



## RESEARCH ARTICLE

## Improving the Quality of Student Entrepreneurship: Uncovering Entrepreneurial Intention, Passion, Education, and Self-Efficacy in Fighting Unemployment

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ARTICLE INFO	ABSTRACT
<p>Received: Dec 14, 2024 Accepted: Jan 24, 2025</p> <p><b>Keywords</b></p> <p>Entrepreneurship Entrepreneurial Intention Entrepreneurial Passion Entrepreneurial Education Self-Efficacy</p> <p><b>*Corresponding Author:</b> shafa.aqilah@binus.ac.id</p>	<p>This research examines the variables of EP (Entrepreneurial Passion), EE (Entrepreneurial Education), SE (Self-Efficacy), and EI (Entrepreneurial Intention) among students at private universities. A survey was conducted using questionnaires distributed to 300 active undergraduate students from various departments except entrepreneurship based and from various domicile. Data processing was conducted using SmartPLS 4.0, yielding the acceptance of 5 out of a total of 7 hypotheses. In direct relationships, EE was found to positively influence both SE and EI. However, EP only had a positive effect on EI, while it did not significantly influence SE. Additionally, SE significantly influenced EI. However, SE did not significantly act as a mediator between the relationships of EP, EE, and EI. This study emphasizes the crucial role of educational institutions in fostering entrepreneurial intentions (EI) among students by nurturing entrepreneurial passion (EP) and enhancing self- efficacy (SE). It suggests initiatives like immersive learning experiences and mentorship programs to ignite students' passion for entrepreneurship. Institutions should integrate entrepreneurship education (EE) across disciplines, offering theoretical knowledge and practical skills to students from diverse backgrounds. By instilling confidence in students' entrepreneurial abilities, institutions can empower them to pursue entrepreneurial endeavors, fostering a culture of entrepreneurship and innovation.</p>

### INTRODUCTION

Indonesia as a developing country has several socio-economic problems. One of the main problems is unemployment. In August 2023, 5.32 percent or 7.86 million people were counted in the Tingkat Pengangguran Terbuka (TPT) in Indonesia (Badan Pusat Statistik, 2023). In fact, the job vacancies in Indonesia are fewer than the number of job seekers (Susanto, 2021). According to Doran et al. (2018) the problem of unemployment can be handled with entrepreneurship which also plays an important role in the development and growth of the country's economy. One of the factors that drives the growth of entrepreneurship in a country is the role of universities in providing entrepreneurial education (Yusmira et al., 2019). So, cultivating an entrepreneurial spirit for students is an alternative to reducing unemployment rates and increasing economic growth because graduates are expected to become educated young entrepreneurs who can start their own businesses (Zain et al., 2020). One of the aspects that need to be embedded in entrepreneurship students is entrepreneurial intention.

Understanding the determinants of entrepreneurial intention is essential for fostering entrepreneurial behavior and promoting economic growth. Entrepreneurial intention, a key concept in entrepreneurship research, is influenced by various factors such as entrepreneurial passion, entrepreneurial education, self-efficacy, and their interrelationships (Murad et al., 2021; Li & Wu.,

2019; and Zhang & Huang, 2021). While previous studies have explored the individual impacts of these variables on entrepreneurial intention, there remains a practical gap in understanding how these factors collectively interact to shape individuals' intentions to engage in entrepreneurial activities. Additionally, a literature gap exists in comprehensively examining the mediating role of self-efficacy in the relationship between entrepreneurial passion, entrepreneurial education, and entrepreneurial intention.

The uniqueness of this paper lies in its focus on examining the mediating role of self-efficacy in the relationship between entrepreneurial passion, entrepreneurial education, and entrepreneurial intention. By elucidating the mediating mechanisms through which these variables influence entrepreneurial intention, this study offers valuable insights for educators, policymakers, and researchers aiming to enhance students' entrepreneurial mindset and intentions. Through a comprehensive analysis of the interactions between these variables, this paper aims to provide practical implications for promoting entrepreneurship among students and fostering a conducive environment for entrepreneurial development.

## **LITERATURE REVIEW**

### **2.1 Entrepreneurial Intention (EI)**

Entrepreneurial intention, a crucial concept in entrepreneurship research, serves as a key predictor of entrepreneurial behavior and success. Recent studies have shed light on various factors influencing entrepreneurial intention, providing valuable insights into the dynamics of entrepreneurial decision-making. Liu & Chen (2021) highlighted that entrepreneurial intention is a reliable indicator for predicting entrepreneurial behavior, emphasizing the significance of understanding individuals' intentions to engage in entrepreneurial activities. Even entrepreneurial intention can create innovation, job vacancies, develop the manpower potential, and for consumers' demands.

In entrepreneurship research, the theory of planned behavior (TPB) has been widely used to predict entrepreneurial intention. Studies have shown that attitudes, subjective norms, and perceived behavioral control significantly influence individuals' intentions to engage in entrepreneurial activities (Lu & Wang, 2018; and Duan, 2022). Su et al. (2021) said in a relationship between entrepreneurial intention, TPB has several factors such as perceived behavioral control, attitude toward entrepreneurship like personal belief, and subjective norms. Those factors can lead to finding out the entrepreneurial intention of entrepreneurs.

