

*Review Article*

## **How to Boost Entrepreneurial Intentions Among Students? A Systematic Literature Review**

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### **ABSTRACT**

Entrepreneurial intention plays a crucial role in creating new entrepreneurs, as it serves as a foundation that directs individuals to start and develop their ventures. Although many studies have attempted to examine the significance of entrepreneurial intention among students, the existing literature lacks a comprehensive analysis of how entrepreneurial education impacts students' entrepreneurial intention in schools. Therefore, this study aims to provide a comprehensive analysis of the existing literature on the role of entrepreneurial education in strengthening students' entrepreneurial intentions. This study applies the PRISMA framework to ensure clear and comprehensive reporting of systematic reviews through three stages: identification, screening, and eligibility assessment. There were 62 articles analyzed during the 2012-2023 publication period. This study was conducted through a comprehensive search of academic search engines and meticulously selected, impartial journals. The findings of this study reveal that several key factors, including education, environmental support, personal traits, and entrepreneurial skills, influence students' entrepreneurial intentions. Finally, this study offers suggestions for future research directions to address the identified knowledge gaps efficiently.

*Keywords:* Entrepreneurial intention, entrepreneurial skills, entrepreneurship education, environmental support, personal traits

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### **INTRODUCTION**

Investing in education that focuses on entrepreneurship is a strategic step to foster entrepreneurial intentions among students. The motivation behind the importance of investing in entrepreneurial education is

the aspiration of society and institutions to increase the rate of business creation in various national and regional environments (Ayob, 2021). The integration of entrepreneurial intention through education embedded with entrepreneurial principles can enhance knowledge and practical skills, motivating students to consider careers in entrepreneurship. Additionally, through entrepreneurial education, students are introduced to concepts such as business management, innovation, and risk-taking, all of which are essential components in the business world. Policymakers and experts recognize that effective entrepreneurial education is one of the foundations for sustainable economic growth and technological advancement (Pathak, 2019). Numerous studies have investigated the critical role of entrepreneurial education in shaping entrepreneurial intention among students (Ahmed et al., 2020; Haddoud et al., 2022; Onjewu et al., 2021; Sutiadiningsih & Mahfud, 2023; Tseng et al., 2022). Essentially, well-designed entrepreneurial education can enhance students' entrepreneurial intentions, encouraging them to view entrepreneurship as a viable and attractive career path.

While entrepreneurial education is crucial in shaping students' entrepreneurial intentions, it is not the only influencing factor. Entrepreneurial intention is often associated with two theories, namely, the Theory of Planned Behavior (TPB; Ajzen, 2011) and the Entrepreneurial Event Model (EEM; Shapero & Sokol, 1982). The relationship between TPB and EEM in the concept of entrepreneurial intention can

be seen through the relationship between psychological and situational factors that influence an individual's decision to become an entrepreneur. In TPB, attitudes towards behavior reflect an individual's assessment of the advantages or disadvantages of entrepreneurship, which is closely related to perceived desirability in EEM, namely the extent to which someone considers entrepreneurship an attractive option. Perceived behavioral control in TPB is related to perceived feasibility in EEM, which refers to an individual's belief in their ability to overcome the challenges and resources needed to start a business. TPB highlights the critical role of social influence or subjective norms in shaping entrepreneurial intention. Meanwhile, instead of discussing the role of social aspects, EEM emphasizes the importance of propensity to act, which refers to a person's tendency or desire to undertake the entrepreneurial process or explore and implement entrepreneurial opportunities. Both theories suggest that entrepreneurial intentions emerge due to the interaction between internal factors (such as attitudes and self-control) and external factors (such as opportunities or motivating events).

Personal traits such as self-confidence, risk-taking, and mental toughness play a massive role in driving individuals to enter the world of entrepreneurship. Previous studies indicate that students possessing these traits are more likely to have strong entrepreneurial intentions (Bazkiaei et al., 2020; Frago et al., 2020; Maheshwari et al., 2023; Nuseir et al., 2020; Pouratashi, 2015; Velástegui & Chacón, 2021). Students

are not only inspired by what they learn in class but are also driven by personalities that naturally align with the challenges and dynamics of the business world. In addition to personal traits, environmental support and entrepreneurial skills are also significant factors. Support from family, friends, and the community can provide the moral and material encouragement students need to start their businesses (Ao & Liu, 2014; Jena, 2020; Kusumojanto et al., 2021; Neneh, 2022; Zhuang & Sun, 2023). Research shows that students receiving strong environmental support are more likely to realize their entrepreneurial intentions (Ao & Liu, 2014). On the other hand, entrepreneurial skills, including management, marketing, and financial management capabilities, are also critical (Arranz et al., 2019; Najafabadi et al., 2016; Nuseir et al., 2020; Pouratashi, 2015; Suratno et al., 2021; Wibowo, Narmaditya, Suparno, et al., 2023). Without these practical skills, even strong entrepreneurial intentions may not materialize into successful businesses. It is the combination of entrepreneurial education, personal traits, environmental support, and appropriate skills that collectively shape students' entrepreneurial intentions effectively.

Despite the increase in research on the influence of entrepreneurial education on enhancing students' entrepreneurial intention, the interaction of entrepreneurial education with other significant factors in influencing entrepreneurial intention remains unclear. The dispersed knowledge on this evolving theme requires

consolidation and investigation. This study aims to systematically evaluate the literature and analyze the factors that determine students' entrepreneurial intentions and their relationship to entrepreneurial education. To achieve this, the study is guided by the following research questions: (1) What are the trends in articles related to the role of entrepreneurial education in entrepreneurial intention? (2) What factors determine entrepreneurial intention? (3) How is entrepreneurial education linked to entrepreneurial intention? The findings of this paper will provide valuable contributions to the existing entrepreneurship literature, particularly in understanding the factors influencing the strengthening of students' entrepreneurial intentions. Additionally, this will aid researchers, policymakers, and higher education institutions in increasing the number of entrepreneurs.

