

## **THE IMPORTANCE OF ENTREPRENEURSHIP EDUCATION FOR STUDENTS IN THE WORLD: A BIBLIOMETRIC ANALYSIS (2015-2024)**

**Ripho Delzy Perkasa<sup>1</sup>, Disman<sup>2</sup>, B Lena Nuryanti<sup>5</sup>**

[riphodelzyperkasa87@upi.edu](mailto:riphodelzyperkasa87@upi.edu)<sup>1</sup>, [disman@upi.edu](mailto:disman@upi.edu)<sup>2</sup>, [b.lena.nuryanti@upi.edu](mailto:b.lena.nuryanti@upi.edu)<sup>3</sup>

**Universitas Pendidikan Indonesia**

### **Abstract**

*The progress of a country is related to the development of a country, which is largely determined by the quality of human resources. The quality of human resources is certainly greatly influenced by the quality of education in a country. In order to realize this progress, education that is in line with the improvement of the welfare of graduates in higher education is urgently needed. Human resource development must be the top priority to achieve the expected goals, one of the paths to resource development that can be done through entrepreneurship education among students in higher education. This article conducts a bibliometric analysis of the literature on research trends of poverty and income inequality to economic growth to gain in-depth insights into relevant research focuses, trends, and scientific contributions. Through a bibliometric analysis approach, 461 publication articles accessed on November 6, 2024 that met the inclusion criteria were analyzed using tools such as Microsoft Excel, Publish or Perish, and Vosviewer. After restrictions were made for the last 10 years (2015-2024), 390 articles were obtained, after which restrictions were placed on document types, 310 articles were obtained, and finally limited to articles in English, 304 articles were obtained which will be a reference in writing this article. The results show that the interest and focus of research on poverty, income inequality to economic growth has increased significantly, reaching a peak in 2023 as many as 55 documents or 18.1% of the results of scientific research in the field of entrepreneurship studies. This trend reflects the awareness of the importance of understanding and developing entrepreneurship education for students at the university level, with the hope that the knowledge of entrepreneurship education can be developed later after they complete their studies at university.*

**Keywords:** *Bibliometrics, World, Students, Entrepreneurship Education.*

### **1. INTRODUCTION**

Around the world, entrepreneurship education for students is becoming a growing concern, especially in the context of dynamic economic development and the challenges of globalization. In Indonesia, new entrepreneurs are urgently needed. The ideal entrepreneurship ratio in Indonesia requires around 5.8 million new people, or 4% of the population (Budi & Fensi, 2018). As a result, many educational institutions have incorporated entrepreneurship education into their study programs. In an era where creativity and innovation are key to success, entrepreneurship education is essential for teaching students the skills and knowledge necessary to become successful entrepreneurs (Fayolle & Gailly, 2013)(Hoang et al., 2020)(Kurjono, 2022). Entrepreneurship education not only teaches business theory, but also builds the mentality and attitude necessary to face challenges in the business world (Aryaningtyas & Palupiningtyas, 2017)(Lei, 2023)(Liu et al., 2019).

The high unemployment rate among college graduates is one of the main reasons why entrepreneurship education is so important. Data shows that unemployment among college graduates is a major problem in many countries, including Indonesia. Therefore, the development of entrepreneurship and entrepreneurship education is expected to help create new jobs (Nurhikmawati et al., 2019). Entrepreneurship education can encourage students to seek employment and create their own business

opportunities by providing relevant knowledge and skills. Entrepreneurship education also improves students' character and soft skills. In the business world, skills such as communication, leadership, and cooperation are essential. Students who have studied entrepreneurship education are expected to have better interpersonal skills, which are essential for business. In other words, entrepreneurship education does not only focus on technical aspects, but also on character development that supports entrepreneurial success.

