

## **ANALYZE THE ROLE OF ENTREPRENEURSHIP EDUCATION IN ENCOURAGING ENTREPRENEURIAL INNOVATION**

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### **ABSTRACT**

Entrepreneurial innovation has emerged as a key driver of economic growth in numerous countries, particularly in the current era of globalization and digitalization. Education in entrepreneurship plays a vital role in equipping individuals with the necessary skills to innovate across various economic sectors, enabling them to effectively compete on a global scale. This study adopts a Systematic Literature Review (SLR) methodology, leading to the selection of 40 relevant articles for analysis. The research focuses on two primary questions: how does entrepreneurship education contribute to the development of innovative skills among entrepreneurs, and what are the essential components of entrepreneurship education that can enhance entrepreneurial innovation capabilities? The findings reveal that entrepreneurship education encompasses not only theoretical knowledge but also practical elements that are crucial in the innovation process. Additionally, social support from both family and educational institutions significantly impacts students' intentions to pursue entrepreneurship and innovation.

**Keywords:** Entrepreneurship; Education; Innovation

### **ABSTRAK**

Inovasi kewirausahaan telah muncul sebagai pendorong utama pertumbuhan ekonomi di banyak negara, terutama di era globalisasi dan digitalisasi saat ini. Pendidikan dalam kewirausahaan memainkan peran penting dalam membekali individu dengan keterampilan yang diperlukan untuk berinovasi di berbagai sektor ekonomi, memungkinkan mereka untuk bersaing secara efektif dalam skala global. Penelitian ini mengadopsi metodologi *Systematic Literature Review* (SLR), yang mengarah pada pemilihan 40 artikel yang relevan untuk dianalisis. Penelitian ini berfokus pada dua pertanyaan utama: bagaimana pendidikan kewirausahaan berkontribusi pada pengembangan keterampilan inovatif di kalangan pengusaha, dan apa komponen penting dari pendidikan kewirausahaan yang dapat meningkatkan kemampuan inovasi kewirausahaan?. Temuan tersebut mengungkapkan bahwa pendidikan kewirausahaan tidak hanya mencakup pengetahuan teoritis tetapi juga unsur-unsur praktis yang sangat

penting dalam proses inovasi. Selain itu, dukungan sosial dari keluarga dan lembaga pendidikan secara signifikan berdampak pada niat siswa untuk mengejar kewirausahaan dan inovasi.

**Keywords:** Kewirausahaan; Pendidikan; Inovasi

## INTRODUCTION

Entrepreneurial innovation has increasingly become a crucial element driving economic growth across various nations, particularly in today's globalized and digital landscape. Innovation extends beyond merely developing new products or services; it also involves refreshing processes, business models, and strategies in response to the dynamic market environment (Sujiono & Astuti, 2023). Education in entrepreneurship plays a significant role in equipping individuals to innovate within different economic sectors. Moreover, it fosters creativity and innovation while providing young entrepreneurs with the skills necessary to navigate global competition (Wardhani & Nastiti, 2023).

Globally, entrepreneurship education is recognized as a vital catalyst for innovation. Numerous studies demonstrate a strong correlation between entrepreneurship education programs and the generation of innovative ideas (Dinar et al., 2020). This field of study encompasses the content, methods, and practices aimed at developing the mindsets, attitudes, motivations, knowledge, skills, and experiences essential for entrepreneurship (Sumarni et al., 2018). Individuals are expected to identify business opportunities, launch ventures, and grow them to create value for themselves and others. Therefore, effective entrepreneurship education should not only prepare individuals to initiate businesses but also nurture the innovative skills required to tackle challenges in the constantly changing business landscape (Nuraeni, 2022).

One of the primary challenges facing entrepreneurship education is ensuring that educational programs effectively foster innovation. Many institutions still prioritize theoretical knowledge over practical experience, which is crucial for the innovation process. Entrepreneurship programs are offered in various formats, including specialized courses, training sessions, and student cooperatives that allow students to manage their own businesses. However, the level of innovation among young entrepreneurs in Indonesia remains relatively low compared to other Southeast Asian nations. According to the Global Innovation Index (2023), Indonesia's innovation level lags behind countries like Singapore, Malaysia, and Thailand, highlighting a disconnect between entrepreneurship education and its impact on innovation in the business sector.

The significance of entrepreneurship education in promoting innovation is supported by various theories, including Human Capital Theory. This theory posits that individuals with higher education and skills are generally better equipped to innovate and adapt to market shifts (A.Klasean, 2016). Based on this premise, entrepreneurship education is pivotal in enhancing an individual's capacity to generate, manage, and implement innovations in the business realm (Putri et al., 2024). Research indicates that a primary reason for the low innovation levels is the overly theoretical approach to entrepreneurship education, which fails to emphasize practical aspects relevant to the needs of a dynamic business environment. Furthermore, according to (Arwinda, 2023) limited access to innovative resources such as technology, capital, and ecosystem support poses additional challenges for young entrepreneurs seeking to innovate. This situation is further complicated by insufficient

collaboration among educational institutions, industry, and government in fostering a supportive entrepreneurial ecosystem.

Given this context, this study aims to analyze the role of entrepreneurship education in promoting entrepreneurial innovation. The focus will be on examining how contemporary teaching and learning methods in entrepreneurship influence young entrepreneurs' innovative capabilities, as well as identifying the factors that either facilitate or hinder innovation through entrepreneurship education. It is hoped that this study will contribute to the development of more innovative and relevant entrepreneurship education policies that address future business challenges.

## **METHODS**

This study uses the Systematic Literature Review (SLR) approach to analyze more deeply the existing literature. Systematic Literature Review is a structured method used to collect, disseminate, integrate, and summarize the results of previous research according to the research question or topic to be explained. (Nafsi & Octavia, 2024). This method was chosen because it uses a structured and transparent approach in assessing and integrating research results from various sources. So this approach allows for consistent and accountable reflection. (Burhan et al., 2024). This study aims to answer questions based on systematic literature observations in further analyzing the role of entrepreneurship education in shaping innovation. The following are Research Questions that will be studied further

Qr 1: How does entrepreneurship education play a role in developing innovative skills among entrepreneurs?

Qr 2: What are the main elements in entrepreneurship education that can improve entrepreneurial innovation capabilities?

### **Literature Search**

The literature search process is carried out through several stages to obtain relevant sources. After finding the questions to be discussed, the researcher needs to adjust the keywords to understand what is being researched. In this study, the researchers took the keywords, namely "Entrepreneurship and Innovation" and "Entrepreneurship Education Strategy". The database used by researchers to search for literature is only using Google Scholar. Google Scholar allows researchers to see citations from articles that have passed the study selection, so that it can make it easier for researchers to search for previous research.

### **Study Selection**

This stage is carried out to determine whether the data found meets the criteria for use in this study or not (Triandini et al., 2019). Studies selected for inclusion in this literature review must meet the following criteria:

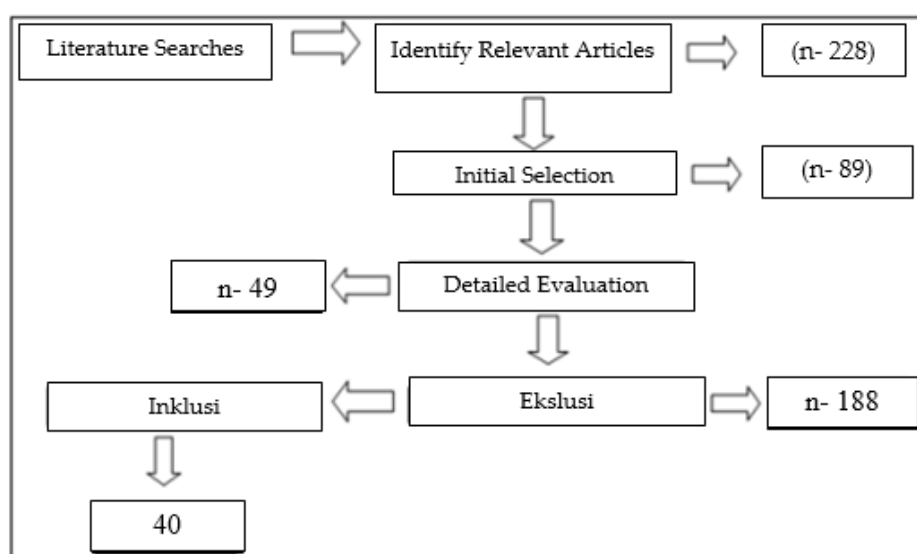
- a. Discusses the role of entrepreneurship education in encouraging entrepreneurial innovation.
- b. Published in a trusted scientific journal.
- c. Available in full text and relevant to the research topic.