## METHODS

This study focuses on discussing the role of entrepreneurial education in shaping entrepreneurial intention. A systematic literature review (SLR) was used to investigate the research questions. To conduct a systematic review, this study followed the procedures outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) by Page et al. (2021), widely used by academics for systematic reviews. Additionally, the implementation of this approach enhances the clarity and accuracy of the literature review through systematic evaluation and the use of flow diagrams. Undoubtedly,

one of PRISMA's benefits is its ability to set transparent, consistent, and rigorous criteria for generating research reports through careful procedures (Jamaluddin & Saibani, 2021). The systematic literature review process includes structuring the research question, systematic searching strategies, and data extraction and analysis (Gough et al., 2012). This review was limited to English-language research articles discussing the role of entrepreneurial education in shaping entrepreneurial intention.

### Structuring the Research Question

The study questions were developed using the Population, Interest, and Content (PICO) theory (Lockwood et al., 2015). According to this theory, we included

"school students" as the population, "entrepreneurial education" as the subject of interest, and "entrepreneurial intention" as the content subject. As a result, the research question is formulated as follows: "How does entrepreneurial education contribute to shaping students' entrepreneurial intention?"

### Systematic Searching Strategies

This study implemented the PRISMA framework to ensure clear and comprehensive reporting of systematic reviews. The PRISMA framework consists of three distinct stages: "Identification," "Screening," and "Eligibility assessment." Figure 1 illustrates the systematic review process used in this investigation following the PRISMA paradigm.

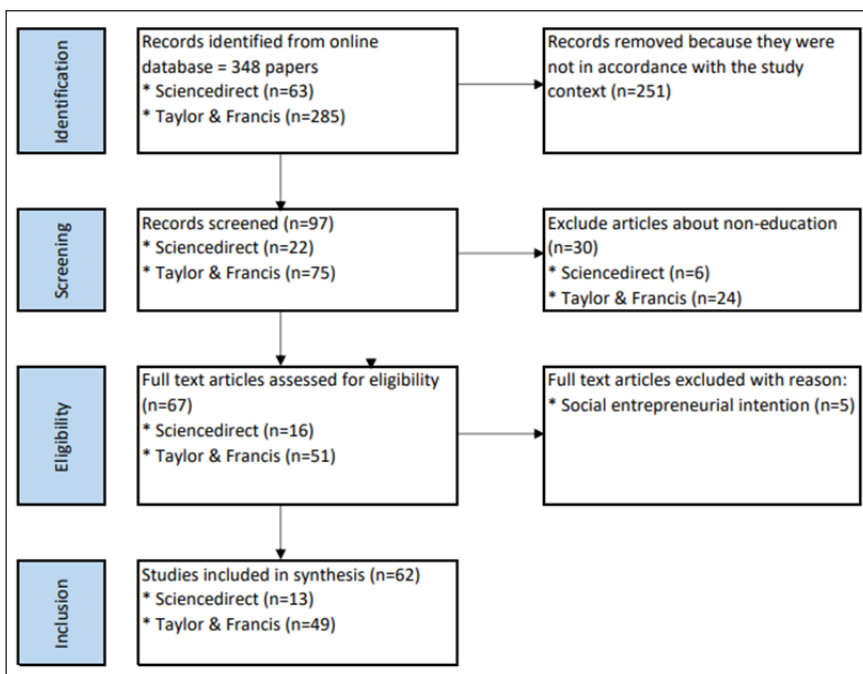


Figure 1. PRISMA flow diagram for identification of studies

### Identification

Literature sources were sought in the form of research articles. The literature search for this study was conducted using two online catalogs: Taylor and Francis Online and ScienceDirect. Both of these online platforms are reputable and well-established publishers that maintain quality control, content curation, and the reputation of the journals they manage. Article searches in the Taylor and Francis Online catalog were conducted at the URL <https://www.tandfonline.com>, and ScienceDirect searches were conducted at the URL <https://www.sciencedirect.com>. In the first step, we collected studies through titles and/or abstracts containing specified search terms, adopting keyword connections using Boolean operators (AND). Table 1 shows the literature search indicators. The search terms for this study were ("entrepreneurial intention" OR "entrepreneurship intention") AND ("entrepreneurship education" OR "business education" OR "entrepreneurship

training" OR "entrepreneurial learning"). The literature used in this study was limited to publications between 2012 and 2023 and in English. This stage identified 348 articles, including 63 from ScienceDirect and 285 from Taylor and Francis Online.

### Screening

The second refinement round involved screening sources that were irrelevant to the study's focus. A total of 251 articles were excluded for not aligning with the study's focus on the role of entrepreneurial education in enhancing students' entrepreneurial intention. Subsequently, a hierarchical logic was used to analyze the titles, keywords, and abstracts of the publications. Initially, 97 articles were evaluated for their titles and abstracts. During the evaluation of the inclusion criteria for titles and abstracts in Table 2, we identified 30 articles from non-education contexts. At this stage, 67 relevant articles were identified.

Table 1  
*Literature search indicators*

Publisher	Search Term	Period	Article Type
ScienceDirect	("entrepreneurial intention" OR "entrepreneurship intention") AND ("entrepreneurship education" OR "business education" OR "entrepreneurship training" OR "entrepreneurial learning")	2012–2023	Research article
Taylor and Francis online	("entrepreneurial intention" OR "entrepreneurship intention") AND ("entrepreneurship education" OR "business education" OR "entrepreneurship training" OR "entrepreneurial learning")	2012–2023	Research article

