

# Literature Map on the Effect of Education on Entrepreneurial Intention at an Early Age: A Bibliometric Review

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Article Info	ABSTRACT
<p><b>Article history:</b></p> <p>Received May, 2025 Revised May, 2025 Accepted May, 2025</p> <hr/> <p><b>Keywords:</b></p> <p>Entrepreneurial Intention Entrepreneurship Education Early Age Bibliometric Analysis VOSviewer</p>	<p>The increasing emphasis on entrepreneurship education as a means to stimulate entrepreneurial intention from an early age has generated a significant body of academic literature across diverse disciplines. This study presents a bibliometric review aimed at mapping the intellectual structure, thematic evolution, and global research trends related to the effect of education on entrepreneurial intention among young learners. Using data retrieved from the Scopus database and analyzed via VOSviewer, a total of relevant publications from 2000 to 2025 were examined through co-authorship, country collaboration, and keyword co-occurrence analyses. The findings reveal that the research field is dominated by theoretical frameworks such as the Theory of Planned Behavior, with core contributions from scholars like Ajzen, Krueger, Liñán, and Fayolle. Central themes include entrepreneurial education, intention, mindset, and creativity, while recent studies increasingly address sustainability, social entrepreneurship, and curricular innovation. Geographical analysis shows strong contributions from Malaysia, China, the United States, and several European countries, with collaborative networks forming across regions. The temporal keyword overlay further highlights the transition from foundational behavioral research to applied and values-driven themes in recent years. Despite the field's maturity, research gaps remain, including the lack of longitudinal data, limited cultural diversity, and minimal integration of informal or digital learning environments. This study provides valuable insights for researchers, educators, and policymakers seeking to advance the design and implementation of impactful entrepreneurship education programs aimed at nurturing future entrepreneurs from early developmental stages.</p> <p><i>This is an open access article under the <a href="#">CC BY-SA</a> license.</i></p> <div></div>

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## 1. INTRODUCTION

Entrepreneurship has long been recognized as a key driver of economic development, innovation, and job creation [1]. In the face of shifting labor markets and

economic uncertainties, many countries have placed increasing emphasis on cultivating entrepreneurial skills and intentions among youth. The importance of fostering entrepreneurship from an early age is increasingly acknowledged, as early exposure

is believed to positively influence attitudes, mindsets, and behaviors conducive to entrepreneurial careers later in life [2], [3]. As a result, educational systems across various countries have been actively integrating entrepreneurship education into their curricula, especially at primary and secondary levels.

Entrepreneurial intention (EI), which refers to an individual's motivation or commitment to start a new business, is a critical precursor to actual entrepreneurial behavior [4], [5]. Scholars argue that instilling this intention early can significantly shape young individuals' life trajectories. The development of EI at an early age is influenced by a range of factors, including personal traits, family background, social environment, and notably, educational interventions [6]. Numerous empirical studies have examined how structured education programs, particularly those involving experiential learning, role models, and business simulation games, can nurture entrepreneurial interest among school-aged children and adolescents [7], [8].

Education, therefore, plays a dual role: it serves as a channel for transmitting knowledge and entrepreneurial skills, and also as a means for shaping psychological antecedents such as self-efficacy, risk-taking, and opportunity recognition [9]. Various models have been developed to conceptualize the impact of education on entrepreneurial outcomes. The Theory of Planned Behavior [10] is widely used to understand how educational experiences influence attitudes, subjective norms, and perceived behavioral control—all of which are key predictors of entrepreneurial intention. Moreover, educational content tailored to younger learners is believed to produce long-term effects by instilling entrepreneurial mindsets during critical developmental stages [11].

In recent years, the volume of research focusing on the effect of education on entrepreneurial intention at an early age has increased significantly. This growing body of literature spans various disciplines, including education, psychology, economics, and management, reflecting the multidisciplinary

nature of the subject. However, with the proliferation of studies comes the challenge of synthesizing the vast and fragmented knowledge landscape. While numerous primary studies and meta-analyses exist, there is still limited effort to map and visualize how this field has evolved over time, who the key contributors are, what themes dominate, and where research gaps persist. This is where bibliometric analysis becomes a powerful tool.