Studies that are not related to innovation in digital library services or are only available in abstract form and do not meet research criteria will be hampered.

**Table 1. Determination of Inclusion and Exclusion Criteria**

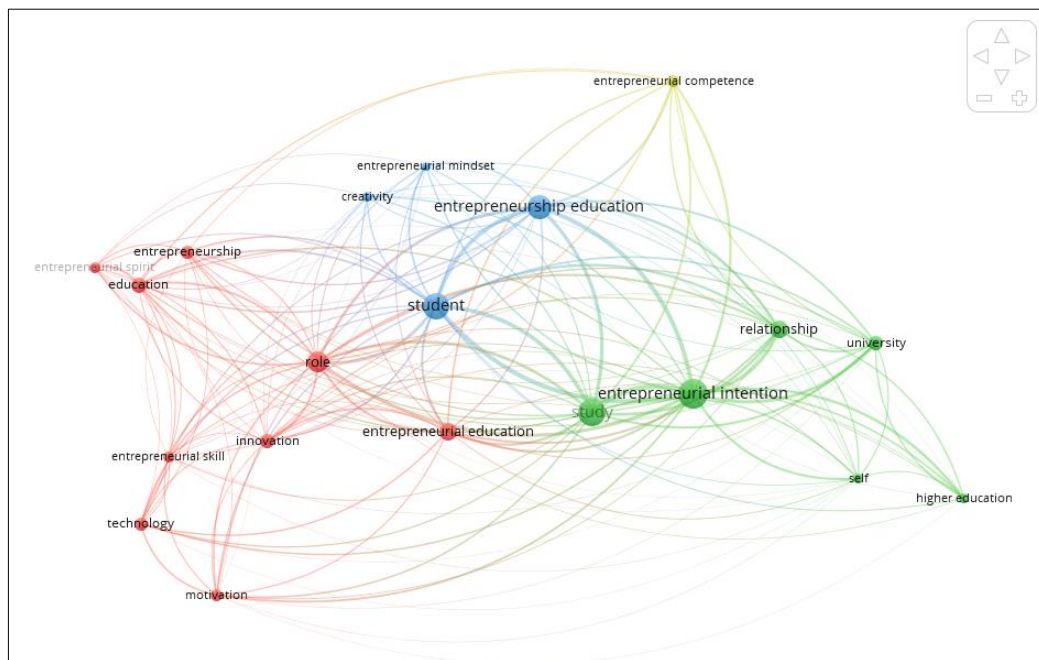
Inclusion	Exclusion
<ul style="list-style-type: none"> <li>English language journal</li> <li>Research journal</li> <li>2020-2024</li> <li>Explaining the role of entrepreneurship education</li> <li>Explain the entrepreneurship education strategy</li> <li>focus on Entrepreneurship education in Indonesia</li> <li>Journals published in <u>google scholar</u></li> </ul>	<ul style="list-style-type: none"> <li>Indonesian language journal</li> <li>Documents other than research articles</li> <li>2020-2024</li> <li>Discussion of articles not related to the role of entrepreneurship education</li> <li>Discussing other than entrepreneurship learning strategies</li> <li>Entrepreneurship education other than Indonesia</li> <li>Journals not published in <u>google scholar</u></li> </ul>

**Figure 1. Flowchart Related to Systematic Literature Review Steps**



From the table above, there are 40 articles that are relevant to this research. These articles were then analyzed by visualizing the bibliometric network using VosViewer, which illustrates the relationships between various articles regarding the role of entrepreneurship education and innovation. This visualization provides a clear picture of the authors' collaborations and citations among the analyzed studies.

**Figure 2. Visualizes the Bibliometric Network Using VosViewer**



## RESULTS

**Table 2. Search Results for Various Articles that Discuss the Role of Entrepreneurship Education in Building Innovative Skills in Entrepreneurs.**

No.	Title	Name and Year of Research	Results
1.	(Ihsan et al., 2023)	This research is qualitative. The data collection technique is by listening and recording important information. This is done through data analysis, namely reducing data, presenting data and drawing conclusions.	The results of this study emphasize the very important role of education to encourage entrepreneurship in the younger generation. This is intended so that the younger generation can face very rapid economic changes. An education must be able to provide entrepreneurial skills, a supportive environment, the stigma of failure that is eliminated and can also strengthen ethical values, social responsibility and integrated technology. This study is included in the Entrepreneur Spirit category.
2.	(Astiana et al., 2020)	This research can be conducted using descriptive methods and Structural Equation Modeling (SEM).	The results of this study are the perception of desire, tendency to act, feasibility and entrepreneurship education have quite an influence on students' intentions in entrepreneurship. Namely, its contribution is 61.12%. This study is included in Entrepreneur Intention.

3.	(Hassan et al., 2021)	This study collected data from 323 students using a convenience sampling method for quick access. The reliability and validity of the data can be assessed by confirmatory factor analysis while structural equation modeling (SEM) can test hypotheses and relationships between variables. In addition, it also ensures that the data obtained is relevant to the context of entrepreneurship in students.	The results of this study are that entrepreneurship education can improve orientation and motivation. This certainly contributes positively to the intention to become an entrepreneur. This study helps students in entrepreneurial projects and adds to the literature on entrepreneurial motivation and orientation in supporting new educational regulations.
4.	(Lv and friends, 2021)	This research method is conducted by analyzing the influence of entrepreneurship education on entrepreneurial intentions. The theory uses the theory of planned behavior. In this study, a conceptual model and hypothesis testing were developed that entrepreneurial competence has a role in mediation. This study used a questionnaire survey on students in the Yangtze River Delta in China.	This research is included in entrepreneur skills because the results of this study show that teaching in entrepreneurship, support for entrepreneurial practices and business plan competitions have a positive impact on entrepreneurial competence and entrepreneurship intentions.
5.	(Jiatong, Murad, Bajun, Tufail, & Mirza, 2021)	This study uses the structural equation model or SEM method and uses the help of AMOS software as a verification of the proposed hypothesis relationship. The survey was conducted on 365 university students in Jiangsu and Zhejiang Provinces, China.	This study is included in the category of entrepreneur skill because the results of this study indicate that entrepreneurship education has a significant positive impact on the mindset of students, the ability to be entrepreneurs, identify opportunities and make career choices. Education can improve entrepreneurial skills and motivation as previous studies have been conducted in China and western countries.
6.	(K. Anwar & Abdullah, 2021)	The research method used in this study is quantitative method. Namely by collecting data through online questionnaires on 120 academic and administrative staff at a Private University in Erbil with 103 respondents.	The results of this study indicate that empirical learning, cognitive load and self-efficacy can predict entrepreneurial intentions in a person. Each of the three components has a positive relationship to the entrepreneurial intentions of participants. This study is included in the category of entrepreneur intention.
7.	(Le & Loan, 2022)	This research method uses a quantitative method with SEM structural model analysis using	The results of this study indicate that the positive influence of entrepreneurial intention is seen among students in Vietnam. Competence in