Table 2  
*Inclusion and exclusion criteria*

<b>Screening</b>		
	<b>Inclusion criteria</b>	<b>Go to the next step</b>
Title Screening	The title included all these keywords: “entrepreneurial intention,” “entrepreneurship intention,” “entrepreneurship education,” “business education,” “entrepreneurship training,” “entrepreneurial learning.”	The title was unclear or included one of the following keywords: “entrepreneurial intention,” “entrepreneurship education,” “business education,” “entrepreneurship training,” or “entrepreneurial learning.”
Keywords screening	“entrepreneurial intention,” “entrepreneurship intention,” “entrepreneurship education,” “business education,” “entrepreneurship training,” “entrepreneurial learning” were found in the article's keywords	The keywords were unclear or included one of the following keywords: “entrepreneurial intention,” “entrepreneurship education,” “business education,” “entrepreneurship training,” or “entrepreneurial learning.”
Abstract Screening	The problem statement clearly investigates the role of entrepreneurship education in cultivating entrepreneurial intentions in students.	The keywords problem statement unclearly investigates the role of entrepreneurship education in cultivating entrepreneurial intentions in students.
<b>Eligibility assessment</b>		
	<b>Inclusion criteria</b>	<b>Exclusion criteria</b>
Introduction, methodology, and conclusion review	The study discusses two aspects: a) the role of entrepreneurship education on students' entrepreneurial intentions and b) the antecedent factors influencing students' entrepreneurial intentions.	Studies that discuss a) entrepreneurial intentions outside the school scope and b) the impact of entrepreneurial intentions.

**Eligibility Assessment**

At this stage, 67 papers were reviewed for eligibility by reading the introduction, methodology, and conclusions sections. We applied more precise inclusion and exclusion criteria, as shown in Table 2, based on the methods presented by Pranugrahaning et al. (2021). After reviewing the full papers, we identified five articles with a focus on social entrepreneurial intention, which were excluded from the main data analysis.

Finally, we used 62 articles for extraction and analysis.

**Data Extraction and Analysis**

The thematic analysis aims to find and understand the most important aspects of the data related to the research topic. This method attempts to summarize the data (Braun & Clarke, 2019). Thematic analysis was used to examine 62 selected articles to answer the research questions

on the role of entrepreneurial education in cultivating students' entrepreneurial intentions. The purpose of this analysis is to build a consensus in research conclusions and to present a unified view of the studied topic (Braun & Clarke, 2019) concerning the role of entrepreneurial education in shaping students' entrepreneurial intentions. To begin the analysis, we reviewed the full papers several times and used NVivo 12 to create several coding frameworks. The main objectives, research questions, applied methodologies, and results of the selected studies were revealed in the initial coding round. To achieve consistency between the research objectives and results, we performed a second round of coding.

## RESULTS

The distribution of article publications based on journal names, sourced from online catalogs such as Taylor and Francis Online and ScienceDirect, reveals a total of 62 articles addressing the role of entrepreneurship education in enhancing students' entrepreneurial intentions, as depicted in Figure 2. These 62 articles were published in 29 journals. Figure 2 illustrates that the journals most frequently featuring topics on the role of entrepreneurship education in increasing entrepreneurial intentions are *The International Journal of Management Education*, *Studies in Higher Education*, and the *Journal of Education for Business*. These three journals published a total of 7 articles from 2012 to 2023 that discuss the role of entrepreneurship education in strengthening students'

entrepreneurial intentions. This is followed by *Cogent Business & Management* (6 articles), *Cogent Education* (5 articles), and various other journals.

Between 2012 and 2023, the trend in article publications suggests a growing interest in the relationship between entrepreneurship education and students' entrepreneurial intentions. In 2023 alone, 13 out of the 62 articles were published (see Figure 3). In 2022, 11 articles were published. In the earlier years, the number of publications ranged from 1 to 8 articles annually.

The bibliometric analysis of this study illustrates the distribution of article publications on the role of entrepreneurship education in fostering entrepreneurial intentions based on their publishers, as depicted in Figure 4. Routledge dominates the number of publications, with 36 articles from 2012 to 2023. This is followed by Elsevier (11 articles), Cogent (11 articles), the European Academy of Management and Business Economics (2 articles), John Wiley & Sons (1 article), and Taylor & Francis (1 article).

The bibliometric analysis of this study demonstrates the distribution of article publications on the role of entrepreneurship education in fostering entrepreneurial intentions based on their publishers, as shown in Figure 4. Routledge leads in the number of publications, with 36 articles from 2012 to 2023. This is followed by Elsevier (11 articles), Cogent (11 articles), the European Academy of Management and Business Economics (2 articles), John Wiley