### **2.2 Entrepreneurial Passion (EP)**

Entrepreneurial passion characterized by a strong emotional attachment and enthusiasm towards entrepreneurial activities, has garnered significant attention in recent research. Scholars have explored the multifaceted nature of entrepreneurial passion and its implications for entrepreneurial behavior and success. Chen & Liu (2023) investigated the mediating role of entrepreneurial passion in the relationship between top management team (TMT) entrepreneurial passion diversity and firm innovation performance, shedding light on the importance of passion in fostering innovation within organizations. Yangailo & Qutieshat (2022) conducted a systematic literature review to uncover dominant characteristics for entrepreneurial intention and success, emphasizing the role of conscientiousness and the big five personality traits in shaping entrepreneurial outcomes. Furthermore, Zainuddin et al. (2019) delved into the interplay between heuristic thinking and pedagogical experience during the entrepreneurial learning process.

### **2.3 Entrepreneurial Education (EE)**

Entrepreneurial education can be defined by the ability of the actions of the individual in favor of knowledge and abilities (Liu et al., 2019). It has been argued that previous research indicated the important role of entrepreneurial education in metapersonal education to enhance the skills of individuals, which will induce business activity (Sun et al., 2017; Yang, 2014) pointed out that

entrepreneurial education has two important characteristics. First, it helps make an individual share knowledge, skills, and experience of entrepreneurship through the behavior of entrepreneurial learning. Second, it will become successful for future people who are entrepreneurial and educated to obtain it through field study. Reviews of entrepreneurial education literature thus unveil two main concerns regarding context. One is the limitation and generalization in research due to contextual differences between studies. The other is the lack of progress in understanding context in relation to entrepreneurial education, both theoretically and in practice. By examining the impact of entrepreneurial education on various entrepreneurial outcomes, researchers have provided valuable insights for enhancing entrepreneurial education practices and promoting entrepreneurial development.

## 2.4 Self-Efficacy (SE)

Self-efficacy refers to an individual's belief in their ability to accomplish tasks oriented towards achieving goals (Barbaranelli et al., 2019). It is also linked to individuals' determination to reach their personal objectives (Newman et al., 2019). This concept originates from Bandura's social cognitive theory (1985), which suggests that individual behavior is shaped by various factors such as interpersonal interactions, involvement, and circumstances. These factors contribute to building confidence in individuals regarding their ability to handle specific behaviors and their expectations of the outcomes of those behaviors (Nowinski et al., 2019). Previous research on self-efficacy within entrepreneurial contexts indicates that it mirrors individuals' beliefs and anticipates their intentions to initiate new ventures (Krueger and Brazeal, 1994).

This study examined the relationship between EP (Entrepreneurial Passion), EE (Entrepreneurial Education), EI (Entrepreneurial Intention), and SE (Self-Efficacy) in private university undergraduate students. The hypotheses put forward in this study are as follows:

H1: Entrepreneurial passion is positively related to self-efficacy.

Entrepreneurial passion can direct individuals to become an entrepreneur and the person will prioritize self-development for their knowledge and skills so that they can become better entrepreneurs (Neneh, B., 2020). Li (2020) also found that entrepreneurial passion positively influences self-efficacy, which in turn affects entrepreneurial behavior. Entrepreneurial passion can also motivate people to assess entrepreneurial results and believe that success can be achieved. This motivation will influence thoughts about entrepreneurship and have a positive influence on increasing someone's self-efficacy (Hou et al., 2019). They can develop their skills, knowledge, and the confidence of entrepreneurs by their passion. In the role of EP, it will use personal concepts and beliefs to achieve entrepreneurs' goals and hopes. This is because SE is able to provide motivation and encouragement in achieving achievements. In this way, that motivation to develop their ability can influence the entrepreneur's self-efficacy. So, it is illustrated that EP is positively related to SE.

H2: Entrepreneurial passion is positively related to entrepreneurial intention.

Entrepreneurial passion plays a vital role in shaping intention, as it equips entrepreneurs with the ability to recognize opportunities and fosters a willingness to initiate new ventures. Consequently, it becomes a crucial driver of motivation and success in entrepreneurship, as highlighted by various scholars (Karimi, 2020). Moreover, entrepreneurial passion correlates positively with intentions, as it can enhance personal dedication and drive individuals to complete critical tasks, particularly during the early stages of business. Passion remains relevant to intent by inspiring entrepreneurs to persevere toward their goals and adhere to pre-established plans. Additionally, entrepreneurial passion is not a fixed characteristic, as individuals may exhibit varying levels of eagerness to explore and challenge conventional norms or behaviors, which is another aspect connected to entrepreneurial intention (Karimi, 2020; Syed et al., 2020). Scholars delineated three types of entrepreneurial passion, each associated with distinct facets of the entrepreneurial journey. Firstly, there is a passion for entrepreneurship, entailing engagement in identifying, conceiving, and exploring novel opportunities. Secondly, a passion for founding encompasses the entrepreneur's

fervor for activities encompassing establishing a business venture and the subsequent marketing and opportunity exploitation endeavors. Thirdly, there is a passion for nurturing, envisioning progress and expanding the venture post-establishment (Cardon & Kirk, 2015; Campos, 2017). These forms of entrepreneurial passion are linked to shaping identity and realizing entrepreneurial intention.