		AMOS software and involving 432 students from Vietnam.	entrepreneurship, education and family support influence entrepreneurial decisions in students. This study is included in entrepreneurial intention.
8.	(Shahzad et al., 2021)	This study uses quantitative research methods. It is conducted by collecting data from 416 business students at 6 universities in Pakistan.	This study is included in entrepreneur intention. The results of this study indicate that motivation, peer support, family and institutions have a very positive effect on entrepreneurial intention.
9.	(Dabbous and Boustani, 2023)	This study uses quantitative methods to examine the impact of AI and also Entrepreneurship Education on entrepreneurial intentions in Lebanon.	The results of this study indicate that an individual controls his behavior affecting the relationship between expectations on AI solutions and entrepreneurship education on the intention to do entrepreneurship. Then also examine the risks and get support that will have an impact on the intention to do entrepreneurship. This study is included in the category of entrepreneur intention research.
10.	(Singh et al., 2023)	This study uses a quantitative method with 391 respondents.	This study is included in entrepreneur intention. The results of this study indicate that digital entrepreneurship training and education have a very positive effect on entrepreneurial competence and intention to do business.
11.	(Dana et al., 2021)	This study employed a quantitative research method with an applied research design. The statistical population consisted of 500 enterprises in the Esfahan Scientific and Industrial Town. Sampling was conducted using Cochran's formula, resulting in a sample size of 217 (n = 217). Data collection was carried out through a researcher-made questionnaire, and data analysis was performed using PLS3 software.	This study shows that entrepreneurial skills, learning, and intention have a positive impact on the development of technology-based companies, with motivation as a mediator. Entrepreneurial intention without motivation has no significant effect. The intention of motivated individuals contributes more to the growth of companies. Motivation is crucial for managers and policymakers in entrepreneurial education.
12.	(Anjum et al., 2021)	This study used a quantitative research design with a cross-sectional approach. The sample consisted of 330 business students from eight universities in Lahore and Islamabad, Pakistan, selected using a random stratified sampling technique. Data were collected	This study shows that entrepreneurial intention is influenced by perceived creativity and attitude toward entrepreneurship, which positively affect the intention to become an entrepreneur. University support also strengthens this relationship, where the stronger the perceived support, the

		through a two-part questionnaire, and hypothesis analysis was conducted using Smart-PLS software version 3.2.7.	higher the students' entrepreneurial intentions.
13.	(Gregorio et al., 2021)	This study employs a meta-analytic method, focusing on studies that utilize a pre-posttest design and control groups.	The results of the study show that Entrepreneurship Education (EE) has a small impact on increasing Entrepreneurial Intention (EI) and self-efficacy. Meta-regression indicates that the duration of intervention programs predicts a larger effect on EI. Other moderator variables are also discussed regarding their practical implications.
14.	(Garcia & Barac, 2020)	This study uses a case study method to evaluate an entrepreneurship training program in higher education, where students apply problem-solving methods in innovative projects based on sustainable development.	The results of this study show that entrepreneurial skills can be enhanced through problem-solving methods in innovative projects based on sustainable development. Student participation helps improve entrepreneurial competencies, such as creativity and teamwork skills. The increase in multidisciplinary teams also strengthens soft skills.
15.	(Shwede et al., 2023)	This study employed a survey approach by distributing pre-designed questionnaires to the targeted respondents. Data analysis was conducted using Structural Equation Modelling (SEM).	The results of this study show entrepreneurial intention that entrepreneurial education is crucial for fostering entrepreneurial innovation among international students in the UAE. Entrepreneurial education also strengthens the relationship between external factors and entrepreneurial innovation, but has no significant impact on the relationship between internal factors and innovation. This study provides insights for higher education institutions and entrepreneurship stakeholders to enhance innovation among international students.
16.	(Atrup et al., 2023)	This study employs a quantitative approach using Structural Equation Modeling (SEM) and Partial Least Square (PLS) analysis methods. Data was collected through an online questionnaire distributed to 100 university students in Subang Regency, Indonesia. This approach allows the researchers to statistically evaluate the	The results of this study indicate that entrepreneurial education and creativity have a positive and significant impact on students' entrepreneurial intention. By utilizing the principles of Effectuation Theory and Cognitive Flexibility Theory, students can develop the entrepreneurial attitude, adaptability, and creative thinking necessary to run their own businesses. Entrepreneurial education provides an understanding of business



		relationships between entrepreneurial education, creativity, and students' entrepreneurial intention, as well as to test the model developed based on Effectuation Theory and Cognitive Flexibility Theory.	opportunities, the utilization of existing resources, and ways to cope with uncertainty.
17.	(Miço & Cungu, 2023)	The research method employs an online survey to assess the entrepreneurial competencies of teachers in Albania, focusing on their development and related education. It examines how teachers acquire and implement these competencies in pre-university education.	The results of the study indicate that entrepreneurial education is essential for developing students' entrepreneurial skills. Teacher training is necessary for them to effectively guide students. The survey reveals that teachers in Albania need to master entrepreneurial competencies at all professional levels. These findings are also analyzed in light of European policies, such as the European Entrepreneurship Competence Framework (EntreComp), within the context of education in Albania.
18.	(Hassan et al., 2020)	The research method in this study employed a survey approach. Data were collected through carefully designed questionnaires distributed to 334 students with business and management backgrounds. To ensure the validity and reliability of the constructs used, the researchers conducted confirmatory factor analysis (CFA). Subsequently, analysis was performed using structural equation modeling (SEM) to test the hypotheses proposed in this study.	The results of this study indicate that opportunity recognition and self-efficacy have a significant positive impact on the entrepreneurial intention of university students in India. Additionally, entrepreneurship education plays a role in strengthening the relationship between self-efficacy and entrepreneurial intention. However, gender factors negatively influence the relationship between opportunity recognition and self-efficacy with entrepreneurial intention.
19.	(Shah et al., 2020)	The research method used a True Experimental Design with a post-test-only control group design. Data were collected from 196 valid respondents through questionnaires and analyzed using Structural Equation Modeling (SEM) with the Partial Least Square (PLS) method. This study examined the influence of attitude, self-efficacy, and subjective norms on entrepreneurial intention, with	The research results show that entrepreneurship education serves as a moderating variable that strengthens the relationship between attitude toward entrepreneurship and self-efficacy with entrepreneurial intentions, but weakens the influence of subjective norms. This indicates that entrepreneurship education has a positive impact on shaping an entrepreneurial mindset and boosting students' confidence to engage in entrepreneurial activities.

		entrepreneurship education as a moderating variable.	
20.	(Di & Resort, 2020)	The research method employs a quantitative approach with a sample of 200 randomly selected students. Data were collected through face-to-face interviews using self-administered questionnaires. Data analysis was conducted using factor analysis and regression analysis to test the hypotheses regarding the relationship between entrepreneurship education and entrepreneurship development.	The results indicate a strong relationship between various types of entrepreneurship education and entrepreneurship development. These findings are relevant for universities, policymakers, and related agencies in the policy-setting process for entrepreneurship development, considering that entrepreneurship education can influence individuals, groups, and society at large. This research also highlights the importance of a better understanding for donors and development partners regarding the role of quality entrepreneurship education in economic development.
21.	(Aly et al., 2021)	This research method employs translational research, which focuses on translating research findings into educational approaches, policies, as well as clinical tools and strategies.	The results of this study highlight the importance of entrepreneurial intention, which is influenced by emotional skills and resilience needed to face challenges in the entrepreneurial journey. The main emphasis of this research is on emotional capabilities that can strengthen entrepreneurs' intentions to succeed in the field of entrepreneurship.
22.	(Olotuase et al., 2023)	The research method used in this study is Structural Equation Modeling (SEM). This study collected data from 750 participants who had undergone at least one compulsory entrepreneurship module at the university level.	This research shows that entrepreneurship education significantly enhances entrepreneurial skills, but its effectiveness depends on aligning the curriculum with local contexts and industry needs. A contextualized curriculum not only teaches theory but also provides practical experiences, fostering innovation and responsiveness among graduates.
23.	(Agarwal et al., 2020)	This study used a mixed-method approach, involving qualitative interviews and quantitative data collection through questionnaires. The analysis was conducted using multiple regression and factor analysis.	This study demonstrates entrepreneurial spirit. The focus is on how Entrepreneurship Education (EE) shapes the Entrepreneurial Attitude (EA) of young people, which is related to affective, cognitive, and behavioral aspects. This attitude reflects their spirit, motivation, and mental readiness to engage in entrepreneurship, which includes creativity, innovation, and responsiveness to business opportunities.