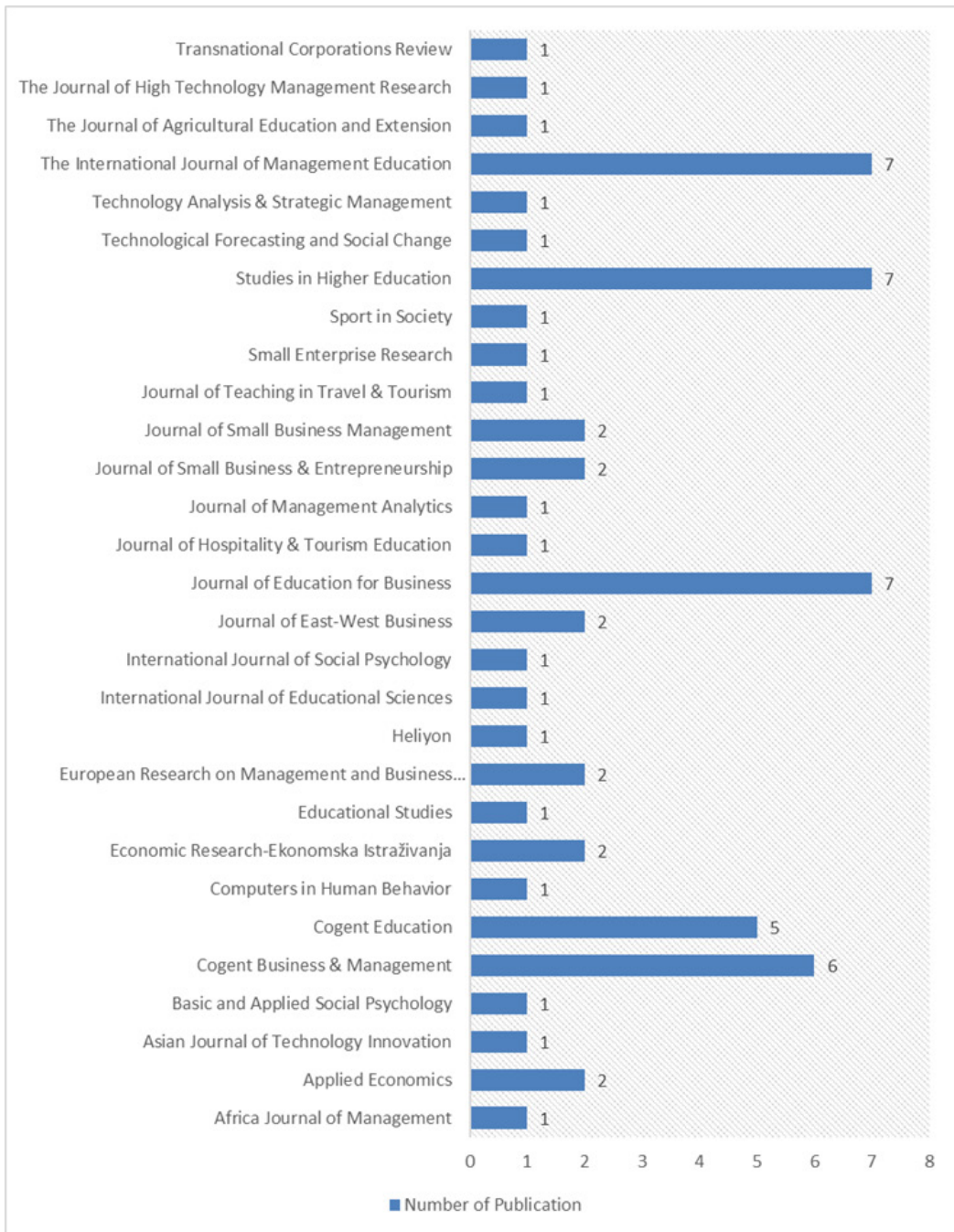


Figure 2. Number of publications and the journal titles



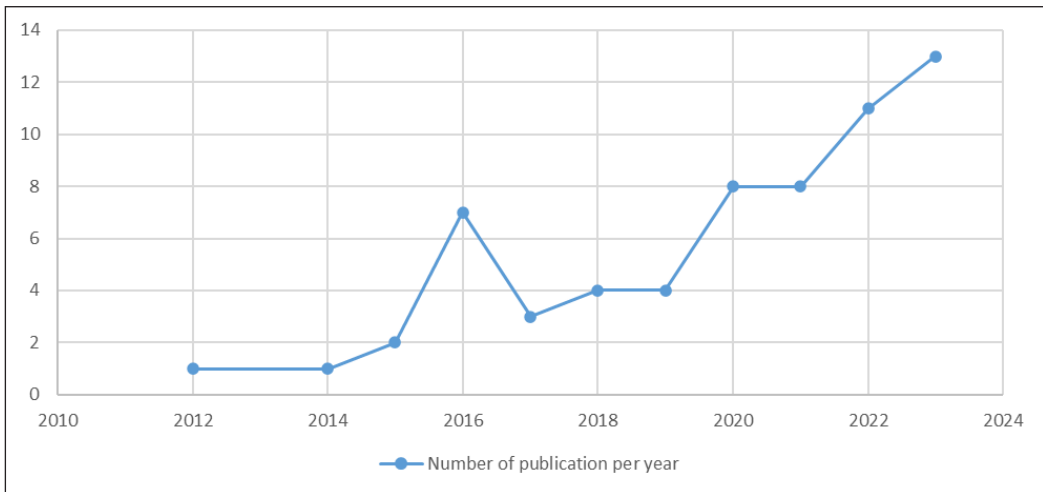


Figure 3. Annual distribution of the included articles

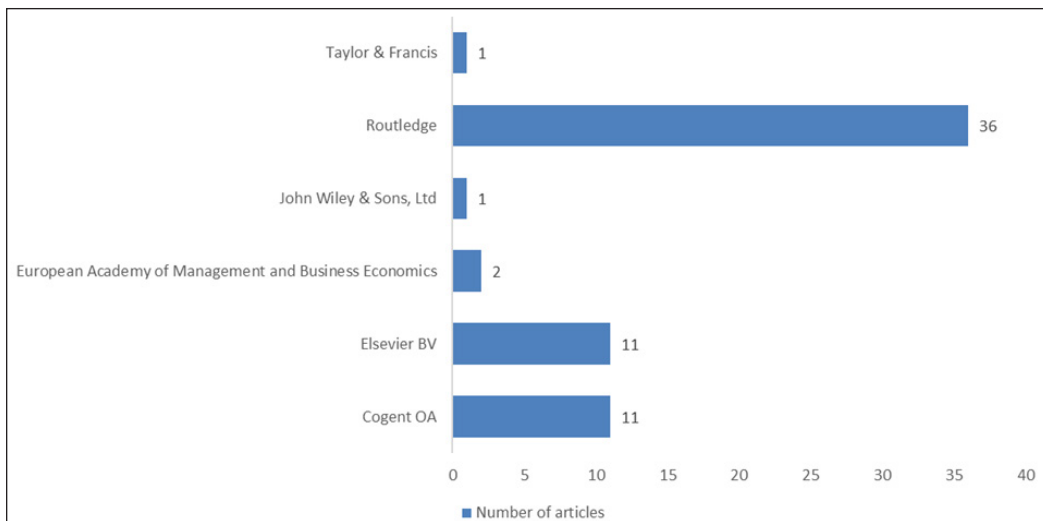


Figure 4. Number of publications and the publisher

& Sons (1 article), and Taylor & Francis (1 article).