H3: Self-efficacy mediates the effect of entrepreneurial passion on entrepreneurial intention.

Bandura (1988) put forward the social cognitive theory which states that self-efficacy is an individuals' confidence in managing certain actions to achieve goals. Entrepreneurs with a high level of self-efficacy have the perception that they are able to manage their business and make it successful. Even so, there will still be positive and negative perceptions that impact the view of one's abilities. A growing body of research has established a significant relationship between entrepreneurial passion and intention, with self-efficacy playing a mediating role (Sun, 2020; Neneh, 2020; Kumar, 2019; Jiatong, 2021). These studies have consistently found that self-efficacy mediates the effect of entrepreneurial passion on entrepreneurial intention, with the strength of this mediation varying across different contexts and populations. This suggests that self-efficacy is a key factor in translating entrepreneurial passion into intention and underscores the importance of considering this mediating role in future research and practical applications.

H4: Entrepreneurial education is positively related to self-efficacy.

Entrepreneurial education has a positive impact on self-efficacy, which in turn influences self-employment intentions (Kisubi, 2021). This relationship is further supported by the mediating role of attitudes, with attitudes having a stronger relationship with intentions (Izquierdo, 2011). The influence of entrepreneurial education on self-efficacy and attitudes is also highlighted, with the need for effective and robust entrepreneurial education programs emphasized (Oluwafunmilayo, 2018). Exposure to successful entrepreneurial models in educational institutions is identified as a key factor in boosting students' confidence and improving their attitudes toward entrepreneurship (Muthumeena, 2022). Additionally, Wardana et al. (2020) demonstrated that entrepreneurial education successfully influences self-efficacy, supporting the hypothesis that entrepreneurial education is positively related to self-efficacy. So, the theoretical framework suggests that entrepreneurial education plays a crucial role in enhancing self-efficacy, thereby positively influencing individuals' belief in their capabilities to perform entrepreneurial tasks and achieve entrepreneurial success.

H5: Entrepreneurial education is positively related to entrepreneurial intention.

Entrepreneurial education assists individuals in obtaining minimal resources through appropriate knowledge sharing and information transfer. Therefore, individuals interested in entrepreneurial learning are likely to engage with peers and fellows and promote the entrepreneurial image (Nowinski et al., 2019). The role of entrepreneurial education in entrepreneurial intention can be demonstrated by understanding business education (Turner & Gianiodis, 2018). Entrepreneurial education allows individuals to improve their mindfulness and entrepreneurial intention for a career path to work (Kalyoncuoglu et al., 2017). The basic function of entrepreneurial education focuses on enriching knowledge, skills, and attitudes toward entrepreneurship. Thus, based on the existing studies, we argued that individuals who perceived a high level of entrepreneurial education were more likely to pursue a career in entrepreneurship.

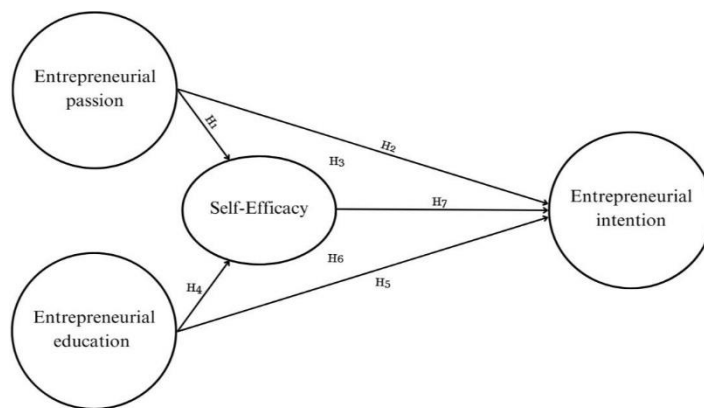
H6: Self-efficacy mediates the effect of entrepreneurial education on entrepreneurial intention.

Self-efficacy is related to a individuals' self-confidence, desires and intention. Wardana (2020) stated that entrepreneurial education can have an influence on a person's level of self-efficacy. The knowledge and experience gained from entrepreneurial education can increase a person's self-confidence and ability to start and build a business. With this increase in confidence, entrepreneurial intention will also be influenced. The more someone is confident in their abilities, the higher their interest will be. Additionally, Wu et al. (2022) and Wang and Huang Wang & Huang (2019) demonstrate the mediating role of self-efficacy in the relationship between entrepreneurial

education and entrepreneurial intention among college students in China. So, self-efficacy is able to mediate the relationship between entrepreneurial education and entrepreneurial intention.