24.	(Colombelli et al., 2022)	The research method used in this study is a quantitative approach. The researchers analyzed pre- and post-program data from 127 students who participated in the Challenge-Based Learning (CBL) program to measure their entrepreneurial skills, mindset, and intentions.	This research falls under entrepreneurial skills. The results show that the Challenge-Based Learning (CBL) program has a positive and significant effect on students' entrepreneurial skills, such as financial literacy, creativity, and planning. Although the aspects of mindset and entrepreneurial intention were also analyzed, the main focus of this research is on enhancing entrepreneurial skills.
25.	(Shahin et al., 2020)	The research method used in this study is a survey method with a quantitative approach. This study collected data through two surveys conducted with 193 secondary school female students aged 14-16 years who participated in the OzGirlsEntrepreneurship program.	This study demonstrates entrepreneurial intention. The findings indicate that the OzGirlsEntrepreneurship program significantly enhances the entrepreneurial intention among female secondary school students. This program is specifically designed for girls and focuses on developing essential skills in entrepreneurship, such as creative thinking, risk-taking, problem-solving, and leadership.
26.	(Wang et al., 2023)	The method used in this study is a structural equation model to test data from 757 valid samples collected through online questionnaires from students at several universities in Guangxi, China.	The results of this study refer to the category of entrepreneurship intentions. Entrepreneurship education has a positive and significant impact on entrepreneurial intentions. In addition, entrepreneurial self-efficacy plays a full mediation role in the relationship. On the other hand, this journal also explains about psychological capital which functions as a moderating factor, which is useful for increasing the effect of entrepreneurial self-efficacy on entrepreneurial intentions.
27.	(Bell & Bell, 2023)	The method used in this research is a literature study and conceptual discussion regarding the impact of generative artificial intelligence on entrepreneurship education.	The results of this study refer to the category of entrepreneurship intentions. Entrepreneurship education needs to adapt to developments and generative artificial intelligence, such as ChatGPT to prepare students to face various entrepreneurial opportunities in the future. With technology, creativity and decision-making can be increased and can help an entrepreneur access better information.
28.	(Dabbous & Boustani, 2023)	The method used in this study is structural equation modeling (SEM) involving 223 business students in Lebanon.	The results of this study refer to the category of entrepreneurship intentions. In the results of the study, it is explained that entrepreneurship education and the development of artificial intelligence (AI)

			have a significant influence on entrepreneurial intentions. This study identified that perceived behavioral control acts as a full mediator in the relationship between performance expectations of AI solutions and entrepreneurship education with entrepreneurial intentions.
29.	(Negeri et al., 2023)	The method used in this study is a quantitative method with data collection through surveys and distributing questionnaires to SME owners & job sector leaders in the Guji region, Ethiopia.	The results of this study refer to the category of entrepreneurship skills. It discusses the impact of entrepreneurial skills and entrepreneurial motivation on the performance of SME businesses in Ethiopia. Three findings from this journal, first related to entrepreneurial skills (entrepreneur skills) which have a significant influence on business success. Second, leadership acts as a facilitator. Third, factors (entrepreneurship skills, motivation and strategic leadership) work together collaboratively and strengthen each other to improve business performance.
30.	(Aripin et al., 2024)	The method used in this study is library research with a qualitative approach. The focus of this journal is on theoretical analysis to understand the concept of entrepreneurship.	The results of this study refer to the category of entrepreneur spirit. The results state that entrepreneurial spirit plays a major role in the success of individuals in building and developing businesses. Individuals who have an entrepreneurial spirit tend to be more active and innovative in creating business opportunities, which will ultimately contribute to reducing unemployment and poverty in Indonesia.
31.	(Pradikto & Economic, 2024)	This study uses a qualitative approach in the form of a case study conducted at PGRI Wiranegara University. The main methods used are interviews and observations.	The results of this study indicate that extracurricular activities have a very important role because they influence the formation of entrepreneurial mindsets. This study is included in the category of entrepreneur spirit.
32.	(Setiawan & Basri, 2023)	To test the entrepreneurship education instrument, this study uses a 2-stage method, namely content and construct validity.	This study is included in the category of entrepreneur spirit because this study shows that the curriculum is present and can be measured through 2 indicators, namely participation and enjoyment in entrepreneurship courses. Then extracurricular activities are measured by 5 indicators. So that the instruments obtained can be used as an evaluation of entrepreneurship education.

33.	(Huang et al., 2021)	This research method uses the SEM model. Respondents were obtained from 384 students in 22 universities.	The results of this study are a positive relationship between company policy and entrepreneurial intention, entrepreneurial policy and entrepreneurial practice, entrepreneurial spirit and practice with entrepreneurial intention. This study is included in the category of entrepreneur intention.
34.	(Dwi et al., 2024)	This research method is a qualitative ethnographic case study.	This research is included in the category of entrepreneur spirit. The results of the study suggest that in multicultural Islamic education at the Bahrul Maghfiroh Islamic boarding school, the spirit of entrepreneurship has an important role. The spirit of entrepreneurship can create an inclusive and conducive learning environment, encourage creativity and innovation, and support the growth of entrepreneurship in Islamic boarding schools.
35.	(Yahya et al., 2023)	The research method used in this article is a quantitative method, namely by taking samples from 32 students at Vocational High Schools.	This study is included in the category of entrepreneur intention because the results explain the influence of innovation, entrepreneurship education and entrepreneurial intention on entrepreneurial motivation in students at Vocational High Schools.
36.	(MartínezGrogrio et al., 2021)	This research was developed within the framework of Shapero's Entrepreneurial Event model. This model considers perceptions of desirability and perceptions of feasibility as antecedents of entrepreneurial intention.	This study also noted that the duration of the program has an effect on increasing intentions. This study is included in the category of entrepreneurship intent because it focuses on students' entrepreneurial intentions.
37.	(Mukhtar et al., 2021)	This study uses structural equation modeling adopted to gain a detailed understanding of the influences between variables. This study involved approximately 376 students enrolled in the course. entrepreneurship	This study is included in the category of entrepreneurship intention because it focuses on students' intentions to become entrepreneurs and how the campus environment influences the decision. These results support previous studies that state that entrepreneurial culture and education influence students' mindsets and intentions in starting a business.
38.	(Lv, Chen, Sha, Wang, An, Chen, et al., 2021)	This study proposes a hypothetical model of the relationship between entrepreneurial competence and entrepreneurial intention in university entrepreneurship	This study also found that entrepreneurial competence has a mediating role in strengthening the influence of entrepreneurship education on entrepreneurial intentions. Therefore, this study is included in the category of

	education. Using a questionnaire survey of students with practical experience in the Yangtze River Delta in China, the bootstrap method in the SPSS macro program process software verifies the hypothesis.	entrepreneurship intent, because its focus is on the influence of entrepreneurship education on students' intentions or intentions in entrepreneurship.
39. (Lynch, 2021)	This research applied a case study methodology and was conducted at a Norwegian university during a master's level course in Corporate Entrepreneurship in 2015. The course had an intensive format and lasted for five weeks.	This journal can be categorized in Entrepreneurship Skill, because it focuses on the development of entrepreneurial skills that are very much needed in the industrial world, especially for engineers and scientists. This study highlights the importance of technical skills accompanied by interpersonal skills and soft skills in supporting success in a dynamic work environment.
40. (Polgan et al., 2023)	In this study, an in-depth analysis of the role of information technology in driving innovation and growth of entrepreneurial businesses will be conducted. This study will involve collecting secondary data from various sources. The focus of this study is primarily qualitative. Methods for collecting data include paying attention to detail when viewing and recording data, and then using analytical techniques such as data reduction, visualization, and inference to draw conclusions.	This research falls into the Entrepreneurship Skill category, because its main focus is on how entrepreneurs can utilize technical and technological skills to manage businesses and drive business growth.