In addition, entrepreneurship education helps students prepare for the challenges of an increasingly competitive job market around the world. Entrepreneurship education can help students become job seekers and job creators by providing practical knowledge and skills (Susilaningsih, 2015);(Wibowo, 2017). Therefore, educational institutions must continuously improve and update entrepreneurship education programs to meet the demands of the industry and the latest technological advancements. Bibliometric analysis of the literature on entrepreneurship education shows an increasing trend of publications in the last ten years. This shows that researchers and academics are increasingly interested in entrepreneurship education. It also shows how important further research is to find best practices and successful educational models. By understanding the dynamics of entrepreneurship education, it is hoped that more effective strategies can be found to increase interest and entrepreneurial abilities among students. Entrepreneurship education must also adapt to technological developments and changing industry needs.

With things growing in progress, it is important to assess the impact of entrepreneurship education on the success of alumni businesses. According to several studies, alumni who receive entrepreneurship education tend to have higher survival rates and income growth compared to those who do not receive this education. This shows that entrepreneurship education can increase entrepreneurial spirit and profitability, which in turn contributes to the survival of the business (Ismail Albalushi & Naqshbandi, 2022).

Finally, using bibliometric methods, the study aims to provide an in-depth overview of the importance of entrepreneurship education for students around the world and to examine trends and advancements in this field. It is hoped that by understanding how entrepreneurship education works, better ways will be found to foster students' interest and ability to be entrepreneurial. This will allow them to contribute significantly to the economic progress and innovation of society (Sukirman & Afifi, 2021); (Devi & Hadi, 2018).

## **2. RESEARCH METHODS**

PRISM (Preferred Reporting Items for Systematic Review and Meta-Analyzes) is a research protocol used. According to Liberati et al. (2009), the selection process consists of four stages: identification, screening, eligibility, and inclusion. Keywords are entered into a database that is used to identify; In this case, the researcher used the Scopus database to enter keywords such as "business education" and "high school students". An initial search found 390 articles. The screening process is the next stage. During the screening process, researchers set inclusion standards, one of which is publication in the form of articles that are only published in journals. The screening resulted in 310 publications that met the criteria. Articles written in English are the third process. In the next step, publications that meet these criteria will be further analyzed. The number of publications received for the inclusion stage was 304

documents. Descriptive bibliometric analysis of the Scopus database is used to determine publication trends. Some applications, such as Microsoft Excel, Publish or Perish, and Vosviewer, will be used to analyze data that meets the inclusion criteria and passes the next four prism stages. Microsoft Excel is also used to view publication trends. The number of researcher citations per year is calculated using "Publish or Perish". The Vosviewer application is used to see the pattern of relations between countries and the focus of research and research innovation.

