data Structuring:** Organize the data into the necessary fields required by VOSviewer and Biblioshiny.

Step 4: Bibliometric Analysis using VOSviewer

- **Import Data into VOSviewer:**
 - Load the cleaned dataset into VOSviewer.
- **Visualize Data:**
 - Create visual maps of authors, institutions, countries, and keywords based on co-citation and co-authorship networks.
- **Analyze Key Metrics:**
 - Generate statistics on publication trends, citation counts, and collaboration patterns.
- **Interpret Results:**
 - Analyze the visual outputs to identify research hotspots, influential authors, and publication trends over time.

Step 5: Advanced Analysis using Biblioshiny

- **Import Data into Biblioshiny:**
 - Upload the dataset to Biblioshiny, an R-based tool for bibliometric analysis.
- **Conduct Statistical Analysis:**
 - Utilize Biblioshiny’s functionalities to perform additional analyses such as:
 - Citation analysis (total citations, h-index, etc.)
 - Keyword analysis (most frequent and emerging keywords)
 - Collaboration analysis (co-authorship networks).
- **Generate Reports:**
 - Use Biblioshiny to create detailed reports and visualizations, summarizing findings and trends.



PRESENTATION

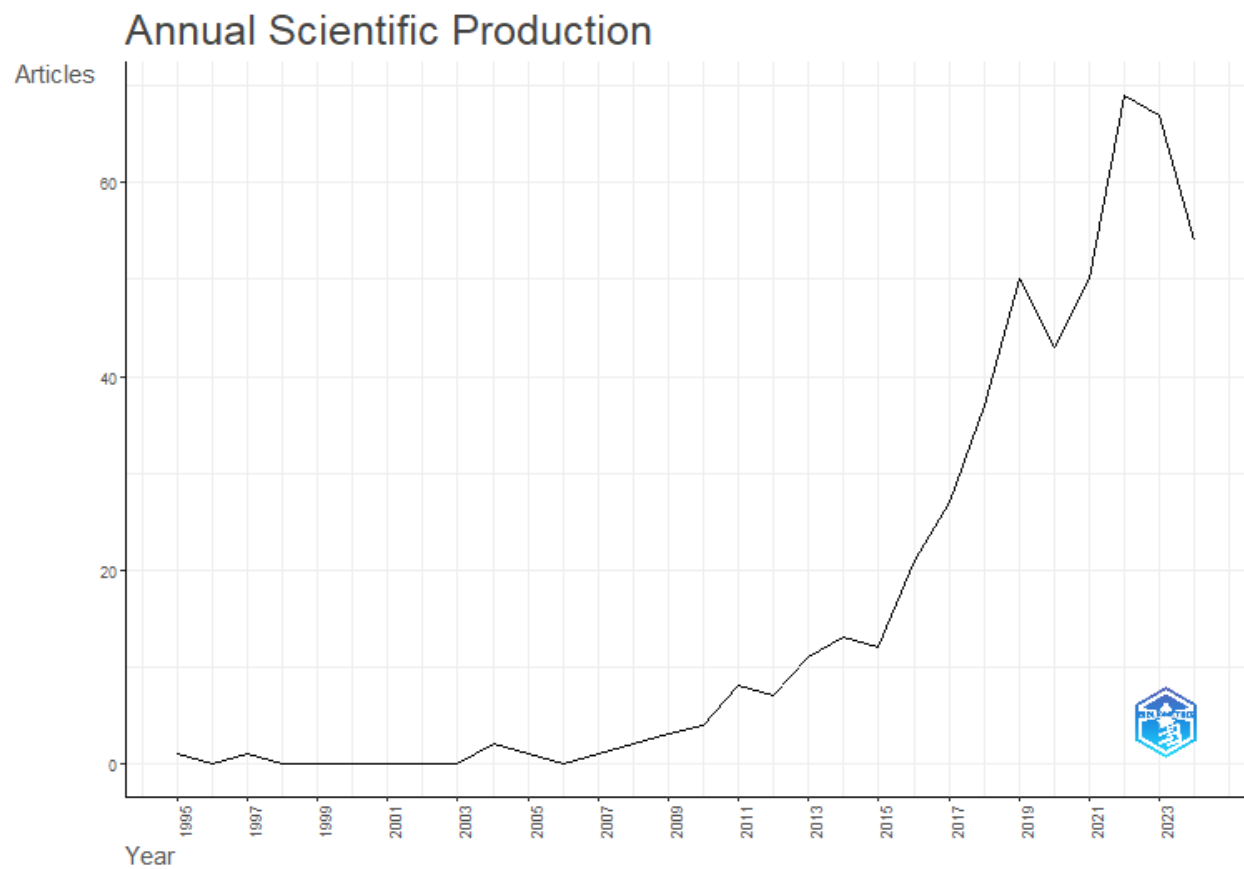


Fig.1

Figure 1 shows the annual scientific production during the year 1995-2023 on the selected topic. Since 2005, the number of publications in the research field has steadily increased, with a slight rise in 2011 and 2012. By 2018, the number of yearly publications had reached 37, showing high demand and maybe increasing financing. The top number of articles was 50 in 2019, followed by 69 in 2022 and 67 in 2023. The pattern is apparent, demonstrating that the sector has matured, received more funding, and advanced in associated technologies. The high publication count in recent years indicates a considerable academic and industrial interest in the subject.