H7: Self-efficacy is positively related to entrepreneurial intention.

Based on the findings of (Hassan et al., 2020) and (Wang & Huang, 2019), there is evidence to suggest that self-efficacy plays a significant role in shaping entrepreneurial intention, particularly among college students. An individuals' high level of beliefs can influence their intention in carrying out activities. Likewise, as an entrepreneur, confidence in one's own abilities and competence can increase an individuals' desire to start or develop a business. The presence of self-efficacy will help someone to realize their intention in entrepreneurship and have an impact on potential self-confidence in their entrepreneurial performance (Hou et al., 2019). So, increasing self-efficacy can be one of the main things to trigger someone's intention in entrepreneurship. Apart from that, self-efficacy is also a reference for entrepreneurs in achieving their goals. This means when they realize their ability to be successful in business, they will always try and succeed in achieving their goals. Based on the explanations, the study model can be illustrated in Figure 1.



**Figure 1. Conceptual model framework**

This research has the main focus on the student population of private universities. This population includes all students registered at the university, coming from various majors except entrepreneurship based and various domiciles. However, to narrow the research focus, we chose to sample from this population by selecting a group of undergraduate students currently in their final year of study. This was chosen because students at this stage often have a deeper understanding of the entrepreneurial intention and can provide valuable insight to this research. This research used sampling non-probability methods, in determining the sample, we employ the Sample Item Ratio method. This method utilizes the ratio between the sample size and the number of items in a study. According to Gorsuch (1983), Hatcher (1994), and Suhr (2006), the sample-to-item ratio should not be less than 5-to-1. Therefore, with a sample size of 300 participants who fulfilled the sample's requirements.

## METHODOLOGY OF RESEARCH

### Research Method

Our research used quantitative methodology with a cross-sectional time horizon. Quantitative research using data in the form of quantitative numbers to predict population conditions or future trends. Quantitative research collects and analyzes data statistically to produce findings that can be measured and interpreted objectively. This method is often used to identify patterns, relationships, and trends in numerical data, providing a solid basis for making generalizations or predictions about the observed phenomenon (Rahman et al., 2020). We used a Google Form questionnaire with questions in the form of a Likert scale. This approach helps us to make effective and accurate data collection. The questionnaire is structured according to the dimensions and indicators that have been selected for each variable. The dimensions and indicators that have been adapted and translated into

Indonesian to make it easier for respondents to answer the questionnaire. The dimensions and indicators of the entrepreneurial passion (EP) variable were compiled according to Cardon et al. (2012), entrepreneurial education (EE) is arranged according to Jiatong et al., (2021), entrepreneurial intention (EI) is arranged according to Samiono, B. E., (2020) and self-efficacy (SE) is arranged according to Trisnawati, H. et al. (2019).

**Table 1. Variables' Dimension and Indicators**

Variables	Dimensions		Question Indicators	References
Entrepreneurial Passion	Passion for inventing	PI1	It is exciting to figure out new ways to solve unmet market needs that can be commercialized	(Cardon et al., 2012)
		PI2	Searching for new ideas for products/services to offer is enjoyable to me	
		PI3	I'm motivated to look for ways to make existing products/services better	
		PI4	Scanning the environment for new opportunities really excites me	
	Passion for founding	PF1	Inventing new solutions to problems is an important part of who I am	
		PF2	Establishing a new company excites me	
		PF3	Having my own business excites me	
		PF4	Taking care of a new business through its growing success is a lot of fun	
	Passion for developing	PD1	Being a business founder is an important part for me	
		PD2	I really like finding the right people to market my products/services.	
		PD3	Assembling the right people to work for my business is exciting	
		PD4	Pushing my employees and myself to make our company better motivates me.	
		PD5	Nurturing and growing companies is an important part of who I am	

Entrepreneurial Education	Teaching-Learning process	TL1	The learning methods used in the classroom were effective in developing my entrepreneurial skills	(Jiatong et al., 2021)		
		TL2	The lecturer always gives real examples from his own experience in entrepreneurship			
	Entrepreneurial knowledge	EK1	I got enough information about the basics of entrepreneurship in this educational program			
		EK2	I understand key entrepreneurial concepts such as business plan creation, market analysis, and risk management			
	Knowledge of Social Entrepreneurship	KS1	I often get information or material about social entrepreneurship in my classes or educational programs			
		KS2	In my opinion, social welfare factors are very important in entrepreneurial decision making			
		KS3	In my opinion, environmental sustainability aspects are very important in business development or business			
	Entrepreneurial Intention	Becoming entrepreneur	BE1		I am interested in becoming an entrepreneur	(Samiono, B. E., 2020)
			BE2		I have a desire to own a business	
BE3			I plan to start a business			
Prefer to be an entrepreneur rather than to be an employee		PE1	I chose to be an entrepreneur			
		PE2	I want to make business my main job			
Have very seriously thought		HS1	I thought seriously about the concept of business			
		HS2	I think seriously about business operations			
		HS3	I am seriously considering business capital			

