



Entrepreneurial Education and Entrepreneurial Skills: Study of Higher Education Students in Indonesia

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ABSTRACT: The nation's economy has grown as a result of entrepreneurial activity. Through innovative programs and a research-oriented culture, formal and informal educational institutions must play a significant role in cultivating an entrepreneurial spirit in Indonesian higher education students. The development of initial entrepreneurial competencies, which are then manifested in entrepreneurial activities, is primarily facilitated by educational institutions. This study will examine the extent to which Indonesian higher education students' entrepreneurial skills are influenced by entrepreneurial education. This research is important as part of the academic contribution the concentration on increasing the number of young entrepreneurs in Indonesia which needs to be continuously improved. This study will use a causal design approach with structural equation modeling (SEM) as a statistical approach to testing the constructed constructs and hypotheses. The number of samples used in this study were 225 respondents from business activists at Indonesian Higher Education Students. The study shows that Indonesian university students' entrepreneurial skills are significantly influenced by entrepreneurial education.

Keywords: Entrepreneurial Education, Self Entrepreneurial Skill, Student, Higher Education.



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INTRODUCTION

The economic progress of a country is highly dependent on the progress of entrepreneurship ([Audia et al., 2000](#)). Economic growth and national prosperity will create entrepreneurship which also grows well (Hindle & Rushworth, 2002). Entrepreneurship is a way for a nation to stimulate innovation, and open access to broad jobs and welfare ([Elfenbein et al., 2010](#); [Guerrero et al., 2008](#); [Verheul et al., 2012](#); [Zhang et al., 2014](#)).

Universities are one of the parties most likely to encourage the advancement of a nation's entrepreneurship through curricula and programs that are deliberately designed to encourage an entrepreneurial climate. Through programs aimed at creating an entrepreneurial atmosphere,

students are believed to gain the ability to create, capture and pursue opportunities ([Azam Roomi & Harrison, 2008](#)). As entrepreneurship is an action that can be planned, directed, and structured ([Bird, 1988](#); [Katz & Gartner, 1988](#)).

Entrepreneurship education aims to develop and improve business abilities and skills, desire, motivation, and enthusiasm for students to support certain reputations, careers, or business plans. Developing the core resources and skills needed by an entrepreneur is the main goal of Entrepreneurship Education as well as assisting in the creation of ideas and recognizing new business opportunities ([Ahmed et al., 2020](#); [Liu et al., 2019](#); [Vanevenhoven & Liguori, 2013](#)).

Educational institutions have a significant role in shaping the initial entrepreneurial competencies that are implemented in the form of entrepreneurial activities ([Ismail et al., 2015](#)). Business education needs to keep up with what's happening in the business world and provide a curriculum that gives graduates of the field the skills they need to deal with and adapt to changing business environments ([Mandilas et al., 2014](#); [Robson et al., 2003](#)). Alongside giving significant information and abilities that have direct importance to the innovative potential ([Heinonen, 2007](#)).

This study aims to determine the extent to which entrepreneurial education influences students enrolled in Indonesian higher education. The focus on increasing the number of young entrepreneurs in Indonesia, which must be continuously improved, makes this research important as part of the academic contribution. As a result of the need for higher education institutions to play a more active role in providing students with the knowledge and abilities necessary to succeed as entrepreneurs by expanding business skills beyond the technical domain ([Albrecht & Sack, 2000](#); [Leon, 2017](#)). Graduates can add to an information-based worldwide economy, and they ought to foster the capacity to "think well" in an enterprising climate when they are confronted with critical thinking undertakings that command essential examination ([Jones & English, 2004](#); [Solesvik et al., 2013](#); [Zampetakis et al., 2011](#)).

METHOD

The dynamic business world makes the actors always required to have steps and innovations to survive ([Schaper et al., 2010](#)). Universities in their role in educating the nation have a big role in creating young entrepreneurs who can survive and be competitive in the midst of an uncertain business environment ([Irawanto & Novianti, 2021](#)). Through higher education students are required to be adaptive to current business developments, technology, and information so that they can become young shoots that have an impact on economic activity both on a local, national, and international scale ([Bauman & Lucy, 2021](#); [Jones & English, 2004](#); [Robson et al., 2003](#)).

