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# Exploring the Impact of Various Factors on the Entrepreneurial Perceptions of Students in an Educational Management Study Program: A PLS-SEM Analysis

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## ABSTRACT

The current era places entrepreneurship as a solution to the nation's economic development. Hence, students from various fields of study, including education management study programs, need to get an education about entrepreneurship to broaden their perspectives. This study aims to analyze the factors that influence the perceptions of students of the education management study program towards entrepreneurship. This study uses a quantitative design. The data was obtained from a survey of 183 students of the education management study program at Universitas Negeri Yogyakarta (UNY) from various college intakes and various levels: undergraduate, master, and doctoral degrees. Descriptive analysis was employed to evaluate the degree of each variable after the collection of data, while to see the effect between variables, the SmartPLS application was utilized to apply the PLS-SEM method, and it was found that certain elements had an impact on the perceptions of student of education study programs towards entrepreneurship, such as entrepreneurial education, prior entrepreneurial experience, supportive entrepreneurial environment, entrepreneurial motivation, and entrepreneurial risk tolerance. Although all effects are positive, not all have a significant effect, which indicates that not all factors can be generalized.

**Keywords:** Entrepreneurship, Education management study program, PLS-SEM, Student's perception.

#### INTRODUCTION

#### Background

In today's society, most professions that want to succeed in the future require one to take risks and be innovative. Thus, creativity and entrepreneurship are important competencies that need to be developed by young people for their social growth and development (Weng et al., 2022). Entrepreneurship involves the identification of opportunities to develop products with enhanced value by analyzing the economic, social, and cultural context. Entrepreneurship development is advantageous for both entrepreneurs and society. Individuals can establish self-employment, improve their independent learning abilities, and cultivate leadership skills while feeling accountable for achieving group objectives. Additionally, it creates job opportunities for employers, as well as fostering creativity and social innovation.

Classical economists often consider entrepreneurs as the fourth factor of production, alongside labor, natural resources, and capital. An entrepreneur is someone who creates a new business venture by bringing together other factors of production to produce a product or

service (Abaci, 2022). They take business risks as well as gain profit opportunities. Entrepreneurs are also considered as someone who has a better understanding of customer needs than their competitors and thus create value by meeting those needs more effectively. They use their communication skills to come up with creative solutions to customer problems, build trust through their social connections, and use communication to their advantage.

Entrepreneurship education in tertiary institutions places more emphasis on the importance of entrepreneurial creativity as an important factor in improving students' innovation skills (Wang et al., 2022). Entrepreneurship Education is an important method in universities which is believed to increase students' entrepreneurial awareness, intention, self-efficacy, and finally their startup behavior (Lyu et al., 2023). The transformative role of education has led to increased interest in entrepreneurship education, particularly in higher education. Entrepreneurship education is considered essential for economic development and personal development beyond professional skills (Martínez-Gregorio et al., 2021). However, although various university policies have introduced entrepreneurship, studies examining the relationship between entrepreneurship and students have not been widely carried out and the results may be inconsistent. While some researchers claim that entrepreneurship education increases the likelihood of students starting their own businesses, it is unclear to what extent this education equips students with the skills necessary to become effective entrepreneurs (Adeel et al., 2023).

Universitas Negeri Yogyakarta (UNY) has introduced entrepreneurship education to students in various fields of study, even in the education management study program, which at first glance is not related to entrepreneurship. Management education students' perceptions of entrepreneurship are poor due to the lack of emphasis on this field in conventional management education programs. These programs mainly focus on instilling student knowledge and skills in operational and strategic management functions in education but are deemed inadequate in entrepreneurial knowledge and skills. As a result, management education students may not be sufficiently prepared to take up entrepreneurial opportunities, which may result in discrepancies between their academic preparation and industry requirements.

In addition, there is a discrepancy between student perceptions and the reality of entrepreneurship, such as unrealistic expectations about entrepreneurship. This perception can demotivate some students from entrepreneurial challenges. In addition, research has shown that individuals with entrepreneurial skills and mindset have the potential to facilitate progress and advancement in society by creating jobs and driving economic progress. Therefore, there are opportunities for educational management programs to encourage entrepreneurship and economic growth.

