



Does Entrepreneur Education Affect Entrepreneurial Intentions: The Moderating Entrepreneurial Mindset

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Article Info	Abstract
Article History Received: December, 2024 Revised: May, 2025 Published: June, 2025	This study explore how entrepreneur education affects student's entrepreneurial intentions while focusing on the entrepreneurial mindset as a mediator The research was carried out on vocational high school students in Blitar Regency, Indonesia, with a sample of 400 respondents. The SEM-PLS approach was applied to study the relationship among three main constructs: entrepreneurial education (ED), entrepreneurial mindset (EM), and entrepreneurial intention (EI). The results showed that entrepreneurial education significantly and positively impacts the development of an entrepreneurial mindset among students. In addition, both entrepreneurial education and the entrepreneurial mindset independently and significantly affect the students' intention to become entrepreneurs. Finally, the entrepreneurial mindset is established to mediate the relationship between education and entrepreneurial intention, thus enhancing the impact of entrepreneurial education on students' career orientation. The model is proven to be highly reliable and valid, established by AVE, composite reliability, and Cronbach's alpha, while predictive relevance was confirmed by R-square and Q-square statistics. These findings emphasize the strategic importance of entrepreneurship education in creating a new generation of creative, confident, and opportunity-oriented individuals. This research bears significant implications for educational policy.
Keywords: Entrepreneur education, Entrepreneurial intention, Entrepreneurial mindset	
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INTRODUCTION

Entrepreneurship is a strategy in various countries to maintain economic growth (Barba-Sánchez, 2018; Nowiński et al., 2019; Wibowo et al., 2019). Entrepreneurship refers to recognizing or creating opportunities and taking action to realize innovative knowledge aimed at a profit (Akmaliah et al., 2016; Doanh, 2021). More specifically, entrepreneurship is the main engine that can drive economic growth, innovation, and competitiveness (Bae et al., 2014; Lackéus, 2016; Lackéus & Middleton, 2015). During the last decade, most developed and developing countries have claimed that entrepreneurship education is essential in motivating them to become entrepreneurs (Jena, 2020; Saptono et al., 2020). According to research results (Bae et al., 2014; Turner & Gianiodis, 2018), entrepreneurship is essential in providing new businesses. Entrepreneurial education attracts much interest from students. Previous studies have been conducted on their correlation with startup initiation initiated through entrepreneurship education. (Harms, 2015; Mamun et al., 2017; Sarooghi et al., 2019).

In many countries, entrepreneurship is a career choice that is increasingly in demand today (Israel, 2014). In simple terms, an entrepreneur can be defined as an individual who builds and manages a business to make a profit (Smith et al., 2020). For most people, entrepreneurship has developed its popularity because of the positive effects that entrepreneurship can have, such as creating job opportunities and wealth (Karyaningsih et al., 2020). Entrepreneurship education is increasingly popular at all levels of education, including vocational schools in Indonesia. Entrepreneurship is driven by individuals who have an entrepreneurial mindset (Solesvik et al., 2013). The mindset of an entrepreneur is defined as feelings and confidence in one's ability to continue thinking. Entrepreneurship education is a learning process that develops students' skills and mindset, which

creates a pathway to turning creative ideas into entrepreneurial action (Akmaliah et al., 2016). Entrepreneurship education is not only to foster entrepreneurial intentions but to prepare students to become entrepreneurs (Saptono et al., 2020). Entrepreneurship as a career option is becoming increasingly popular (Israel, 2014). Many countries increasingly recognize entrepreneurship as an effective way to create jobs, increase productivity and competitiveness, and improve the quality of life (Jena, 2020).

Most importantly, it will emerge through innovation, creativity, and proactive alertness without taking risks (Asenge et al., 2018; Njeru, 2012). Entrepreneurial Mindset presents an opportunity to think about businesses and the opportunities of harvesting from the uncertainty (Solevik et al., 2013). It is more like a feeling with an optimistic definition put into one sentence regarding opportunity and challenge-seeking behaviour (Nabi, 2017). Researchers even consider the entrepreneurial mindset as an overall acknowledgement of developing new ideas, searching for and analyzing opportunities and threats, and running a business (Bosman, 2019). An entrepreneurial mindset is thinking about opportunity and not challenge, considering all failure rather than being solution-centric when you run into difficulty (Davis et al., 2016). Its research results define an entrepreneurial mindset as a particular thought that orients individual behaviour toward all activities and results related to entrepreneurship (Akmaliah et al., 2016; Fayolle, 2014).

