



Entrepreneurial Intentions for Engineering Students: Do Entrepreneurship Education and Family Environment Matter?

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Abstract: This research aims to analyze the influence of entrepreneurship education and family environment on engineering students' entrepreneurial intentions within higher education. This examination method used was associative causal research. The research methodology is based on statistics using multiple regression analysis. This research was conducted on undergraduate students (S1) in the 2020 entry year at the Faculty of Engineering, Universitas Negeri Padang, which consists of 10 different undergraduate study programs. The total population for this research was 654 students. The total sample of this research was 200 students using the purposive sampling technique with the Slovin formula. This study's conclusions revealed that entrepreneurship education and family environment have a practical and remarkable impact on engineering students' entrepreneurial intentions. Partially, the variables of entrepreneurship education and family environment have a positive and significant impact on engineering students' entrepreneurial intentions. In conclusion, the results of the hypothesis testing show that entrepreneurship education and family environments have a significant positive effect on engineering students' entrepreneurial intentions.

Keywords: engineering students, entrepreneurial intention, entrepreneurship education, family environment

Recommended citation: Samala, A. D., Ganefri., Yulastri, A., Indarta, Y., Ranuharja, F., & Dewi, I. P. (2022). Entrepreneurial Intentions for Engineering Students: Do Entrepreneurship Education and Family Environment Matter? *Journal of Innovation in Educational and Cultural Research*, 3(4), 590-606.

INTRODUCTION

Indonesia provides fewer occupation vacancies compared to the number of people searching for a job, influencing the number of unemployed people (Utari & Sukidjo, 2020). Unemployment is typically caused by a greater number of job applicants than available positions or is not proportional (Bian et al., 2020; Shah et al., 2020). This fact is reinforced during the Community Activities Restrictions Enforcement (CARE), also known as Pemberlakuan Pembatasan Kegiatan Masyarakat (PPKM) in Indonesian in this period, the number of job vacancies experienced a decrease. There were 4,574 job advertisements in August 2021 (Kristianti et al., 2021). This number decreased by 17.1% from 5,520 advertisements in July 2021 (Widarni et al., 2021). Compared to 5,909 advertisements in February 2021, this is a 22.6% decrease, but the number of job advertisements in August 2021 still higher than in August 2020 (Figure 1).

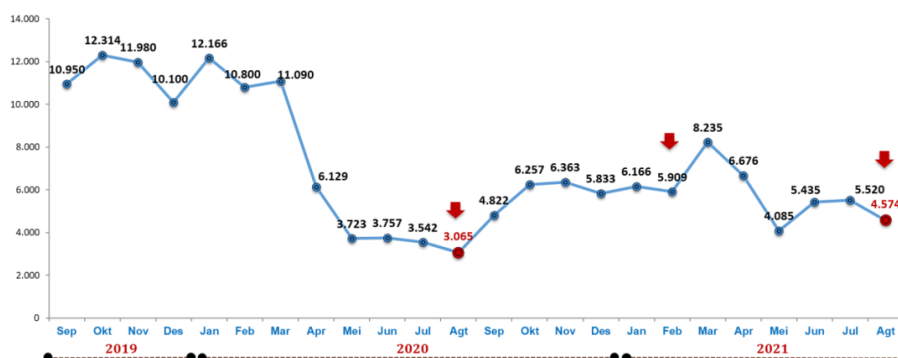


Figure 1. Number of Job Advertisements

The trend of people looking for work is increasing. According to Google Trends, the job search trend was 7.25 points in August 2021, up from 7.2 points in February 2021 (Figure 2). The statistics show that because of Indonesia enduring the Covid-19 pandemic for the last two years (Pitoyo et al., 2020).

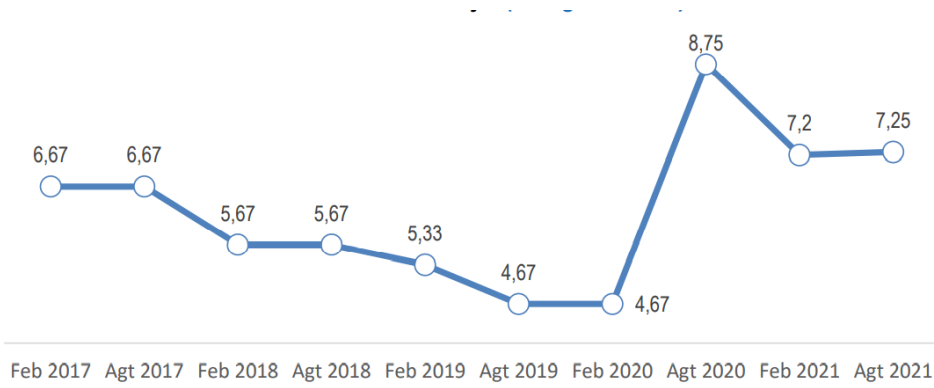


Figure 2. The Job search trends

Central Bureau of Statistics (BPS) shows the details concerning total employment in August 2021 was 140.15 million, which approximately increases by 1.93 million more than in August 2020. The employment rate increased by 0.03%. The open unemployment rate in August 2021 was 6.49% (Figure 3), down 0.58% compared to August 2020 (OECD, 2021). At that time, 10.32% (around 21.32 million people) of the productive ages were infected by a coronavirus, consisting of unemployment due to the pandemic of around 1.82 million people, unemployment due to COVID-19 (700,000), temporary disability due to COVID-19 (1.39 million), and workers who experienced shortened working hours due to COVID-19 (17.41 million). In August 2020, 77.91 million (59.45%) were in informal work, down 1.02% from the previous month (Naryono, 2020; Prawoto et al., 2020).

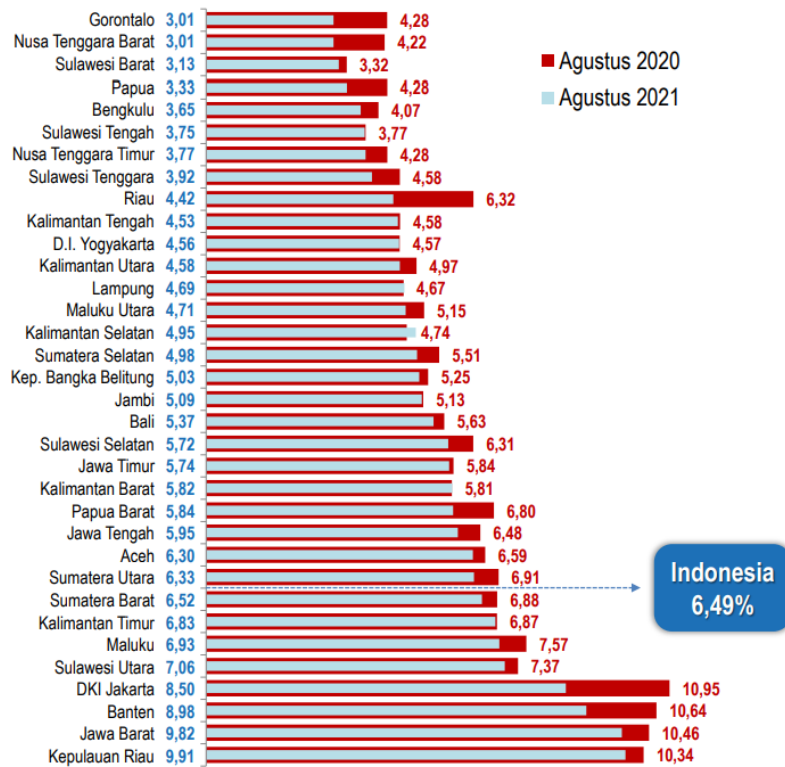


Figure 3. Open Unemployment Rate by Province

The economic impact of pandemics raises concerns about the outlook of young people, especially those who are quitting education earlier than others. In Indonesia, the unemployment rate the joblessness statistics for 25-34 year-olds under higher education in 2020 was 3.8%, an increase of 1.0 points from the previous year (Muhyiddin & Nugroho, 2021; Susilawati et al., 2020). Data from the BPS shows that the Open Unemployment Rate (Indonesian: Tingkat Pengangguran Terbuka, commonly referred to as the TPT) for Vocational High Schools or widely known as Sekolah Menengah Kejuruan (SMK) in Indonesia is still the highest (Purwanto, 2022). The figure reaches 11.13% as of August 2021. Meanwhile, TPT for high school (SMA) was recorded at 9.09% in second place. Following that, the TPT for Junior High School (SMP) was 6.45%, University 5.98%,

Diploma I/II/III 5.87%, and Elementary School (SD) 3.61% (Andriansyah & Kamalia, 2021; Tajuddin & Faroh, 2021).