The background to this issue highlights the need for management education programs to cultivate student perceptions and prepare them for entrepreneurial opportunities, as well as the potential for these programs to encourage entrepreneurship and promote economic development. This study presents entrepreneurial education (EE), prior entrepreneurial experience (PE), and supportive environment (SE) as exogenous variables. Two variables are offered for the intervening variables, namely entrepreneurial motivation (EM) and risk tolerance (RT). The endogenous variable is the student's perception of entrepreneurship (SP). Furthermore, this research asks research questions as follows:

1. What is the level of each variable in this study?

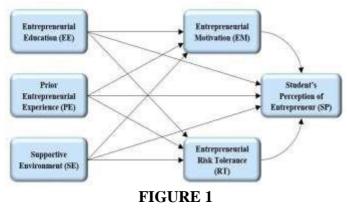
2. Is there an influence between the variables in this research?

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From the background and research questions, the researcher offers a conceptual model as presented in Figure 1.



## CONCEPTUAL MODEL

Source: Researcher's concept

## LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Entrepreneurial education is carried out by providing knowledge, expertise, and values relevant to entrepreneurship with the main focus on cultivating an entrepreneurial mindset incorporating the bravery to undertake uncertain ventures, the ability to identify opportunities, and the ability to adapt. According to Liu et al. (2022), to acquire knowledge and skills in entrepreneurship and develop the characteristics of an entrepreneur, exposure to entrepreneurship education is very important. Entrepreneurship education is an effective way to change the mindset and behavior of students toward entrepreneurship. Such an education provides students with the necessary skills to launch and manage growing businesses, which are essential for success in today's fast-paced and ever-changing marketplace (Munawar et al., 2023). Entrepreneurial education aims to encourage people to adopt an entrepreneurial mindset and promote a culture that encourages entrepreneurship and innovation. Although there are different and broader scopes in defining entrepreneurship education, it is evident that this education is a psychological instrument that impacts the inclination of students towards self-reliance or entrepreneurship. Thus, entrepreneurship education is essential in developing a mindset that encourages risk-taking, innovation, and the ability to turn ideas into successful business ventures, which are essential for success in today's dynamic and competitive business environment (Adelaja et al., 2023)

Prior entrepreneurial experience enables individuals to gain practical knowledge and insight into the opportunities and difficulties that come with entrepreneurship, as well as the skills needed to navigate through them. Several studies have shown there is a positive correlation between entrepreneurial experience and business success (Burke et al., 2018). Alves & Yang (2022) argue that entrepreneurs who possess exceptional entrepreneurial skills and robust self-efficacy typically exhibit successful entrepreneurial experiences. Having prior entrepreneurial experience can be a valuable advantage when launching or expanding a new venture, as it offers entrepreneurs a foundation of knowledge and skills that can assist them in making informed decisions and increase their chances of success.

A supportive environment for entrepreneurship includes a variety of factors and resources that assist the development and expansion of entrepreneurial activities. These include government policies, availability of funds and capital, access to mentors and

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networks, and societal attitudes towards entrepreneurship. Empirical research provides an understanding and explanation that the learning environment encourages the development of students' entrepreneurial competence (Toding et al., 2023). People with entrepreneurial traits, skills, and perspectives must first place themselves in an environment that supports the development of entrepreneurship (Huang et al., 2023). By offering the necessary resources and support, an enabling environment encourages and empowers individuals to pursue entrepreneurial opportunities, overcome obstacles, and achieve success in their endeavors. It promotes an innovative, collaborative, risk-taking culture that stimulates entrepreneurship and the emergence of new businesses. Facilitating an environment that supports entrepreneurship is critical to fostering economic development, job creation, and social progress, as it unleashes the entrepreneurial potential of individuals and communities, and contributes to overall growth and prosperity.