Entrepreneurial Education

Changes in the entrepreneurial environment are forcing universities to be able to provide entrepreneurial education to identify several entrepreneurial competencies needed to improve graduate skills in entrepreneurship ([Bauman & Lucy, 2021](#)). Through its curriculum, college

students regarding entrepreneurial education can learn to solve cases, start projects or develop themselves through innovation ([Almahry et al., 2018](#); [Din et al., 2016](#)). Several studies have shown that entrepreneurial education is part of developing a person's capacity to become an entrepreneur ([Irawanto & Novianti, 2021](#)). Entrepreneurial education can motivate students' desires and behavior toward entrepreneurship ([Vanevenhoven & Liguori, 2013](#)), as well as students' understanding of the various forms of business that can be formed ([Mahto & McDowell, 2018](#); [Oosterbeek et al., 2010](#)).

Entrepreneurial education is very important in creating new jobs ([Rauf et al., 2021](#)). However, students' desire to become entrepreneurs is influenced by their attitudes/perspectives on entrepreneurship ([Thomassen et al., 2020](#)). Through proper and effective entrepreneurial education in a higher education environment, students can not only understand the concept of entrepreneurship but know how to maximize their abilities, knowledge, and opportunities in the business world ([Cho & Lee, 2018](#); [Leon, 2017](#); [Ratten & Usmanij, 2021](#)).

Entrepreneurial education can be done by allowing students to learn to have an entrepreneurial orientation ([Lekoko et al., 2012](#)), character building, and creativity and ability ([Ahmed et al., 2020](#); [Shahab et al., 2019](#); [Zampetakis et al., 2011](#)). In addition, Entrepreneurial education can be carried out by paying attention to indicators of knowledge, mastery of techniques in making decisions and risks, skills, and experience ([Frazier & Niehm, 2008](#); [Wardana et al., 2020](#)). The emergence of entrepreneurial desires, increased insight into entrepreneurship, and awareness of business opportunities are indicators that can be used in measuring entrepreneurial education ([Jena, 2020](#); [Paray & Kumar, 2020](#); [Tarigan et al., 2022](#)).

Entrepreneurial Skill

Entrepreneurial skill is an important aspect that can support success in entrepreneurship ([Din et al., 2016](#)). Several studies have shown that entrepreneurial skills, whether obtained from special training or through education in tertiary institutions, can improve entrepreneurial skills ([Badawi et al., 2019](#); [Farooq & Radovic-Markovic, 2016](#); [Jardim, 2021](#); [Robson et al., 2003](#)). Entrepreneurial skills are also believed to be one of the keys to answering various problems and phenomena that occur in entrepreneurship ([Giunipero et al., 2005](#); [Lyons et al., 2020](#)).

Entrepreneurial skills can be in the form of a person's skills in managing, empowering, and using the knowledge and resources they have to solve existing problems ([Abdullah et al., 2018](#)). Through entrepreneurial skills, a person can have the ability and creativity to create value to obtain maximum profit ([Scarborough, 2016](#)). Entrepreneurial skills can be carried out through the aspects of risk-taking, communication, problem-solving, teamwork, performance orientation, and time management by taking into account the impact on individuals, organizations, and nationally ([Leon, 2017](#)).

Leadership skills, creative thinking skills, technical skills, communication skills, and marketing skills are dimensions of entrepreneurial skills that can influence the business success ([Lyons et al., 2020](#); [Omeihe et al., 2020](#)). Success in business needs to be supported by entrepreneurial skills consisting

of strategic skills, resilience skills, and managerial skills ([Abdullah et al., 2018](#)). Several aspects can be related to entrepreneurial skills, including interpersonal communication, ability to make decisions, ability to work in teams, negotiation, managing changes, customer focus, persuasion, strategic thinking, problem-solving, leadership, creativity, organization/time management, risk-taking and salesmanship ([Giunipero et al., 2005](#)). In entrepreneurial education, 6 dimensions can be used to identify entrepreneurial skills, namely risk-taking, critical thinking, problem solving, and innovation ([Badawi et al., 2019](#)).

Entrepreneurial Education dan Entrepreneurial Skill

Universities must be able to develop innovative entrepreneurship learning models ([Passaro et al., 2018](#)). Further efforts must be made to deepen new concepts of entrepreneurship in shaping entrepreneurial skills ([Tomy & Pardede, 2020](#)). They will be able to instill a strong entrepreneurial attitude in the lecture process ([Xie, 2014](#)).