Bibliometric methods allow researchers to quantify publication patterns, co-authorship networks, and keyword co-occurrences, providing a macro-level view of how a research domain develops [12]. Through bibliometric visualization tools such as VOSviewer, one can uncover thematic clusters and influential works, enabling both novice and expert scholars to grasp the intellectual structure of a field. Applying this method to the intersection of education and early-age entrepreneurial intention promises to illuminate trends, identify research frontiers, and inform future studies and policy-making efforts in entrepreneurship education.

Despite the evident growth of scholarly interest in the effect of education on entrepreneurial intention among the youth, there remains a lack of comprehensive synthesis that captures the structural and intellectual development of this research domain. Existing reviews tend to be narrative or meta-analytical, often limited by scope or methodology, and fail to provide a visual or systematic mapping of the literature. Consequently, researchers and practitioners face difficulty in identifying key contributors, prevailing research themes, collaboration patterns, and conceptual trends. This fragmentation inhibits cumulative knowledge building and strategic development of entrepreneurship education at the early level. This study aims to conduct a bibliometric analysis of the literature on the effect of education on entrepreneurial intention at an early age.

## 2. METHODS

This study employed a bibliometric analysis approach to systematically examine and map the scientific literature on the effect of education on entrepreneurial intention at an early age. Bibliometric analysis is a quantitative method used to assess and visualize the structure, development, and dynamics of academic research through citation data and publication metadata [13]. It allows for the identification of publication trends, key authors, influential papers, collaboration networks, and thematic clusters within a particular research field.

### 2.1 Data Source and Search Strategy

All bibliographic data were extracted from the Scopus database, chosen for its broad coverage of high-quality peer-reviewed journals and robust metadata. The search query was carefully designed to capture relevant studies by combining key terms associated with education, entrepreneurship, intention, and early age. The following Boolean search string was used: TITLE-ABS-KEY ("entrepreneurial intention" OR "entrepreneurship intention"). The search was restricted to publications in English from January 2000 to April 2025, to ensure a contemporary and relevant dataset. Only journal articles, conference papers, and reviews were included, while editorials, notes, and book chapters were excluded.

### 2.2 Data Cleaning and Preparation

After exporting the metadata in CSV format, the dataset was cleaned to remove duplicates, incomplete records, and irrelevant publications. This step involved manual screening of titles and abstracts to ensure alignment with the research scope. The final dataset consisted of publications that explicitly addressed the impact of educational practices or interventions on the formation of entrepreneurial intentions among youth or students at an early age.

### 2.3 Analytical Technique and Visualization Tool

The bibliometric analysis was conducted using VOSviewer (version 1.6.x), a specialized software for constructing and visualizing bibliometric networks [14]. The

following analytical dimensions were: (1) co-authorship analysis, (2) citation analysis, and (3) keyword co-occurrence analysis. For keyword analysis, a full counting method was applied, and a minimum occurrence threshold (usually five times) was set to filter out infrequent terms. The resulting co-occurrence map was segmented into clusters, each representing a thematic area within the literature. VOSviewer's clustering algorithm assigned different colors and labels to each cluster based on the strength of association between keywords.