## DISCUSSION

### Entrepreneurship Spirit

Research by Singh et al. (2023) demonstrates that the entrepreneurial spirit is significantly influenced by various factors that affect students' intentions to engage in entrepreneurship. One crucial element is social support from family and peers, which often acts as a catalyst for developing an entrepreneurial mindset. Such support not only enhances individuals' confidence but also motivates them to take the initial steps toward entrepreneurship. In this context, a supportive social environment is essential for fostering the courage and determination needed to pursue business ideas. Additionally, the importance of risk-taking is highlighted as a key aspect of the entrepreneurial spirit. A positive attitude toward risk encourages individuals to step outside their comfort zones and explore new opportunities. Findings indicate that those who embrace risk are more likely to make bold

decisions when launching new ventures, aligning with the essence of entrepreneurial spirit, which involves confronting uncertainty and challenges in the business landscape.

Ihsan et al. (2023) show that the entrepreneurial spirit is vital for the younger generation's ability to adapt and succeed. This spirit encompasses various skills, such as recognizing opportunities, taking risks, and transforming ideas into innovations that benefit society. The authors argue that education plays a crucial role in shaping an entrepreneurial character by providing essential skills and fostering an environment that supports creativity and innovation. Furthermore, entrepreneurship-focused education instills a willingness to take initiative, face failures, and persist in driving change. Shwede et al. (2023) explore the relationship between education and the factors influencing it among international students, revealing that entrepreneurship education enhances students' understanding of their entrepreneurial orientation. This connection underscores how entrepreneurship education shapes students' entrepreneurial mindset by recognizing external factors that impact the entrepreneurial ecosystem.

Agarwal et al. (2020) demonstrate that Entrepreneurship Education (EE) plays a significant role in shaping the Entrepreneurial Attitude (EA) of young individuals in Uttar Pradesh, India. This entrepreneurial attitude includes affective, cognitive, and behavioral dimensions. The study finds that all components of EE awareness, entrepreneurial knowledge, and practical skills positively influence this attitude. Thus, EE not only enhances technical skills but also shapes the emotional and behavioral perspectives of youth, motivating them to think creatively, innovate, and pursue entrepreneurship. Research by (Pradikto & Economic, 2024) highlights the impact of extracurricular activities on shaping students' mindsets regarding entrepreneurship. This study also investigates the gap between students' entrepreneurial spirit and their ideal aspirations as defined by their university, suggesting that universities should prioritize experiential education. Conducted at Universitas PGRI Wiranegara, this research analyzes student motivation and attitudes toward entrepreneurship, contributing to the development of an entrepreneurial spirit among students.

Dwi et al. (2024) discuss how the entrepreneurial spirit fosters multicultural Islamic education, emphasizing that this is not solely linked to financial resources. To stimulate creativity and innovation among students, cultivating an entrepreneurial spirit is crucial for creating an inclusive and supportive learning environment. This research focuses on how entrepreneurial values, such as innovation and social collaboration, contribute to developing a conducive educational atmosphere. Aripin et al. (2024) highlight the importance of entrepreneurship in addressing unemployment and poverty in Indonesia through systematic exploration. Entrepreneurship is portrayed as a process of creating value, fostering innovation, and managing time effectively. The study also addresses challenges such as income uncertainty, capital loss, and stagnant quality of life, emphasizing that entrepreneurship requires dedication and effort to succeed in a dynamic business environment.

Setiawan & Basri (2023) provide a framework for assessing the curriculum based on two main indicators: participation and enjoyment in entrepreneurship. This framework includes indicators related to extracurricular activities, such as entrepreneurial community, entrepreneurial spirit, enthusiasm for entrepreneurship, entrepreneurship seminars, and entrepreneurial projects. This assessment serves as a basis for evaluating entrepreneurship education at the university level, focusing on how educational elements can foster enthusiasm for entrepreneurship. Research by Jiatong, Murad, Bajun, Tufail, Mirza, et al. (2021) indicates that entrepreneurship education positively influences students' mindsets and intentions to

pursue entrepreneurship. The study highlights the significant roles of creativity and entrepreneurial self-efficacy in shaping students' entrepreneurial intentions. By exploring the interconnections between education, mindset, and creativity, the results indicate that an entrepreneurial mindset has a more substantial impact on entrepreneurial intention than formal education alone. This investigation examines how both educational and personal factors influence students' aspirations to become entrepreneurs.

### **Enterpreneurship Intentional**

The analysis results from Le & Loan (2022) research titled "Role of Entrepreneurial Competence, Entrepreneurial Education, Family Support and Entrepreneurship" Policy in Forming, Entrepreneurial Intention, and Entrepreneurial Decision found that entrepreneurial competence, entrepreneurial education, and family support positively influence entrepreneurial intention. The findings indicate that students with a good level of competence, relevant education, and family support tend to have a higher intention to start a business. Interestingly, this research also notes that entrepreneurial competence does not directly affect entrepreneurial intention but rather influences entrepreneurial decisions. This may be due to individuals with high competence feeling confident enough to take immediate action without going through a more in-depth intention development process. Additionally, family support has proven to be a key factor in shaping entrepreneurial intention. Students who receive both material and emotional support from their families are more likely to develop entrepreneurial intentions. This underscores the importance of the family environment in encouraging entrepreneurial intention.

In addition, the research Shahzad et al. (2021) titled "What Factors Affect the Entrepreneurial Intention to Start-Ups? The Role of Entrepreneurial Skills, Propensity to Take Risks, And Innovativeness in Open Business Models" shows that entrepreneurial skills, the willingness to take risks, and innovation are factors that influence entrepreneurial intention. Individual characteristics, such as gender and education, also play a role in affecting entrepreneurial intention. For example, male students tend to receive more support from their families, while female students rely more on self-motivation and support from their peers.

In the journal entitled "Individual entrepreneurial orientation, entrepreneurship education and entrepreneurial intention: The mediating role of entrepreneurial motivations" (Hassan et al., 2021) it shows that entrepreneurial intention is the main predictor in forming a new business, where education plays an important role in forming intentions. This study shows that individual entrepreneurial orientation, such as being proactive, innovative, and daring to take risks, will significantly affect entrepreneurial intention when accompanied by strong motivation. Therefore, the association between education and entrepreneurship and individual orientation is an important milestone in encouraging the younger generation to choose the entrepreneurial path as their future career.