Entrepreneurship theory centers on two main components, namely 1) the entrepreneurs themselves and their motivation for entrepreneurship, and 2) the opportunities available to them, including the process of identifying and pursuing these opportunities (Kusa et al., 2021). Entrepreneurial motivation relates to the internal drives or incentives that drive individuals to start or pursue entrepreneurial ventures. It consists of various elements, such as personal aspirations, financial prospects, passion for a particular product or service, aspiration for autonomy, and a willingness to take risks. Encouraging entrepreneurship to drive economic growth and create jobs is more important than ever. Thus, entrepreneurship education is seen as a significant tool to increase individual motivation and inclination towards entrepreneurship (San-Martín et al., 2021). The significance of entrepreneurial motivation cannot be overstated because it shapes the attitudes, actions, and judgments of entrepreneurs. This affects their ability to recognize and pursue opportunities, to persevere through adversity and setbacks, and to innovate and adapt to changing circumstances. Gaining an understanding of entrepreneurial motivations can facilitate entrepreneurs and policymakers in creating programs and initiatives that effectively support and encourage entrepreneurial endeavors.

The concept of risk tolerance in entrepreneurship refers to the willingness and ability of individuals to accept and handle the risks that come with starting and managing a business venture. It reflects the level of comfort a person has with uncertainty and their ability to handle potential failure or loss. Entrepreneurs need a tolerance for ambiguity because the unpredictable nature of starting a business involves challenges and the potential for success. Tolerance for ambiguity refers to a tendency to view situations with no clear outcome as attractive rather than intimidating (Ismail et al., 2015). Several studies have demonstrated the importance of individual risk tolerance when dealing with risk in the workplace (Kumar & Bhattacharjee, 2023). An entrepreneur with a high-risk tolerance is willing to take significant risks to pursue business opportunities, whereas someone with a low risk tolerance may be more cautious and avoid taking risks. Risk tolerance is an important factor influencing entrepreneurs are willing to invest in their ventures, as well as their ability to face and overcome obstacles and setbacks.

The perception of entrepreneurship among university students refers to how they perceive and understand the concept of entrepreneurship, including its benefits, challenges, and opportunities as a viable career path or as a way to create social and economic impact. Students' perceptions of entrepreneurship can be influenced by background, cultural norms, educational exposure, and personal experiences. Those who have had prior exposure to entrepreneurship education or come from communities with a strong entrepreneurial culture

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are more likely to view entrepreneurship positively as a desirable career path. Haddad et al. (2021) argue that the promotion of entrepreneurship is increasingly important for economic growth and employment, and academic institutions are under pressure to foster an entrepreneurial mindset in students. Universities and business schools play a positive role in shaping student entrepreneurial behavior. Intention-based models, such as Ajzen's theory of planned behavior, have received attention in entrepreneurship research because intention is considered a precursor of behavior. Antecedents of intention include perceived behavioral control, subjective norms, and attitudes toward behavior. Students' positive perceptions of entrepreneurship can motivate them to pursue entrepreneurial ventures which can have a significant impact on their personal and professional development, as well as contribute to economic growth and job creation. Therefore, it is very important to equip students with the necessary resources and education to cultivate positive perceptions about entrepreneurship and support their entrepreneurial aspirations.

The hypothesis was developed in this study to see the significant effect between variables. The following is the hypothesis developed.

- 1. Entrepreneurial education has a significant effect on entrepreneurial motivation
- 2. Entrepreneurial education has a significant effect on entrepreneurial risk tolerance
- 3. Entrepreneurial education has a significant effect on student perceptions of entrepreneurship
- 4. Entrepreneurial motivation has a significant effect on student perceptions of entrepreneurship
- 5. Prior entrepreneurial experience has a significant effect on entrepreneurial motivation
- 6. Prior entrepreneurial experience has a significant effect on entrepreneurial risk tolerance
- 7. Prior entrepreneurial experience has a significant effect on student perceptions of entrepreneurship
- 8. Risk tolerance has a significant effect on students' perceptions of entrepreneurship
- 9. A supportive environment has a significant effect on entrepreneurial motivation
- 10. A supportive environment has a significant effect on entrepreneurial risk tolerance
- 11. A supportive environment has a significant effect on students' perceptions of entrepreneurship