	Make every effort to start a firm someday	ME1	I'm serious about creating a business	
		ME2	I'm serious about building a business	
		ME3	I am serious about planning business development	
Self-Efficacy	Magnitude	MT1	I have a positive and optimistic outlook	(Trisnawati, H. et al., 2019)
		MT2	I overcame obstacles with confidence in the level of difficulty	
		MT3	I believe in the ability to take action	
	Strength	ST1	I utilize life experience as a step towards success	
		ST2	I have an attitude that shows confidence in the whole learning process	
		ST3	I was able to face various circumstances with a positive attitude	
	Generality	GR1	Have a strong belief in one's potential in completing all business matters	
		GR2	I am committed to all business matters	
		GR3	Have fighting spirit and do not give up easily	

## DATA ANALYSIS

The data analysis used in this research is the Partial Least Squares (PLS) method as a tool capable of processing complex conceptual models. The PLS method was used to test the quality relationship between each variable in this research (Sarstedt, Ringle, & Hair, 2022). Adherence to specific recommendations guided our selection of PLS. For instance, we ensured our sample size fell within the recommended range of 150 to 300 observations, and our model comprised seven or fewer constructs (Suhendar et al., 2023). Furthermore, we verified that measured variables shared at least 50% of their variance to ensure the reliability of results. To enhance the accuracy of our analysis and avoid ambiguity, all constructs within our model were meticulously identified before analysis. Adhering to these guidelines facilitated a thorough examination of the relationships among our variables, resulting in robust and well-informed conclusions. By sharing our methodology and results transparently, we aim to enhance the credibility and reproducibility of similar future research endeavors.

## RESULTS

### Demographic Results

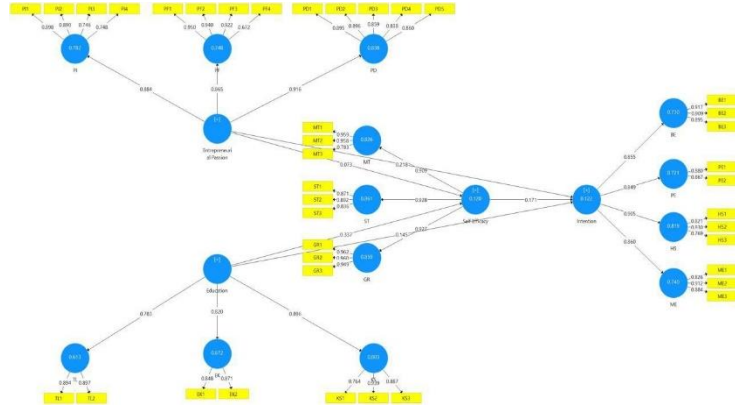
Of our total 300 respondents, there are various majors from engineering faculties that have the largest participation that is 25% in this study. The second largest participation was respondents



with various majors from the faculty of economics and business and the smallest participation came from the faculty of agriculture and computer science.

**Confirmatory Factor Analysis (CFA)**

In this study, Confirmatory Factor Analysis (CFA) was conducted to measure the fit between each construct and related latent variables. We checked for reliability and validity levels and found all indicators meet validity requirements with one of the smallest indicators of 0.672. Figure 2. represents the results of the SPLS analysis regarding the relationship between each variable, and Table 2. shows the validity test results.



**Figure 2. SmartPLS Analysis Results**

**Table 2. Loading Factor Value Results**

Variables	Dimensions	Indicators	Loading Factor Value	Results
Entrepreneurial Passion	Passion for investing	PI1	0.898	Valid
		PI2	0.890	Valid
		PI3	0.746	Valid
		PI4	0.748	Valid
	Passion for founding	PF1	0.950	Valid
		PF2	0.940	Valid
		PF3	0.922	Valid
		PF4	0.672	Valid
	Passion for developing	PD1	0.895	Valid
		PD2	0.896	Valid
		PD3	0.859	Valid
		PD4	0.838	Valid
PD5		0.860	Valid	
	Teaching-Learning process	TL1	0.894	Valid

Entrepreneurial Education		TL2	0.897	Valid
	Entrepreneurial knowledge	EK1	0.848	Valid
		EK2	0.871	Valid
	Knowledge of Social Entrepreneurship	KS1	0.764	Valid
	Knowledge of Social Entrepreneurship Becoming entrepreneur	KS2	0.939	Valid
		KS3	0.887	Valid
Entrepreneurial Intention	Becoming entrepreneur Prefer to be an entrepreneur rather than to be an employee	BE1	0.917	Valid
		BE2	0.909	Valid
		BE3	0.895	Valid
	Prefer to be an entrepreneur rather than to be an employee Have very seriously thought	PE1	0.880	Valid
		PE2	0.867	Valid
	Have very seriously thought Make every effort to start a firm some day	HS1	0.821	Valid
		HS2	0.830	Valid
		HS3	0.769	Valid
	Make every effort to start a firm some day Magnitude	ME1	0.826	Valid
		ME2	0.912	Valid
		ME3	0.884	Valid
	Self-Efficacy	Magnitude	MT1	0.959
MT2			0.958	Valid
MT3			0.783	Valid
Strength		ST1	0.871	Valid
		ST2	0.892	Valid
		ST3	0.836	Valid
Generality		GR1	0.962	Valid
		GR2	0.960	Valid
		GR3	0.949	Valid