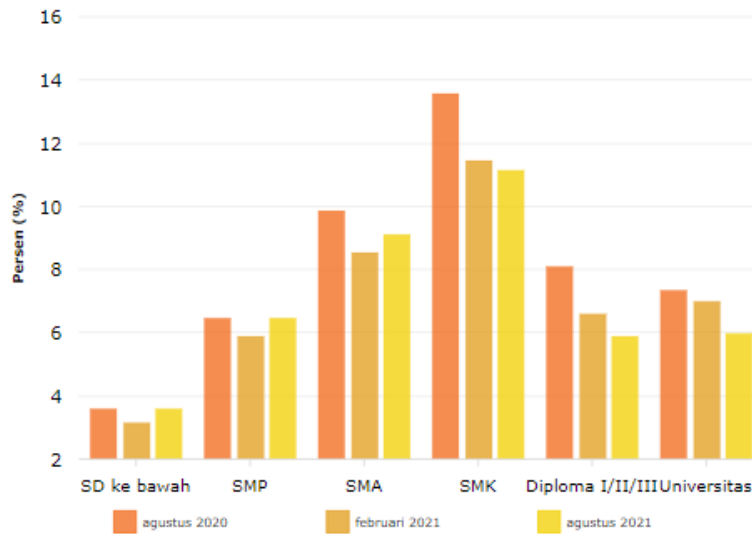


Figure 4. Open Unemployment Rate by Education Level

The increase in the unemployment rate among students in higher education in Indonesia is caused by the shortage of desire to start their own entrepreneurship (Ramadani et al., 2022). The unemployment rate for higher education in Indonesia is still high because the desire of students to open new businesses is very low (Ganefri et al., 2021). The burden of unemployment, including educated unemployment, is a big challenge for Indonesia (Yulastri et al., 2020). Concrete efforts are needed so that the number of unemployed can be reduced by increasing the number of entrepreneurs in Indonesia (Handayati et al., 2020). Based on data in 2019, the ranking of entrepreneurs in Indonesia ranks 94th out of 137 countries, reaching 3.5% of the total population ratio (Nalurani et al., 2021; Widodo et al., 2022). Although Indonesia has exceeded the worldwide rate of business people by around 2%, Indonesia needs to be boosted again to catch up with the achievements of neighboring countries. For example, Singapore is currently at 7%, while Malaysia is at 5% (GEI Report, 2019). When calculated with a population of Indonesia's population at around 273 million people, the number of national business people barely held out at 9.55 million people, and it can be concluded that it is still very low (Irawati & Wantara, n.d.; Rohaeni et al., 2021). Looking at these facts, entrepreneurs are going to have an impact on economic advancement and the enhancement of Indonesia's economic position (Yusriadi et al., 2020). To want to be a businessman, it is necessary to identify and understand possibilities, assemble necessary resources, and then act to capitalize on those opportunities (Ahmad & Hoffmann, 2011; Cooney, 2012; Kerr et al., 2018).

According to the Ministerial Decree of the Minister of Cooperatives and Small-Scale Business Development Number 961/KEP/M/XI/1995, the world of business depends on how a person manages their business or entrepreneurship with their spirit, personality on their best behaviors, and capabilities to craft and develop their products' efficiency for the sake of their customers' benefits (Utami, 2017). Entrepreneurs, like innovators, are natural-born risk-takers (Olugbola, 2017). Entrepreneurs may read or create possibilities at any place and any time (Vamvaka et al., 2020). The main traits contributing to thriving and competitive business endeavors are learning to be more creative and innovative (Indarta et al., 2021). A product has more value than others when creative functions are available. Brand new machinery and spin-offs are created over time (Samala et al., 2022). Entrepreneurship is also a viable option for lowering the number of unemployed, meaning that business people are required to be more imaginative, incentive, and cutthroat (Wiklund et al., 2019). Looking at the current condition of Indonesia, where the unemployment rate is still high, especially for educated graduates, entrepreneurship classes for students intend to improve their passion for entrepreneurship, causing them to consider starting new businesses, not just relying on existing jobs.

The world of entrepreneurship is often viewed as diminishing desires and bravery necessary to open new commerce. Researchers worldwide are trying to examine why a person's intention to become an entrepreneur tends to be low. Many research workers are figuring out why people's low desire to become a businessman. A particular case they research is the role of Entrepreneurship education and Family environment (Cardella et al., 2020; Fadillah & Thamrin, 2019; Hutasuhut, 2018; Kristianti et al., 2021). Entrepreneurship education prepares the generations for an entrepreneurial spirit (Lindner, 2018). Entrepreneurial spirits such as

daring to take risks, daring to innovate, being honest, never giving up, and the desire to excel must be used as good habits for students (Rauf et al., 2021). Students are given business lessons to learn, figure out, and take advantage of worldwide business opportunities (Lindner, 2018). Students are driven to become the best business people with the best visions, education, and techniques (Song et al., 2021). The values created in entrepreneurship education are values derived from entrepreneur qualities (Venesaar et al., 2022). According to Wang and Jiang (2021), learners should possess several entrepreneurial values. Six important values are considered when implementing entrepreneurship: independence, creativity, daring to take risks, action-oriented, leadership, and working hard (Agustina & Fauzia, 2021; Lubada et al., 2021; Shaowei et al., 2022).

Education is an intentional effort made by our lineage, society, and authorities via supervision, education, and practice inside or outside the classroom. The purpose is to educate "students" of life to partake in acceptable roles within varied environments in the next part of life (Joyce et al., 2018). Entrepreneurship education, or in this case education, is the process of changing students' attitudes and mindsets toward pursuing a career in entrepreneurship Practice and research for future entrepreneurs expanded significantly in the West, either via independent studies or majoring in business at college (Lynch et al., 2021). Entrepreneurship courses are offered as public lectures or study program concentrations (Nabi et al., 2017).

Students that attend entrepreneurship courses have a strong attitude and motivation for entrepreneurship, which increases their curiosity and passion for the field of business (Eesley & Lee, 2021). The strong drive to own entrepreneurship gives young entrepreneurs a clear vision for the future. Entrepreneurial intention is influenced by internal and external factors (Ngoc Khuong & Huu An, 2016). Internal factors consist of ownership rights, abilities or competencies, and incentives, while external factors are the environment (Zanabazar & Jigjiddorj, 2020). The problem of jobless and ignorant entrepreneurs can be solved since entrepreneurship scholarship results in skilled aspiring business people who are supposed to open new workforces rather than seek jobs (Hou et al., 2019). Students also lack confidence in themselves to start their own business. The deficiency of knowledge about opening a new business diminishes the drive that pushes them to pursue a job as an entrepreneur (Benedict, 2019).

The individual's immediate and primary environment is the family environment. Primary and secondary family members comprise the household environment (Maitland et al., 2014). In a family, one father or mother will affect their children's destiny, particularly in the choice of employment (Pascoe et al., 2019). The more parents that encourage and inspire their children to pursue entrepreneurship, the more likely their children will be interested and decide to become entrepreneurs. Favorable treatment and service from the family will affect the interest in entrepreneurship, so the family environment has an essential role in growing students' interest in entrepreneurship (Lingappa et al., 2020; Romero-Blanco et al., 2020). The wealthy households may support entrepreneurs to look for more business opportunities, whereas the less fortunate families are not likely to think about starting their own business (Cole, 2011). Motivation explains why people behave in the way that they do. Motivation is the driving force behind a set of human behavioral processes to achieve goals (Vanevenhoven & Liguori, 2013). Theory of Planned Behavior (TPB) explained that external factors, such as the family environment, influence entrepreneurial intention. With the existence of these family factors, students' interest in entrepreneurship will be high because of the encouragement of the family (Joensuu-Salo et al., 2021).

Entrepreneurial intention is explained as awareness and behaviors that push a person towards entrepreneurship behaviors. One of them is opening new entrepreneurship and starting as a businessman (Krieger et al., 2021). The entrepreneurial intention positively influenced the entrepreneurial actions. This intention is what pushes and motivates an entrepreneur (Agolla et al., 2019). TPB is the fundamental presumption for explaining Entrepreneurship motivation (Martínez-González et al., 2019). Entrepreneurial intention is a psychological state that guides our attention toward specific business goals to achieve entrepreneurial results. It also recognizes that individuals take action to develop new businesses or create new values in existing entrepreneurship. According to Thompson (2009), entrepreneurship motivation is the conviction concerning business people who want to open their own business. Not limited to that, it is also understood as the primary motivation for business people to develop and bring more meanings into available businesses.