## 3. RESULTS AND DISCUSSION

### 3.1 Co-Authorship Analysis

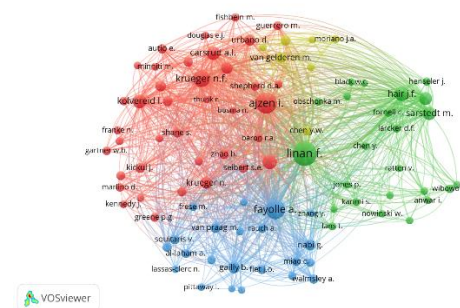


Figure 1. Author Visualization

Source: Data Analysis

The co-authorship network visualization reveals the intellectual structure of research on education and entrepreneurial intention at an early age. The map is composed of multiple-colored clusters, each representing groups of authors who frequently collaborate or co-occur in the literature. The red cluster, centered around influential figures such as Krueger N.F., Ajzen I., and Kolvereid L., represents foundational psychological and behavioral studies grounded in the Theory of Planned Behavior. The green cluster, with Liñán F., Hair J.F., and Sarstedt M. as central nodes, appears to focus on methodological contributions and measurement models for entrepreneurial intention. The blue cluster, led by Fayolle A. and Nabi G., emphasizes entrepreneurship education and pedagogical impact. Lastly, the yellow cluster connects researchers like Guerrero M. and Urbano D., possibly highlighting institutional and environmental contexts influencing entrepreneurial

behavior. The size of the nodes indicates the influence of each author, while the density of connections reflects strong collaboration networks, signifying a well-established and interdisciplinary research field.

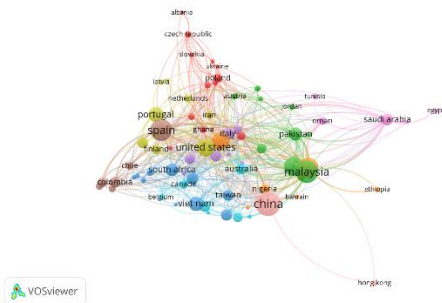


Figure 2. Country Visualization  
Source: Data Analysis

The country collaboration network highlights the global research dynamics on the effect of education on entrepreneurial intention at an early age. Each node represents a country, with its size indicating the volume of publications and links showing the strength of international co-authorship. Malaysia, China, and the United States appear as the most prominent contributors, suggesting their central roles in advancing this field. Malaysia, in particular, shows extensive collaboration with countries across Asia, the Middle East, and Europe, reflecting its active international engagement. Clusters of countries—such as the purple cluster dominated by Saudi Arabia and its regional partners, the red cluster representing Eastern European nations, and the blue cluster centered around China and Vietnam—indicate regional research concentrations. The United States, Spain, and Portugal serve as bridges across multiple clusters, suggesting their influence in cross-regional knowledge exchange.

3.2 Citation Analysis

Table 1. Top Cited Literature

Citation	Author	Title
2012	[15]	The mediating role of self-efficacy in the development of entrepreneurial intentions
1585	[16]	Do entrepreneurship

		programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources
1424	[17]	Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education
1127	[18]	The Relationship Between Entrepreneurship Education and Entrepreneurial Intentions: A Meta-Analytic Review
925	[19]	Assessing the impact of entrepreneurship education programmes: A new methodology
795	[20]	The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence
666	[21]	Factors affecting entrepreneurial intention levels: A role for education
557	[22]	Putting entrepreneurship Education where the intention to Act lies: An investigation into the impact of entrepreneurship education on

		entrepreneurial behavior
504	[23]	Burst Bubbles or Build Steam? Entrepreneurship Education, Entrepreneurial Self-Efficacy, and Entrepreneurial Intentions

Source: Scopus, 2025

3.3 Keyword Co-Occurrence Analysis

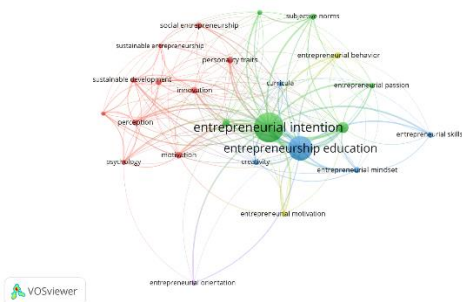


Figure 3. Network Visualization

Source: Data Analysis

The keyword co-occurrence map reveals the conceptual structure of research related to the effect of education on entrepreneurial intention at an early age. At the center of the map, "entrepreneurial intention" and "entrepreneurship education" dominate as the most frequently occurring and interconnected keywords, highlighting them as the core themes of the literature. Their prominence signifies the strong academic focus on understanding how educational initiatives, curricula, and learning environments contribute to the development of entrepreneurial aspirations among young individuals. The close connection between these two central terms also indicates that most studies in the domain explore the causality and interrelationship between educational interventions and the formation of entrepreneurial intentions.