According to Ghozali (2015:39) objectives from outer model evaluation is to assess validity through convergent validity and discriminant validity, as well reliability of the model being evaluated

composite reliability as well as cronbach's alpha for blocks the indicator. Convergent validity was tested for each indicator construct. According to Chin (2015), an indicator is valid if the value is bigger than 0.70, whereas a loading factor of 0.50 to 0.60 is considered enough. Based on the criteria, when loading factors are below 0.50, the indicator will be dropped from the model.

From the results of this study, it was found that all indicators of each related variable were declared valid. Out of a total of 41 indicators tested, we obtained valid results for 40 indicators with loading factor values greater than 0.7. Although there is one indicator with a loading factor value of 0.672 (indicator PF4), we still consider the indicator valid enough because the range of values from 0.5 to 0.6 is considered sufficient and valid. It can be seen that the EP variable has the highest loading factor value through the PF1 indicator at 0.950, indicating that inventing new solutions to problems is an important part of oneself. In the EE variable, the largest loading factor value was obtained from the KS2 indicator at 0.939, which contains statements that social welfare factors are very important in entrepreneurial decision making. For the EI variable, the largest loading factor value comes from the BE1 indicator at 0.917, indicating that people interested in becoming an entrepreneur. Additionally, the SE variable has the largest loading factor value on the GR1 indicator at 0.962 related to indicating an individual's confidence in doing business.

#### 4.3 Validity - Average Variance Extracted (AVE)

The AVE value aims to measure level variation something component collected constructs from the indicator with adjust to the level error. Testing with AVE value is characteristic more critical rather than composite reliability. Recommended minimum AVE value is 0.50. AVE output obtained from Smart PLS 3.0 is presented in Table 3.

**Table 3. Average Variance Extracted (AVE) Test Results**

	<b>Average Variance Extracted (AVE)</b>
<b>EP</b>	0.584
<b>EE</b>	0.539
<b>EI</b>	0.564
<b>SE</b>	0.702

Based on Table 3. above, can see that AVE value has been bigger of 0.50 which means all indicator the has met the criteria already determined and owned potential reliability to be carried out testing more carry on.

#### 4.4 Reliability Test – Composite Reliability and Cronbach’s Alpha

To ensure that there is no problem related measurement, so step final in outer model evaluation is test reliability test from the model. Reliability test done with use indicator Composite Reliability and Cronbach's Alpha testing that aims to test reliability instrument in a research model. If all over mark latent variables have mark Composite Reliability nor Cronbach's Alpha  $\geq 0.70$ , that means construct own good reliability or questionnaire used as a tool in this study has consistent.

**Table 4. Composite Reliability and Cronbach’s Alpha Test Results**

	<b>Cronbach's Alpha</b>	<b>Composite Reliability</b>
<b>EP</b>	0.940	0.948
<b>EE</b>	0.856	0.891
<b>EI</b>	0.922	0.934
<b>SE</b>	0.964	0.955

Based on Table 4., as we can see that results testing Composite Reliability and Cronbach's Alpha show satisfactory value, all latent variables have reliable because all over mark latent variables have Composite Reliability and Cronbach's Alpha value  $\geq 0.70$ . So, we can conclude that, the questionnaire is used as a tool of this study has reliable or consistent.

#### 4.5 Effect of F-Square, R-Square, and Q- Square

After the estimated model meets the outer model criteria, next done structural model testing (inner model). Inner model testing is model-based development draft from theory in frame analyze influence variable exogenous and endogenous. Stages testing on the structural model (inner model) is carried out with steps following this:

##### R-Square ( $R^2$ )

**Table 5. R-Square Test Results ( $R^2$ )**

	R-Square	R-Square Adjusted
<b>EI</b>	0.122	0.113
<b>SE</b>	0.120	0.114

The R-Square value of 0.122 shows that 12.2% variability in EI can explained by variables independent in this research model. It means the remaining 87.8% explained by other factors outside this model. The R-Square value of 0.120 shows that 12% variability in SE can be explained by variables independent in this research model. This means, 88% variability in SE is explained by other factors outside the model.

##### F-Square ( $F^2$ )

The F-Square value ( $F^2$ ) shows big influence partial of each variable predictor to endogenous variables. Following interpretation about F-Square value by Ghozali (2014):

If F-Square value is  $\geq 0.35$ , then can interpreted that the latent variable predictor has strong influence.

When F-Square value is  $0.15 \leq F \leq 0.35$ , then own medium influence.

If F-Square value is  $0.02 \leq F \leq 0.15$ , then own weak influence.