Through well-designed entrepreneurship learning, entrepreneurship education will be able to: 1) increase students' basic knowledge, abilities, and entrepreneurial behavior; 2) create practical knowledge for businesspeople; 3) Utilize education to begin ownership of a micro business; 4) work with the people who wish to begin another item/administration business; 5) enhancing skills in microbusiness awareness ([Bauman & Lucy, 2021](#); [Kusumawardhany & Dwiarta, 2020](#); [Vanevenhoven & Liguori, 2013](#)).

Through entrepreneurial education in tertiary institutions, students will have entrepreneurial skills that will become a provision for future students to start entrepreneurship ([Hahn et al., 2020](#); [Khoury et al., 2012](#)). Entrepreneurship programs designed by universities have been proven to improve business skills ([Almahry et al., 2018](#); [Badawi et al., 2019](#)). Learning in tertiary institutions is designed to improve skills in innovation, problem-solving, critical thinking, communication, and critical thinking that support entrepreneurial activity ([Abdullah et al., 2018](#); [Oosterbeek et al., 2010](#); [Reyad et al., 2020](#)).

Quantitative approaches were used to present and examine the data. This study used the causality design to see how the independent variables, such as entrepreneurial education, affected entrepreneurial skills. The questionnaire will be of assistance in locating the data. A Likert scale of 1 to 5 was used in the survey. The participants in this study were all Indonesian university students. 225 people participated in this study as samples. Purposive sampling was used, and the following criteria were used in the selection process: 1) A citizen of Indonesia who is at least 18 years old; 2) Currently attending an Indonesian university for either formal or informal education; 3) Attend a university's entrepreneurship program or get an education. AMOS 24 was used for structural equation modeling (SEM) in this study's statistical analysis.

RESULT AND DISCUSSION

Respondent Characteristics

The analysis of the respondents' profiles in this research was based on the following demographic characteristics:

Table 1. Characteristics of Respondents.

Category	Item	F	%
Gender	Male	123	55
	Female	102	45
Total		225	100
Age	18-20 years old	12	5
	20-22 years old	67	30
	22-24 years old	112	50
	>24 years old	34	15
Total		225	100

Measurement Models

The results of the goodness of fit, validity, and reliability tests can be described as follow:

Table 2. Measurement Model Results

Variabel	Indikator	SLF	CR	AVE
<i>Entrepreneurial education</i>	I have received education and training in entrepreneurship, so I spend a lot of time and effort learning about the most recent developments in business management.	0,555	0,74	0,94
	I have a lot of entrepreneurial experience and management (entrepreneurship) knowledge. My education helped me develop initiative and an entrepreneurial mindset.	0,914		
	I became interested in becoming an entrepreneur as a result of my education.	0,911		
	Students are encouraged to learn about taking risks with teachers.	0,898		
	Teachers inspire students to overcome obstacles and complete assignments.	0,904		
	The instructor shows students how to use real-world scenarios to calculate risk.	0,905		
<i>Risk taking</i>	In class, you learned how to look for new challenges.	0,541	0,67	0,89

Variabel	Indikator	SLF	CR	AVE
	Business classes teach you to look at the evidence before making a decision in any situation.	0,853		
	Logical thinking can benefit from critical thinking skills.	0,916		
	Students are encouraged by teachers to have meaningful discussions about teamwork.	0,913		
<i>Critical thinking</i>	Teachers often support analytical thinking and idea synthesis.	0,928	0,83	0,98
	The activities that require critical thinking are well covered in the Business curriculum.	0,932		
	The business course syllabus covers the defining issues that students may encounter in the workplace.	0,878		
	Students learn to solve problems by thinking logically from the teacher.	0,903		
	Methods for dividing and joining tasks to accomplish goals are covered in lectures.	0,900		
<i>Problem solving</i>	Students receive business software in class.	0,905	0,80	0,97
	Students can use business software to solve organizational issues.	0,891		
	In the classroom, business students are aware of new concepts and technologies.	0,872		
	Students come up with novel approaches to improve their work performance in class with the help of teachers, who assist them in coming up with novel concepts.	0,895		
	Teachers develop students' business skills.	0,910		
<i>Innovation</i>	Students learn how to come up with original questions from their teachers.	0,923	0,85	0,98
	I am prepared to complete any assignment that will assist in achieving teamwork goals in my class. Sometimes, there is an exchange of roles in teamwork in class. My instructors always	0,920		

