

The Effect Of Entrepreneurship Education And Technological Advancement On The Entrepreneurial Intention

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Abstract

This study aims to determine the effect of entrepreneurship education and technological advancement in influencing the entrepreneurial intention of vocational high school students (*SMK*) in DKI Jakarta. Entrepreneurial intention is a desire from within a person that is formed from a mindset to create a business that is beneficial to oneself and others with innovation and creativity. Entrepreneurial intention needs to be increased considering the need to increase young entrepreneurs and to reduce unemployment in Indonesia, especially DKI Jakarta. The phenomenon of entrepreneurship education and technological advancement that should support business learning opportunities to increase entrepreneurial intention, does not seem to be able to fully increase students' entrepreneurial intention.

This research was conducted in DKI Jakarta using a quantitative approach with a descriptive and correlational approach. The data used is primary data obtained by distributing questionnaires. The analysis method uses multiple linear regression analysis, validity and reliability tests, classical assumption tests and hypothesis testing using the SPSS version 29 application. The research sample was 200 vocational high school students in DKI Jakarta using non-probability sampling techniques and purposive sampling. This research answers that Entrepreneurship Education effect the Entrepreneurial Intention, Technological Advancement effect the Entrepreneurial Intention, and Entrepreneurship Education and Technological Advancement effect the Entrepreneurial Intention

Keyword: *Entrepreneurial Intention; Technological Advancement; Entrepreneurship Education*

1. Introduction

Entrepreneurship has become one of the main forces in accelerating Indonesia's economic growth. The role played by entrepreneurs in the economic structure has become the foundation for progress and improved community welfare. However, amidst the vast opportunities to improve economic conditions, there are also a number of challenges that need to be seriously addressed (Sujarwadi, Ramdani & Rustini, 2024). Today, entrepreneurship is recognized as a key driver of economic growth and innovation, and many governments and organizations around the world have implemented policies and programs to support and encourage entrepreneurship (Kumar, Raj & Mehta, 2023). However, the ratio of entrepreneurship in Indonesia is now still in the low category, at 3.47% of the total population of Indonesia. This number is still inferior compared to neighboring countries.

In Singapore, the ratio of entrepreneurs has reached 8.76%, in Thailand 4.26%, and Malaysia reached 4.74% (*Portal Informasi Indonesia*, 2022). Therefore, Indonesia needs to strengthen the entrepreneurship ratio to sustain economic development. The Ministry of Education and Culture through a study (*Jendela Pendidikan Dan Kebudayaan*, 2023) states that entrepreneurship is the creativity and innovation that exists in graduates of Vocational High Schools (*SMK*) to obtain added value for themselves and have an impact on others and create mutual benefits. The entrepreneurial potential of a person in addition to existing in each individual (innate) can also be planned through learning with an integration of theory and practice through training and / or apprenticeship.

Jenjang Pendidikan AK	Tingkat Pengangguran Terbuka menurut Pendidikan dan Jenis Kelamin di Provinsi DKI Jakarta. (Persen)					
	Laki-laki		Perempuan		Laki-laki + Perempuan	
	2021	2022	2021	2022	2021	2022
≤ SD	5,2	3,8	4,27	2,33	4,77	3,13
SMP	7,22	9,56	7,14	2,81	7,19	7,24
SMA Umum	9,2	9,62	14,07	8,63	10,85	9,32
SMA Kejuruan	10,92	7,99	10,26	10,8	10,7	8,97
Diploma I/II/III	6,57	3,46	3,08	3,39	4,79	3,42
Universitas	9,13	4,38	5,05	7,02	7,37	5,55
Total	8,73	7,5	8,12	6,65	8,5	7,18

Keterangan Data :
Sumber : Survei Angkatan Kerja Nasional (SAKERNAS), BPS.

