



The Role of Self-Efficacy as a Mediator in the Effect of Entrepreneurial Education and Mindset on Entrepreneurial Intentions

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Abstract. The high level of unemployment in Indonesia, particularly among college graduates, highlights the need to increase entrepreneurial intentions among students to help create jobs. This study examines the influence of entrepreneurial education and entrepreneurial mindset on entrepreneurial intention with mediating variable in form of self-efficacy. A descriptive method was used with 250 students as respondents from entrepreneurial-focused universities in West Jakarta. Data was collected through online and offline questionnaires that applied the purposive sampling technique. Data was then analyzed using Smart PLS 4.1.0.8 software to perform PLS-SEM. The results have proven that entrepreneurial education significantly influences entrepreneurial mindset. Furthermore, both entrepreneurial education and mindset positively and significantly influence self-efficacy. However, entrepreneurial education and mindset have no direct influence on entrepreneurial intention. This study reveals that self-efficacy mediates the influence of entrepreneurial education and mindset toward entrepreneurial intention.

Keywords: Entrepreneurial Education, Entrepreneurial Mindset, Self-Efficacy, Entrepreneurial Intention.

1 Introduction

The unemployment rate among university graduates currently stands at 5.49% [1]. This rate of unemployment is attributed to intense competition, a lack of skills, and technological advancements that are replacing human roles. Consequently, efforts are needed to shift students' mindset from focusing solely on job-seeking to becoming job creators through entrepreneurship [2].

Entrepreneurial education is one strategy to transform students' mindsets and enhance their knowledge of entrepreneurship. Through entrepreneurial education, students can identify opportunities and profits from business ventures [3]. Entrepreneurial education fosters entrepreneurial intentions among students by developing their understanding, competencies, and positive attitudes toward entrepreneurship [4].

In Indonesia, many universities have integrated elements into their vision and mission through dedicated entrepreneurship curricula. Students are taught the theoretical knowledge and

equipped with the attitudes, intentions, and readiness needed to enter the business world [5]. Policymakers, educators, and academics in developing countries have significant opportunities to utilize entrepreneurial education as a tool to increase the number of entrepreneurs [4].

A person's commitment to involve in entrepreneurial activities can be driven by the development of an entrepreneurial mindset, which is often influenced by entrepreneurial education [2]. Entrepreneurial mindset can be meant as a collection of attitudes, behaviors, and thought processes that are often linked to achieving success in entrepreneurship [6]. Entrepreneurial education has a significant role in enhancing the students' intentions to pursue entrepreneurship by giving them essential knowledge, practical skills, and entrepreneurial mindset, that shapes their behavior in performing entrepreneurial activities and outcomes [7].

Self-efficacy is a key factor in boosting entrepreneurial intention. It refers to a person's confidence in his/her own ability to take entrepreneurial action to achieve goals [8]. Persons with high level of self-efficacy highly tend to leverage opportunities and their surrounding social environment to succeed in entrepreneurial ventures [9]. Therefore, higher self-efficacy levels are associated with stronger intentions to involve in entrepreneurial activities [10].

This study investigated the influence of entrepreneurial education, an entrepreneurial mindset, and self-efficacy on entrepreneurial intentions. Furthermore, it examines the influence of entrepreneurial education on the formation of entrepreneurial mindset along with exploring the self-efficacy's mediating role in the effects of entrepreneurial education and entrepreneurial mindset on students' entrepreneurial intentions within entrepreneurial universities. This study results are expected to bring valuable insights to universities to increase the entrepreneurial education quality through innovative and relevant curriculum development, promote the cultivation of an entrepreneurial mindset by equipping students with critical thinking and practical problem-solving skills and strengthening students' self-efficacy to take calculated risks when starting a business.

2 Literature Review and Hypothesis Development

2.1 The Influence of Entrepreneurial Education on Entrepreneurial Mindset

Entrepreneurial education can enhance an entrepreneurial mindset through supportive educational attributes. Entrepreneurial education can encourage a person's mindset to be more committed to running a business [2], [7], [10], [11], [12], [13].

H₁: Entrepreneurial education positively and significantly influences entrepreneurial mindset.

2.2 The Influence of Entrepreneurial Education on Self-Efficacy

Entrepreneurial education enhances individuals' confidence by equipping them with sufficient skills and knowledge needed to initiate and organize a business, thereby increasing self-efficacy. This entrepreneurial education positively impacts individuals' self-efficacy by strengthening their belief in their ability to initiate new ventures. Through a combination of practical and theoretical learning experiences, students become more confident in addressing the risks and challenges associated with entrepreneurship [2], [11], [13], [14], [15].

H₂: Entrepreneurial education positively and significantly influences self-efficacy.