The green cluster on the map encompasses psychological and behavioral constructs, such as subjective norms, entrepreneurial behavior, entrepreneurial passion, and personality traits. This cluster reflects a significant stream of research rooted in psychological theories—particularly the

Theory of Planned Behavior—emphasizing how internal cognitive and motivational factors influence entrepreneurial intention. Keywords like curricula and creativity within this cluster suggest that educational content is evaluated not only for knowledge transmission but also for its ability to shape attitudes and behavioral predispositions.

In contrast, the red cluster is heavily aligned with themes of sustainability, innovation, social entrepreneurship, and perception. This segment of the map signals an emerging interdisciplinary research trend where entrepreneurship education is increasingly integrated with global sustainability goals. The presence of sustainable entrepreneurship and social entrepreneurship indicates a broader shift in educational goals—from purely economic outcomes to social value creation. The link to psychology and motivation in this cluster also reinforces the idea that perception and personal values play a crucial role in shaping the kind of entrepreneurship that students aspire to pursue. The blue and yellow clusters extend the discussion to specific entrepreneurial competencies and orientations. Terms such as entrepreneurial mindset, entrepreneurial motivation, entrepreneurial skills, and entrepreneurial orientation point toward research that seeks to define and measure what education should foster in young learners. This suggests a growing body of empirical studies that assess the effectiveness of various pedagogical approaches, tools, and experiential learning models in cultivating key entrepreneurial competencies.

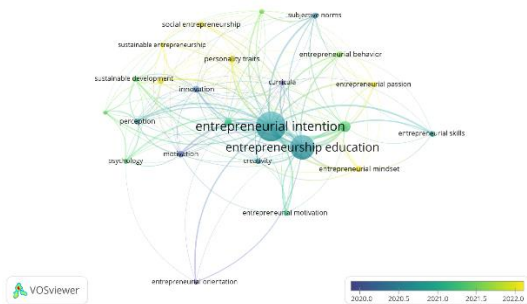


Figure 4. Overlay Visualization

Source: Data Analysis

The overlay visualization of keyword co-occurrence in this map reveals the



temporal evolution of themes in the field of education's impact on entrepreneurial intention at an early age. The color gradient, ranging from blue (older publications) to yellow (more recent ones), helps identify which topics are emerging and which have been well-established. Central concepts like "entrepreneurial intention" and "entrepreneurship education" appear in teal to green shades, suggesting their consistent relevance across the years, particularly between 2020 and 2021. These core themes remain foundational anchors in the literature, representing the sustained scholarly focus on understanding the causal relationships between education and entrepreneurial motivation.

Recent trends can be observed in the keywords highlighted in yellow, such as "social entrepreneurship", "sustainable entrepreneurship", "curricula", and "entrepreneurial passion". These indicate newer directions in the literature, likely reflecting the evolving global context that emphasizes not only entrepreneurship for economic growth but also for achieving sustainable and socially responsible goals. The increasing visibility of sustainability-related terms suggests a growing interdisciplinary approach, blending entrepreneurship education with themes from environmental studies, ethics, and development studies. The incorporation of these newer topics points to a shift in educational content design, aiming to instill both innovative thinking and civic responsibility in young learners.

On the other hand, several terms such as "psychology", "motivation", and "entrepreneurial orientation" appear in darker shades of blue or green, indicating that they were more prominent in earlier research, particularly before 2020. These keywords are typically linked with theoretical frameworks like the Theory of Planned Behavior and studies focused on internal drivers of entrepreneurship. While they remain relevant, the decreasing frequency of recent co-occurrence suggests a possible pivot from purely individual-level psychological explanations toward more systemic and

contextual discussions—such as the design of curricula or the societal outcomes of entrepreneurship. This temporal layering enhances our understanding of how the field has matured and where it is headed.