Figure 1.1 Data on Open Unemployment Rate by Education in DKI Jakarta

Source: (Badan Pusat Data Statistik Provinsi DKI Jakarta, 2023)

Data obtained from the BPS National Labor Force Survey revealed that the Open Unemployment Rate at the final education level of Vocational High School (*SMK*) was the highest, reaching 10.7% in 2021 and decreased to 8.97% in 2022. This shows that there is a good improvement in the quality of human resources for Vocational High School graduates, but there is still a need to improve human resources because the unemployment rate is still high. Although Indonesia's population is increasing, the existing job opportunities have not been able to fulfill it. Vocational students who are actually prepared for the world of work in fact contribute to the high level of open unemployment in Indonesia (Mahardika & Cahya, 2023). Lestari, Rizkalla and Tan (2023) stated that Indonesia has high educated unemployment. Students' disinterest in entrepreneurship contributes to educated unemployment.

The researcher has conducted a pre-research by surveying 36 students from various vocational schools in DKI Jakarta about their interest in entrepreneurship by distributing questionnaires.

Apakah target karir anda setelah lulus adalah berwirausaha?
36 jawaban

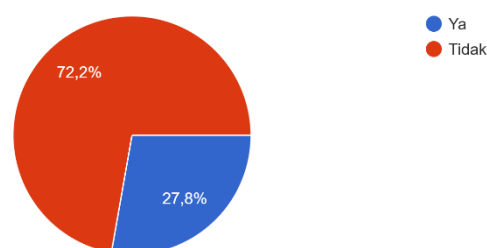


Figure 1.2 Pre-Research on Career Intentions to Become an Entrepreneur

Source: Data Processed by Author (2024)

When viewed from the diagram above, it provides information that 72.2% of vocational students in DKI Jakarta are not interested in becoming an entrepreneur, and the career goals of these students after graduation do not want to become entrepreneurs. Meanwhile, 27.8% of vocational students in DKI Jakarta are interested in becoming an entrepreneur and their career goals want to be entrepreneurs. From this percentage, it shows that the entrepreneurial interest of vocational students in DKI Jakarta is still relatively low. This situation is in line with Mahardika and Cahya (2023) who state that the hope for vocational students is to become entrepreneurs who are trained and able to create employment opportunities. However, the majority of Vocasional High School graduates to date prefer to work as employees or look for work rather than take on the role of job creators. Therefore, it is important for Vocational High School students to develop an interest in entrepreneurship as a preparation for entering the workforce after graduation.

Based on the background above, the problem that can be formulated in this study is how the effect of Entrepreneurship Education and Technological Advancement on Entrepreneurial Interest of Vocational High School Students in Jakarta. The formulation of the problem can be made into several research questions which can be described:

1. Is there a effect of entrepreneurship education on entrepreneurial intention of Vocational High School students in DKI Jakarta?
2. Is there a effect of technological advancement on entrepreneurial intention of Vocational High School students in DKI Jakarta?
3. Is there a effect of Entrepreneurship Education and Technological Advancement together (simultaneously) on entrepreneurial intention of Vocational High School students in DKI Jakarta?

This research is expected to benefit theoretically, which is to increase insight as well as understanding of the influence of entrepreneurship education and technological advancement on entrepreneurial intention. And practical benefits for researchers to become experience in conducting research, for Universitas Negeri Jakarta to become learning material in the form of literature review and add information for the academic community who are interested in conducting research related (entrepreneurship education, technological advancement and entrepreneurial intention), and for Vocational High School in DKI Jakarta this research is expected to be an evaluation and consideration of the curriculum implemented in schools and increase support and motivation for entrepreneurial intention for Vocasional High School students in DKI Jakarta.

2. Literature Review

2.1 Theory

Grand Theory

In Theory of Planned Behavior (TPB) the underlying assumption is that human behavior occurs consciously, involves rational consideration and planning, taking into account all accessible information. This theory aims to provide a deeper understanding of the factors

that influence human behavior by considering attitude toward behavior, subjective norm, and perceived behavioral control. Intentions to perform different behaviors can be predicted with high accuracy from attitude toward behavior, subjective norm, and perceived behavioral control; and these intentions, along with perceived behavioral control, explain considerable variance in actual behavior (Ajzen, 1991). Lavelle (2021) states that the research that has been conducted shows that TPB is an effective model for developing entrepreneurial intention. This is in line with research by Arofah, Mulyadi and Herdiana (2023) who in their research used TPB to examine the influence on entrepreneurial intention. Kim, Huruta and Lee (2022) in their research used TPB to evaluate the relationship between perceived entrepreneurial capacity, perceived social norms, attitudes towards entrepreneurship, and entrepreneurial intentions towards student objects in secondary education. Sutrisno, Prabowo and Kurniawan (2023) in their research confirmed the strong relationship between entrepreneurship education, and students' entrepreneurial intention, in line with the TPB. This is supported by research by Husnah, Adda and Munawarah (2023) developing a Student Entrepreneurial Intention Model based on TPB. Based on some of these previous studies, the authors chose TPB as a grand theory to examine entrepreneurial interest.