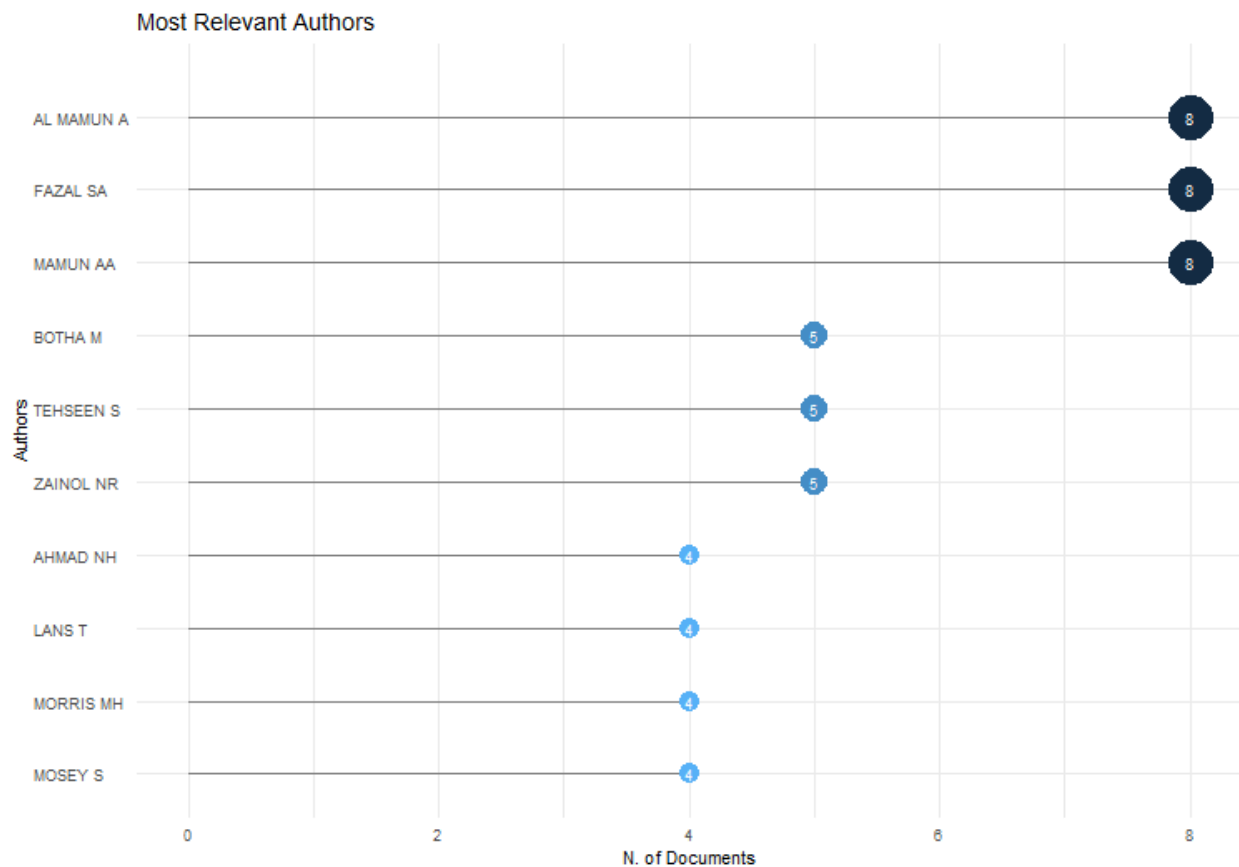


FIGURE 2

Figure 2 appears to be part of a bibliometric analysis, focusing on a group of authors and two key metrics associated with each: publication count and average citations per publication. It shows the following results:

- High Publication Counts with Moderate to High Average Citations:**
 - AL MAMUN A*, *FAZAL SA*, and *MAMUN AA* each have 8 publications, making them the most prolific authors in this dataset. However, their average citations per publication vary: *MAMUN AA* has the highest at 2.83, followed by *FAZAL SA* at 2.18, and *AL MAMUN A* at 2.13. This suggests that while they are similarly productive, *MAMUN AA* has slightly higher influence or recognition per paper compared to the other two.
- Moderate Publication Counts with High Average Citations:**
 - BOTHA M* stands out with only 5 publications but an average citation count of 3 per paper, suggesting that this author's work is highly influential despite a relatively lower output.
- Authors with Lower Average Citations:**
 - TEHSEEN S*, *ZAINOL NR*, and *AHMAD NH* each have 5, 5, and 4 publications, respectively, with average citations per paper below 2. This might indicate that while they contribute regularly, their work has not achieved the same level of impact or citation as some of their peers.
- Low Publication and Low Average Citation Counts:**
 - LANS T* has 4 publications but an average citation per paper of just 0.98, suggesting a low impact per paper. Similarly, *MOSEY S* and *AHMAD NH* have 4 publications each but with relatively low citation averages of 1.33 and 1.25, respectively.
- Moderate Influence for Select Authors:**
 - MORRIS MH*, with 4 publications and an average citation count of 1.78, shows a moderate impact, as the citation average is close to 2.



In summary, *MAMUN AA* and *BOTHA M* appear to have the most influence in terms of average citations, while *AL MAMUN A*, *FAZAL SA*, and *MAMUN AA* are the most productive authors in this set. *LANS T* and *MOSEY S* show the least impact, with lower citation averages per publication. This could indicate a need for further investigation into the topics these authors are focusing on, as well as possible differences in research areas or journals that might explain citation disparities.