Our study also examines the factors that contribute to students' entrepreneurial intentions, as illustrated in Figure 5 and Table 3. Qualitative analysis of the 62 articles using NVivo 12 reveals that several additional factors influence the role of

entrepreneurship education in fostering students' entrepreneurial intentions. Numerous terms describe these contributing factors, which we have summarized into four key dimensions: personal traits, entrepreneurship education, environmental support, and entrepreneurial skills.

Table 3  
*Antecedent factors influencing students' entrepreneurial intentions*

Dimension	Sub-Dimension	Factors	Sources
Education	Education	Entrepreneurship Education	Maresch et al. (2016), Anwar et al. (2023), Zhuang & Sun (2023), Q. D. Nguyen & Nguyen (2023)
		Lecturer's competency	Iwu et al. (2021), Ismail (2022)
		Prior learning experiences	Bonesso et al. (2018)
		Entrepreneurial Mentoring	Baluku et al. (2021)
Personal		Entrepreneurship workshop	Lara-Bocanegra et al. (2022)
		Experiential learning	Taneja et al. (2023)
	Self-efficacy	Perceived behavioral control	Maresch et al. (2016), Tseng et al. (2022), Sancho et al. (2020), C. Q. Nguyen et al. (2022), Ferri et al. (2023)
		Entrepreneurial self-efficacy	Uysal et al. (2022), Nowiński et al. (2019), Anwar, Thoudam, et al. (2022), Al-Jubari et al. (2023), Kumar et al. (2023), Kisubi et al. (2021)
		Perceived feasibility	Lara-Bocanegra et al. (2022)
	Motivation	Entrepreneurial Motivation	Anwar et al. (2023), Martínez-Cañas et al. (2023), Anwar, Alalyani, et al. (2022)
		Financial motivation	Barba-Sánchez & Atienza-Sahuquillo (2018)
		Pull driving	Martínez-Cañas et al. (2023)
		Need for independence	Barba-Sánchez & Atienza-Sahuquillo (2018)
	Attitude	Perceived desirability	Lara-Bocanegra et al. (2022)
	Entrepreneurship Attitude	Maresch et al. (2016), Tseng et al. (2022), Jena (2020), Ince et al. (2023), Sancho et al. (2020), C. Q. Nguyen et al. (2022), Ferri et al. (2023)	
	Entrepreneurial orientation	Anwar, Alalyani, et al. (2022)	
	Perceived risk	Martínez-Cañas et al. (2023)	
	Opportunity recognition	Martínez-Cañas et al. (2023), Zhuang and Sun (2023), Anwar, Thoudam, et al. (2022)	
	Personal Initiative	Solesvik (2017)	
	Self-esteem	Chen et al. (2016)	
Passion	Entrepreneurial Passion	Anwar et al. (2023), Karimi (2020), Neneh (2022)	
Mindset	Entrepreneurial mindset	Cui & Bell (2022), Michelle & Tendai (2016), Mukhtar et al. (2021)	
Personality	Entrepreneurial personality	-	

Table 3 (continue)

Dimension	Sub-Dimension	Factors	Sources
Environmental Support	Psychology	Personality traits	Pouratashi (2015), Jang et al. (2019), Fragooso et al. (2020), Najafabadi et al. (2016)
		Big-five personality	Bazkiaei et al. (2020)
		Entrepreneurial identity	Lheureux & Auzoult (2017)
	Subjective norms	Psychological Capital	Baluku et al. (2021)
		Subjective norms	Tseng et al. (2022), C. Q. Nguyen et al. (2022), Karimi (2020), Chukwuma-Nwuba (2018), Mei et al. (2016)
	Family	Entrepreneurial environment	Jena (2020), Ao & Liu (2014), Kusumojanto et al. (2021)
		Institutional environment	Zhuang & Sun (2023)
		Support system	Misoska et al. (2016)
		Push driving	Martínez-Cañas et al. (2023)
		Autonomy support	Puerta-Sierra & Puente-Díaz (2023)
Competencies	Peer	Family business experiences	Uysal et al. (2022)
		Family background	Herman & Stefanescu (2017)
	Culture & Climate	Family economic education	Suratno et al. (2021)
		Peer groups	Suratno et al. (2021)
	Competencies	Cultural value	Chukwuma-Nwuba (2018)
		Business climate	Misoska et al. (2016)
		Entrepreneurial culture	Mukhtar et al. (2021)
		Economic literacy	Suratno et al. (2021)
		Entrepreneurial capacity	Q. D. Nguyen & Nguyen (2023), Nuseir et al. (2020)
		Entrepreneurial skill	Ferri et al. (2023), Michelle & Tendai (2016), Najafabadi et al. (2016)
Entrepreneurial knowledge	Innovativeness	Maheshwari et al. (2023)	
	Emotional, social, and cognitive competency	Bonesso et al. (2018), Velástegui & Chacón (2021)	
	Entrepreneurial knowledge	Wibowo, Narmaditya, Saptono, et al. (2023)	

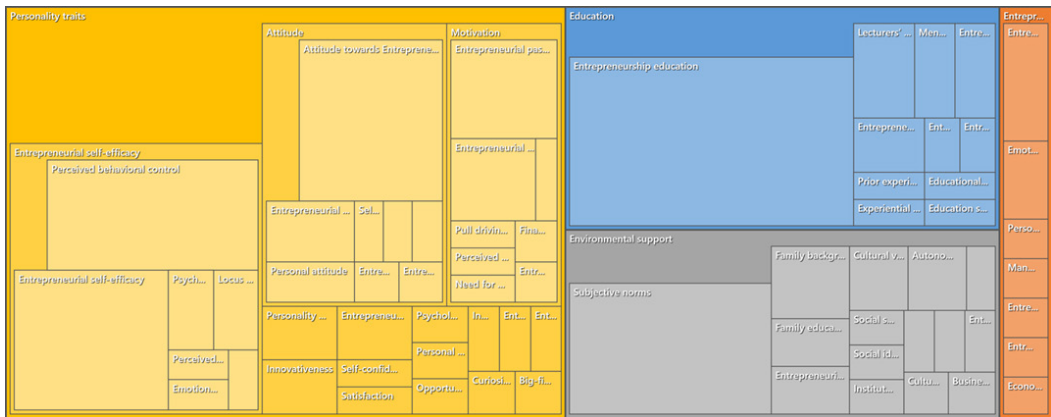


Figure 5. Categorization of antecedent factors in fostering students' entrepreneurial intentions