#### METHOD

#### **Research Design**

This study design uses quantitative research with a structured and systematic approach involving the data to understand and explain a phenomenon. The process involves formulating research questions, defining variables, developing sampling plans, collecting data through surveys or experiments, analyzing data using statistical techniques, interpreting results, and reporting findings. Data was collected from a survey questionnaire which was distributed to students of the UNY Education Management Study Program online using the Google Form. The survey data were then analyzed using SEM with the SmartPLS. Data analysis consists of measurement models and structural models.

#### Sampling

The entire sample is UNY Education Management Study Program students. A total of 183 respondents were involved in this study. Active students and graduates were selected as samples with the consideration that they were members of the WhatsApp application group so that it was easy to distribute questionnaires. A total of 183 samples were taken randomly.

## Instrument

The survey instrument was arranged based on a grid and then distributed to students of the UNY Education Management Study Program. All respondents gave answers to the 25 questions asked as presented in Table 1

TABLE 1							
SURVEY QUESTIONNAIRE							
Construct	Question Items						
Entrepreneurial	1. Entrepreneurial education can increase my understanding of the						
education (EE)	entrepreneurial process and its risks						
	2. Entrepreneurial education can help ensure that I can start and run an						
	entrepreneur						
	3. Entrepreneurial education can increase the knowledge and skills						
	needed to identify entrepreneurial opportunities						
	4. Entrepreneurial education can make me aware of the potential benefits						
	of entrepreneurship						
Prior	1. Prior entrepreneurial experience can increase one's motivation to run						
entrepreneurial	an entrepreneurial venture						
experience (PE)	2. Prior entrepreneurial experience can increase my tolerance for						
	entrepreneurial risk						
	3. Prior entrepreneurial experience can give me a better understanding of						
	the entrepreneurial process						
	4. Prior entrepreneurial experience can give me the confidence to run						
	entrepreneurship						
Supportive	1. Environmental support such as family and campus can increase one's						
environment	motivation to run entrepreneurship						
(SE)	2. A supportive environment can increase my tolerance for						
	entrepreneurial risk						
	3. Environmental support can give me a better understanding of the						
	entrepreneurial process						
	4. A supportive environment can make me more confident that I am						
Entre ner seriel	capable of entrepreneurship						
Entrepreneurial motivation	1. Motivation plays an important role in shaping my perception of						
	entrepreneurship 2. The decision to become an entrepreneur is significantly influenced by						
(EM)	2. The decision to become an entrepreneur is significantly influenced by motivation						
	3. My level of motivation can affect my interest in taking risks in						
	entrepreneurship						
Risk tolerance	1. The courage to take risks is very important for success in						
(RT)	entrepreneurship						
(((((	2. Tolerance for risk influences my perception of the worth of working as						
	an entrepreneur						
	3. Training in entrepreneurial risk taking can increase individual interest						
	in entrepreneurship						
L	in encopreneursinp						

# **Data Analysis**

Data analysis to find out the level of variables used questions how well, how wide, how high, and other relevant questions. For this measurement, the count score (sum of the variable scores) is divided by the criterion score (ideal score) so that the findings of the descriptive analysis are in the form of numbers in percent.

Meanwhile, to determine the effect between variables, Structural Equation Modeling (SEM) data analysis is used which consists of measurement models and structural models.

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The measurement model aims to establish a relationship between the observed and latent variables in the research model. The model establishes the relationship between the observed variables and the latent variable or underlying constructs that are intended to be measured. It is an important component of SEM, which is used to test complex theoretical models containing both observed and latent variables. The measurement model serves to evaluate the accuracy of latent construct measurements. This requires testing the reliability and validity of measurement models to ensure that they correctly capture the underlying constructs. In addition, the model can be used to determine the number of factors, factor loadings, and the degree to which the observed variables are associated with each latent construct.