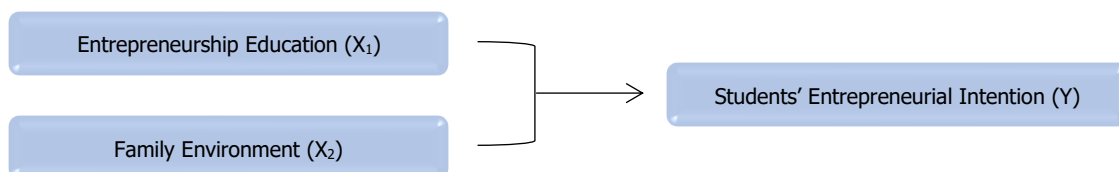


Figure 5. Conceptual Framework

METHODS

This research applies a quantitative approach using the causal associative research method. The research methodology uses multiple regression analysis based on statistics (Lewis-Beck & Lewis-Beck, 2015). Associative research investigates the correlation of two or more variables (Sugiyono, 2015). It was conducted in the form of causal relationships. Ex post facto comparative causal research means that the result is acquired after the events have occurred (Apuke, 2017). This research is set up to figure out the strong relationships of variables, namely entrepreneurship education (X_1), family environment (X_2), and entrepreneurial intentions (Y). The researcher studies the research by examining the data to the root of the causes, relationships, and purposes.

The hypothesis in this study consists of 3: H_1 : At the same time, a significant impact is found between Entrepreneurship education and family environment on students' entrepreneurial intentions at the Faculty of Engineering, Universitas Negeri Padang; H_2 : There is a significant impact on the Entrepreneurship education on students' entrepreneurial intention of Faculty of Engineering, Universitas Negeri Padang; H_3 : There is a significant and impact on the Family environment on students' entrepreneurial intention of Faculty of Engineering, Universitas Negeri Padang.

According to Gould (2001), research variables are a concept containing value variations. Meanwhile, Sugiyono (2015) defines a study subject as a person's trait, meaning, object, or activity that has a substantial variation that the researcher decided to analyze to get information and achieve a conclusion. The analyzed variables are as follows:

Table 1. Variables Description

Variable	Definition	Indicator	Scale
Entrepreneurship Education (X_1)	Series of formal education that intends to train anyone set on developing society's economy by introducing small businesses' creation and entrepreneurship knowledge. (Raposo & do Paço, 2011)	1. Curriculum 2. Quality of Teachers 3. Education Facilities	Likert
Family Environment (X_2)	A family environment where a person gets their first education that significantly influences his behavior and plays a role in determining his life goals. (Leseman, 2002)	1. Family Condition 2. Family Support 3. Parents' Guidance 4. Family Relationship	Likert
Entrepreneurial Intention (Y)	The disposition to become one's own boss and engage in business activities (Newman et al., 2019).	1. Hopes 2. Confidence 3. Profit 4. Freedom	Likert

According to Sugiyono (2017) and Casteel and Bridier (2021), the population is a general wide area, including objects with specific quirks and personalities, which the examiners lay the ground, study, and figure out conclusions. According to Krieger (2012), the population is the entire research materials, especially biological objects and inanimate objects such as events and symptoms fitting the criteria provided in the research. This research was conducted on undergraduate students (S_1) in the 2020 entry year at the Faculty of Engineering, Universitas Negeri Padang, which consists of 10 different undergraduate study programs. The total population for this research was 654 students.

Sugiyono (2017) mentioned that the sample matches data from a broad population. The sample is a small portion extracted from the population following a step-by-step process (Taherdoost, 2016). The method utilized for this research was purposive sampling, which is a technique for gathering data that takes into account or considers particular characteristics. For this research, the used subjects are undergraduate students of the Faculty of Engineering, Universitas Negeri Padang, 2020. This study allocates some amount of sample which was determined with Slovin's principles.

This research uses multiple linear analyses to determine the rigidity of the relationship between the profit system and the factors that influence it (Keith, 2019). It is also used because this method can determine the significant link between many factors. After collecting data for quantitative research, the next step is to analyze the data (Ali, 2021). This study analyses data using statistics. This data is later directed so the data can be appropriately categorized after looking at the variables analyzed and tabulating data based on variables gathered from all respondents. Generally, the techniques to analyze the data for quantitative study can be divided into descriptive and inferential statistics. On the other hand, the data analysis procedure can be done through another method. Descriptive data solely depend on the showcase of numerical figures to present the data. In contrast, deductive data, including descriptive statistics, can draw the line between the population and the sample (Fauzi & Pradipta, 2018).

Following the passing of the validity and reliability tests, the research instrument is tested using a one-

shot approach, literally meaning the test is done once where the results are compared to the other questions or whether there are relations between one reply to the next. Furthermore, the linear regression assumption test aims to prevent inevitable mistakes in retrogress figures (Keith, 2014). The linear regression assumption test is often known as classical assumption testing (Poole & O'Farrell, 1971). Valuables are later determined whether they can coexist and have a mutual effect or not using the F statistic test, and the t statistic test is applied to show how an independent variable can explain the dependent variable.

RESULT AND DISCUSSION

Characteristics of the respondents

Characteristics of respondents in this study are based on gender, age, parent condition, and being an entrepreneur:

Table 2. Characteristics of Respondents by Gender

Gender	Frequency	Percentage
Male	127	63.5
Female	73	36.5
Total	200	100.0

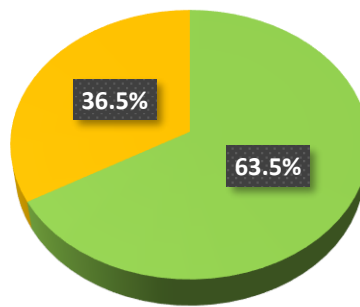


Figure 6. Percentage of Respondents by Gender

Table 2 shows that from 200 subjects in this study, about 127 men students have a rate of 63.5 %, whereas 73 women are at 36.5%. As a result, with 127 students, it can be inferred that males are the most dominant respondents.

Table 3. Characteristics of Respondents by Age

Age	Frequency	Percentage
20 years old	97	48.5
21 years old	63	31.5
22 years old	40	20.0
Total	200	100.0

Table 3 provides the information regarding the 200 respondents, with 97 of them being at 20 years old, representing the most dominant age of 48.5%, followed by 63 respondents at age 21 with 31.5% of the sample, and 40 people at 22 years old as the least dominant age at around 20.0% of the sample. As a result, with a percentage of 48.5 percent, it can be stated that the age of the most dominating responses is 20 years.

Table 4. Characteristics of Respondents Based on Parents' Condition (Work)

Condition	Frequency	Percentage
Civil Servants	47	23.5
Farmers	53	26.5
Employe	64	32.0
Entrepreneur	36	18.0
Total	200	100.0

Respondents are also studied based on their parents' occupations within Table 4, which shows those whose parents are public servants account for 23.5%, respondents whose parents are farmers account for 26.5%, respondents whose parents are employed account for 32.0%, and respondents whose parents are

entrepreneurs account for 18.5%. As a result, the most common occupation among respondents' parents is an employee.

Classic Assumption Test

Normality Test

The sample data is tested if drawn from a normally distributed population (with error tolerations) using a normality test (Ghasemi & Zahediasl, 2012). The normal graph plot shows dots dispersed around a slanted line, and the administering of the population is in sync with the line that matches the assumption of normality (Figure 7).

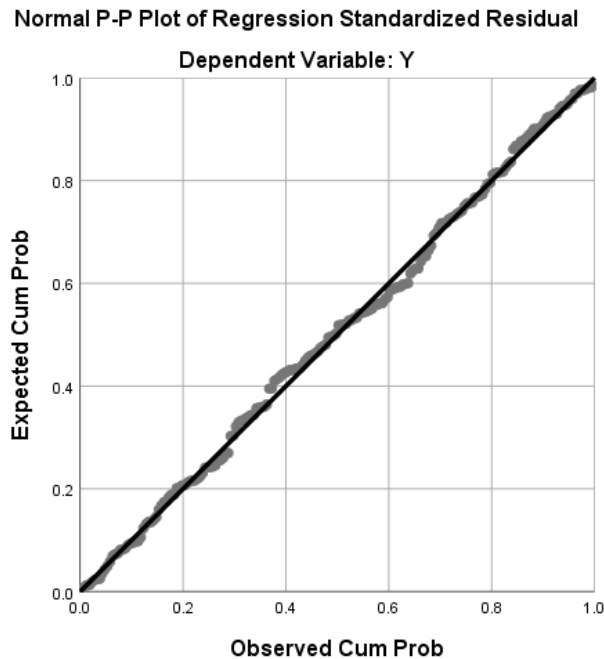


Figure 7. Plot Normality

The following table 5 shows the results of the normality test using the Kolmogorov-Smirnov test:

Table 5. Kolmogorov-Smirnov Test Results

Unstandardized Residual		
N		200
Normal Parameters	Mean	.0000000
	Std. Deviation	8.689
Most Extreme Differences	Absolute	.039
	Positive	.039
	Negative	-.035
Kolmogorov-Smirnov Z		.871
Asymp. Sig. (2-tailed)		.200 ^c

(a) Test distribution is Normal.