METHODS

For this research, quantitative methods of inquiry are executed through surveys. In this instance, the first variable that presents itself is regarding entrepreneurial education (ED), while the other independent variable is entrepreneurial intention (EI) and the intervening variable is entrepreneurial mindset (EM) (see Figure 1). This study took a sample of 400 Vocational High School (SMK) students in Blitar Regency, Indonesia. An instrument was adapted from (Hasan et al., 2016) to compute reactions from Entrepreneur Education respondents. In addition, the Entrepreneurial Mindset (EM) is adopted (Saptono et al., 2020), while Entrepreneurial Intentions (EI) referred to earlier research by (Kim-Soon et al., 2016). Each construct is measured using a Linkert Scale (1 strongly disagree; 2 disagree; 3 neutral; 4 agree; 5 strongly agree). Next, the Structural Equation Modeling Partial Least Squares (SEM-PLS) approach running SmartPLs (version 3.0) was used to examine the relational interaction between the variables.

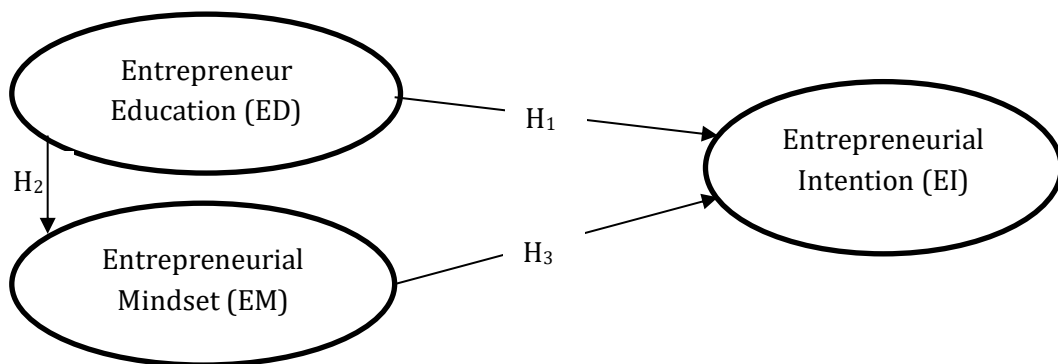


Figure 1. The Research Model

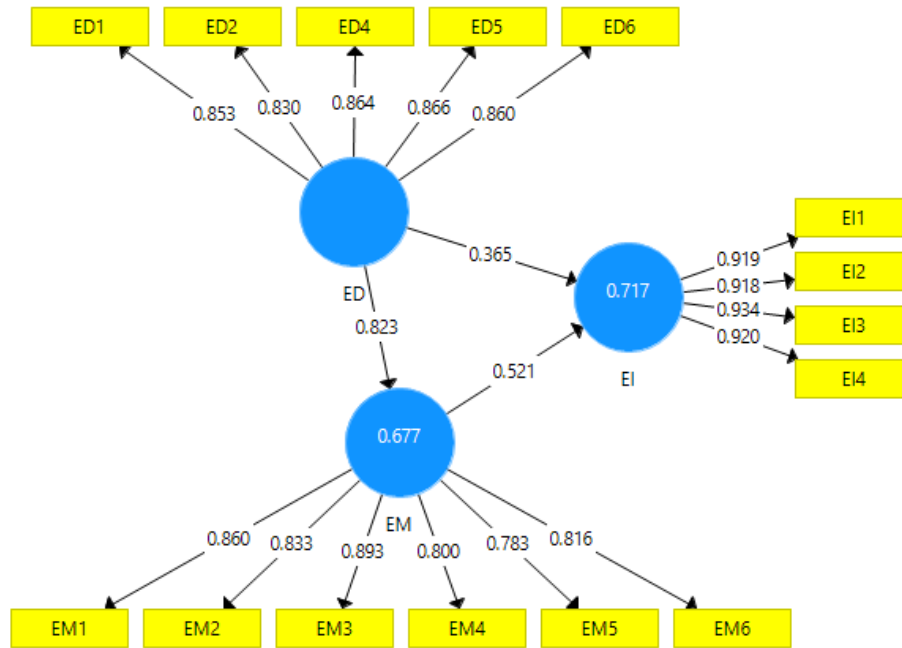


Figure 2. Alorithm Result

RESULTS AND DISCUSSION

A. Result

The Outer and Inner Assessment Model

The outer or inner measurement models are the two models used to measure the assessment of predictive models. The structural or inner models are used to determine the results of calculations with constructs. At the same time, outer models are often called measurement models, which assess the relationship between an indicator and its construct. Four indicators can be measured within an outer evaluation model: convergent validity, discriminant validity, composite reliability, and construct reliability (Hair et al., 2014). Convergent validity is supposed to verify whether the indicators are valid for measuring the respective dimensions or variables. The convergent validity of each dimension or variable can be displayed with the loading factor (LF) value. The condition for being considered valid is that the loading factor is positive and has a value of more than 0.7 (Hair et al., 2014). Therefore, results from the convergent validity test can be found in Table 1. Table 1 shows that these instruments will be considered valid as their LF values proved to be more than 0.7 through data tabulation.