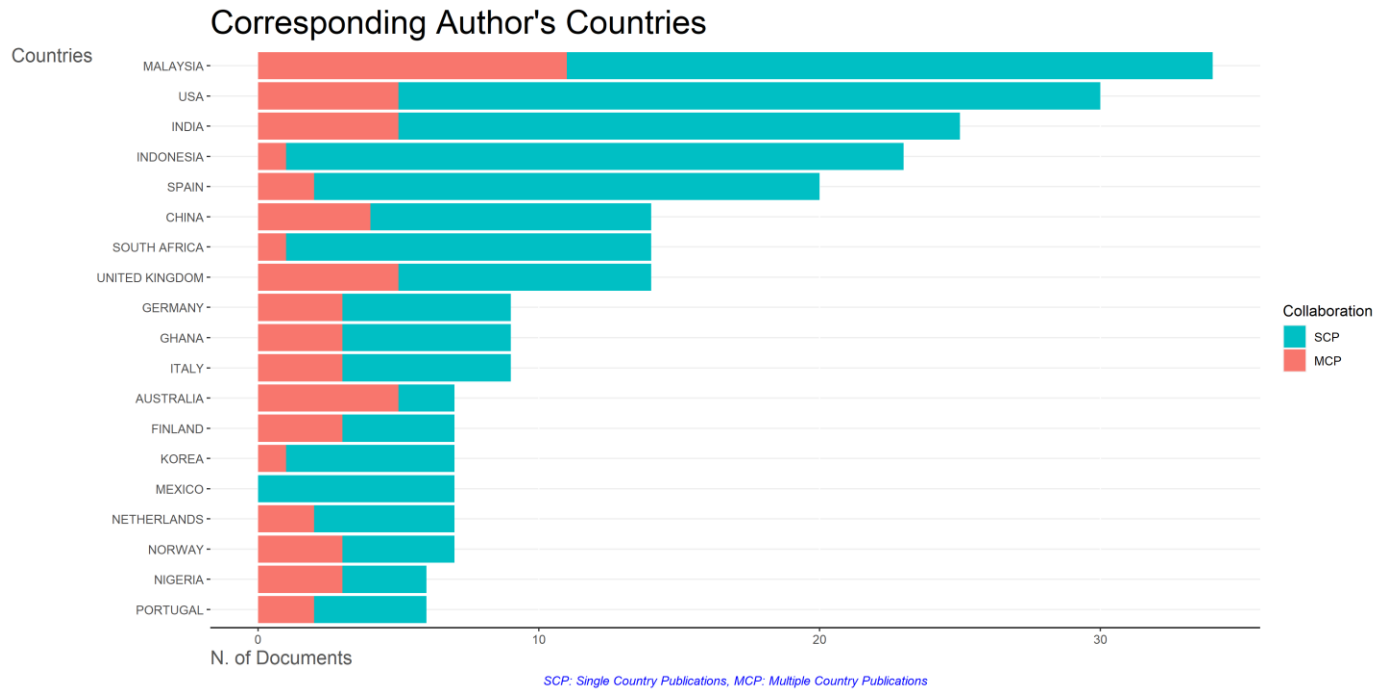


FIG 3

This table presents writers with two metrics: Articles (total publications) and Articles Fractionalized (most likely indicating the fractional count of contributions, which accounts for co-authorship). Here's an interpretation of the bibliometric analysis using these metrics:

High publication volume, with varying fractional contributions.

AL MAMUN A, *FAZAL SA*, and *MAMUN AA* all have eight publications. However, their fractional contributions differ: *MAMUN AA* has the greatest fractional count (2.83), suggesting a larger primary contribution per publication than *AL MAMUN A* (2.13) and *FAZAL SA* (2.18). This might indicate that *MAMUN AA* has taken on more major positions in each publication, potentially as the principal author.

High fractional contribution and moderate publication count:

BOTHA M has just five publications, but a high fractional contribution score of 3. Moderate publication count, with lower fractional contributions.

TEHSEEN S, *ZAINOL NR*, and *AHMAD NH* have 5, 5, and 4 publications, respectively, with fractional contributions of 1.65, 1.5, and 1.25. This suggests that, while they contribute frequently, they may not be principal authors in many of their articles.

Lower publication and fractional contribution counts.

LANS T has four publications and a fractional contribution of 0.98, indicating limited main activity. Similarly, *MOSEY S* has four publications with a fractional contribution of 1.33, showing subordinate involvement in co-authored works.

Moderate Contribution and Impact:

MORRIS MH has a moderate fractional contribution of 1.78 across four articles, indicating consistent engagement but not necessarily as principal author in all publications.