**Table 6. F-Square Effect Size ( $F^2$ )**

	EI	SE
<b>EP</b>	0.054	0.006
<b>EE</b>	0.021	0.129
<b>SE</b>	0.029	

There are interpretation results of F-Square value for the model:

##### Entrepreneurial Passion (EP)

Regarding EI: The  $F^2$  value of 0.054 shows that EP has weak influence towards EI. This shows that although there is influence, EP does not in a way dominant to explain variations in EI.

Regarding SE: The  $F^2$  value of 0.006 shows that EP has very weak influence towards SE. The influence almost has no significant in this study context.

##### Entrepreneurial Education (EE)

Regarding EI: The  $F^2$  value of 0.021 shows that EE has weak influence towards EI. This means that the role of EE in explain variations on EI do not significant.

Regarding SE: The  $F^2$  value of 0.129 shows that EE has weak influence towards SE. The influence is significant enough but still in category weak influence according to criteria that given by Ghozali.

##### Self-Efficacy (SE)

Regarding EI: The  $F^2$  value of 0.029 shows that SE has weak influence towards EI. Although SE has an influence on EI, the influence is not significant.

### Q-Square (Goodness of Fit Model)

Testing Goodness of Fit Model structural in the inner model used mark predictive relevance ( $Q^2$ ). Q-Square value is bigger than 0 (zero) indicates that the model has mark predictive relevance. Q-Square value of each internal endogenous variables in this study can see at the following calculations:

**Table 7. Q-Square Test Results ( $Q^2$ )**

	SSE	SSO	$Q^2$ $(1 - \frac{SSE}{SSO})$
EI	3053,159	3267,000	0.065
SE	2450,596	2673,000	0.083

A  $F^2$  value of 0.065 indicates that the model can explain 6.5% of the variability in EI. This indicates that the model has very adequate level predictions towards EI. The  $F^2$  value of 0.083 shows that the model is capable explained 8.3% of the variability in SE. This indicates that the model has a quite level prediction towards SE.

### 4.6 Hypothesis Testing Results (Path Coefficient Estimates)

Estimated value for influence track in the structural model must be significant. This significant value can obtain with bootstrapping procedure. Knowing the significance of the hypothesis with looking for value parameter coefficients and significant values T- statistics on the bootstrapping report algorithm. Significancy are seen from the T-table at alpha 0.05 (5%) = 1.96. Then T-table compared to with T-count (T-statistics).

**Table 8. Path Analysis and Hypothesis Test Results**

	Original Sample (O)	Samples Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Result
EE -> EI	0.145	0.146	0.062	2,346	0.019	Accepted
EE -> SE	0.337	0.339	0.066	5,125	0,000	Accepted
EP -> EI	0.218	0.219	0.046	4,733	0,000	Accepted
EP -> SE	0.073	0.071	0.053	1,366	0.173	Not Accepted
SE -> EI	0.171	0.167	0.058	2,936	0.003	Accepted

**Table 9. Indirect Effects and Hypothesis Test Results**

	Original Sample (O)	Samples Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Result
EE -> SE -> EI	0.058	0.057	0.024	2,422	0.016	Accepted
EP -> SE -> EI	0.013	0.012	0.010	1,262	0.207	Not Accepted

Our study scrutinized seven distinct hypotheses concerning the intricate relationships among EP, EE, SE, and EI. The first hypothesis (H1), which posited a positive relationship between Entrepreneurial Passion (EP) and Self-Efficacy (SE), proved valid. Data evaluation showed a significant positive relationship, with EP exerting a direct influence on SE quantified at 0.337. The critical p-value was recorded at 0.000, and the T-statistic was 5.125, strongly supporting H1. The second hypothesis (H2), proposing a positive relationship between EP and Entrepreneurial Intention (EI), also proved true. Statistical analysis revealed a positive correlation, with EP directly influencing EI at 0.218, thus validating the truth of H2. In the fourth proposition (H4), we posited a positive relationship between Entrepreneurial Education (EE) and SE. Upon analysis, EE was found to impact SE directly at 0.145,

underscoring a significant positive correlation, thereby validating H4. The fifth hypothesis (H5) predicted a positive relationship between EE and EI. Our data confirmed this, showing a direct influence of EE on EI at 0.171. A significant positive correlation was revealed, resulting in the validation of H5. Finally, the seventh hypothesis (H7) anticipated a positive relationship between SE and EI. Our data analysis revealed a direct influence of SE on EI, indicating a significant positive relationship, thus validating H7. These findings significantly enhance our understanding of the intricate relationships between EP, EE, SE, and EI. In this research, two hypotheses involving mediating variables were also examined.

The results of these tests and indirect effects are presented in Table 9. for hypotheses H3 and H6. The first row of Table 9. demonstrates the indirect influence of EP on EI through SE. The value of the original sample is 0.058, suggesting a positive and significant indirect influence of EP on EI through SE. The standard deviation is 0.025, and the T-statistic of 2.400 is significant at  $p < 0.05$ . Thus, H3 is valid, indicating that SE mediates the relationship between EP and EI.