The 62 articles highlight the significant role of personal traits in the relationship between entrepreneurship education and students' entrepreneurial intentions. This dimension includes factors such as attitude, the Big Five personality traits, curiosity, entrepreneurial mindset, entrepreneurial personality, entrepreneurial self-efficacy, innovative cognitive style, motivation, personality traits, and psychological characteristics. These factors greatly contribute to enhancing the role of entrepreneurship education in increasing students' entrepreneurial intentions.

Meanwhile, the dimension of environmental support also plays an important role in the relationship between entrepreneurship education and entrepreneurial intentions. Environmental support factors in this study include subjective norms, family background, family education, entrepreneurial culture, cultural values, social support, social identity, institutional environments, autonomy support, cultural experiences,

business climate, and support systems. Lastly, the dimension of entrepreneurial skills encompasses entrepreneurial capacity, emotional competency, personal capacity, management capacity, entrepreneurial skills, entrepreneurial knowledge, and economic literacy.

**DISCUSSIONS**

Thematic analysis was conducted to ascertain the research objectives and conclusions of the included publications. To evaluate the primary research aims, we conducted a thorough screening of factors influencing entrepreneurial intentions across 62 full-paper articles using NVivo 12 coding analysis. During this phase, numerous antecedent factors affecting entrepreneurial intentions were identified under various terminologies. Subsequently, we performed a contextual analysis of antecedent factors influencing entrepreneurial intentions among students. The study findings reveal that students' entrepreneurial intentions are influenced by four critical dimensions:

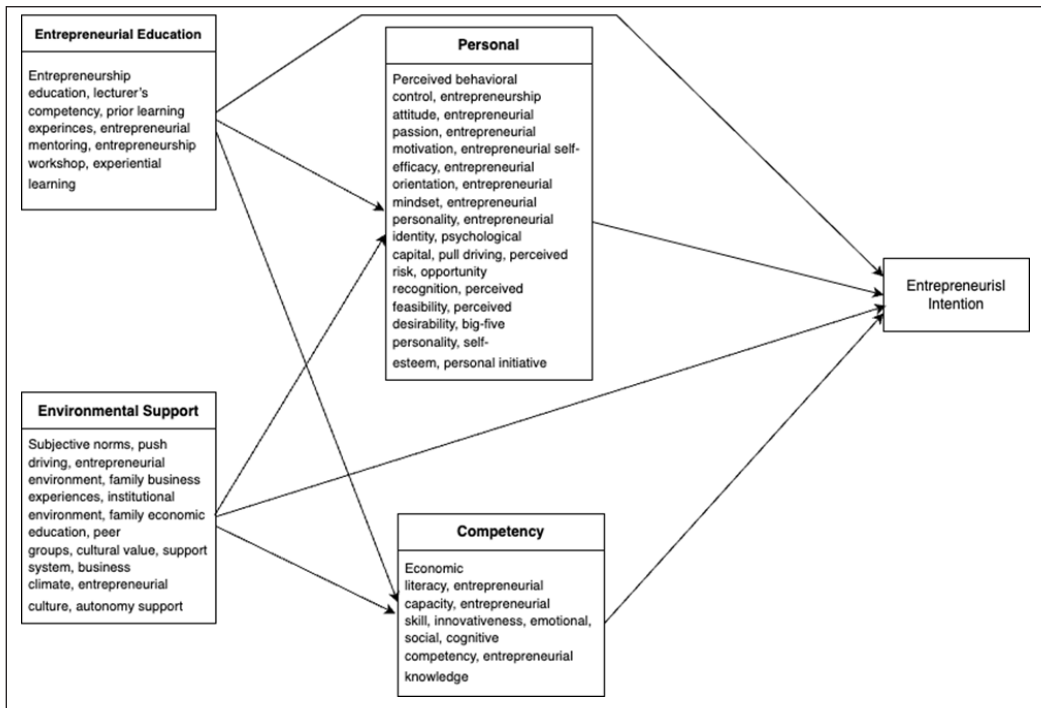


Figure 6. Relationships among dimensions of antecedents to entrepreneurial intentions

(1) entrepreneurship education dimension, (2) personal dimension, (3) environmental support dimension, and (4) skill dimension (Figure 6).

### Entrepreneurial Education Dimensions

Entrepreneurship education plays a crucial role in enhancing entrepreneurial intentions among students. Several studies have highlighted the relationship between entrepreneurship education and entrepreneurial intentions. For instance, research by Anwar et al. (2023) indicates that entrepreneurship education has a positive impact on increasing entrepreneurial intentions. Additionally, Bazkiaei et al. (2020) demonstrated that entrepreneurship education has a significant

positive relationship with and influence on entrepreneurial intentions. Other studies also support similar findings, showing that entrepreneurship education directly enhances students' entrepreneurial intentions (Haddoud et al., 2022). Herman and Stefanescu (2017) underscore that business students perceive a higher effectiveness of entrepreneurship education and its greater positive influence on entrepreneurial intentions compared to engineering students.

This literature review identifies that entrepreneurship education encompasses entrepreneurial training, entrepreneurship workshops, entrepreneurial experiences, entrepreneurial activities, experiential learning, entrepreneurial mentoring, prior experiences, and educational experiences.