2.3 The Influence of Entrepreneurial Mindset on Self-Efficacy

An entrepreneurial mindset, which encompasses a creative and innovative attitude, enhances self-efficacy by fostering individuals' belief in their ability to face challenges. Students with an entrepreneurial mindset are generally more confident in overcoming challenges, viewing failure as a valuable opportunity for learning and growth [11], [15].

H3: Entrepreneurial mindset positively and significantly influences self-efficacy.

2.4 The Influence of Entrepreneurial Education on Entrepreneurial Intention

Entrepreneurial education increases entrepreneurial intentions by building individuals' self-confidence, positive mindset, and commitment to running a business. Students engaged in Entrepreneurial education programs often develop a stronger desire to start a business, as these programs provide them with a better understanding of entrepreneurship and the necessary skills [4], [7], [10], [11], [14], [15].

H4: Entrepreneurial education positively and significantly influences entrepreneurial intention.

2.5 The Influence of Self-Efficacy on Entrepreneurial Intention

Self-efficacy encourages individuals to develop greater entrepreneurial intentions. High self-efficacy has positive link to entrepreneurial intentions, as it builds confidence in a person's ability to face and overcome the challenges when launching a business [10], [11], [14], [15], [16].

H5: Self-efficacy positively and significantly influences entrepreneurial intention.

2.6 The Influence of Entrepreneurial Mindset on Entrepreneurial Intention

Students with strong entrepreneurial mindsets are more committed to starting a business. This mindset cultivates traits such as innovativeness, proactiveness, and the ability to identify opportunities. Entrepreneurial mindset positively influences an individual's intention pursue entrepreneurial activities [2], [7], [10], [11].

H6: Entrepreneurial mindset positively and significantly influences entrepreneurial intention.

2.7 The Influence of Self-Efficacy as a Mediator

Entrepreneurial Education is essential in enhancing individuals' self-efficacy, subsequently strengthens their entrepreneurial intentions. Similarly, an entrepreneurial mindset positively increases self-efficacy, reinforcing entrepreneurial intentions [10], [11], [14], [15].

H7: Self-efficacy mediates the influence of entrepreneurial education on entrepreneurial intention.

H8: Self-efficacy mediates the influence of entrepreneurial mindset on entrepreneurial intention.

The research model of this study is presented in Figure 1.

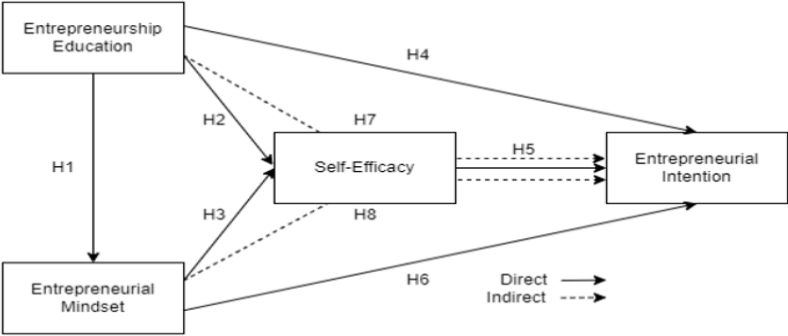


Figure 1. Model in this Research

3 Method in This Research

This study utilizes a descriptive design of research, with quantitative methods to collect and analyze data. A non-probability sampling approach, specifically purposive sampling, was employed, targeting respondents who meet specific criteria defined by the researcher [17]. The study targeted students from entrepreneurial campuses, resulting in a sample size of 250 respondents. The majority were male (53.6%) and from fourth year (55.6%).

Data was analyzed by using PLS-SEM, facilitated by Smart PLS 4.1.0.8 software. This study used 24 indicators, including 7 indicators of Entrepreneurial Education variable, 6 for Entrepreneurial Mindset variable, 6 for Self-Efficacy variable, and 5 for Entrepreneurial Intention variable [4], [10], [13], [14] which are presented in Table 1. The answers from respondents were categorized using a Likert scale from 1 "Strongly Disagree", to 5 "Strongly Agree".

Table 1. Variable Measurement Indicators

Variable	Indicators
<i>Entrepreneurial Education</i>	Enhance the ability to identify opportunities in business
	Understand the characteristics of successful budding entrepreneurs
	Understanding of funding sources for business start-ups
	Skills development program for entrepreneurship
	Ability to manage resources and teams
	Availability of curriculum on entrepreneurship
	Encourage creative and innovative business ideas
<i>Entrepreneurial Mindset</i>	Considering financial opportunities
	Considering opportunities and hands
	Actively looking for business ideas
	Spend time for entrepreneurial activities
	Consider the advantages and disadvantages of entrepreneurship
<i>Self-Efficacy</i>	Convinced discover new business ideas
	Convinced develop innovative products or services
	Convinced think creatively
	Convinced turning business ideas into reality
	Understand the process of building a business
	Knowing what it takes to establish a business
<i>Entrepreneurial Intention</i>	Ready to do anything to be an entrepreneur
	Entrepreneurship is a professional objective

	Make every effort to establish a business
	Have the firm intention to establish business
	Have a strong intention to become an entrepreneur

4 Results and Discussions

The gathered data was then analyzed by using PLS-SEM with the assistance of SmartPLS 4.1.0.8 software to measure the outer model through validity and reliability analysis.