### 3. RESULTS AND DISCUSSION

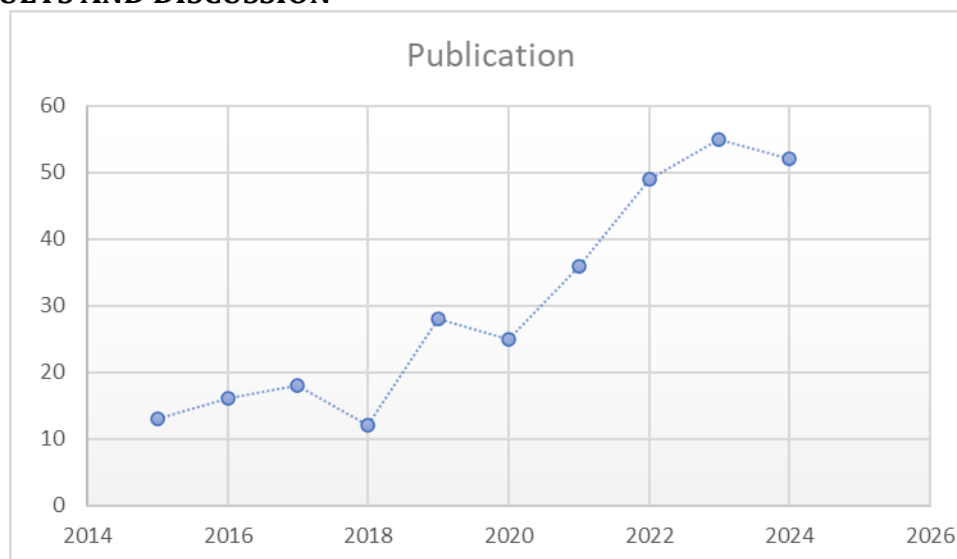


Figure 1. Publication Trends

Based on figure 1 of the publication trend of the article entitled "The Importance of Entrepreneurship Education for Students in the World: A Bibliometric Analysis (2015-2024)", it can be seen that the number of publications has increased significantly from 2014 to 2024. The graph shows that in 2014, the number of publications was still very low, but as time went on, there was a significant spike in the following years, with the highest publication figure reaching 55. This increase in the number of publications reflects the growing attention to entrepreneurship education among students. This can be seen from the ever-increasing trend in publications, which shows that this topic is becoming increasingly relevant in the context of higher education. As such, this analysis provides valuable insights into the dynamics of entrepreneurship education and how this may affect future education policy.

In addition, the graph presented in this document also shows that there is a fluctuation in the number of publications in certain years. Nonetheless, the general trend is pointing in a positive direction, indicating that more and more researchers and academics are interested in exploring and researching entrepreneurship education. This shows that entrepreneurship education is not only a focus among students, but also among researchers and policymakers. Overall, this bibliometric analysis provides a clear picture of the urgency of entrepreneurship education in the context of higher education. This increase in the number of publications can be interpreted as an indication that the topic of entrepreneurship education is becoming increasingly important for the development of curriculum and education policies in the future. As

such, this trend reflects not only academic interest, but also the potential for a broader impact on the development of entrepreneurial skills among students.

Table 1. Quote Trend

It	Writer	Article Title	Quoted
1	W. Nowiński et al (2019)	The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the Visegrad countries	385
2	S. Saeed, S.Y. Yousafzai, M. Yani-De-Soriano, M. Muffatton (2015)	The Role of Perceived University Support in the Formation of Students' Entrepreneurial Intention	248
3	W. Nowiński, M.Y. Haddoud (2019)	The role of inspiring role models in enhancing entrepreneurial intention	185

Based on table 1, the most cited article related to the Importance of Entrepreneurship Education for Students in the World is an article written by W. Nowiński et al in 2019, the article is widely cited because it makes a significant contribution to strengthening understanding of the influence of discussing the influence of entrepreneurship education, entrepreneurial self-efficacy, and gender on students' entrepreneurial intentions in Visegrad countries. This research is very relevant because it examines the interaction between entrepreneurship education, self-efficacy, and gender, and provides insights that can improve educational strategies and policies aimed at encouraging entrepreneurship among students. Entrepreneurship education is considered an important component in shaping students' entrepreneurial intentions. The authors argue that effective entrepreneurship education not only provides the necessary knowledge and skills, but also increases students' self-efficacy, which is a key factor in their intention to engage in entrepreneurial activities. By presenting strong and in-depth references, this article becomes a valuable source of reference for researchers interested in this field, making it frequently cited in related scientific literature.