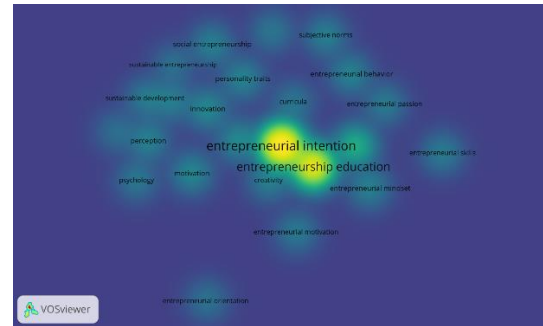


Figure 5. Density Visualization

Source: Data Analysis

The density visualization map displays the intensity of research focus based on keyword frequency and co-occurrence in the domain of education and entrepreneurial intention at an early age. The bright yellow areas represent high-density regions where keywords are most frequently mentioned and strongly connected. At the center, "entrepreneurial intention" and "entrepreneurship education" dominate, indicating their centrality in scholarly discourse. These terms are closely surrounded by "creativity," "entrepreneurial mindset," and "entrepreneurial motivation", suggesting that much of the literature concentrates on understanding how educational interventions nurture internal cognitive and affective traits conducive to entrepreneurship.

As the map moves outward toward green and blue areas, the keyword density decreases, showing topics that, while relevant, receive relatively less frequent attention. These include "sustainable entrepreneurship," "social entrepreneurship," "subjective norms," and "personality traits"—indicating emerging or niche themes that contribute to the field's diversification. The map helps identify underexplored areas that may offer opportunities for future research, especially around linking sustainability, personality dimensions, and social values with entrepreneurial education.

## DISCUSSION

The findings from this bibliometric analysis reveal a vibrant and evolving field at

the intersection of entrepreneurship education and entrepreneurial intention among young learners. The co-authorship, country collaboration, and keyword co-occurrence maps provide a comprehensive overview of the intellectual structure, thematic orientation, and global spread of research in this domain. Collectively, these findings contribute to a deeper understanding of how scholars have conceptualized, investigated, and disseminated knowledge on early-age entrepreneurship education and its psychological and contextual determinants.

#### ***Intellectual Structure and Key Contributors***

The co-authorship network highlights several dominant authors whose foundational work underpins much of the field. Scholars like Icek Ajzen, Norris Krueger, Francisco Liñán, and Alain Fayolle emerge as central figures in developing theories and empirical approaches related to entrepreneurial intention. Ajzen's Theory of Planned Behavior (TPB) [10] continues to serve as the primary theoretical framework for explaining how attitudes, subjective norms, and perceived behavioral control influence intention. Krueger and Liñán, meanwhile, have contributed significantly to adapting TPB into entrepreneurial contexts, especially by developing robust measurement instruments and refining constructs for young populations [24], [25]. The presence of clusters around these authors indicates specialization: the red cluster is anchored in psychological-behavioral studies, the blue cluster focuses on educational program design and evaluation, and the green cluster incorporates methodological and statistical rigor through scholars like Hair, Henseler, and Sarstedt, who are known for their work on PLS-SEM modeling. These intellectual groupings suggest a well-organized field with overlapping but distinct subfields, ranging from theory development to empirical validation and pedagogical implementation.