It can be concluded from the value of Asymp.Sig. (2-tailed) at .200) at Table 5, indicating the value exceeds 5%, which means the variable is appropriately administered.

Multicollinearity Test

This study's multicollinearity test aims to test whether the regression model found a correlation (strong relationship) between independent or independent variables (Shrestha, 2020). A good regression model should not correlate with the independent variables, or there should be no multicollinearity symptoms (Daoud, 2018). The following example demonstrates ways to discover the multi correlations by examining the independent variables' correlation matrix and calculating the tolerance and variance inflation factor (VIF).

Table 6. Tolerance and VIF Test Results

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	42.168	6.485		6.502	.000		
	X ₁	.210	.061	.227	3.439	.001	.998	1.002
	X ₂	.255	.058	.291	4.398	.000	.998	1.002

a. Dependent Variable: Y (Entrepreneurial Intention)

b. X₁ (Entrepreneurship Education)

c. X₂ (Family Environment)

The table proves that the tolerance value of all independent variables exceeds the determination value of 0.1, and the VIF value is less than 10. It can be concluded from this study that there are no issues with multi-correlation within the regression model.

Heteroscedasticity Test

One of the most common ways of checking for heteroskedasticity is by plotting a residuals graph using SPSS. Homoscedasticity helps determine the difference in the residual substance of one period compared to another (Williams, 2020). The case heteroscedasticity problem is not a good regression model. Several statistical approaches may be used to determine if a model is free of heteroscedasticity or not, including the White Test, Park Test, and Glejser Test. In this research, we used one heteroscedasticity test that can be applied in SPSS, namely Glejser Test. For this research, we employed the Glejser Examination, a heteroscedasticity test that can be run in SPSS (Figure 8).

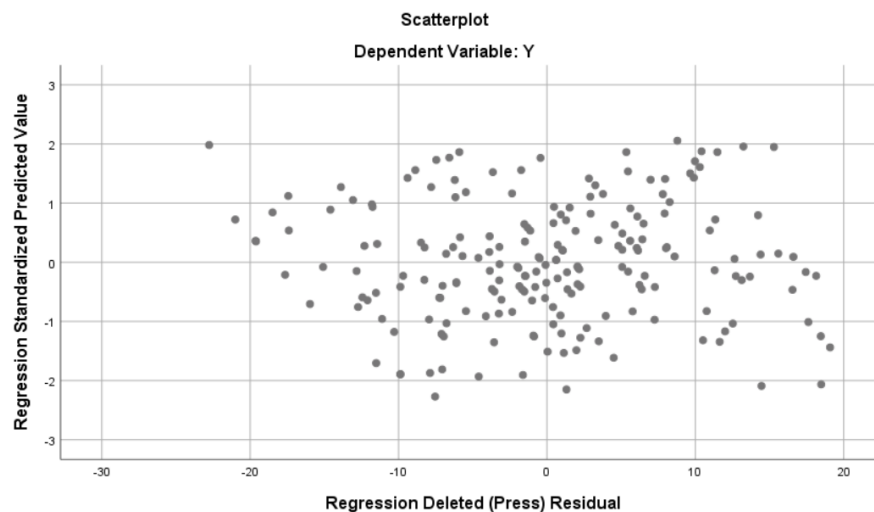


Figure 8. Heteroscedasticity Test Results

This signifies that the regression model has no heteroscedasticity. As a result, it is possible to conclude that the model used in this research can be used to estimate entrepreneurial intention after understanding factors that significantly affect it, such as entrepreneurship education and family environment.

Table 7. Glejser Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.148	3.926		.547	.585
	X ₁	.042	.037	.081	1.136	.257
	X ₂	.019	.035	.038	.536	.592

a. Dependent Variable: AbsUt (Residual)

b. X₁ (Entrepreneurship Education)

c. X₂ (Family Environment)

Based on Glejser test results proving that the value of both variables sig X1 and X2 count for a total of

more than 0.05, meaning there is no heteroscedasticity problem.

Multiple Linear Regression Analysis

Multiple linear regression, referred to as multiple regression analysis, refers to a technique used to estimate the results based on the value of the variables (Grégoire, 2015; Slinker & Glantz, 2008).

Table 8. Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	X ₂ , X ₁ ^b	.	Enter

a. Dependent Variable: Y
 b. All requested variables entered

Table 9. Multiple Linear Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	42.168	6.485		6.502	.000
	X ₁	.210	.061	.227	3.439	.001
	X ₂	.255	.058	.291	4.398	.000

a. Dependent Variable: AbsUt (Residual)
 b. X₁ (Entrepreneurship Education)
 c. X₂ (Family Environment)

In the second column, part B within Table 8 concerning the value β₁ of entrepreneurship education variable of 0.210, family environment variable (β₂) at the value of 0.255, and the constant value (α) at 42.168, the multiple linear regression is obtained, with the equation as follows:

$$Y = 42.168 + 0.210 X_1 + 0.255 X_2 + e$$

The Constanta value = 42.168 indicates that if entrepreneurship education (X₁) and family environment (X₂) are held constant, the entrepreneurial intention (Y) is 42.168. Coefficient β₁ (X₁) = 0.210, showing variable about entrepreneurship education (X₁) positively influences the entrepreneurship intentions (Y), or that improving entrepreneurship education (X₁) increases entrepreneurial intention (Y) by 0.210. Coefficient β₂ (X₂) = 0.255 proves that Family environment (X₂) variable positively influences the outcome of the entrepreneurial intention (Y) or that improving family environment (X₂) enhances entrepreneurial intention (Y) by 0.255.

Hypothesis Testing

Simultaneous Test, commonly referred to as the F test and Anova Test, is a test used to figure out the influences of the independent variables on dependent variables (Larson, 2008; Zhang & Liang, 2014), with the entrepreneurship education and family environment factors as the dependent variables of students' entrepreneurial intentions. The model is significant as long as the significance column (%) < Alpha (Blackwell, 2008).

Table 10. F Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2438.973	2	1219.486	15.988	.000
Residual	15026.527	197	76.277		
Total	17465.500	199			

a. Dependent Variable: Y (Entrepreneurial Motivation)
 b. Predictors: (Constant), X₂, X₁

Based on Table 9, it can be seen that the results of the F Test simultaneously obtained the value of F count= 15.988 with a significance level of 0.000. In comparison, the value of F table = 3.04 F count> F table (15.988 > 3.04) and significance level (0.000 < 0.05) with the hypothesis H₀ rejected and H_a accepted so that it can be concluded that independent variables, entrepreneurship education (X₁) and family environment (X₂) simultaneously positive and significant influence on the dependent variable that is entrepreneurial intention (Y).

T Test Also known as a partial test, this process is conducted to determine the effects of each independent variable on dependent variables (Potochnik et al., 2018). This is performed by comparing t counts with t tables or inspecting the total amount column for each variable; the t-test procedure is equivalent to the F test procedure. This test is conducted partly to examine if entrepreneurship education (X₁) and family

environment (X_2) have some or major impact on entrepreneurial intention (Y). H_0 starts to decline where H_1 is beginning to be received.

Table 11. T Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	42.168	6.485		6.502	.000
	X_1	.210	.061	.227	3.439	.001
	X_2	.255	.058	.291	4.398	.000

(a) Dependent Variable: Y (Entrepreneurial Motivation)

The variable of entrepreneurship education at 3.439, the level of significance at .001, and the approximate T table's value at $\alpha = 5\%$ and $df1 = 197$ are 1.652. There is a valuable and significant impact of the teaching on entrepreneurs for the entrepreneurial intention in students of Engineering, Universitas Negeri Padang. When looking at the significance value, it can be concluded that the value of $0.001 < 0.05$ and the T count's value (3.439) $>$ Table 1.65. Therefore, this study proves that H_0 has been denied where H_2 starts to be accepted.

Family environment variable is 4.398 with significance level 0.000 and Table value at $\alpha = 5\%$ and $df1 = 197$ is 1.652. It was found that there is a significant and beneficial effect on how the Family environment reacts towards the intention of starting a business among students of the Faculty of Engineering in Universitas Negeri Padang. The significance value showcases the statistic of $0.000 < 0.05$ and the value of Tcount (4.398) $>$ Table 1.652. Hence the result is that H_0 is denied, and H_3 is accepted.

Coefficient of Determination Test (R^2)

The coefficient of determination (R^2) test is carried out to determine and predict how significant or important the contribution of the influence given by the independent variables to the dependent variable is. The value of the coefficient of determination is between 0 and 1 (Chicco et al., 2021).