Putri, Setiawati and Nurhayati (2023) stated that as part of efforts to increase the level of entrepreneurship in Indonesia, Vocational High School also plays a role as a pioneer in developing the spirit of entrepreneurship. This is reflected through the implementation of the curriculum and subject planning that has been determined. The results of several previous studies above have illustrated that entrepreneurial interest needs to be increased, especially for vocational students for a brighter economic future. Hadrian et al., (2023) Improving the standard of vocational education can contribute to creating a workforce that is adaptable and skilled to meet the needs of industry and the job market. The challenges faced in implementing a vocational curriculum involve comprehensive managerial aspects, including planning, organizing, directing, and supervising resources, as well as vocational education processes, such as facilities, teaching staff, and learning materials. Research by Ardiansyah, Yohana and Fidhyallah (2021) shows that entrepreneurship education has a positive and significant influence on the entrepreneurial intention of vocational students.

Munthe and Nawawi (2024) state that technology is a method or way to process something with the aim of achieving cost and time efficiency, so as to produce products that have better quality. Rambe (2022) Technological progress in the current era is something that cannot be avoided. Technological developments have led to changes in lifestyle, including in the way of doing business. Digital literacy, social media and AI are some examples of technological advancements that are strongly associated with Gen Zers. They have become an integral part of students' lives and have great potential in improving their learning outcomes, interactions, and communications. In this research, the variable of technological advancement will be reflected in the form of digital literacy technology, social media, and AI for the empowerment of Gen Z. Irvansyah, (2022) states that the process of empowering people can begin by making them aware of the need to change and become more empowered. This can be done through increasing their capacity, such as providing training and development to improve understanding and digital literacy skills.

In technological advancement, of course, the role of digital literacy is a learning medium that should have a positive impact on students. Digital literacy can intervene in the influence

of entrepreneurial orientation on technopreneur intentions (Sidik et al., 2023). This is unfortunate because the data based on (*Pusat Penelitian Kebijakan Pendidikan dan Kebudayaan*, 2019) Alibaca Index reveal that average number of the National Alibaca Index is classified in the low literacy activity category, which is at 37.32. The value is composed of four dimensional indices, including the Proficiency Dimension of 75.92; Access Dimension of 23.09; Alternative Dimension of 40.49; and Cultural Dimension of 28.50. The Alibaca Index of DKI Jakarta Province itself is the highest at 58.16.

We Are Social Indonesia Digital Report (2023) For data on internet and social media users in Indonesia, there is a total population of 276.4 million people and 353.8 million connected mobile devices, which means 128% of the total population. There are 212.9 million internet users, which means 77% of the total population, and active social media users up to 167 million users, which is equivalent to 60.4% of the total population. The development of information technology (IT) has influenced humanity in the modern era by enabling high-speed information exchange, global water supply, and various digital media (Mega, 2022). Social media also plays an important role, in accordance with Theory of Social Media Use in providing social interaction, motivation, information, role models, and influence. This forms an ecosystem that strengthens entrepreneurial intentions (Sutrisno, Prabowo & Kurniawan, 2023).

Recent research by Dabbous and Boustani (2023) states that artificial intelligence performance expectations and entrepreneurship education can influence entrepreneurial interest by increasing the perceived capacity to create and operate new businesses. This is also supported by research by Yigit and Kanbach (2023) who found that Technological Entrepreneurship can exploit many new potentials for value creation in SMEs. Artificial Intelligence (AI) technology has become a key element in its unification with various other technologies. AI's capability to perform data analysis with high speed and accuracy, as well as its ability to recognize complex patterns that are even difficult for humans to recognize, has opened up a wide range of business opportunities.