Variabel	Indikator	SLF	CR	AVE
	motivate me to work in a team with my colleagues. My university encourages me to assist my colleagues in collaboration when there is a workload.			
	I have received education and training in entrepreneurship, so I spend a lot of time and effort learning about the most recent developments in business management.	0,933		
	I have a lot of entrepreneurial experience and management (entrepreneurship) knowledge. My education helped me develop initiative and an entrepreneurial mindset.	0,912		
	I became interested in becoming an entrepreneur as a result of my education.	0,925		
Teamwork and collaboration	Students are encouraged to learn about taking risks with teachers.	0,913	0,81	0,97
	Teachers inspire students to overcome obstacles and complete assignments.	0,884		
	The instructor shows students how to use real-world scenarios to calculate risk.	0,907		
	In class, you learned how to look for new challenges.	0,893		

According to Table 2, the entire model's indicator variables are deemed valid. The standardized loading factor (SLF) value for each indicator variable with a value above 0.50 demonstrates this. This indicates that all indicators are presumed valid and can measure the model's structure. Additionally, the findings of the reliability test showed that the model-created research items were deemed trustworthy. The tested indicator instrument got a value of 0.50 based on the variance extracted (AVE) value. The tested instrument indicator had a value of 0.70 based on the construct reliability (CR) value.

Table 3. Goodness of Fit Index

<i>Goodness of Fit Indeks</i>	<i>Cut off Value</i>	<i>Results</i>	
CMIN/DF	≤ 3.00	2,773	<i>Good Fit</i>
TLI	≥ 0.90	0,926	<i>Good Fit</i>
IFI	≥ 0,90	0,932	<i>Good Fit</i>
CFI	≥ 0,90	0,932	<i>Good Fit</i>

The results of the measurement of model suitability or goodness of fit (GOF) show that there are seven measurements that have a good fit category. This indicates that the model built in this study has a model that meets the research requirements or is categorized as fit.