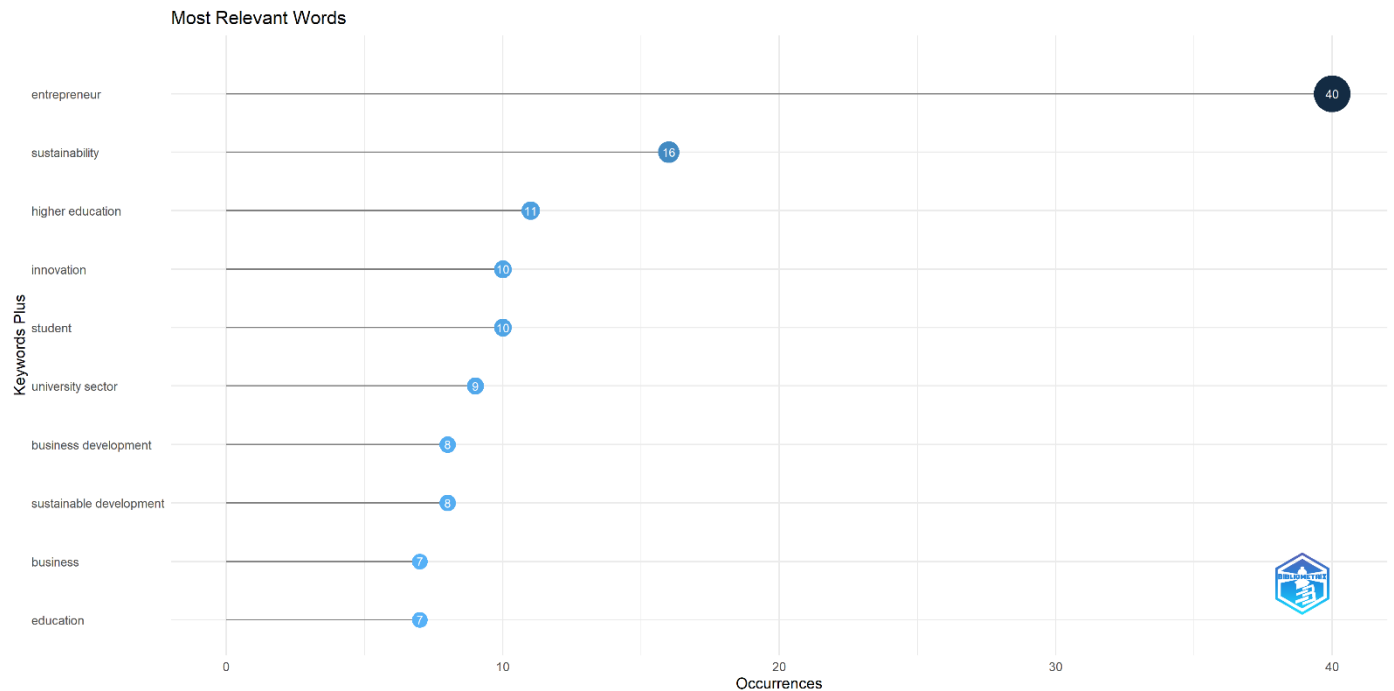


FIG 4

This graph presents a frequency analysis of key terms, likely from a bibliometric study of articles or research papers. Each term is followed by its number of occurrences, indicating its prominence within the studied literature. Here's an interpretation:

- Core Focus on "Entrepreneurship":**
 - The term *entrepreneur* appears 40 times, significantly more than any other word on the list, suggesting that entrepreneurship is a central theme. This could indicate a strong focus on entrepreneurial initiatives, attitudes, or the study of entrepreneurship as a concept.
- Importance of "Sustainability" and Related Themes:**
 - Sustainability* is the second-most frequent word, with 16 occurrences, followed by related terms like *sustainable development* (8 occurrences). This highlights a notable interest in sustainability, indicating that a significant portion of the literature is concerned with sustainable practices and development, potentially in relation to business and entrepreneurship.
- Focus on "Higher Education" and "University Sector":**
 - Higher education* (11 occurrences) and *university sector* (9 occurrences) appear frequently, showing that many discussions are situated within an educational context. This suggests a focus on how entrepreneurship and sustainability concepts apply within universities and possibly the role of educational institutions in fostering these ideas.
- Emphasis on "Innovation" and "Business Development":**
 - Innovation* (10 occurrences) and *business development* (8 occurrences) are also prominent. This indicates a focus on how innovation and entrepreneurial activities contribute to business growth and development, possibly within the framework of sustainable practices.
- Role of "Students" and "Education":**
 - The terms *student* (10 occurrences) and *education* (7 occurrences) underscore an interest in the role of students and the educational process in fostering entrepreneurial and sustainable practices. This could mean a focus on entrepreneurship education, the role of students as emerging entrepreneurs, or educational strategies for sustainable development.

The literature primarily explores the link between entrepreneurship, sustainability, and higher education, with a focus on universities supporting sustainable entrepreneurial activities and preparing students for sustainable business roles, thereby fostering an entrepreneurial mindset that values innovation and sustainability.