Conbach's alpha (CA) and composite reliability (CR), so the reliability test can be viewed. A typical criterion for measuring reliability is as follows: CA and CR must be > 0.7 , followed by AVE or verage variance extracted with a value of > 0.5 (Hair et al., 2014). Table 1 shows all of the indicators concerning Entrepreneur Education (ED), Entrepreneurial Mindset (EM), and Entrepreneurial Intention (EI) courses with AVE greater than 0.5. Therefore, all the indicators measuring these variables are valid. It also indicates that all research instruments, according to the questionnaire, are valid and reliable, as shown in the results in Table 2 with Found loads, Elonbach's alpha, and Composite reliability value exceeding 0.7 (Hair et al., 2014).

Table 1. Results Convergent Validity and Collinearity Statistics (VIF)

	Conbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
EI	0.942	0.944	0.958	0.852
ED	0.908	0.912	0.931	0.731
EM	0.911	0.919	0.931	0.692

Table 2. Construct Reliability and Validity

Code	Variable/Indicator	Loading	VIF
EI1	I would rather be an entrepreneur than an employee in a company	0.919	3.852
EI2	Becoming an entrepreneur provides opportunities for me to develop	0.918	4.009
EI3	I am very interested in becoming an entrepreneur	0.934	4.519
EI4	I have prepared myself to become an entrepreneur	0.920	3.749
ED1	Entrepreneurship education at school equipped me to think creatively to become an entrepreneur	0.853	2.728
ED2	The school offers the requisite knowledge pertaining to entrepreneurship.	0.830	2.406
ED3	The school creates a breeding ground for entrepreneurial skills and their development.	0.864	2.545
ED4	The school imparts to learners what must indeed be relevant entrepreneurship materials and educates them on how to go about starting a business.	0.866	3.122
ED5	Education makes the improvement of anything entrepreneurship related.	0.860	2.994
EM1	I have well considered the advantages and disadvantages that come with initiating the whole activity of entrepreneurship.	0.860	3.215
EM2	I am pondering over the possibility of me having time to engage in entrepreneurial work.	0.833	2.951
EM3	I have analyzed the fettered pathways of earning money through enterprises.	0.893	3.472
EM4	I have analyzed both positive and negative elements as they relate to activity in the entrepreneurial field.	0.800	2.756
EM5	I pondered over several possibilities of being engaged into entrepreneurial activities.	0.783	2.793
EM6	I have deliberated over whether I really want to indulge in entrepreneurial activities.	0.816	2.376

Table 3. Discriminant Validity

	EI	ED	EM
EI	0.923		
ED	0.794	0.855	
EM	0.821	0.823	0.832

The collinearity Statistics (VIF) and R-square test

The collinearity test detects the presence of collinearity in the model. It can be inferred from the results of the collinearity test summarized in Table 1 that the VIF value ranged from 2.376 to 4.519, where the value is < 5.00, indicating that collinearity is not present and the construct is valid. R-squared is a test to see the predictive power, while the R-square value has three categories: 0.67 (substantial), 0.33 (moderate) and 0.19 (weak) 7(Hair et al., 2014). The R-square test shows that EI has a value of 0.717, which indicates that ED and ey influence 71.17% of the EI variable. The R-square test shows EM has a value of 0.677, meaning that ED influences 67.7% of EM variables. Rewrite text and add higher perplexity and greater burstiness but bear the same word counts and HTML elements: The collinearity test defines the collinearity available in the model. Results of the collinearity test were summarized in Table 1, indicating that the VIF value ranges from 2.376 to 4.519, where the value is <5.00, implying no collinearity and valid variable construct. The R-square test is meant to see predictive power where one may classify R-square values into three categories: 0.67 (substantial), 0.33(moderate), and 0.19 (weak) 7 (Hair et al., 2014). The R-square test indicates that EI is 0.717, meaning that ED and my result are 71.17% of the EI variable; the R-square test shows how much EM is at 0.677. This indicates that ED affects 67.7% of the EM variables.

The collinearity and R-squared test

Table 4. The Collinearity Statistics (VIF) and R² Test

	R Square	R Square Adjusted
EI	0.717	0.716
EM	0.677	0.676

The size effect test (f^2)

According to the often-used F square test, the influence of either of the latent predictor variables (exogenous variables) is determined concerning the structural model (Hair et al., 2014). F square criteria are minor (0.02), medium (0.15), and large (0.35). The calculation gave rise to F^2 value; thus, EI and EM against ED are 0.152 and 2.097, respectively. This indicates that the effect size medium belongs to F^2 category. However, the other two F^2 EM and EI, imply that 0.31 is close to negligible effect size.