In the next study entitled "Entrepreneurial Intention: Creativity, Entrepreneurship, and University Support" (Anjum et al., 2021) it is explained that intention is one of the main factors in determining a choice between a person will take real steps towards establishing a business or vice versa. In this case, individual creativity and support from the surrounding environment such as universities have a significant influence on the decision to become an entrepreneur. When a student feel supported by the university, such as a business incubation program and entrepreneurship training, their intention to enter the business world will increase. In addition, the creativity possessed by an individual will strengthen the individual's belief in facing challenges in entrepreneurship. With this encouragement, the intention to



become an entrepreneur will be stronger, and direct individuals to dare to dive in and contribute to economic development.

Entrepreneurship discussed in the journal entitled “Effect of entrepreneurship education on entrepreneurship intention and related outcomes educational contexts: a meta-analysis” (Gregorio et al., 2021) focuses on entrepreneurial intentions influenced by the presence of entrepreneurship education in an academic environment. By providing an understanding of the entrepreneurial process and the skills needed, education is considered capable of increasing the interest of individuals in becoming entrepreneurs. The existence of high self-confidence, and the results of entrepreneurship training can provide individuals with confidence that they can face the challenges of entrepreneurship. Therefore, this approach not only encourages an intention to start a business but also strengthens the individual's foundation in pursuing entrepreneurial opportunities.

The article entitled “The Effect of Entrepreneurship Education and Creativity on Students' Entrepreneurial Intention: The Perspective of Effectuation and Cognitive Flexibility Theory” (Atrup et al., 2023) explains the positive impacts that will be obtained from entrepreneurship education and also the development of creativity on students' entrepreneurial intentions. The research is based on the theory of effectuation and the theory of cognitive flexibility. From these two theories, it can be analyzed that in running a business, students can foster an entrepreneurial attitude, the ability to adapt, and think creatively. The article is included in the category of intentional entrepreneurship because it focuses on the influence of education and creativity to shape students' entrepreneurial intentions and intentions. Of course, what is relevant to its purpose is to encourage innovation through entrepreneurship.

The article entitled “Entrepreneurship Education Increases Entrepreneurial Intention Among Undergraduate Students” (Sukri, A., Rizka, MA, Purwanti, E., Ramdiah, S., & Lukitasari, 2022) discusses the role of entrepreneurship education in increasing entrepreneurial intentions among business students in Indonesia. The results of the analysis of the article show that 240 respondents showed that perceptions of desirability, feasibility, propensity to act and entrepreneurship education can influence entrepreneurial intentions by 61.12%. The article emphasizes that higher education is very important to motivate students to become entrepreneurs so that they can improve the national economy. The article falls into the category of intentional entrepreneurship because it focuses on the influence of education on entrepreneurial intentions.

The analysis conducted by Le & Loan (2022) indicates that entrepreneurial competence, entrepreneurial education, and family support significantly influence entrepreneurial intention. Their findings suggest that students who possess a high level of competence, relevant educational background, and supportive family environments are more likely to express a strong intention to start their own businesses. Interestingly, the study notes that while entrepreneurial competence does not directly impact entrepreneurial intention, it does affect the decisions made by individuals. This may be attributed to the confidence that highly competent individuals feel, enabling them to take immediate action without needing to undergo a prolonged intention development process. Furthermore, family support has emerged as a crucial factor in shaping entrepreneurial intention, with students receiving both material and emotional backing from their families being more inclined to develop these intentions. This highlights the vital role of the family environment in fostering entrepreneurial aspirations.

Additionally, research by Shahzad et al. (2021) emphasizes the importance of entrepreneurial skills, risk-taking propensity, and innovation as key factors influencing entrepreneurial intention. Individual characteristics, including gender and educational background, also play a role in shaping these intentions. For instance, male students often receive more familial support, whereas female students tend to rely more on self-motivation and peer encouragement. Hassan et al. (2021) demonstrate that entrepreneurial intention serves as a primary predictor for establishing new businesses, with education playing a pivotal role in cultivating these intentions. The study reveals that individual entrepreneurial orientation characteristics such as proactivity, innovation, and willingness to take risks significantly enhances entrepreneurial intention, particularly when accompanied by strong motivation. Therefore, the connection between education, entrepreneurship, and individual orientation is a crucial factor in encouraging the younger generation to pursue entrepreneurship as a viable career path.

Moreover, Anjum et al. (2021) explain that intention is a fundamental factor in determining whether an individual will take concrete steps toward establishing a business. In this context, individual creativity and support from the surrounding environment, such as universities, have a substantial influence on the decision to become an entrepreneur. When students feel supported by their universities through initiatives like business incubation programs and entrepreneurship training, their intention to engage in the business world increases. Additionally, an individual's creativity enhances their confidence in addressing entrepreneurial challenges. With such encouragement, the intention to become an entrepreneur is strengthened, motivating individuals to actively contribute to economic development.

Gregorio et al. (2021) focus on how entrepreneurial intentions are influenced by the presence of entrepreneurship education within academic settings. By providing insights into the entrepreneurial process and the necessary skills, education is believed to enhance individuals' interest in becoming entrepreneurs. High self-confidence and the outcomes of entrepreneurship training equip individuals with the assurance needed to face the challenges of entrepreneurship. Thus, this approach not only fosters the intention to start a business but also solidifies the foundation for pursuing entrepreneurial opportunities. Research by Atrup et al. (2023) highlights the positive impacts of entrepreneurship education and creativity development on students' entrepreneurial intentions. Grounded in effectuation theory and cognitive flexibility theory, this research suggests that students can cultivate an entrepreneurial mindset, adaptability, and creative thinking while running a business. This study is categorized under entrepreneurial intention as it examines how education and creativity influence students' aspirations to innovate through entrepreneurship.

Astiana et al. (2020) discuss the role of entrepreneurship education in enhancing entrepreneurial intentions among business students in Indonesia. The analysis indicates that perceptions of desirability, feasibility, propensity to act, and entrepreneurship education collectively influence entrepreneurial intentions by a significant margin. The findings underscore the importance of higher education in motivating students to pursue entrepreneurship, thereby contributing to national economic improvement. This research falls within the realm of entrepreneurial intention as it emphasizes the influence of education on entrepreneurial aspirations.

Shah et al. (2020) analyze the moderating role of entrepreneurship education in shaping entrepreneurial intentions among students. Their findings reveal that factors such as attitude

toward entrepreneurship, subjective norms, and self-efficacy significantly influence the intention to start a business. The results indicate that entrepreneurship education enhances the relationship between attitude and entrepreneurial intention, as well as between self-efficacy and intention. Furthermore, it appears that entrepreneurship education mitigates the impact of social norms on entrepreneurial intention, suggesting that a supportive educational environment can bolster students' confidence to engage in entrepreneurship. This study provides valuable insights into the critical role of education in shaping entrepreneurial intentions, particularly relevant for developing entrepreneurship among the younger generation.

Another study by Hassan et al. (2020) emphasizes the significance of entrepreneurial intention among Indian university students. Utilizing structural equation modeling, the research explores how factors like opportunity recognition and entrepreneurial self-efficacy affect students' intentions to engage in entrepreneurial activities. The findings indicate that the ability to recognize business opportunities is a strong predictor of entrepreneurial intention, suggesting that students who can identify such opportunities are more likely to develop intentions to start their own ventures. Moreover, entrepreneurship education enhances the influence of self-efficacy on entrepreneurial intention, highlighting the importance of educational interventions in nurturing entrepreneurial mindsets.

Aly et al. (2021) point out that policies aimed at equipping entrepreneurs with technical skills often overlook the emotional challenges they face, which can adversely impact entrepreneurial intention. Many entrepreneurs experience frustration and diminished motivation due to these emotional challenges. This study emphasizes the need for further research focused on emotional aspects to bolster entrepreneurs' resilience. Providing emotional support through education and policy is expected to enhance entrepreneurial intention, enabling entrepreneurs to better navigate challenges and achieve success, ultimately contributing to economic development.