Table 12. Coefficient of Determination Testing (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774 ^a	.440	.431	8.73366

(a) Predictors: (Constant), Entrepreneurship Education, Family Environment

(b) Dependent Variable: Entrepreneurial Intention

Table 12 provides the information regarding the Adjusted R Square's value of 0.431, consisting of around 43,1% of the entrepreneurship intention, which is further explained by the entrepreneurship education and the family environment. In contrast, the remaining percentage (56,9%) is defined through other factors not included in this paper.

The Role of Entrepreneurship Education on Entrepreneurial Intentions

Boldureanu (2020), Cooney (2012), and Kerr et al. (2018) provide a similar opinion related to this research's conclusions. Entrepreneurs who are likely to thrive have the abilities, attitudes, capabilities, motivations, and knowledge to perform business operations. An entrepreneur will not succeed if he or she lacks information, skills, and determination (Ahmad & Hoffmann, 2011; Atsan, 2016). Entrepreneurship education is achieved not just via formal education but also through various things other than educational factors that can improve entrepreneurial knowledge (Saptono et al., 2020). This study is reinforced by previously conducted studies by Shahzad (2021), Jiatong (2021), Kusumojanto (2021), Lopes (2021), Tan (2021), and Yeh (2021). These studies' conclusions show that family background, entrepreneurship education, and online markets have useful impacts on the students' desires to be entrepreneurs after they graduate.

The Role of Family Environment on Entrepreneurial Intention

Family Environment is the first and main media that affect the behavior in child development (Arimbawa & Widhiyani, 2021; Cardella et al., 2020; Nurmalsari & Kristiani, 2019). Main family members (father, mother, and children) are the smallest group in society (Song et al., 2021). Family is the key place where an individual's life revolves and where they grow to be a better person (Suharto et al., 2022). The t-partial test's result shows

how the family's environment has different influences. This simply means that good conversation between family members may also lead to proper motivations for becoming an entrepreneur. Family Background embodies Family environment, support, communication with other members, and proper parental guidance. The results of this research are supported by previous research by [Subagia \(2022\)](#), [Gunarso and Selamat \(2020\)](#), and [Pratikto and Winarno \(2019\)](#). Therefore, this research results show a practical and beneficial outcome between a family environment and an individual's desire to become an entrepreneur.

Entrepreneurship education will be increasingly encouraged in higher education so university graduates can be independent. Entrepreneurship education is a priority program for higher education in Indonesia. The purpose of entrepreneurship Education in higher education is to prepare prospective graduates who have entrepreneurial skills so that they can create jobs (job creators) ([Schwartz & Malach-Pines, 2009](#)). Entrepreneurship education will be increasingly encouraged in higher education so that university graduates can be independent. Entrepreneurship education is a priority program for higher education in Indonesia, the purpose of entrepreneurship Education in higher education is to prepare prospective graduates who have entrepreneurial skills so that they can create jobs (job creators) ([Pujiriyanto, 2013](#)).

The government has also offered a program packaged as a student creativity program (PKM) that facilitates students to be on all fronts, namely application of technology, community service, creative initiatives, scientific ideas, and articles ([Pratiwi & Januardi, 2021](#)). Dikti has provided a program ever since 2009 for aspiring young students who dream of opening more employment opportunities via the Student Entrepreneurship Program (PMW). The implemented policies are done to improve the capabilities and personalities of the students who have just graduated and are ready to work and show their abilities, attitudes, and skills responsibly, as well as growing independence and developing businesses through creative projects on their respective major at college. The Government Regulation No. 17 of 2010 also regulates that the goal of further studies also involves preparing autonomous, creative, critical, confident, and entrepreneurial students as future entrepreneurs. However, the problem that arises is that the entrepreneurship education movement in higher education has not yielded the expected results.

The implementation of education regarding entrepreneurship within higher education still has room for further development, especially in teaching methods and learning organizations ([Amalia & von Korflesch, 2021](#)). Teaching methods in universities about business people pedagogy must be developed within the framework of developing knowledge and directed at project-based learning that allows students to explore their business environment ([Radianto & Wijaya, 2017](#)). When trying to improve the learning and training system for entrepreneurs, universities must carefully construct business content for the students, starting with creating a syllabus, teachers, theory module, practice module, and so on ([Lv et al., 2022](#)). Of course, the formulation must be done by a team that is truly knowledgeable and experienced in numerous domains of research. Little attention is paid by universities to developing this curriculum due to a lack of involvement of non-economic academic people and practitioners, as well as entrepreneurial motivators, in the drafting committee, resulting in less suitable materials ([Lackéus et al., 2020](#)). This is crucial because cooperation among academics, practitioners, and motivational lecturers will result in entrepreneurial theories and suggestions suited to students from many scientific fields ([Miller et al., 2018](#); [Shepherd & Gruber, 2021](#)). Develop an entrepreneurial curriculum; it does not have to be a specific course, but entrepreneurship information might be integrated into all courses. Therefore, the main focus of entrepreneurship education in universities will undoubtedly persist and needs to be developed professionally to compete competitively to make the university an Entrepreneurial University (EU).

CONCLUSION

Entrepreneurship education and family environment have led to a proficient outcome in students' entrepreneurial intention to become entrepreneurs. Entrepreneurship education and family environment have partly had a significant effect on the student's entrepreneurial intention to become an entrepreneur. However, the Family environment is the most significant variable. According to the researcher's empirical findings, although many of the respondents' parents work as workers, they always push them towards being entrepreneurs. This study can still be utilized as a reference source for future examinations on a similar subject. Students can also learn from the outcomes of this research when they consider their job prospects after they graduate from the Faculty of Engineering, Universitas Negeri Padang. It is also in the best interest of future entrepreneurship foundations where this research can provide information and increase students' interest in becoming entrepreneurs.

REFERENCES

Agolla, J. E., Monametsi, G. L., & Phera, P. (2019). Antecedents of entrepreneurial intentions amongst business students in a tertiary institution. *Asia Pacific Journal of Innovation and Entrepreneurship*, 13(2),

- 138–152. <https://doi.org/10.1108/apjie-06-2018-0037>
- Agustina, T. S., & Fauzia, D. S. (2021). The Need For Achievement, Risk-Taking Propensity, And Entrepreneurial Intention Of The Generation Z. *Risenologi*, 6(1), 96–106. <https://doi.org/10.47028/j.risenologi.2021.61.161>
- Ahmad, N., & Hoffmann, A. (2011). A Framework for Addressing and Measuring Entrepreneurship. *SSRN Electronic Journal*, November. <https://doi.org/10.2139/ssrn.1090374>
- Ali, A. (2021). Quantitative Data Analysis Author. *Quantitative Data Analysis*, May. <https://doi.org/10.13140/RG.2.2.23322.36807>
- Amalia, R. T., & von Korfflesch, H. F. O. (2021). Entrepreneurship education in Indonesian higher education: mapping literature from the Country's perspective. In *Entrepreneurship Education* (Vol. 4, Issue 3). Springer Singapore. <https://doi.org/10.1007/s41959-021-00053-9>
- Andriansyah, E. H., & Kamalia, P. U. (2021). National Standards of Education affect the employment opportunities of vocational high school graduates. *Jurnal Pendidikan Vokasi*, 11(2), 112–124. <https://doi.org/10.21831/jpv.v11i2.40791>
- Apuke, O. D. (2017). Quantitative research methods: A synopsis approach. *Kuwait Chapter of Arabian Journal of Business ...* <https://platform.almanhal.com/Files/Articles/107965>
- Arimbawa, K. D. P., & Widhiyani, N. L. S. (2021). the Effect of Family Environment, Entrepreneurship Education, and E-Commerce on Entrepreneurship Interest After *Ajhsr.Com*, 9, 48–52. <https://www.ajhsr.com/wp-content/uploads/2021/09/F21594852.pdf>
- Atsan, N. (2016). Failure Experiences of Entrepreneurs: Causes and Learning Outcomes. *Procedia - Social and Behavioral Sciences*, 235(October), 435–442. <https://doi.org/10.1016/j.sbspro.2016.11.054>
- Benedict, E. E. (2019). *The influence of environmental and individual factors on the growth intentions of SMMEs in the Free State*. March. <http://scholar.ufs.ac.za/xmlui/handle/11660/10574>
- Bian, F., Wu, C. H., & Tsai, S. B. (2020). An empirical study on the entrepreneurial team and entrepreneurial performance. *International Journal of Technology, Policy, and Management*, 20(4), 299–317.
- Blackwell, M. (2008). Multiple Hypothesis Testing : The F-test; whenever one has to determine who is right. *Matt Blackwell Research*, 1–7. <http://www.mattblackwell.org/files/teaching/ftests.pdf>
- Boldureanu, G., Ionescu, A. M., Bercu, A. M., Bedrule-Grigoruță, M. V., & Boldureanu, D. (2020). Entrepreneurship education through successful entrepreneurial models in higher education institutions. *Sustainability (Switzerland)*, 12(3), 1–33. <https://doi.org/10.3390/su12031267>
- Cardella, G. M., Hernández-Sánchez, B. R., & Sánchez García, J. C. (2020). Entrepreneurship and Family Role: A Systematic Review of a Growing Research. *Frontiers in Psychology*, 10(January), 1–17.
- Casteel, A., & Bridier, N. L. (2021). Describing populations and samples in doctoral student research. *International Journal of Doctoral Studies*, 16, 339–362. <https://doi.org/10.28945/4766>
- Chicco, D., Warrens, M. J., & Jurman, G. (2021). The coefficient of determination R-squared is more informative than SMAPE, MAE, MAPE, MSE, and RMSE in regression analysis evaluation. *PeerJ Computer Science*, 7, 1–24. <https://doi.org/10.7717/PEERJ-CS.623>
- Cole, J. (2011). A Research Review: The Importance of Families and the Home Environment. National Literacy Trust. *National Literacy Trust*, March 25.
- Cooney, T. M. (2012). Entrepreneurship Skills for Growth-Orientated Businesses. *Denish Business Authority*, November 23. http://www.oecd.org/cfe/leed/Cooney_entrepreneurship_skills_HGF.pdf
- Daoud, J. I. (2018). Multicollinearity and Regression Analysis. *Journal of Physics: Conference Series*, 949(1).
- Eesley, C. E., & Lee, Y. S. (2021). Do university entrepreneurship programs promote entrepreneurship? *Strategic Management Journal*, 42(4), 833–861. <https://doi.org/10.1002/smj.3246>
- Fadillah, M. N. R., & Thamrin, T. (2019). the Influence of Entrepreneurial Motivation and Family Environment To the Public University Students Toward Entrepreneurial Intention. *Jurnal Ecogen*, 2(1), 78.
- Fauzi, A., & Pradipta, I. W. (2018). Research methods and data analysis techniques in education. *Jurnal Pendidikan Biologi Indonesia*, 4(2), 123–134. <https://doi.org/10.22219/jpbi.v4i2.5889>
- Ganefri, G., Hidayat, H., Yulastri, A., & Yondri, S. (2021). The empirical analysis of production-based