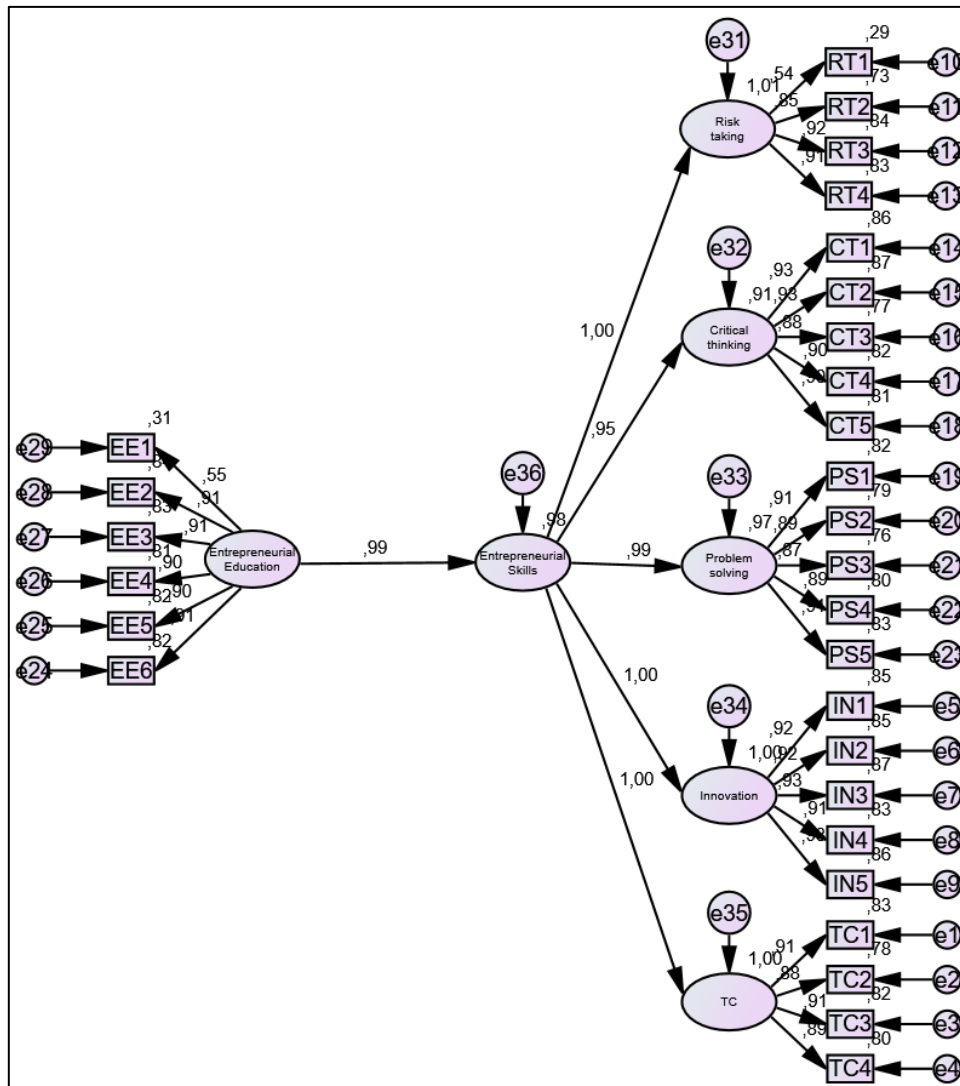


Figure 1. Full Model Analysis

Hypotheses Testing

The research hypothesis test is presented in Table 4 as follows

Table 4. Hypothesis testing

Path	Estimate	S.E.	C.R.	P	Conclusion
<i>Entrepreneurial skill</i> <-- <i>Entrepreneurial education</i>	11,005	2,335	4,712	***	<i>significant</i>

The outcomes of the data processing are shown in table 4; A three-star symbol indicates that the entrepreneurial education variable on entrepreneurial skills has a t-count value of 13.008 and a p-value of 0.001. According to these findings, the entrepreneurial education variable's impact on entrepreneurial skills has a t-count value more significant than the t-table value of 1.96. The p-value obtained also has a value of less than 0.05 ($= 0.05$). This indicates that entrepreneurial skills are significantly influenced by education.

Entrepreneurship has an essential meaning for the economic progress of a nation ([Crane, 2022](#); [Sergi et al., 2019](#)). The growth of innovation, the presence of jobs, and the formation of social welfare will align with the growth of the entrepreneurial sector ([Galindo-Martín et al., 2019](#); [Polas et al., 2022](#)). Entrepreneurial spirit can be formed ([Liu et al., 2019](#); [Mahto & McDowell, 2018](#)). Entrepreneurship education is one way to stimulate ideas and behaviors needed for entrepreneurship ([Kusumawardhany & Dwiarta, 2020](#); [Le & Loan, 2022](#); [McMullan et al., 2002](#)). The results of this study confirm that entrepreneurial education influences entrepreneurial skills in tertiary students in Indonesia.

Entrepreneurship education also influences individual character, reactions, and behavior in doing business ([Chaturvedi et al., 2020](#); [Farrukh et al., 2018](#); [Irawanto & Novianti, 2021](#); [Van Gelderen et al., 2008](#)). This research shows that entrepreneurial education will influence the knowledge, ways of thinking, abilities, attitudes, and character of Indonesian tertiary students regarding entrepreneurship ([Anjum et al., 2022](#); [Mahendra et al., 2017](#); [Polas et al., 2022](#); [Tarigan et al., 2022](#); [Yousaf et al., 2021](#)). The results of this study are in line with previous research, which states that entrepreneurship education will influence attitudes, knowledge, various abilities and risk-taking, critical thinking, problem-solving, and innovation ([Badawi et al., 2019](#); [Hahn et al., 2020](#); [Lundström & Stevenson, 2005](#); [Reyad et al., 2020](#)).

CONCLUSION

Entrepreneurial education in this study also confirmed its significant effect on entrepreneurial skills in students at Indonesian tertiary institutions ([Ghina et al., 2017](#); [Irawanto & Novianti, 2021](#)). Talking about entrepreneurial skills means talking about managerial abilities in business, which must fulfill various aspects such as strategic skills, resilience skills, and managerial skills ([Abdullah et al., 2018](#)), interpersonal communication, ability to make decisions, ability to work in teams, negotiation, managing change, customer focus, creativity, organization/time management, risk-taking and salesmanship ([Giunipero et al., 2005](#); [Leon, 2017](#); [Lyons et al., 2020](#)), persuasion, problem-solving, leadership, critical thinking, and innovation ([Farooq & Radovic-Markovic, 2016](#); [Jardim, 2021](#); [Reyad et al., 2020](#); [Robson et al., 2003](#)). This means that it requires the encouragement of an entrepreneur's knowledge, skills, attitudes, and character, which can be formed through various programs in higher education ([Hahn et al., 2020](#); [Maharana & Chaudhury, 2022](#); [Oosterbeek et al., 2010](#); [Valencia-Arias et al., 2022](#)).

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