Research by Shahin et al. (2020) demonstrates that a STEM-based entrepreneurship program significantly increases the entrepreneurial intention among female secondary school students. Data collected from two surveys involving 193 female students aged 14-16 years reveal that the development of soft skills, such as creative thinking, risk-taking, problem-solving, and leadership, is crucial in shaping entrepreneurial attitudes. This program encourages participants to devise creative solutions to social problems using Internet of Things (IoT) technology with micro devices. The study underscores the importance of meaningful human connections, including positive role modeling and peer learning, as key factors in fostering entrepreneurial intention.

Wang et al. (2023) highlight that entrepreneurship education positively impacts students' entrepreneurial intentions, particularly through the mediation of self-efficacy. Psychological capital, including optimism and resilience, can strengthen this relationship, suggesting that students with high psychological capital are more likely to exhibit strong entrepreneurial intentions. Additionally, factors such as gender and family business experience tend to encourage higher entrepreneurial intentions among students. This study emphasizes the significance of entrepreneurship education, psychological factors, and family background in supporting students' entrepreneurial aspirations.

Research by Bell & Bell (2023) discusses the role of entrepreneurship education in the era of generative artificial intelligence, noting its potential impact on the teaching process. Tools like AI, including ChatGPT, can enhance creativity by generating valuable ideas, content, and analyses. However, the integration of this technology also presents challenges, particularly

concerning the authenticity of student work and academic integrity. Overall, the incorporation of AI in entrepreneurship education can strengthen entrepreneurial intentions, although it requires a thoughtful approach to address real challenges.

Dabbous & Boustani, (2023) explore how entrepreneurship education, coupled with digital advancements, significantly impacts entrepreneurial intentions, particularly in terms of perceived behavioral control. Their findings suggest that entrepreneurship education equips students with essential skills for starting businesses, while AI encourages a belief that technology can enhance business efficiency. This interplay is closely related to the concept of entrepreneurial intentions, as it influences students' motivation to pursue new business ventures.

Huang et al. (2021) examine the role of entrepreneurship policy in influencing college students' entrepreneurial intentions, highlighting the intermediary roles of entrepreneurial practice and entrepreneurial spirit. Their findings indicate that supportive policies can positively affect students' intentions to become entrepreneurs, with entrepreneurial practices serving as a mediator that strengthens the relationship between policy and intention. This study contributes to the understanding of entrepreneurial intention, focusing on how various components influence students' aspirations to become entrepreneurs.

Finally, research by Yahya et al. (2023) emphasizes the contributions of innovation and entrepreneurship education to entrepreneurial intention, with entrepreneurial motivation serving as an intervening variable among vocational high school students. The study reveals that both innovation and entrepreneurship education significantly influence students' entrepreneurial motivations, underscoring the importance of these factors in shaping students' intentions to pursue entrepreneurship. In another study, Anwar & Abdullah, (2021) investigate how experiential learning, influenced by social media, affects entrepreneurial intention. Their analysis demonstrates significant relationships between experiential learning, cognitive load, and self-efficacy with entrepreneurial intention, indicating that these factors collectively influence individuals' mindsets and intentions to start a business. This research highlights the effectiveness of social media as a tool for encouraging entrepreneurial intention.

(Mukhtar et al., 2021) explore the influence of entrepreneurship education and culture on students' entrepreneurial intentions, emphasizing the mediating role of entrepreneurial mindset. Their findings reveal that exposure to an entrepreneurial culture within the campus environment significantly impacts students' intentions to become entrepreneurs. Students immersed in such a culture are more open to new ideas and motivated to pursue entrepreneurial endeavors. This study reinforces the notion that both entrepreneurial culture and education are critical in shaping students' mindsets and intentions regarding entrepreneurship.

Gregorio et al. (2021) demonstrate that university entrepreneurship programs positively affect students' entrepreneurial intentions through a meta-analysis of various studies. Their findings indicate that these interventions significantly enhance students' entrepreneurial intentions and self-efficacy, although the effects may be modest. Notably, the duration of the programs also plays a role in increasing these intentions, highlighting the importance of sustained engagement in entrepreneurship education. Research by Lv, Chen, Sha, Wang, An, Chen, et al. (2021) shows that entrepreneurship education positively influences entrepreneurial intention through three key elements: effective teaching, participation in business plan competitions, and support for entrepreneurial practices. The study finds that entrepreneurial competence mediates the relationship between entrepreneurship education

and intention, further emphasizing the importance of educational interventions in fostering students' entrepreneurial aspirations

### **Entrepreneurship Skill**

The research (Singh et al., 2023) titled "Measuring the impact of digital entrepreneurship training On entrepreneurial intention: the mediating role of entrepreneurial competencies " highlights the importance of entrepreneurial education and training in building entrepreneurial skills. The findings of this study show that entrepreneurship training programs, particularly those based on practical, hands-on activities, can significantly enhance employees' entrepreneurial competence. Through activities such as teamwork, internships, report writing, and presentations, participants are able to sharpen the fundamental skills needed to become entrepreneurs. These hands-on activities include essential elements such as creativity, risk tolerance, and the ability to identify opportunities, all of which are core to effective entrepreneurial skills. Moreover, entrepreneurship training also helps to boost confidence and entrepreneurial self-efficacy, which are critical aspects of these skills. Through direct experience and interaction with real business environments, individuals can learn how to navigate the challenges faced in entrepreneurship. This research also emphasizes the importance of developing skills in technology, particularly focusing on the use of artificial intelligence (AI) solutions, which are increasingly important in today's digital era.

The research from titled "The Impact of Entrepreneurial Education on Technology-Based Enterprises Development: The Mediating Role of Motivation" (Dana et al., 2021) shows that entrepreneurial skills have a significant impact on business performance, especially in technology-based companies. Entrepreneurial training, such as creativity, communication, teamwork, and the ability to recognize opportunities, has been proven to enhance entrepreneurs' competencies. Managers with strong entrepreneurial skills are also better prepared to take risks and create innovative business models. This emphasizes the importance of entrepreneurial education in equipping individuals with skills that can be directly applied in the business world, ultimately contributing to overall company performance improvement. Furthermore, the study highlights that entrepreneurial skills play a crucial role in improving efficiency and innovation through effective knowledge management within the organization. When individuals share their skills, knowledge, and experiences with their colleagues, it creates a synergy that promotes collective learning and workplace innovation.

Journal entitled "Promoting Employability in Higher Education: A Case Study on Boosting Entrepreneurship Skills" (Garcia & Barac, 2020) explains that in the context of entrepreneurship, it is stated that innovative and creative skills are seen as key to creating sustainable businesses that are responsive to social needs. Training programs that emphasize real-world problem solving and cross-disciplinary teamwork, as described in the journal, show that higher education is considered to have a major role in shaping future entrepreneurs. Through active involvement in innovation contests, students are reported to not only learn to develop ideas but also understand the entrepreneurial process in practice. This is said to help them build skills that are relevant to the world of work, while developing a resilient and adaptive entrepreneurial attitude to market changes.

The article entitled "Entrepreneurship Education, a Challenging Learning Process towards Entrepreneurial Competence in Education" (Miço & Cungu, 2023) explains about entrepreneurship education in Albania which is very important for teachers. In the article, it examines the importance of improving teaching competence in the field of entrepreneurship in schools through curriculum, training and school collaboration. A holistic approach is

needed to guide students in improving their skills and self-confidence in the field of entrepreneurship education. This article is included in the entrepreneurship skill category because the focus of the article is on skills in teaching entrepreneurship education to encourage innovation. This article emphasizes that improving teacher competence can be used as a key to entrepreneurial innovation.