Table 2 Data Analysis

Variable	Factor Loading	AVE	Cronbach's Alpha	Composite Reliability	R ²	Q ²
<i>Entrepreneurial Education</i>	0.853	0.584	0.880	0.882		
	0.733					
	0.713					
	0.789					
	0.799					
	0.745					
	0.707					
<i>Entrepreneurial Mindset</i>	0.814	0.651	0.865	0.869		
	0.777					
	0.863					
	0.783					
	0.792					
<i>Self-Efficacy</i>	0.783	0.601	0.867	0.868	0.610	0.423
	0.769					
	0.751					
	0.823					
	0.744					
	0.781					
<i>Entrepreneurial Intention</i>	0.805	0.609	0.839	0.841	0.570	0.295

Table 2 shows valid convergent validity results with the value of each variable's AVE above 0.5 and each indicator's loading factor higher than 0.708 [18]. In addition, the reliability analysis results are reliable with the Cronbach's Alpha as well as Composite Reliability of each variable larger than 0.7 [19]. Then, the coefficient of determination (R²) with a value of 0.26 - 0.74 which means it has a moderate relationship and predictive relevance (Q²) with a value above 0 has a good observation value [19].

Table 3 Path Analysis and Hypothesis Testing Results

Hypothesis	β	t-statistics	p-values	Result
H ₁ : <i>Entrepreneurial Education</i> → <i>Entrepreneurial Mindset</i>	0.683	13.976	0.000	Supported
H ₂ : <i>Entrepreneurial Education</i> → <i>Self-Efficacy</i>	0.307	2.835	0.005	Supported
H ₃ : <i>Entrepreneurial Mindset</i> → <i>Self-Efficacy</i>	0.538	5.927	0.000	Supported

H4: <i>Entrepreneurial Education</i> → <i>Entrepreneurial Intention</i>	0.053	0.607	0.544	Not supported
H5: <i>Self-Efficacy</i> → <i>Entrepreneurial Intention</i>	0.564	5.490	0.000	Supported
H6: <i>Entrepreneurial Mindset</i> → <i>Entrepreneurial Intention</i>	0.190	1.669	0.095	Not supported
H7: <i>Entrepreneurial Education</i> → <i>Self-Efficacy</i> → <i>Entrepreneurial Intention</i>	0.173	2.766	0.006	Supported
H8: <i>Entrepreneurial Mindset</i> → <i>Self-Efficacy</i> → <i>Entrepreneurial Intention</i>	0.303	3.764	0.000	Supported

According to the hypothesis testing results in Table 3, the first hypothesis test reveals that entrepreneurial education positively and significantly impacts entrepreneurial mindset, as evidenced by $\beta = 0.683$ and $p = 0.000$. These results align with previous studies [2], [7], [11], [12], [13]. Implementing entrepreneurship curricula in higher education has successfully shaped students' entrepreneurial mindset. Entrepreneurial education, which provides the skills, knowledge, and attitudes necessary for entrepreneurship, inspires students to identify opportunities and overcome challenges in establishing a business.

Furthermore, the second hypothesis test results show that entrepreneurial education has positive and significant influence on self-efficacy. This is proven by $\beta = 0.307$ and $p = 0.005$. These findings are in line with several previous researches which concluded that entrepreneurial education has a significant influence on self-efficacy [2], [11], [13], [14], [15]. The enhancement of student self-efficacy through entrepreneurial education begins with introducing entrepreneurial concepts and skills. Practical experience provided through entrepreneurial education enables students to face challenges with more confidently. Entrepreneurial education can enhance individuals' ability to identify and seize opportunities, encouraging more active participation in entrepreneurial activities.

Testing the third hypothesis in this study shows that entrepreneurial mindset has positive and significant influence on self-efficacy, as evidenced by $\beta = 0.538$ and $p = 0.000$. These findings are consistent with previous research [11], [15], which found that entrepreneurial mindset significantly influences self-efficacy. Students with a strong entrepreneurial mindset tend to exhibit higher levels of self-confidence. They recognize that entrepreneurial knowledge alone is insufficient for starting a business, concerning the importance of self-confidence in achieving entrepreneurial success. Key characteristics of an entrepreneurial mindset, such as a strong desire, perseverance, and a broad perspective, are essential for nurturing passion, creativity, and innovation, while also strengthening self-confidence in entrepreneurship.