#### ***Global Research Collaboration and Geographical Distribution***

The country collaboration map reflects a strong international presence in entrepreneurship education research, with countries such as Malaysia, China, Spain, and

the United States leading in publication volume and collaboration intensity. Malaysia stands out for its prolific output and diverse co-authorship ties, particularly with other Asian and Middle Eastern countries. This trend may be linked to national policy initiatives that prioritize entrepreneurship education as part of economic transformation and youth employment strategies [26]. Western countries such as the United States, Spain, and Portugal act as central nodes that bridge different regional clusters, suggesting that these nations play a key role in global knowledge exchange. Eastern European countries like Poland, Ukraine, and the Czech Republic form a distinct cluster, indicating a regional research focus potentially tied to post-socialist economic development and education reform. Meanwhile, emerging collaborations in Africa (e.g., Nigeria, South Africa, and Ethiopia) reflect growing interest in leveraging youth entrepreneurship for sustainable development, although their overall contributions remain limited in scope and depth.

#### ***Thematic Evolution and Research Fronts***

The keyword co-occurrence and overlay visualizations reveal the thematic trajectory of the field. The consistent prominence of "entrepreneurial intention" and "entrepreneurship education" validates the field's central concern: how educational interventions can nurture entrepreneurial mindsets and intentions from a young age. These core themes are complemented by surrounding constructs like "entrepreneurial mindset," "creativity," "motivation," and "curricula", which suggest a growing emphasis on affective and cognitive development through formal and informal education. Recent research trends—evident through yellow-colored nodes in the overlay visualization—indicate a shift toward sustainability and social impact, as seen in keywords such as "social entrepreneurship," "sustainable development," and "innovation". These emergent themes reflect the evolving role of entrepreneurship as a tool not only for economic empowerment but also for addressing broader societal challenges. This shift aligns with global educational

frameworks like the UN Sustainable Development Goals (SDGs), which emphasize quality education (Goal 4) and decent work and economic growth (Goal 8) through entrepreneurial competencies. Moreover, the inclusion of personality traits, subjective norms, and entrepreneurial behavior in the thematic network suggests that many studies still root their analysis in psychological and behavioral theories. However, there is an increasing push to incorporate environmental, institutional, and cultural contexts, especially in studies from developing countries. This trend highlights a potential theoretical expansion beyond TPB and toward integrative models that account for both individual agency and systemic enablers or barriers to entrepreneurship.

#### ***Temporal Dynamics and Research Gaps***

The temporal overlay map indicates that while psychological constructs and classical theories dominated earlier publications (2020–2021), more recent studies (2022 onward) focus on curriculum design, experiential learning, and sustainable development. This chronological layering reveals a maturation of the field—from theory-driven exploration to application-based experimentation. For instance, recent interventions measure not just changes in intention but also long-term entrepreneurial behavior, skill acquisition, and social impact among students [27]. Despite these advancements, several gaps remain. First, while the concept of entrepreneurial intention is widely studied, longitudinal research tracking the actual transition from intention to entrepreneurial action among youth is limited. Future studies should bridge this intention-behavior gap by adopting mixed-methods and multi-year designs. Second, cultural and socioeconomic diversity in the literature is uneven. Much of the knowledge is produced in and about middle- to high-income countries, whereas low-income contexts—which may face vastly different educational infrastructures and entrepreneurial ecosystems—are underrepresented. Third, while many studies explore formal education, fewer address the role of informal learning, family influence, or

peer networks in shaping entrepreneurial aspirations. Early-age intention formation is a multidimensional process that extends beyond classroom boundaries. Finally, there is limited discussion on digital learning environments and how technology-mediated platforms can enhance entrepreneurial learning at scale, especially in post-pandemic contexts.

#### ***Implications for Research, Practice, and Policy***

The insights from this bibliometric review have important implications for academia, education practitioners, and policymakers. For researchers, the field offers ample opportunities to explore interdisciplinary linkages between entrepreneurship, psychology, pedagogy, and sustainability. There is also a need for theory refinement and instrument development that are culturally sensitive and adaptable to different educational contexts. For educators, the findings reinforce the importance of early exposure to entrepreneurship through creative, experiential, and socially relevant pedagogy. Programs that emphasize real-world problem solving, team-based projects, and reflective practice are more likely to foster meaningful entrepreneurial intention among students. Additionally, incorporating themes of social innovation and ethical responsibility can align entrepreneurship education with broader societal goals. From a policy perspective, governments and international organizations should invest in entrepreneurial ecosystems within schools, including training teachers, developing age-appropriate materials, and partnering with local businesses. There is also a case for cross-national collaboration, especially between developed and developing countries, to ensure equitable access to quality entrepreneurship education that is both contextually relevant and globally informed.