- entrepreneurship training model, readiness, and locus of control towards students' entrepreneurship self-efficacy. *International Journal of Research in Counseling and Education*, 5(1), 56. <https://doi.org/10.24036/00434za0002>
- GEI Report. (2019). GEI_2019_Final-1. *Global Entrepreneurship Index 2019*, 1–71. <https://doi.org/10.13140/RG.2.2.17692.64641>
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, 10(2), 486–489. <https://doi.org/10.5812/ijem.3505>
- Gould, J. (2001). Variables in Research Designs. *Concise Handbook of Experimental Methods for the Behavioral and Biological Sciences*, 3(4), 75–110. <https://doi.org/10.1201/9781420040869.ch4>
- Grégoire, G. (2015). Multiple linear regression. *EAS Publications Series*, 66, 45–72. <https://doi.org/10.1051/eas/1466005>
- Gunarso, M. T., & Selamat, F. (2020). *The Influence of Entrepreneurial Education and Family Background on Entrepreneurship Intention with Self-efficacy as a Mediating Variable in Final Year Undergraduate Students in Jakarta*. 478(Ticash), 624–628. <https://doi.org/10.2991/assehr.k.201209.097>
- Handayati, P., Wulandari, D., Soetjipto, B. E., Wibowo, A., & Narmaditya, B. S. (2020). Does entrepreneurship education promote vocational students' entrepreneurial mindset? *Heliyon*, 6(11), e05426. <https://doi.org/10.1016/j.heliyon.2020.e05426>
- Hou, F., Su, Y., Lu, M., & Qi, M. (2019). Model of the entrepreneurial intention of university students in the Pearl River Delta of China. *Frontiers in Psychology*, 10(APR). <https://doi.org/10.3389/fpsyg.2019.00916>
- Hutasuhut, S. (2018). The Roles of Entrepreneurship Knowledge, Self-Efficacy, Family, Education, and Gender on Entrepreneurial Intention. *Dinamika Pendidikan*, 13(1), 90–105. <https://doi.org/10.15294/dp.v13i1.13785>
- Indarta, Y., Jalinus, N., Abdullah, R., & Samala, A. D. (2021). 21st Century Skills: TVET dan Tantangan Abad 21. *Edukatif: Jurnal Ilmu Pendidikan*, 3(6), 4340–4348.
- Irawati, S. A., & Wantara, P. (n.d.). Building Entrepreneur Behavior in Students Through Entrepreneurship Education. *Pdfs.Semanticscholar.Org*, 190–194. <https://pdfs.semanticscholar.org/aab6/b6f674207dc514442ab7423dc189093605fc.pdf>
- Jiatong, W., Murad, M., Bajun, F., Tufail, M. S., Mirza, F., & Rafiq, M. (2021). Impact of Entrepreneurial Education, Mindset, and Creativity on Entrepreneurial Intention: Mediating Role of Entrepreneurial Self-Efficacy. *Frontiers in Psychology*, 12(August). <https://doi.org/10.3389/fpsyg.2021.724440>
- Joensuu-Salo, S., Viljamaa, A., & Varamäki, E. (2021). Understanding business takeover intentions—the role of theory of planned behavior and entrepreneurship competence. *Administrative Sciences*, 11(3).
- Joyce, L., Mavis, G., Beth, S., Clark, K., Rodriguez, N., & Frances, L. (2018). School, family, and community partnerships-caring for the children we share. In *School, Family, and Community Partnerships, Student Economy Edition: Preparing Educators and Improving Schools*. <https://doi.org/10.4324/9780429493133>
- Keith, T. Z. (2014). Multiple Regression and Beyond. *Multiple Regression and Beyond*. <https://doi.org/10.4324/9781315749099>
- Keith, T. Z. (2019). *Multiple regression and beyond: An introduction to multiple regression and structural equation modeling*. [taylorfrancis.com. https://doi.org/10.4324/9781315162348](https://doi.org/10.4324/9781315162348)
- Kerr, S. P., Kerr, W. R., & Xu, T. (2018). Personality Traits of Entrepreneurs - Harvard Business School. *International Journal of Eurasia Social Sciences*, 9(33), 2017–2032.
- Krieger, A., Stuetzer, M., Obschonka, M., & Salmela-Aro, K. (2021). The growth of entrepreneurial human capital: origins and development of skill variety. *Small Business Economics*, 0123456789.
- Krieger, N. (2012). Who and what is a “population”? Historical debates, current controversies, and implications for understanding “population health” and rectifying health inequities. *Milbank Quarterly*, 90(4), 634–681. <https://doi.org/10.1111/j.1468-0009.2012.00678.x>
- Kristianti, N., Prihatini, D., & Utami, E. S. (2021). *The Effect of Entrepreneurial Motivation and Family Environment through Self-Efficacy on Entrepreneurial Interest of Scholarship Recipients at Bank Indonesia Jember Representative Office*. 23(12), 24–29. <https://doi.org/10.9790/487X-2312042429>
- Kusumojanto, D. D., Wibowo, A., Kustiandi, J., & Narmaditya, B. S. (2021). Do entrepreneurship education