Numerous previous studies highlight the contribution of entrepreneurship education in fostering entrepreneurial intentions within educational institutions (Cui & Bell, 2022; Ferri et al., 2023). The quality of entrepreneurship education heavily depends on the quality of teaching delivered by teachers and lecturers. Previous studies reveal that perceptions of teacher competence show a moderate positive correlation with students' entrepreneurial intentions (Iwu et al., 2021). Additionally, various entrepreneurship programs, such as entrepreneurial mentoring (Baluku et al., 2021), entrepreneurship workshops (Lara-Bocanegra et al., 2022), and experiential learning-oriented entrepreneurship education (Taneja et al., 2023) also contribute to instilling entrepreneurial intentions among students.

Entrepreneurship education plays a crucial role in enhancing entrepreneurial intentions among students by equipping them with the necessary skills and knowledge to start and run businesses (Lara-Bocanegra et al., 2022; Maheshwari et al., 2023). Through structured curricula, students are taught fundamental entrepreneurship concepts such as identifying business opportunities, developing business plans, financial management, and marketing strategies. Entrepreneurship education programs often include real-life case studies, practical projects, and mentoring from successful entrepreneurs, all of which contribute to building students' confidence and capabilities in entrepreneurship. Research indicates that intensive entrepreneurship

education can enhance students' interest and readiness to enter the business world, providing them with a strong foundation to become successful entrepreneurs (Q. D. Nguyen & Nguyen, 2023).

### **Personal Dimensions**

The findings of this study indicate that one dimension predicting students' entrepreneurial intentions is the personal dimension. The personal dimension significantly reinforces students' entrepreneurial intentions, encompassing individual characteristics that influence an individual's intention to engage in entrepreneurship. In this study, the personal dimension includes attitude (Amofah et al., 2020; Baluku et al., 2021), Big-five personality traits (Bazkiaei et al., 2020), curiosity (Puerta-Sierra & Puente-Díaz, 2023), entrepreneurial mindset (Cui & Bell, 2022; Mukhtar et al., 2021), entrepreneurial personality (Maheshwari et al., 2023), entrepreneurial self-efficacy (Nuseir et al., 2020; Velástegui & Chacón, 2021), entrepreneurial self-typicality (Lheureux & Auzoult, 2017), innovative cognitive style (Mirjana et al., 2018), innovativeness (Maheshwari et al., 2023; Samydevan et al., 2021), motivation (Anwar et al., 2023; Anwar, Alalyani, et al., 2022; Barba-Sánchez & Atienza-Sahuquillo, 2018), personality traits (Fragoso et al., 2020; Pouratashi, 2015) and psychological characteristics (Najafabadi et al., 2016).

Personal characteristics are a primary factor motivating students to take the initial steps in starting a business (Fragoso et al.,



2020). For instance, entrepreneurial self-confidence instills in students the belief that they have the capability to overcome challenges and achieve entrepreneurial success (Nuseir et al., 2020; Velástegui & Chacón, 2021). Moreover, motivation also plays a key role in fostering entrepreneurial intentions among students, as these internal and external drives prompt them to take the initiative and action (Anwar et al., 2023; Martínez-Cañas et al., 2023). Internal motivation or pull factors (Martínez-Cañas et al., 2023), such as the desire for financial freedom (Barba-Sánchez & Atienza-Sahuquillo, 2018) and the aspiration for independence (Barba-Sánchez & Atienza-Sahuquillo, 2018), motivate students to diligently pursue entrepreneurial opportunities. Meanwhile, external motivation or push factors (Martínez-Cañas et al., 2023), such as social support (Neneh, 2022) and support systems (Misoska et al., 2016), along with opportunities offered through entrepreneurship education programs, further strengthen students' entrepreneurial intentions. When motivated, students are more likely to identify and respond to business opportunities, develop innovative ideas, and commit to running their businesses despite various obstacles. By developing these individual characteristics, students become better prepared and motivated to pursue entrepreneurial opportunities.

### **Environmental Support Dimension**

The role of entrepreneurship education can be maximized in enhancing students'

entrepreneurial intentions by optimizing the environmental support dimension. There are various factors within the environmental support dimension, but in this study, environmental support includes subjective norms (Arranz et al., 2019; Karimi, 2020), family background (Jena, 2020; Kisubi et al., 2021), family education (Kusumojanto et al., 2021; Suratno et al., 2021), entrepreneurial culture (Mukhtar et al., 2021), cultural values (Chukwuma-Nwuba, 2018), social support (Neneh, 2022), social identity (Lheureux & Auzoult, 2017), institutional environments (Zhuang & Sun, 2023), autonomy support (Puerta-Sierra & Puente-Díaz, 2023), cultural experiences (Bonesso et al., 2018), business climate (Misoska et al., 2016), and support systems (Misoska et al., 2016).

The environmental support dimension plays a crucial role in strengthening students' entrepreneurial intentions by providing an environment that supports and facilitates their development as future entrepreneurs. Support from family, friends, and the school community plays a crucial role in providing moral encouragement and necessary resources to start businesses (Karimi, 2020; Neneh, 2022). For example, supportive families may provide initial capital or business advice based on their own experiences (Uysal et al., 2022). Additionally, a conducive business climate characterized by easy access to information, entrepreneurship training, government support, and financial resources provides significant encouragement for students to view entrepreneurship as a viable and

attractive career option (Misoska et al., 2016). Furthermore, the presence of strong business networks and active entrepreneurial communities also provides inspiration and real-life examples for students, thereby boosting their confidence in taking initial steps toward entrepreneurship. Schools should create a positive business climate during the process of fostering students' entrepreneurial intentions through education.