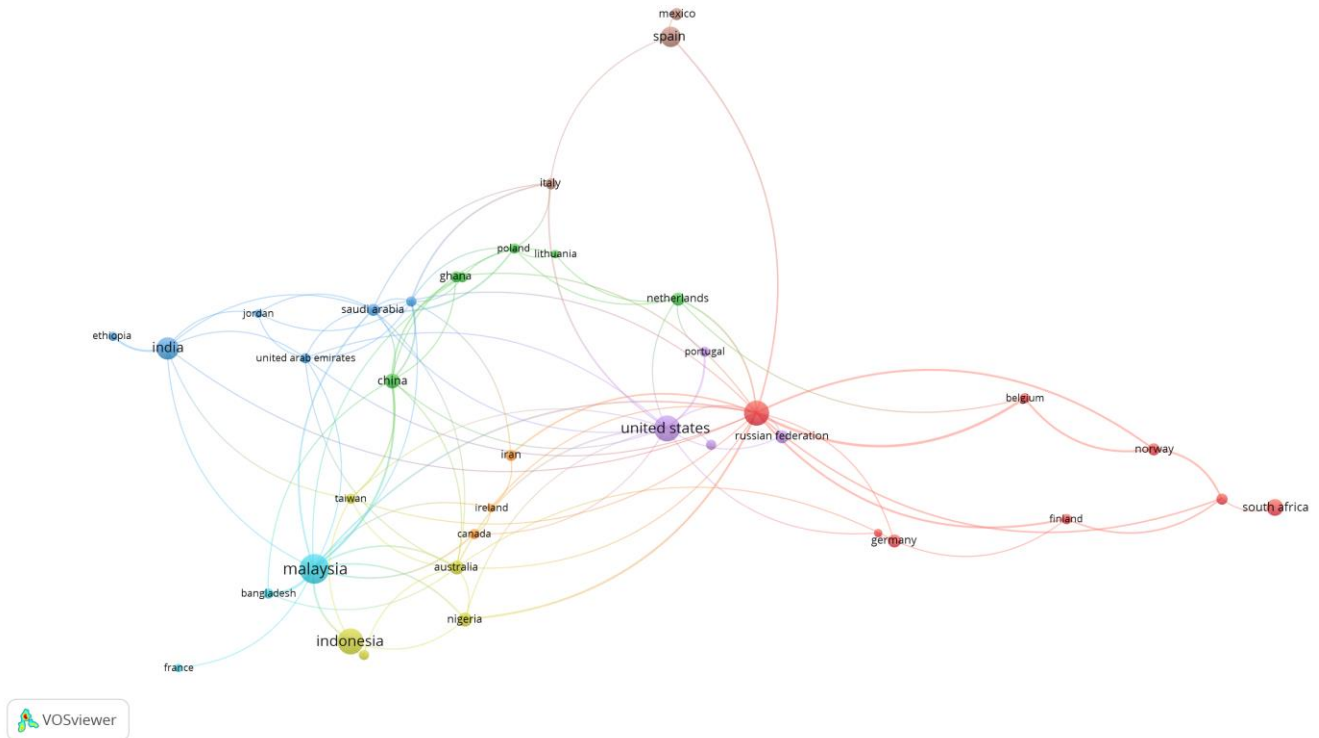


Fig 5 Countries Co- Occurrence

Fig 5 Shows the Countries Co-Occurrence which is depicted in the below table

CLUSTER 1	CLUSTER 2	CLUSTER 3	CLUSTER 4	CLUSTER 5	CLUSTER 6	CLUSTER 7	CLUSTER 8
Belgium	China	Ethiopia	Australia	Portugal	Bangladesh	Canada	Italy
Brazil	Czech republic	India	Indonesia	Russian federation	France	Iran	Mexico
Finland	Ghana	Jordan	Nigeria	South korea	malasia	ireland	spain
Germany	Lithuania	Pakistan	Taiwan	United states			
Norway	Netherland	Saudi arabia	thailand				
South Africa	poland	United arab emirates					
Sweden							
United kingdom							