## **4. CONCLUSION**

This bibliometric study provides a comprehensive overview of the intellectual, thematic, and geographical landscape of



research focusing on the effect of education on entrepreneurial intention at an early age. By analyzing co-authorship networks, country collaborations, and keyword co-occurrence patterns, the study reveals a well-established but dynamically evolving research domain. At its core, the field is anchored by theoretical constructs such as the Theory of Planned Behavior and by central concepts like entrepreneurial intention and entrepreneurship education. Foundational scholars such as Ajzen, Krueger, Liñán, and Fayolle have shaped the field's direction, while newer themes related to sustainability, social entrepreneurship, and curricula innovation reflect the expanding scope and relevance of the topic. The geographical analysis shows strong global engagement,

with emerging economies such as Malaysia and China making significant contributions alongside Western academic powerhouses. However, disparities remain, particularly in underrepresented regions such as sub-Saharan Africa and parts of Latin America. Conceptually, the field has transitioned from a predominantly psychological and intention-based inquiry to a more holistic and applied perspective. Recent research increasingly considers environmental factors, values-based entrepreneurship, and education for sustainable development. Despite this progress, the field continues to face gaps related to longitudinal evidence, cultural diversity, and the integration of informal and digital learning environments.

## REFERENCES

- [1] I. Hatak, R. Harms, and M. Fink, "Age, job identification, and entrepreneurial intention," *J. Manag. Psychol.*, vol. 30, no. 1, pp. 38–53, 2015.
- [2] Z. A. Paray and S. Kumar, "Does entrepreneurship education influence entrepreneurial intention among students in HEI's? The role of age, gender and degree background," *J. Int. Educ. Bus.*, vol. 13, no. 1, pp. 55–72, 2020.
- [3] R. Passaro, I. Quinto, and A. Thomas, "The impact of higher education on entrepreneurial intention and human capital," *J. Intellect. Cap.*, vol. 19, no. 1, pp. 135–156, 2018.
- [4] A. Pinto Borges, J. M. Lopes, C. Carvalho, B. M. Vieira, and J. Lopes, "Education as a key to provide the growth of entrepreneurial intentions," *Educ. Train.*, vol. 63, no. 6, pp. 809–832, 2021.
- [5] M. Lorz, "The impact of entrepreneurship education on entrepreneurial intention," 2011.
- [6] R. Remeikiene, G. Startiene, and D. Dumciuviene, "Explaining entrepreneurial intention of university students: The role of entrepreneurial education," in *International conference*, 2013, p. 307.
- [7] J. J. Ferreira, C. I. Fernandes, and V. Ratten, "The influence of entrepreneurship education on entrepreneurial intentions," *Entrep. Univ. Explor. Acad. Innov. Dimens. Entrep. High. Educ.*, pp. 19–34, 2017.
- [8] G. Nabi, A. Walmsley, F. Liñán, I. Akhtar, and C. Neame, "Does entrepreneurship education in the first year of higher education develop entrepreneurial intentions? The role of learning and inspiration," *Stud. High. Educ.*, vol. 43, no. 3, pp. 452–467, 2018.
- [9] P. F. Izedonmi and C. Okafor, "The effect of entrepreneurship education on students' entrepreneurial intentions," *Glob. J. Manag. Bus. Res.*, vol. 10, no. 6, pp. 49–60, 2010.
- [10] I. Ajzen, "The theory of planned behavior," *Organ. Behav. Hum. Decis. Process.*, vol. 50, no. 2, pp. 179–211, 1991.
- [11] F. Johara, S. Yahya, and S. Tehseen, "Determinants of future entrepreneurship and entrepreneurial intention," *Glob. Bus. Manag. Res. An Int. J.*, vol. 9, no. 4, pp. 80–95, 2017.
- [12] M. Aria and C. Cuccurullo, "A brief introduction to bibliometrix," *J. Informetr.*, vol. 11, no. 4, pp. 959–975, 2017.
- [13] B. Yoo, N. Donthu, and T. Lenartowicz, "Measuring Hofstede's five dimensions of cultural values at the individual level: Development and validation of CVSCALE," *J. Int. Consum. Mark.*, vol. 23, no. 3–4, pp. 193–210, 2011.
- [14] N. Van Eck and L. Waltman, "Software survey: VOSviewer, a computer program for bibliometric mapping," *Scientometrics*, vol. 84, no. 2, pp. 523–538, 2010.
- [15] H. Zhao, S. E. Seibert, and G. E. Hills, "The mediating role of self-efficacy in the development of entrepreneurial intentions," *J. Appl. Psychol.*, vol. 90, no. 6, p. 1265, 2005.
- [16] V. Souitaris, S. Zerbini, and A. Al-Laham, "Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources," *J. Bus. Ventur.*, vol. 22, no. 4, pp. 566–591, 2007.
- [17] F. Wilson, J. Kickul, and D. Marlino, "Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education," *Entrep. theory Pract.*, vol. 31, no. 3, pp. 387–406, 2007.
- [18] T. J. Bae, S. Qian, C. Miao, and J. O. Fiet, "The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review," *Entrep. theory Pract.*, vol. 38, no. 2, pp. 217–254, 2014.
- [19] A. Fayolle, B. Gailly, and N. Lassas-Clerc, "Assessing the impact of entrepreneurship education programmes: a new methodology," *J. Eur. Ind. Train.*, vol. 30, no. 9, pp. 701–720, 2006.
- [20] A. Fayolle and B. Gailly, "The impact of entrepreneurship education on entrepreneurial attitudes and intention:

- Hysteresis and persistence," *J. small Bus. Manag.*, vol. 53, no. 1, pp. 75–93, 2015.
- [21] F. Liñán, J. C. Rodríguez-Cohard, and J. M. Rueda-Cantuche, "Factors affecting entrepreneurial intention levels: a role for education," *Int. Entrep. Manag. J.*, vol. 7, pp. 195–218, 2011.
- [22] A. Rauch and W. Hulsink, "Putting entrepreneurship education where the intention to act lies: An investigation into the impact of entrepreneurship education on entrepreneurial behavior," *Acad. Manag. Learn. Educ.*, vol. 14, no. 2, pp. 187–204, 2015.
- [23] P. Piperopoulos and D. Dimov, "Burst bubbles or build steam? Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions," *J. small Bus. Manag.*, vol. 53, no. 4, pp. 970–985, 2015.
- [24] J.-J. Nájera-Sánchez, C. Pérez-Pérez, and T. González-Torres, "Exploring the knowledge structure of entrepreneurship education and entrepreneurial intention," *Int. Entrep. Manag. J.*, vol. 19, no. 2, pp. 563–597, 2023.
- [25] X. T. Doan and T. T. H. Phan, "The impact of entrepreneurial education on entrepreneurial intention: The case of Vietnamese," *Manag. Sci. Lett.*, vol. 10, no. 8, pp. 1787–1796, 2020.
- [26] S. Bux and J. Van Vuuren, "The effect of entrepreneurship education programmes on the development of self-efficacy, entrepreneurial intention and predictions for entrepreneurial," *Acta Commer.*, vol. 19, no. 2, pp. 1–13, 2019.
- [27] C. S. Marques, J. J. Ferreira, D. N. Gomes, and R. Gouveia Rodrigues, "Entrepreneurship education: How psychological, demographic and behavioural factors predict the entrepreneurial intention," *Educ. Train.*, vol. 54, no. 8/9, pp. 657–672, 2012.