To run a measurement model in SEM using SmartPLS, several steps are required. As a first step, a measurement model is determined by identifying indicators for each latent variable. Indicators are observed variables that are used to measure latent variables. Next is assessing the measurement model about reliability and validity. This is achieved by testing the indicator's internal consistency, convergent validity, and discriminant validity. Cronbach's alpha was used to measure internal consistency. The convergent validity was measured by Average of Variance Extracted (AVE). Discriminant validity was measured by comparing AVE with the square of the correlation among the latent variables. After the measurement model is validated, the path coefficient between latent variables can be estimated using a structural model. Path coefficients indicate the direction and magnitude of the connection between latent variables. Finally, the fit of the model is evaluated by assessing the fit index, such as the R-squared value, adjusted R-squared value, root mean square error, and estimated standard error are calculated. This index indicates how well the model fits the observed data and whether revisions or improvements are needed.

Meanwhile, the structural model is designed to evaluate the relationship between latent variables and to explore the causal paths that connect them. The hypothesized relationships between latent variables are depicted by arrows connecting them in the model. The goal of structural models is to enable researchers to scrutinize their theoretical assumptions and analyze the complex relationships between variables. This facilitates assessing the direct and indirect effects of one variable on another and measuring the strength and direction of these effects. In addition, the structural model provides insight into the observed adequacy of the data in fitting the theoretical model, and whether there is a need to modify or refine the model.

#### FINDINGS AND DISCUSSION

## Findings

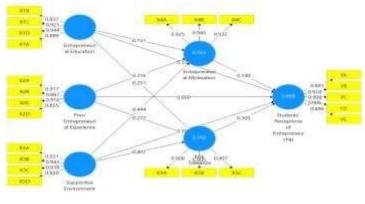
To find out the level of each variable, the calculated score formula is used divided by the criterion score. The calculated score is the score resulting from the direct calculation of the data. The mean, median, mode, or percentile value of the data can be used to calculate this score. Usually, the calculated score gives an overview of the observed data. On the other hand, a criterion score is a score that is determined based on certain criteria or standards. Criteria scores are usually used to evaluate or assess an object such as student performance, product quality, or other evaluation criteria. Criteria scores can be obtained from expert opinion, experience, or based on a predetermined standard (Sugiyono, 2020). In research, calculated scores and criterion scores can be applied in many types of analysis, including descriptive, factor, and regression analyses, among others. Selecting the appropriate type of

TABLE 2 RESULTS OF STATISTICAL CALCULATIONS FOR EACH VARIABLE						
Construct	Number of Respondents	Maximum Score	Score Count	Criterion Score	Calculation Results	
Entrepreneurial education	183	5	3350	3660	91%	
Prior entrepreneurial experience	183	5	3322	3660	92%	
Supportive environment	183	5	3357	3660	92%	
Entrepreneurial motivation	183	5	2537	2745	92%	
Risk tolerance	183	5	2516	2745	92%	
Students' perceptions of entrepreneurship	183	5	4214	4575	92%	

score for each type of analysis is critical to obtaining precise and reliable results. Table 2 illustrates the calculation of the level of each variable.

Source: researcher's analysis

For SEM analysis, Hair et al. (2017) explained that SEM is an important data analysis method for social sciences and business because it can model the complex relationships between the variables being measured. SEM is a research technique that enables the testing of theoretical models based on research hypotheses, by evaluating the connection between manifest and latent variables and investigating the effect of latent variables on manifest variables. Despite its significant advantages, Hair et al. (2017) also acknowledge some of the weaknesses and limitations of SEM, such as the assumption of normal data distribution and the need for large sample sizes. To overcome this problem, they developed an alternative method called PLS-SEM which does not require the assumption of a normal distribution and can be applied to smaller sample sizes. Furthermore, to determine the effect between variables, the Smart PLS application is used which requires compliance with special standards for validity and reliability to ensure high-quality measurement models. The standard metric for assessing convergent validity is the AVE, where the AVE of each latent variable must be more than 0.5. Meanwhile, discriminant validity is measured by comparing the AVE of each latent variable with the squared correlation of the latent variables with the provision that the AVE for each pair of latent variables must be higher than the correlation of squared. As for composite reliability, it is measured by Composite Reliability (CR), where the CR of each latent variable must be > 0.7. The results of the measurement model are shown in Figure 2.