CLUSTER 1	CLUSTER 2	CLUSTER 3	CLUSTER 4	CLUSTER 5	CLUSTER 6	CLUSTER 7
Competence	Employability	Creativity	Business Environment	Business Performance	Entrepreneurial university	Firm performance
Competencies	Enterprise Education	Entrepreneurial Orientation	Entrepreneurial Intention	Business Success		
Competency	Entrecomp	Human Capital	Entrepreneurialism	Competitive		
Development	Entrepreneurial Behaviour	Innovativeness	Female Entrepreneurs			
Education	Entrepreneurial Competence	Nigeria	Gender			
Entrepreneur	Entrepreneurial Learning	Performance	Malasia			
Entrepreneurial	Higher Education	Smes	Motivation			
Entrepreneurial Competencies	Pedagogy	Sustainability	Women			
Entrepreneurial Education	Social Entrepreneurship	Women Entrepreneurship				
Entrepreneurial Intention						
Entrepreneurial Skills						
Entrepreneurs						
Entrepreneurs						
Intention						
Skills						
Theory Of Planned Behaviour						
Training						

Fig6 Keyword Co-Occurrence

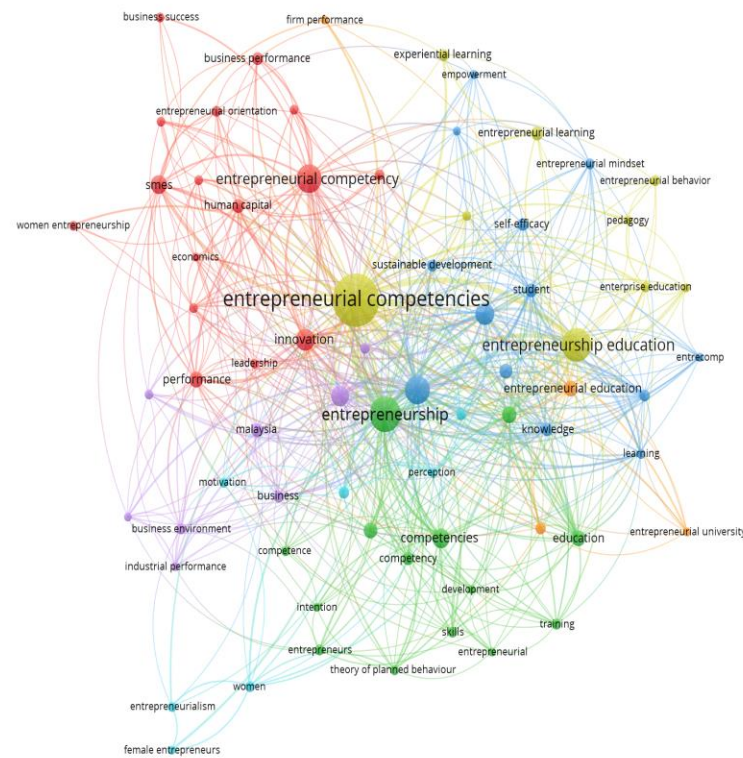


Fig 6 shows the keyword occurrence in the selected field of study the summary of the figure is depicted in the table given above.

CONCLUSION

This bibliometric analysis of "entrepreneurial empowerment" and "entrepreneurial competency" offers significant insights into the evolution and current landscape of research in these critical areas of entrepreneurship. Utilizing data from the Scopus database, along with advanced visualization tools such as VOSviewer and Biblioshiny, we have systematically mapped and analyzed key trends, influential authors, and core themes within the literature.

Our findings reveal a growing body of research dedicated to understanding the interplay between empowerment and competency, highlighting their importance in fostering entrepreneurial success. Key authors and institutions have emerged as leaders in this field, contributing to a rich tapestry of interdisciplinary scholarship that spans various contexts and methodologies. Moreover, the analysis identified prominent journals and publication patterns, illustrating the collaborative networks that drive innovation and knowledge sharing.

Despite the progress made, several gaps in the literature were identified, particularly in relation to the practical applications of these concepts in diverse entrepreneurial environments. Future research should aim to address these gaps, exploring how entrepreneurial empowerment and competency can be cultivated across different demographic and cultural settings.

Overall, this study not only enhances our understanding of entrepreneurial empowerment and competency but also serves as a foundation for future research initiatives. By illuminating the pathways of knowledge in this domain, we hope to inspire scholars, educators, and practitioners to further explore the mechanisms that empower entrepreneurs and equip them with the necessary competencies to thrive in an increasingly complex and dynamic business landscape.



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