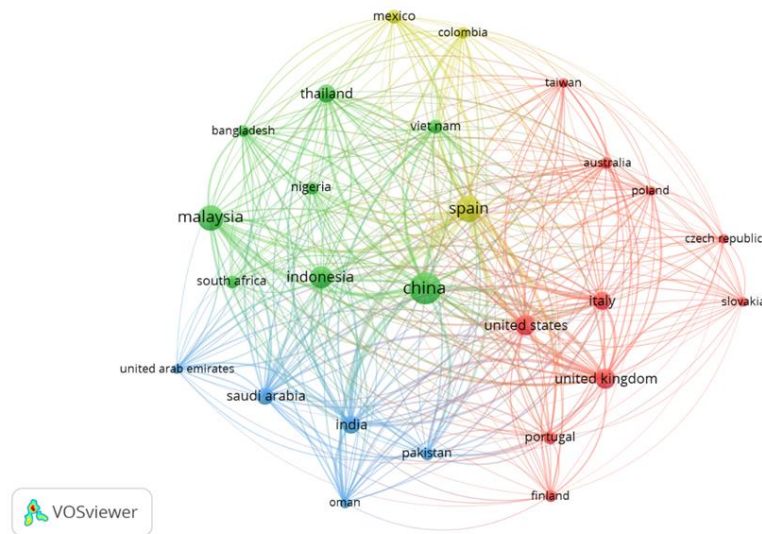


Figure 2. National Cooperation

This fact indicates that researchers in China tend to actively collaborate with research partners, especially Malaysia and Indonesia, in presenting meaningful contributions on the topic of the Importance of Entrepreneurship Education for Students in the World. By involving as many as 26 countries in research cooperation, it can be concluded that China plays an important role in international cooperation, opening up opportunities for a wider exchange of knowledge and experience. Involving as many as 26 countries in research cooperation shows that China is not only active regionally, but also on an international scale. This not only proves China's research excellence, but also opens up vast opportunities for the exchange of knowledge and experience around the world. Strong collaborations with Malaysia, Indonesia and the United States show that China is not only focusing on developing internal research, but also strengthening regional and global relationships to support the development of entrepreneurship education. Thus, China's role in international cooperation can be regarded as an important pillar in building a strong and sustainable research network, having a positive impact on the topic of the Importance of Entrepreneurship Education for Students in the World. In Figure 3, a geographic area is shown.



E-learning has become a key relevant element, especially after the Covid-19 pandemic. On the other hand, Students as a large node shows that students are the main target of this research, emphasizing the importance of curriculum design that is tailored to the needs of the younger generation.

The second research focus, which is marked in red, involves the main keywords "psychology", and "entrepreneurial intent". The largest circle on this focus suggests that it is important to conduct research that measures how psychological factors such as self-efficacy develop during the entrepreneurial education process. This cluster is closely related to psychological theories, especially the Theory of Planned Behavior (TPB). This study emphasizes that the intention to be entrepreneurial is driven by self-confidence, social norms, and perceived behavioral control. Entrepreneurial self-efficacy is an important term that shows an individual's confidence in their ability to succeed as an entrepreneur. Furthermore, cross-cultural research can help understand how social norms affect entrepreneurial intentions in different regions.

The third focus of the study, which is marked in blue, consists of two keywords, namely "gender" and "personal characteristics". This cluster highlights the role of gender, motivation, and personal characteristics in shaping entrepreneurial intentions. Key terms such as gender, proactive personality, entrepreneurial motivation, role models, motivation are important factors in entrepreneurship education, reflecting differences in motivation and interests between men and women. Proactive personality shows that proactive nature is an important attribute that supports entrepreneurial success.

This bibliometric map shows three main clusters that illustrate the interrelationship of research themes in entrepreneurship education and entrepreneurial intentions. The entire cluster is interconnected through core terms such as entrepreneurship education and entrepreneurial intention, reflecting an interdisciplinary approach that integrates education, psychology, technology, and gender inclusion. These findings emphasize the importance of collaboration between universities, the industry sector, and the government in supporting student entrepreneurship. In addition, researchers are encouraged to develop innovative learning methods and conduct cross-cultural studies to understand the global dynamics in entrepreneurship education. By paying attention to the relationship between clusters, future research can produce more holistic insights in supporting the new generation of entrepreneurs.

In Figure 5, the new theme in this study can be identified through the yellow color marker on certain keywords, indicating that the keyword has only become the focus of research in recent years. The presence of yellow in these keywords indicates that research has intensified on these aspects in recent years.





also highlights challenges such as the digital divide, resource limitations, and resistance to change that needs to be addressed. By understanding the research focus related to the aspects of "Innovative education and students", "psychology and entrepreneurial intention", as well as "entrepreneurship education and entrepreneurial intention", it can help policymakers and practitioners in understanding the importance of entrepreneurship education at the university level. The implications of this study make an important contribution in understanding the importance of the role of entrepreneurship education in higher education towards a more adaptive and innovative future.

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