Table 5. The Size Effect Test (F^2)

	EI	ED	EM
EI			
ED	0.152		2.097
EM	0.31		

Predictive relevant test (Q^2)

It has assessed the capability of the model to replicate the original data Q^2 measurement values. Q^2 yields >0 , indicating that the exogenous construction variables predict the endogeneity construction variables. Q^2 according to its criteria, is classified into three categories: small (0.02), medium (0.15), and large (0.35) (Hair et al., 2014). EI Q^2 indicates a value of 0.604; therefore, it is concluded that ED and EM have minimal predictive relevance. It's important to note that EM, having a value of 0.46, which is >0.35 , has been concluded to have strong predictive relevance.

Table 6. Predictive Relevant Test (Q^2)

	SSO	SSE	$Q^2 (=1-SSE/SSO)$
EI	1600	633.834	0.604
ED	2000	2000	
EM	2400	1296.313	0.460

The coefficient path analysis

It is to perform the path analysis that the model devised under the present study has been subjected to assessment. Such can be accomplished using a bootstrapping test to predict the t-statistic and t-value. The path coefficient corresponding to the p-value is found in the table. All relationships could be significant according to the P-value obtained with an overall P-value of 0.000.

Table 7. The Coefficient Path Analysis

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ($ O/STDEV $)	P Values
ED -> EI	0.365	0.365	0.048	7.532	0
ED -> EM	0.823	0.823	0.022	38.146	0
EM -> EI	0.521	0.521	0.05	10.325	0

B. Discussion

Research finds (Jena, 2020) that it is possible to construct an entrepreneurial mindset through entrepreneurship education. That education has merits because the students are wholly involved in entrepreneurial activities. Entrepreneurship education can raise awareness and develop students' skills for entrepreneurship (Ediagbonya, 2013). Entrepreneurship education could also lead to an increased propensity for startup businesses, entrepreneurship in general, and eventually self-satisfaction and economic appreciation, according to similar research results ((Kassean, 2015). Another study (Kubberød & Pettersen, 2017; Zhang & Cain, 2017) found that more than 50 per cent of students who took entrepreneurship education decided on a future career to become an entrepreneur.

Entrepreneurship education has been recognized as one of the critical determinants that can influence students' career decisions to become entrepreneurs. According to (Fayolle, 2013; Jena, 2020; Wei et al., 2019), introducing the concept of entrepreneurship and entrepreneurial approaches in schools can influence students' perceptions of entrepreneurship and awareness of career choices to

become an entrepreneur, this is following research (Kassean, 2015; Kubberød & Pettersen, 2017).

According to research results reported by (Saptono et al., 2020), entrepreneurship learning will enrich entrepreneurial mindsets. Similarly, an entrepreneurial mindset seems promising for shedding some light upon the internal outcomes and contexts essential for entrepreneurship. As stated by (Shepherd et al., 2010), three critical functions in entrepreneurship education at various levels of schooling include the development of an entrepreneurial culture that permeates all project efforts, teaching the students much more about what entrepreneurship is, and finally, creating greater and greater opportunities for students to start their ventures through course offerings available to them.

CONCLUSIONS AND SUGGESTIONS

A. Conclusion

Based on research results, entrepreneurship education is proven to positively and significantly influence the entrepreneurial mindset and interest in becoming an entrepreneur (entrepreneurial intention) among vocational school students in Blitar Regency. Furthermore, an entrepreneurial mindset is a mediator that strengthens the relationship between entrepreneurial education and interest in becoming an entrepreneur. This research confirms that entrepreneurship education builds an entrepreneurial mindset and encourages students to make entrepreneurship a career choice. This aligns with previous studies, which show that entrepreneurship education increases students' skills, insight, and self-confidence to identify opportunities and face challenges in the business world. These findings provide important implications for educational policymakers to continue integrating entrepreneurship education in the curriculum at the vocational secondary education level. This effort is expected to create an innovative, creative, and competitive young generation while supporting economic growth by creating new jobs. Future research should explore other aspects that influence this relationship, such as the role of the social environment or family support, to provide more comprehensive insights into entrepreneurship development among students.

B. Suggestion

Although this research successfully demonstrated a significant relationship between entrepreneurial education, entrepreneurial mindset, and entrepreneurial intentions, there are opportunities for further development in future research. Future research could focus on exploring the long-term impact of entrepreneurship education on the sustainability of entrepreneurial intentions, as well as identifying other mediating factors that may influence this relationship. One potential mediating factor to research is entrepreneurial self-efficacy, which is believed to be essential in increasing an individual's confidence in starting and running a business. This study could also be expanded to include more diverse populations to strengthen the generalizability of the findings.

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