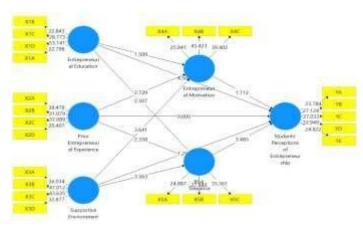
# FIGURE 2 PLS ALGORITHM RESULTS

Source: the results of the researcher's analysis

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# FIGURE 3 BOOTSTRAPPING RESULTS

Source: the results of the researcher's analysis

#### DISCUSSION

The discussion of research starts with descriptive analysis. From Table 2, the level of each variable is formulated as follows:

- 1. Entrepreneurial education in the UNY Education Management Study Program is 91% or the expected value of 91 out of 100.
- 2. Prior entrepreneurial experience in the UNY Education Management Study Program was 92% or the expected value of 92 out of 100.
- 3. The supportive environment in the UNY Education Management Study Program is 92% or the expected value of 92 out of 100.
- 4. Entrepreneurial motivation in the UNY Education Management Study Program is 92% or the expected value of 92 out of 100.
- 5. Entrepreneurial risk tolerance in the UNY Education Management Study Program is 92% or the expected value of 92 out of 100.
- 6. Student perceptions of entrepreneurship in the UNY Education Management Study Program are 92% or the expected value of 92 out of 100

If categorized with a score of 91-100 is very high, 81-90 is high, 71-80 is moderate, and <70 is less, then it can be formulated that entrepreneurial education, prior entrepreneurial experience, entrepreneurial supportive environment, entrepreneurial risk tolerance, perceptions students about entrepreneurship and entrepreneurial motivation are in the very high category.

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Moreover, the examination of the impact between variables initiates an evaluation of the measurement model to establish the validity and reliability of constructs. Convergent validity and discriminant validity are components of validity, while composite reliability assesses reliability. The outcomes of the tests of validity and reliability are exhibited in Table 3 and Table 4.

TABLE 3   CONVERGENT VALIDITY AND COMPOSITE RELIABILITY TEST RESULTS						
Construct	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)		
Entrepreneurial Education	0,921	0,929	0,944	0,809		
Entrepreneurial Motivation	0,927	0,927	0,954	0,872		
Prior Entrepreneurial Experience	0,916	0,916	0,941	0,800		
Risk Tolerance	0,891	0,892	0,932	0,821		
Students' Perceptions of Entrepreneurship	0,944	0,945	0,957	0,817		
Supportive Environment	0,951	0,951	0,964	0,871		

Source: researcher's analysis

In SMART-PLS, discriminant validity pertains to the degree to which a construct within a research model is distinct from other constructs. It measures how well a particular construct can be distinguished from other constructs in the same model, which is critical for ensuring that the construct does not overlap with other constructs in the model. To assess discriminant validity in SMART-PLS, the correlation between the construct and the square root of the average variance extracted (AVE) was analyzed. Discriminant validity is established if the square root of the AVE for the construct exceeds its correlation. In case the correlation between constructs exceeds the square root of the AVE, additional examination is necessary to ascertain if the constructs are genuinely distinct from each other.

TABLE 4 DISCRIMINANT VALIDITY TEST							
Construct	EE	EM	PE	RT	SP	SE	
EE	0,900						
EM	0,812	0,934					
PE	0,867	0,831	0,894				
RT	0,842	0,869	0,842	0,906			
SP	0,887	0,853	0,843	0,887	0,904		
SE	0,872	0,849	0,864	0,862	0,881	0,933	

Source: researcher's analysis

These results indicate that the construct has convergent validity because of Cronbach's Alpha > 0.7 and AVE > 0.5. Meanwhile, the correlation of all constructs to the construct itself is greater than the correlation to other constructs so it has discriminant validity. Thus, this construct is valid and reliable, to then do a structural model.