The second row in Table 9. shows the specific indirect influence of EE on EI through SE. The original sample value of 0.025 indicates EE's positive but statistically insignificant indirect effect on EI through SE. The standard deviation is 0.020, and the T-statistic of 1.262 is not significant at  $p < 0.05$ . Thus, H6 is invalid, indicating that SE does not effectively mediate the relationship between EE and EI.

## DISCUSSION

### 5.1 The Effect Between EP, EE, EI, and SE

The research findings indicate that entrepreneurial education has a significant influence on students' entrepreneurial intention ( $\beta = 0.145$ ,  $P < 0.05$ ). This finding is consistent with the theory of planned behavior, which states that education can enhance attitudes, subjective norms, and perceived behavioral control, which in turn affect specific behavioral intentions. Entrepreneurial education provides the knowledge and skills needed for entrepreneurship, thus increasing students' perceived ability and intention to start a new venture. Similar results have also been found in previous studies (Karimi, 2020; Syed et al., 2020).

The research findings also reveal that entrepreneurial education has a significant positive effect on students' self-efficacy ( $\beta = 0.337$ ,  $P < 0.05$ ). This supports the assertion that self-efficacy can be enhanced through education and training (Boyd & Vozikis, 1994; Taneja, 2024). Entrepreneurial education provides learning experiences and challenges that help boost students' confidence in their ability to start new ventures. This finding is consistent with previous research indicating a positive relationship between entrepreneurial education and self-efficacy (Kisubi, 2021).

The study also found that entrepreneurial passion has a significant positive effect on students' entrepreneurial intention ( $\beta = 0.218$ ,  $P < 0.05$ ). This finding is in line with previous empirical support for the theory of entrepreneurial passion (Cardon et al., 2009), which states that individuals with high passion are more motivated and persistent in pursuing entrepreneurial activities. Passion drives individuals to invest the effort and resources needed for entrepreneurship. These results are consistent with previous research findings showing a positive relationship between passion and entrepreneurial intention.

However, a somewhat surprising finding is that entrepreneurial passion does not have a significant effect on students' self-efficacy ( $\beta = 0.073$ ,  $P > 0.05$ ). This contradicts previous research findings that found a positive relationship between the two (Neneh, B., 2020 and Li., 2020). One possible explanation is that in the context of students in Indonesia, passion may not be sufficient to directly influence confidence in entrepreneurial abilities. Self-efficacy may be more influenced by other factors such as actual entrepreneurial experience, mentoring, and environmental support. Further research is needed to clarify this relationship.

## 5.2 Implication and Recommendation

This study provides empirical evidence about the influence of entrepreneurial education and passion on entrepreneurial intention and self-efficacy in the Indonesian student's context. The findings challenge previous understanding of the relationship between passion and self-efficacy, suggesting **further research**.

Universities need to strengthen entrepreneurial education programs to encourage students' intentions and self-confidence in entrepreneurship, and such programs should also instill and develop entrepreneurial passion among students. Several recommendations can be made: for policymakers, promoting and supporting curriculum development and entrepreneurial activities in higher education institutions and providing incentives and support to facilitate the establishment of new businesses by graduates; for practitioners, designing an entrepreneurial training program that conveys knowledge and triggers participants' passion and entrepreneurial spirit, and providing a mentoring program for aspiring young entrepreneurs to maintain their passion and self-efficacy; and for further researchers, examining other factors influencing self-efficacy, such as previous entrepreneurial experience and role models, and conducting a longitudinal study to see the long-term impact of education and entrepreneurial passion.

## 5.3 Limitations and Future Research

This study provides empirical evidence about the influence of entrepreneurial education and passion on entrepreneurial intention and self-efficacy in the Indonesian student's context. The findings challenge previous understanding of the relationship between passion and self-efficacy, suggesting further research. Universities need to strengthen entrepreneurial education programs to encourage students' intentions and self-confidence in entrepreneurship, and such programs should also instill and develop entrepreneurial passion among students.

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## CONCLUSION

This research provides valuable insight into the factors that influence entrepreneurial intention and self-efficacy among students in Indonesia. Entrepreneurial education has been proven to positively impact both, while previous research findings have confirmed this. Entrepreneurial passion also plays an important role in fostering entrepreneurial intention, but its influence on self-efficacy is insignificant in this study.

These findings emphasize the importance of strengthening entrepreneurial programs and curriculum in higher education to convey knowledge and foster students' passion and self-confidence for entrepreneurship. This research contributes to understanding the factors driving

entrepreneurial intention and self-efficacy while opening up opportunities for further research in the future.

## AUTHOR'S CONTRIBUTIONS

SA conceived the idea, designed the project, and wrote the manuscript. JL contributed to the development of the idea, assisted in project design, performed data collection and statistical analysis, and co-wrote the manuscript. AR supervised the project, guided the study, and reviewed the manuscript critically for important intellectual content. All authors read and approved the final manuscript.

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