- and environment promote students' entrepreneurial intention? the role of entrepreneurial attitude. *Cogent Education*, 8(1). <https://doi.org/10.1080/2331186X.2021.1948660>
- Lackéus, M., Lundqvist, M., Williams Middleton, K., Inden, J., Bacigalupo, M., & European Commission. Joint Research Centre. (2020). The entrepreneurial employee in the public and private sector : what, why, how. In *Publications Office of the European Union*. <https://doi.org/10.2760/460123>
- Larson, M. G. (2008). Analysis of variance. *Circulation*, 117(1), 115–121. <https://doi.org/10.1161/CIRCULATIONAHA.107.654335>
- Leseman, P. P. (2002). Early Childhood Education and Care for Children from Low-Income or Minority Backgrounds. *Early Childhood Education*.
- Lewis-Beck, C., & Lewis-Beck, M. (2015). *Applied regression: An introduction*. books.google.com. <https://books.google.com/books?hl=en&lr=%5C&id=EPoOCgAAQBAJ%5C&oi=fnd%5C&pg=PP1%5C&q=multiple+regression+analysis%5C&ots=sJDgmQMNMYY%5C&sig=5XG1aaP7oJl65oOVhhOhsMODZko>
- Lindner, J. (2018). Entrepreneurship Education for a Sustainable Future. *Discourse and Communication for Sustainable Education*, 9(1), 115–127. <https://doi.org/10.2478/dcse-2018-0009>
- Lingappa, A. K., Shah, A., & Mathew, A. O. (2020). Academic, Family, and Peer Influence on Entrepreneurial Intention of Engineering Students. *SAGE Open*, 10(3). <https://doi.org/10.1177/2158244020933877>
- Lopes, J. M., Oliveira, M., Oliveira, J., Sousa, M., Santos, T., & Gomes, S. (2021). Determinants of the entrepreneurial influence on academic entrepreneurship—lessons learned from higher education students in Portugal. *Education Sciences*, 11(12). <https://doi.org/10.3390/educsci11120771>
- Lubada, F., Kusumojanto, D. D., & Indrawati, A. (2021). The Mediating Entrepreneurial Self-efficacy Between Entrepreneurship Education, Need For Achievement, and Creativity on Entrepreneurial Intention. *Journal of Business and Management Review*, 2(12), 832–849. <https://doi.org/10.47153/jbmr212.2602021>
- Lv, M., Zhang, H., Georgescu, P., Li, T., & Zhang, B. (2022). Improving Education for Innovation and Entrepreneurship in Chinese Technical Universities: A Quest for Building a Sustainable Framework. *Sustainability (Switzerland)*, 14(2). <https://doi.org/10.3390/su14020595>
- Lynch, M., Kamovich, U., Longva, K. K., & Steinert, M. (2021). Combining technology and entrepreneurial education through design thinking: Students' reflections on the learning process. *Technological Forecasting and Social Change*, 164(June 2019), 119689. <https://doi.org/10.1016/j.techfore.2019.06.015>
- Maitland, C., Stratton, G., Foster, S., Braham, R., & Rosenberg, M. (2014). The dynamic family home: A qualitative exploration of physical environmental influences on children's sedentary behavior and physical activity within the home space. *International Journal of Behavioral Nutrition and Physical Activity*, 11(1), 1–12. <https://doi.org/10.1186/s12966-014-0157-1>
- Martínez-González, J. A., Kobylnska, U., García-Rodríguez, F. J., & Nazarko, L. (2019). Antecedents of entrepreneurial intention among young people: Model and regional evidence. *Sustainability (Switzerland)*, 11(24), 1–29. <https://doi.org/10.3390/su11246993>
- Miller, K., Alexander, A., Cunningham, J. A., & Albats, E. (2018). Entrepreneurial academics and academic entrepreneurs: A systematic literature review. *International Journal of Technology Management*, 77(1–3), 9–37. <https://doi.org/10.1504/IJTM.2018.091710>
- Muhyiddin, M., & Nugroho, H. (2021). A Year of Covid-19: A Long Road to Recovery and Acceleration of Indonesia's Development. *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, 5(1), 1–19. <https://doi.org/10.36574/jpp.v5i1.181>
- Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2017). The impact of entrepreneurship education in higher education: A systematic review and research agenda. *Academy of Management Learning and Education*, 16(2), 277–299. <https://doi.org/10.5465/amle.2015.0026>
- Nalurani, E., Suhariadi, F., & Sugihartati, R. (2021). Analysis of Entrepreneurial Competency in East Java. *International Journal of Entrepreneurship and Sustainability Studies*, 1(2), 24–28. <https://doi.org/10.31098/ijeass.v1i2.745>
- Naryono, E. (2020). *Impact of National Disaster Covid-19, Indonesia Towards Economic Recession*. 1–10. <https://doi.org/10.31219/osf.io/5cj3d>
- Newman, A., Obschonka, M., Schwarz, S., Cohen, M., & Nielsen, I. (2019). Entrepreneurial self-efficacy: A

- systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. *Journal of Vocational Behavior*, 110(May 2018), 403–419. <https://doi.org/10.1016/j.jvb.2018.05.012>
- Ngoc Khuong, M., & Huu An, N. (2016). The Factors Affecting Entrepreneurial Intention of the Students of Vietnam National University — A Mediation Analysis of Perception toward Entrepreneurship. *Journal of Economics, Business, and Management*, 4(2), 104–111. <https://doi.org/10.7763/joebm.2016.v4.375>
- Nurmalasari, A., & Kristiani, N. (2019). *The Impact of Entrepreneurship Education and Family Environment: On Entrepreneurship Motivation of College Students*. XV(1), 302–307.
- OECD - Organisation for Economic Co-operation and Development. (2021). *OECD Unemployment Rates News Release : August 2021*. October, 1–8.
- Olugbola, S. A. (2017). Exploring entrepreneurial readiness of youth and start-up success components: Entrepreneurship training as a moderator. *Journal of Innovation and Knowledge*, 2(3), 155–171.
- Pascoe, L., Spencer-Smith, M., Wiley, J., Lee, K., Roberts, G., Josev, E., Nosarti, C., Seal, M., Georgiou-Karistianis, N., Doyle, L. W., Thompson, D., & Anderson, P. (2019). Child Motivation and Family Environment Influence Outcomes of Working Memory Training in Extremely Preterm Children. *Journal of Cognitive Enhancement*, 3(4), 396–404. <https://doi.org/10.1007/s41465-019-00138-3>
- Pitoyo, A. J., Aditya, B., & Amri, I. (2020). The impacts of COVID-19 pandemic to informal economic sector in Indonesia: Theoretical and empirical comparison. *E3S Web of Conferences*, 200.
- Poole, M. A., & O'Farrell, P. N. (1971). The Assumptions of the Linear Regression Model. *Transactions of the Institute of British Geographers*, 52(52), 145. <https://doi.org/10.2307/621706>
- Potochnik, A., Colombo, M., & Wright, C. (2018). Statistics and Probability. *Recipes for Science*, Table 2, 167–206. <https://doi.org/10.4324/9781315686875-6>
- Pratikto, I. K. M. H., & Winarno, A. (2019). The Effect of Family Environment, Entrepreneurship Education and Self-Efficacy on Entrepreneurial Intention in Pondok Pesantren At Throughout Malang, Indonesia. *International Journal of Business, Economics, and Law*, 20(5), 112–119. https://www.ijbel.com/wp-content/uploads/2020/01/IJBEL20_225.pdf
- Pratiwi, N., & Januardi. (2021). Students' Interest in Entrepreneurship After Following Entrepreneurship Practice of "Indonesian Traditional Snack Creation." *Jurnal Ekonomi*, 20(3), 155–163.
- Prawoto, N., Purnomo, E. P., & Zahra, A. A. (2020). The impacts of Covid-19 pandemic on socio-economic mobility in Indonesia. *International Journal of Economics and Business Administration*, 8(3), 57–71. <https://doi.org/10.35808/ijeba/486>
- Pujiriyanto, P. (2013). The Analysis of Entrepreneurship Education Profile For Educational Institutions of Higher Education in Yogyakarta. *Dewantara*, 1(1), 241238.
- Purwanto, A. (2022). *The Role of Leadership, Teaching Factory (TEFA) Program, Competence of Creative Products and Entrepreneurship On Entrepreneurial Interest of the Vocational School Students*. April.
- Radianto, W. E. D., & Wijaya, O. Y. A. (2017). Project Based Learning and Innovation in Entrepreneurship Education. *International Journal of Applied Business and Economic Research*, 15(25), 129–140. <http://dspace.uc.ac.id/handle/123456789/2664>
- Ramadani, A. N., Sartika, D., & Herawaty, H. (2022). *Increase in Unemployment Rates During the Covid-19 Pandemic*. 15(3).
- Raposo, M., & do Paço, A. (2011). Entrepreneurship education: relationship between education and entrepreneurial activity. *Psicothema*, 23(3), 453–457. <http://www.ncbi.nlm.nih.gov/pubmed/21774900>
- Rauf, R., Wijaya, H., & Tari, E. (2021). Entrepreneurship education based on environmental insight: Opportunities and challenges in the new normal era. *Cogent Arts and Humanities*, 8(1).
- Rohaeni, E., Trisnamansyah, S., Wasliman, I., & Sauri, S. (2021). Implementation of Teaching Factory in Improving the Competence of Vocational High School Students (SMK). *Journal of Social Science*, 2(5), 598–609. <https://doi.org/10.46799/jss.v2i5.220>
- Romero-Blanco, C., Dorado-Suárez, A., Jiménez-Zazo, F., Castro-Lemus, N., & Aznar, S. (2020). School and family environment is positively associated with extracurricular physical activity practice among 8 to 16 years old school boys and girls. *International Journal of Environmental Research and Public Health*, 17(15),