Testing the fourth hypothesis shows that entrepreneurial education has no impact on entrepreneurial intention ($\beta = 0.053$ and $p = 0.544$). These finding align with previous research results, which similarly found that entrepreneurial education does not significantly impact entrepreneurial intention [2]. Entrepreneurial education provided to students appears to be insufficient in motivating them to engage in entrepreneurial activities. External factors, such as economic uncertainty, lack of self-confidence, and insufficient social support, may also serve as barriers, preventing students from pursuing entrepreneurship despite receiving Entrepreneurial Education.

Furthermore, testing the fifth hypothesis demonstrates that self-efficacy positively and significantly affects entrepreneurial intention ($\beta = 0.564$ and $p = 0.000$). This finding is aligned with previous research, which resulted that self-efficacy significantly influences entrepreneurial intentions [10], [11], [14], [15], [16]. Students with strong self-efficacy in their knowledge,

abilities, and creativity are more likely to exhibit a strong inclination toward entrepreneurial activities. High self-efficacy enables students to take calculated risks and confidently embark on entrepreneurial ventures.

Testing the sixth hypothesis in this study shows that entrepreneurial mindset does not impact entrepreneurial intention ($\beta = 0.190$ and $p = 0.095$). These findings are inconsistent with previous studies [2], [7], [10], [11], but aligns with the findings of [11]. Students with an entrepreneurial mindset may already understand the importance of innovation and risk-taking in entrepreneurship. However, the lack of practical experience may hinder their ability to translate their mindset into actionable entrepreneurial pursuits. Therefore, additional variables, such as self-efficacy, may be required to mediate the relationship between variables.

Testing the seventh hypothesis shows that entrepreneurial education positively and significantly influences entrepreneurial intention through self-efficacy ($\beta = 0.173$ and $p = 0.006$). These findings align with previous studies which also indicate that entrepreneurial education significantly affects entrepreneurial intention through self-efficacy [10], [11], [14], [15]. Self-efficacy runs a crucial role as mediator that enhances students' self-confidence, which then can strengthen their intention to establish a business. Entrepreneurial education provides students with the sufficient knowledge and skills, enhancing their self-efficacy and motivating them to involve in entrepreneurial activities.

Finally, testing the last hypothesis reveals that an entrepreneurial mindset has positive and significant influence on entrepreneurial intention through self-efficacy ($\beta = 0.303$ and $p = 0.000$). These findings are consistent with previous research which highlighted the self-efficacy's mediating role in the effect of entrepreneurial mindset on entrepreneurial intention [10], [11], [15]. Self-efficacy is essential in connecting the entrepreneurial mindset with entrepreneurial intention, serving as a key factor that translates the mindset into actionable entrepreneurial behaviors. Students with strong self-efficacy in their abilities tend to develop a robust entrepreneurial mentality. Strengthening students' self-efficacy is essential to transforming their entrepreneurial mindset into actionable intentions.

5 Conclusions and Implications

According to the results of this study, the conclusion can be drawn, that entrepreneurial education positively and significantly influences entrepreneurial mindset. It equips the students with sufficient skills, knowledge, and attitudes to recognize opportunities and address challenges in entrepreneurship.

Additionally, entrepreneurial education along with entrepreneurial mindset positively and significantly affect self-efficacy. The learning process and entrepreneurial practices enhance students' confidence in overcoming challenges, motivating them to engage in entrepreneurial activities actively. A strong entrepreneurial mindset also contributes to self-efficacy, as students with an entrepreneurial mentality tend to exhibit higher levels of self-efficacy. They recognize that knowledge alone is insufficient but need self-efficacy for successfully establishing a business.

This study also reveals that entrepreneurial education and entrepreneurial mindset do not have direct influence on entrepreneurial intention, but require the mediation of self-efficacy. This research demonstrates that self-efficacy mediates the effect of entrepreneurial education and mindset on entrepreneurial intention among higher-education students. Therefore, fostering self-efficacy through entrepreneurship programs is critical to increasing students' motivation and intention to implement their business ideas.

6 Closing

The sample selection for this study is limited demographics, which may not sufficiently represent the broader population. Additionally, this study examines only a few variables to measure students' entrepreneurial intentions. For further research, it is suggested to include some other variables, either independent or mediating, to provide a more comprehensive analysis.

Acknowledgement. The researchers wish to thank LPPM UNTAR for supporting this research and all respondents who have participated in completing the questionnaire.

Disclosure of Interests. The authors have no relevant competing interests to disclose concerning the content of this article.

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