Educational institutions offering entrepreneurship programs, workshops, and business competitions also significantly contribute to strengthening entrepreneurial intentions (Zhuang & Sun, 2023). Studies indicate that students who receive strong environmental support tend to be more confident in taking risks and more resilient in facing challenges (Ao & Liu, 2014). Additionally, teachers need to foster an entrepreneurial culture within the school environment. This entrepreneurial culture is crucial for fostering students' entrepreneurial intentions, as it creates an environment that encourages innovation, creativity, and risk-taking (Mukhtar et al., 2021). Implementation within schools can be achieved through various methods, such as integrating entrepreneurship curricula that include lessons on business management, financial management, and marketing strategies. Schools can also organize business incubation programs, startup competitions, and workshops featuring successful entrepreneurs as guest speakers to provide inspiration and practical knowledge. Establishing entrepreneurship clubs or communities within schools also provides

students with opportunities to collaborate, share ideas, and support each other in pursuing their business projects. All these elements create a conducive ecosystem for students to develop and implement their business ideas.

### **The Competency Dimension**

Relevant and practical skills can significantly enhance entrepreneurial intentions among students by providing them with confidence and tangible abilities to initiate and manage businesses. Therefore, various educational programs focusing on developing entrepreneurial skills, such as management, leadership, problem-solving, and creativity, are crucial. Based on a systematic literature review, skill dimensions that support the cultivation of entrepreneurial intentions among students include entrepreneurial capacity (Q. D. Nguyen & Nguyen, 2023), emotional competency (Velástegui & Chacón, 2021), in personal capacity (Arranz et al., 2019), management capacity (Arranz et al., 2019), entrepreneurial skill (Pouratashi, 2015), entrepreneurial knowledge (Wibowo, Narmaditya, Saptono, et al., 2023), and economic literacy (Suratno et al., 2021).

According to Q. D. Nguyen and Nguyen (2023), entrepreneurial capacity serves as a mediator in the relationship between entrepreneurship education and entrepreneurial intentions. Entrepreneurial capacity plays a crucial role in fostering entrepreneurial intentions among students as it encompasses the knowledge, skills, and attitudes needed to start and run businesses. This includes understanding

business management, market analysis skills, effective communication skills, and the ability to identify and exploit business opportunities. Strong entrepreneurial capacity also encourages students to be more innovative and creative in devising business solutions that add value to society. Schools should design suitable education programs and curricula to nurture and develop students' entrepreneurial capacity, preparing them for entrepreneurial intentions.

Another essential skill is emotional competency, which is vital for supporting the cultivation of entrepreneurial intentions among students. Emotional competency includes skills in emotional management, resilience, empathy, and adaptability to change. For instance, Velástegui and Chacón (2021) note that emotional competence is a significant factor in configuring students' entrepreneurial intentions and has a direct and positive relationship with cognitive antecedents such as entrepreneurial attitudes and self-efficacy. Emotional competency helps students overcome cognitive biases that can hinder recognizing business opportunities, overconfidence, and misplaced control (Padilla-Meléndez et al., 2014). It also helps students build strong interpersonal relationships, which are essential for establishing business networks and collaborations.

A study by Arranz et al. (2019) states that management skills and personal capacity play crucial roles in enhancing students' entrepreneurial intentions through school educational programs. Management skills, which include planning, organizing,

controlling, and leadership, provide students with practical skills necessary for effective business management. Meanwhile, personal capacity, which involves self-development, self-confidence, and perseverance, helps students become resilient and adaptive individuals. Entrepreneurship education that integrates management training and personal capacity development through various learning activities equips students with the necessary knowledge and skills to succeed. In this context, students gain theoretical insights and practical experience that strengthens their intentions to become entrepreneurs, feeling more prepared and confident in starting and managing their businesses. Therefore, educational institutions should consider mastering these competencies in curriculum development and learning in schools to better prepare students for the evolving demands of the modern workforce, ensuring they thrive in their future careers and contribute positively to a dynamic professional environment.

Entrepreneurship education plays a crucial role in shaping entrepreneurial intentions among students by providing them with the knowledge and skills necessary to start and manage a business. In addition, environmental support, such as from family, school, and community, is also very important in providing the motivation and resources needed to explore the world of entrepreneurship. Personal factors, including students' attitudes, beliefs, and personalities, also significantly shape entrepreneurial intentions. For example, a confident and resilient student is more likely to take risks

and persist in the face of challenges. Lastly, relevant competencies, such as identifying market opportunities, negotiation skills, and financial management, must be continuously developed through the entrepreneurship education curriculum. Strengthening all these aspects can strengthen students' entrepreneurial intentions, paving the way for them to become innovative and successful business leaders in the future.

## CONCLUSION

This study identifies and analyzes how entrepreneurial education interacts with other antecedent factors to influence students' entrepreneurial intentions. The findings indicate that the influence of entrepreneurial education on students' entrepreneurial intentions is supported by other factors, such as personal dimensions, environmental support, and skills. Moreover, this study reveals a rising trend in research on the role of entrepreneurial education in enhancing entrepreneurial intentions from 2012 to 2023. Finally, several papers included in this review reinforce the relationship between entrepreneurial education, personal dimensions, environmental support, skills, and entrepreneurial intentions. The formation of entrepreneurial intentions among students is influenced by a complex interplay of entrepreneurship education, environmental support, personal characteristics, and competence development.

In conclusion, the proposed contribution theory posits that students' entrepreneurial intention formation is a complex interplay of entrepreneurship education, environmental

support, personal factors, and competencies, all of which are interlinked through the frameworks of the EEM and TPB. These theories underscore the importance of a holistic approach to fostering entrepreneurial intentions among students, highlighting the need for integrated educational programs that impart knowledge, build competencies, and provide supportive environments. The study's findings assist scholars in future research to explore and understand antecedent factors that can strengthen students' entrepreneurial intentions. Also, future research should continue to explore these relationships to develop more effective educational programs and support systems that foster entrepreneurial intentions. The limitations of this study are influenced by the use of source platforms that only use two online catalogs. In fact, many other platforms can be studied, and different findings can be reported within the context of this study. Thus, future research should consider other online platforms for conducting SLR studies on entrepreneurial intentions.

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