The article entitled "How Entrepreneurship Education at Universities Influences Entrepreneurial Intention: Mediating Effect Based on Entrepreneurial Competence" (Lv, Chen, Sha, Wang, An, & Chen, 2021) explains that entrepreneurship education has an important role in increasing entrepreneurial intentions and supporting economic development. Entrepreneurship education has begun to be emphasized in several universities in order to help someone develop entrepreneurial skills. Entrepreneurial skills are important because they can grow value, increase entrepreneurship and encourage economic development. Therefore, this article is included in the entrepreneurship skill category.

Research by Singh et al. (2023) emphasizes the critical role of entrepreneurial education and training in developing essential entrepreneurial skills. The findings indicate that training programs focused on practical, hands-on activities significantly enhance participants' entrepreneurial competencies. Engaging in teamwork, internships, report writing, and presentations allows individuals to refine the fundamental skills necessary for entrepreneurship. These activities cultivate essential traits such as creativity, risk tolerance, and the ability to identify opportunities, all of which are vital for effective entrepreneurial practice. Furthermore, entrepreneurship training enhances confidence and self-efficacy, which are crucial components of these skills. Through direct engagement with real business environments, individuals learn to navigate the challenges inherent in entrepreneurship. The study also underscores the growing importance of technological skills, particularly the use of artificial intelligence (AI) solutions, in today's digital landscape.

Dana et al. (2021) illustrate that entrepreneurial skills significantly impact business performance, especially within technology-driven enterprises. Entrepreneurial training encompassing creativity, communication, teamwork, and opportunity recognition has been shown to enhance the competencies of entrepreneurs. Managers equipped with strong entrepreneurial skills are better positioned to take calculated risks and develop innovative business models. This highlights the necessity of entrepreneurial education in providing individuals with applicable skills that can directly improve business performance. Additionally, the research indicates that these skills are essential for enhancing efficiency and fostering innovation through effective knowledge management within organizations. When individuals share their skills and experiences, it creates a synergistic environment that promotes collective learning and innovation in the workplace.

Garcia & Barac, (2020) discuss the significance of innovative and creative skills in fostering sustainable businesses that respond to social needs. Their research indicates that training programs focusing on real-world problem-solving and interdisciplinary teamwork play a crucial role in shaping future entrepreneurs. Active participation in innovation contests allows students not only to develop their ideas but also to gain practical insights into the entrepreneurial process. This involvement helps them build relevant skills for the workforce while cultivating a resilient and adaptive entrepreneurial mindset in response to market changes.

Miço & Cungu, (2023) address the importance of entrepreneurship education in Albania, particularly for teachers. They emphasize the need to enhance teaching competencies

in entrepreneurship through improved curricula, training, and collaboration with schools. A holistic approach is essential for guiding students in developing their skills and self-confidence in entrepreneurship. This research focuses on the skills necessary for teaching entrepreneurship effectively to foster innovation, underlining that enhancing teacher competencies is key to driving entrepreneurial innovation. Lv, Chen, Sha, Wang, An, Chen, et al. (2021) highlight the significant role of entrepreneurship education in increasing entrepreneurial intentions and contributing to economic development. As universities increasingly emphasize entrepreneurship education, they aim to help individuals cultivate essential entrepreneurial skills. These skills are crucial for creating value, promoting entrepreneurship, and supporting economic growth, thus reinforcing the importance of entrepreneurship education in developing a skilled workforce.

Hasan et al. (2017) reveal that entrepreneurship education at the university level, categorized into general, motivational, and augmented education, significantly influences students' entrepreneurial development. Their findings confirm a positive correlation between each type of education and entrepreneurship development, with p-values below 0.05. General entrepreneurship education provides foundational knowledge about the business environment, while motivational education boosts students' confidence to become job creators. Augmented education enhances learning experiences through direct interactions with successful entrepreneurs and support agencies. This research emphasizes the necessity of a comprehensive approach to entrepreneurship education in nurturing entrepreneurial spirit, intention, and skills among students, ultimately benefiting the broader community.

Further research indicates that effective entrepreneurship education significantly develops entrepreneurial skills, particularly when aligned with local contexts and industry needs. This alignment ensures that the curriculum meets the real challenges aspiring entrepreneurs face, thereby enhancing the effectiveness of the educational experience. Contextualized entrepreneurship education enables graduates to acquire both theoretical knowledge and practical skills relevant to their business environments, fostering innovation and responsiveness to market changes. Moreover, relevant learning experiences can cultivate a positive entrepreneurial attitude, increasing graduates' motivation and confidence to launch their ventures.

Colombelli et al. (2022) evaluate the effectiveness of Challenge-Based Learning (CBL) programs in enhancing students' entrepreneurial skills, mindset, and intentions, particularly through an initiative at Politecnico di Torino. The results demonstrate a positive impact on skills such as creativity, financial literacy, and planning, along with an increase in entrepreneurial intentions, although the latter was not statistically significant. This research contributes to the literature on CBL in entrepreneurship education, highlighting its potential to strengthen collaboration among students, external companies, and university staff while fostering innovation and an entrepreneurial culture.

Research by Negeri et al. (2023) reveals that entrepreneurial skills, motivation, and effective leadership positively contribute to the performance of small and medium-sized enterprises (SMEs) in Ethiopia. The findings suggest that enhancing these skills and fostering good leadership can drive SME performance and promote economic growth in the Guji region. This study underscores the concept of entrepreneurial skills, which encompasses technical, managerial, and personal skills necessary for starting, managing, and developing a business. Lynch, (2021) discusses how students acquire practical skills and knowledge related to design thinking, technology commercialization, and various soft skills, including communication, teamwork, empathy, and networking. The study highlights how students develop a deeper

understanding of navigating uncertain situations and addressing real-world challenges. This research is categorized under entrepreneurial skills, as it focuses on cultivating essential skills required in the industrial sector, particularly for engineers and scientists. It emphasizes the importance of combining technical skills with interpersonal and soft skills to succeed in a dynamic work environment.

Polgan et al. (2023) examine the crucial role of information technology (IT) in today's business landscape. They highlight that IT not only accelerates product development but also enhances operational efficiency and expands market reach through digital platforms like e-commerce and customer relationship management (CRM). This research fits within the entrepreneurial skills category, focusing on how entrepreneurs can leverage technical and technological skills to manage their businesses and drive growth effectively.

## CONCLUSION

Entrepreneurship education plays an important role in shaping entrepreneurial character, enhancing knowledge, skills, and fostering a positive attitude toward entrepreneurship. Additionally, extracurricular activities also help develop the entrepreneurial spirit by providing practical experience. The entrepreneurial spirit can be influenced by various factors, such as social support, entrepreneurship education, risk attitudes, and extracurricular activities. Social support, especially from family and friends, can motivate individuals to start a business. Research also shows that creativity and self-efficacy play important roles in supporting an individual's intention to become an entrepreneur. Overall, the entrepreneurial spirit includes the ability to recognize opportunities, take risks, and innovate to create positive change in society.

The importance of entrepreneurship education and support from the social environment, such as family and educational institutions, significantly influences students' intentions to become entrepreneurs. Research shows that entrepreneurial competence, creativity, and risk attitudes are key factors in shaping these intentions. Additionally, emotional and material support from families, along with programs at universities, enhances students' confidence in starting a business. Therefore, creating a supportive environment and providing the right education is essential to encourage the younger generation to become successful entrepreneurs.

With various methods employed, including practical-based training and challenge-based learning, entrepreneurship education has proven effective in honing skills such as creativity, risk management, and the ability to identify opportunities. Support from the social environment, both from families and educational institutions, is also a crucial factor in boosting individuals' confidence and motivation to start a business. Thus, the development of relevant and contextual entrepreneurship education programs, which integrate technical skills and soft skills, will significantly contribute to improving business performance and innovation in today's digital era.

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