The structural model is used to see the significance of the influence between variables so that it can state support or reject the hypothesis. Table 5 shows the results of the structural model and hypothesis testing.

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TABLE 5 HYPOTHESIS TEST RESULTS							
Construct	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values		
$EE \rightarrow EM$	0,151	0,149	0,100	1,509	0,132		
EE -> RT	0,251	0,244	0,100	2,507	0,012		
EE -> SP	0,435	0,427	0,086	5,037	0,000		
EM -> SP	0,140	0,141	0,082	1,712	0,088		
PE -> EM	0,316	0,322	0,116	2,729	0,007		
PE -> RT	0,272	0,285	0,115	2,358	0,019		
PE -> SP	0,127	0,127	0,099	1,282	0,200		
RT -> SP	0,305	0,300	0,087	3,485	0,001		
SE -> EM	0,444	0,431	0,122	3,641	0,000		
SE -> RT	0,407	0,395	0,114	3,563	0,000		
SE -> SP	0,392	0,397	0,140	2,793	0,005		

Source: researcher's analysis

The results of hypothesis testing show that some hypotheses are supported and some are not supported. Thus, it can be formulated that:

- 1. Entrepreneurial education has no significant effect on entrepreneurial motivation
- 2. Entrepreneurial education has a significant effect on entrepreneurial risk tolerance
- 3. Entrepreneurial education has a significant effect on student perceptions of entrepreneurship
- 4. Entrepreneurial motivation has no significant effect on students' perceptions of entrepreneurship
- 5. Prior entrepreneurial experience has a significant effect on entrepreneurial motivation
- 6. Prior entrepreneurial experience has a significant effect on entrepreneurial risk tolerance
- 7. Prior entrepreneurial experience has no significant effect on student perceptions of entrepreneurship
- 8. Risk tolerance has a significant effect on students' perceptions of entrepreneurship
- 9. A supportive environment has a significant effect on entrepreneurial motivation
- 10. A supportive environment has a significant effect on entrepreneurial risk tolerance
- 11. A supportive environment has a significant effect on students' perceptions of entrepreneurship

#### CONCLUSIONS AND RECOMMENDATIONS

The results of this descriptive study indicate that all variables are in the very high category. Meanwhile, associativity shows that all variables have a positive influence on other variables according to the conceptual model, but not all of them are significant. As an exogenous variable, entrepreneurial education has no significant effect on entrepreneurial motivation, but it has a significant effect on entrepreneurial risk tolerance and student perceptions of entrepreneurship. Meanwhile, prior experience has a significant effect on entrepreneurship motivation and risk tolerance but did not significantly influence students' perceptions of entrepreneurship. A supportive environment has a significant effect on motivation, risk tolerance, and students' perceptions of entrepreneurship, but risk tolerance has no significant effect on student perceptions of entrepreneurship, but risk tolerance has a significant effect on student perceptions of entrepreneurship. The insignificant influence between variables is most likely caused by the limited number of samples, or other variables have a more significant influence.

The implications of this research are in the form of practical implications in improving entrepreneurial skills, developing curricula, improving recruitment and selection processes, and providing career guidance. In addition, this research has theoretical

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implications in contributing to the development of entrepreneurial theory, understanding the entrepreneurial mindset, and providing a research framework for future studies. The insights gained from this research can be used to encourage more students to pursue entrepreneurship and improve entrepreneurship education.