- 1–11. <https://doi.org/10.3390/ijerph17155371>
- Samala, A. D., Ambiyar, A., Jalinus, N., Dewi, I. P., & Indarta, Y. (2022). Studi Teoretis Model Pembelajaran: 21st Century Learning dan TVET. *EDUKATIF: JURNAL ILMU PENDIDIKAN*, 4(2), 2794–2808.
- Saptono, A., Wibowo, A., Narmaditya, B. S., Karyaningsih, R. P. D., & Yanto, H. (2020). Does entrepreneurial education matter for Indonesian students' entrepreneurial preparation: The mediating role of entrepreneurial mindset and knowledge. *Cogent Education*, 7(1). <https://doi.org/10.1080/2331186X.2020.1836728>
- Schwartz, D., & Malach-Pines, A. (2009). Entrepreneurship Education for Students. *Industry and Higher Education*, 23(3), 221–231. <https://doi.org/10.5367/000000009788640305>
- Shah, I. A., Amjed, S., & Jaboob, S. (2020). The moderating role of entrepreneurship education in shaping entrepreneurial intentions. *Journal of Economic Structures*, 9(1).
- Shahzad, M. F., Khan, K. I., Saleem, S., & Rashid, T. (2021). What factors affect the entrepreneurial intention to start-ups? The role of entrepreneurial skills, propensity to take risks, and innovativeness in open business models. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3). <https://doi.org/10.3390/JOITMC7030173>
- Shaowei, Q., Tianhua, L., & Miao, Z. (2022). Predictive Factors of the Entrepreneurial Performance of Undergraduates. *Frontiers in Psychology*, 13(March), 1–9. <https://doi.org/10.3389/fpsyg.2022.814759>
- Shepherd, D. A., & Gruber, M. (2021). The Lean Startup Framework: Closing the Academic–Practitioner Divide. *Entrepreneurship: Theory and Practice*, 45(5), 967–998. <https://doi.org/10.1177/1042258719899415>
- Shrestha, N. (2020). Detecting Multicollinearity in Regression Analysis. *American Journal of Applied Mathematics and Statistics*, 8(2), 39–42. <https://doi.org/10.12691/ajams-8-2-1>
- Slinker, B. K., & Glantz, S. A. (2008). Multiple linear regression: Accounting for multiple simultaneous determinants of a continuous dependent variable. *Circulation*, 117(13), 1732–1737.
- Song, S. I., Thominathan, S., & Khalid, N. A. (2021). Entrepreneurial Intention of UiTM Students and the Mediating Role of Entrepreneurship Education. *Asian Journal of University Education*, 17(2), 236–251.
- Subagia, H., Riono, S. B., Indriyani, A., & Syaifulloh, M. (2022). Does the Family Environment and Entrepreneurship Education Promote Students' Entrepreneurial Intentions? The Mediating Role of Entrepreneurial Motivations. 12(1), 306–313.
- Sugiyono, P. (2015). *Metode penelitian kombinasi (mixed methods)*. Bandung: Alfabeta.
- Sugiyono, P. D. (2017). *Metode penelitian bisnis: pendekatan kuantitatif, kualitatif, kombinasi, dan R&D*. Bandung: Penerbit Alfabeta.
- Suharto, S., Siswanto, E., Ardiyanto, J., & Rahayuni, A. (2022). The Role of the Social Media and Family Environment on Entrepreneurial Interest of Vocational School Students. *Economic Education Analysis Journal*, 11(1), 77–87. <https://doi.org/10.15294/eeaj.v11i1.50718>
- Susilawati, S., Falefi, R., & Purwoko, A. (2020). Impact of COVID-19's Pandemic on the Economy of Indonesia. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 3(2), 1147–1156. <https://doi.org/10.33258/birci.v3i2.954>
- Taherdoost, H. (2016). Sampling Methods in Research Methodology ; How to Choose a Sampling Technique for Research Hamed Taherdoost To cite this version : HAL Id : Hal-02546796 Sampling Methods in Research Methodology ; How to Choose a Sampling Technique for. *International Journal of Academic Research in Management (IJARM)*, 5(2), 18–27.
- Tajuddien, R., & Faroh, W. N. (2021). 21st Century Skill Grouping in Public Vocational School Students in Indonesia. *European Journal of Interactive Multimedia and Education*, 2(2), e02110.
- Tan, L. P. (2021). Factors Affecting Entrepreneurial Intention : A Case Study of University Students in Vietnam. *Journal of Asian Finance, Economics, and Business*, 8(12), 203–210.
- Thompson, E. R. (2009). Entrepreneurial Intent : and Development Reliable Metric. *Entrepreneurship: Theory and Practice*, 33(0), 669–695. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1396451
- Utami, C. W. (2017). Attitude, Subjective Norms, Perceived behavior, Entrepreneurship education and Self-efficacy toward entrepreneurial intention University student in Indonesia. *European Research Studies Journal*, 20(2), 475–495.

- Utari, F. D., & Sukidjo, S. (2020). The Roles of Need for Achievement and Family Environment in Stimulating Entrepreneurial Interest through Self-Efficacy. *Jurnal Economia*, 16(2), 143–160. <https://doi.org/10.21831/economia.v16i2.28725>
- Vamvaka, V., Stoforos, C., Palaskas, T., & Botsaris, C. (2020). Attitude toward entrepreneurship, perceived behavioral control, and entrepreneurial intention: dimensionality, structural relationships, and gender differences. *Journal of Innovation and Entrepreneurship*, 9(1). <https://doi.org/10.1186/s13731-020-0112-0>
- Vanevenhoven, J., & Liguori, E. (2013). The impact of entrepreneurship education. *Journal of Small Business Management*, 51(3), 315.
- Venasaar, U., Malleus, E., Arro, G., & Toding, M. (2022). Entrepreneurship competence model for supporting learners development at all educational levels. *Administrative Sciences*, 12(1). <https://doi.org/10.3390/admsci12010002>
- Wang, W., & Jiang, Y. (2021). Influence of Entrepreneurial Psychology and Spirit on the Cultivation of Students' Entrepreneurial Values and Ability Under the New Media. *Frontiers in Psychology*, 12(November), 1–9. <https://doi.org/10.3389/fpsyg.2021.725610>
- Widarni, E., Bawono, & Suryaning. (2021). Human Capital, Technology, and Economic Growth: A Case Study of Indonesia. *The Journal of Asian Finance, Economics, and Business*, 8(5), 29–35. <https://doi.org/10.13106/jafeb.2021.vol8.no5.0029>
- Widodo, J., Farliana, N., & Setiaji, K. (2022). *Be A Sustainable Entrepreneur ? Challenges and Strategies for Growing Intention in Universities*. 7(2), 208–213.
- Wiklund, J., Nikolaev, B., Shir, N., Foo, M. Der, & Bradley, S. (2019). Entrepreneurship and well-being: Past, present, and future. *Journal of Business Venturing*, 34(4), 579–588. <https://doi.org/10.1016/j.jbusvent.2019.01.002>
- Williams, R. (2020). Lecture Notes on Heteroskedasticity. *Lecture Notes on Heteroskedasticity*, 1–16.
- Wilson, K. (2008). Chapter Five-1 Entrepreneurship Education in Europe. *Entrepreneurship and Higher Education*, 1–20. <https://www.oecd.org/site/innovationstrategy/42961567.pdf>
- Yeh, C. H., Lin, H. H., Wang, Y. M., Wang, Y. S., & Lo, C. W. (2021). Investigating the relationships between entrepreneurial education and self-efficacy and performance in the context of internet entrepreneurship. *International Journal of Management Education*, 19(3), 100565. <https://doi.org/10.1016/j.ijme.2021.100565>
- Yulastri, A., Hidayat, H., Ganefri, Yondri, S., & Ildil, I. (2020). Contribution of production-based learning, student engagement, and locus of control towards entrepreneurship learning outcomes in engineering education. *International Journal on Advanced Science, Engineering and Information Technology*, 10(2), 585–592. <https://doi.org/10.18517/ijaseit.10.2.9365>
- Yusriadi, Y., Awaluddin, Anwar, A., Bin Tahir, S. Z., & Misnawati. (2020). Economic and social impacts of social entrepreneurship implementation service to community. *Proceedings of the International Conference on Industrial Engineering and Operations Management, August*.
- Zanabazar, A., & Jigjiddorj, S. (2020). The factors effecting entrepreneurial intention of university students: case of Mongolia. *SHS Web of Conferences*, 73, 01034. <https://doi.org/10.1051/shsconf/20207301034>
- Zhang, J. T., & Liang, X. (2014). One-way ANOVA for functional data via globalizing the pointwise F-test. *Scandinavian Journal of Statistics*, 41(1), 51–71. <https://doi.org/10.1111/sjos.12025>