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#### REFERENCES

- Abaci, N.I. (2022). Relationship between entrepreneurship perception and communication skill: A structural equation model. *The International Journal of Management Education*, 20(3), 100725.
- Adeel, S., Daniel, A.D., Botelho, A. (2023). The effect of entrepreneurship education on the determinants of entrepreneurial behaviour among higher education students: A multi-group analysis. *Journal of Innovation & Knowledge*, 8(1), 100324.
- Adelaja, A.A., Akinbami, C.A.O., Jiboye, T., & Ogbolu, G. (2023). Students' intention towards selfemployment: An application of ELT theory on the effectiveness of entrepreneurial education types. *The International Journal of Management Education*, 21(2), 100738.
- Alves, J., & Yang, W. (2022). Cognitive mechanisms in entrepreneurship competence: Its implication for open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(2), 65.
- Burke, A., Millán, J.M., Román, C., Van Stel, A. (2018). Exploring the impact of different types of prior entrepreneurial experience on employer firm performance. *Journal of Business Research*, 90, 107-122.
- Haddad, G., Haddad, G., Nagpal, G. (2021). Can students' perception of the diverse learning environment affect their intentions toward entrepreneurship?. *Journal of Innovation & Knowledge*, 6(3), 167-176.
- Hair, J.F., Black, W.C., Babin, B.J., Tatham, R.L. (2017). Multivariate data analysis.
- Huang, Y., Bu, Y., & Long, Z. (2023). Institutional environment and college students' entrepreneurial willingness: A comparative study of Chinese provinces based on fsQCA. *Journal of Innovation & Knowledge*, 8(1), 100307.
- Ismail, I., Rahim, N.A., Kamal, M.H.M., Mat, R.C., & Husin, N. (2015). Investigating the needs for achievement, risk taking and tolerance for ambiguity toward entrepreneurial passion among single mother entrepreneur in Malaysia. *Procedia Economics and Finance*, *31*, 110-116.
- Kumar, D., & Bhattacharjee, R.M. (2023). Reducing workplace unsafe behaviour using risk classification, profiling, risk tolerance approach. *Heliyon*, 9(3).
- Kusa, R., Duda, J., Suder, M. (2021). Explaining SME performance with fsQCA: The role of entrepreneurial orientation, entrepreneur motivation, and opportunity perception. *Journal of Innovation & Knowledge*, 6(4), 234-245.
- Liu, M., Gorgievski, M.J., Qi, J., Paas, F. (2022). Increasing teaching effectiveness in entrepreneurship education: Course characteristics and student needs differences. *Learning and Individual Differences*, 96, 102147.
- Lyu, J., Shepherd, D., Lee, K. (2023). From intentional to nascent student entrepreneurs: The moderating role of university entrepreneurial offerings. *Journal of Innovation & Knowledge*, 8(1), 100305.
- Martínez-Gregorio, S., Badenes-Ribera, L., Oliver, A. (2021). Effect of entrepreneurship education on entrepreneurship intention and related outcomes in educational contexts: A meta-analysis. *The International Journal of Management Education*, 19(3), 100545.
- Munawar, S., Yousaf, H.Q., Ahmed, M., Rehman, S. (2023). The influence of online entrepreneurial education on entrepreneurial success: An empirical study in Pakistan. *The International Journal of Management Education*, 21(1), 100752.

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- San-Martín, P., Fernández-Laviada, A., Pérez, A., Palazuelos, E. (2021). The teacher of entrepreneurship as a role model: Students' and teachers' perceptions. *The International Journal of Management Education*, 19(1), 100358.
- Sugiyono. (2020). Metode Penelitian Kuantitatif, Kualitatif, dan Kombinasi (Mixed Methods). Alfabeta.
- Toding, M., Mädamürk, K., Venesaar, U., Malleus, E. (2023). Teachers' mindset and attitudes towards learners and learning environment to support students' entrepreneurial attitudes in universities. *The International Journal of Management Education*, 21(1), 100769.
- Wang, C., Mundorf, N., Salzarulo-McGuigan, A. (2022). Entrepreneurship education enhances entrepreneurial creativity: The mediating role of entrepreneurial inspiration. *The International Journal of Management Education*, 20(2), 100570.
- Weng, X., Chiu, T.K., Tsang, C.C. (2022). Promoting student creativity and entrepreneurship through realworld problem-based maker education. *Thinking Skills and Creativity*, 45, 101046.

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