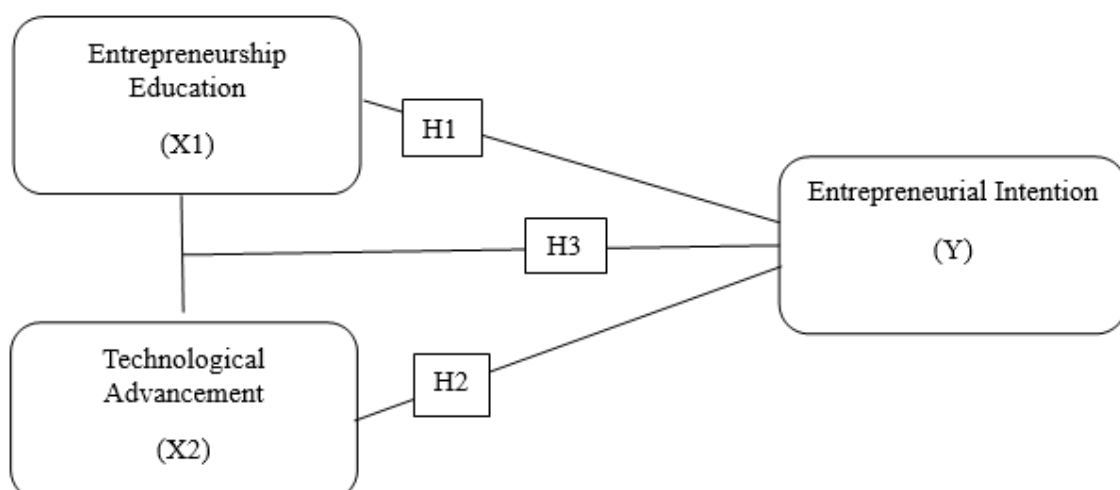


Figure 2.1 Theoretical Framework

Source: Data Processed by Author (2024)

Hypothesis

H1: Entrepreneurship education will effect the entrepreneurial intention of vocational high school students in DKI Jakarta.

H2: Technological advancement will effect the entrepreneurial intention of vocational high school students in DKI Jakarta

H3: Entrepreneurship education and technological advancement will effect on entrepreneurial intention of vocational high school students in DKI Jakarta.

2.2 Theory 2

(Variable Y)

a. Conceptual Definition

Entrepreneurial intention is a desire from within a person who is formed from a mindset to create a business that is beneficial to oneself and others with innovation and creativity.

b. Operational Definition

According to Vamvaka et al. (2020) the indicators used to measure interest in entrepreneurship involve:

1. Choice intention, which refers to an individual's tendency to prefer being self-employed over being a salaried employee.
2. Commitment to an entrepreneurial career, which emphasizes that intention is manifested through commitment and is characterized by an attitude that focuses on business process.
3. Nascent entrepreneurship, which describes the shift from commitment to the early stages of business activity involving initial efforts in building or starting a business venture.

c. Instrument Grids

Variable	Indicator	Adaptation Questions	Source
<i>Entrepreneurial Intention</i>	<i>Choice intention</i>	1. I would rather earn money with my own business than money from working for someone else.	(Vamvaka et al., 2020)
		2. I prefer my own business to building another promising career.	
		3. I am willing to make personal sacrifices in order to maintain my business.	
	<i>Commitment to an entrepreneurial career</i>	1. My goal after graduating from school is to become a full-time entrepreneur.	
		2. I am maximally working on my own business from the initial stage to operation.	
		3. I have a strong interest in building my own business in the future.	

<i>Nascent entrepreneurship</i>	1. I read book literature on how to build a company.
	2. I attended trainings and conferences to focus on starting my own business planning.
	3. I prepared the capital to build my business well.

Source: Data Processed by Author (2024)

(Variable X1)

a. Conceptual Definition

Entrepreneurship education is a learning activity carried out so that students gain motivation to become entrepreneurs through learning experiences of business opportunities and markets in an innovative and creative way.

b. Operational Definition

According to Ardiansyah, Aulia and Saino (2024) and, Mustikawati and Kurjono (2020) the indicators used to measure entrepreneurship education involve:

1. The entrepreneurial education that was received by the students. This involves transferring knowledge and skills, building an entrepreneurial culture through educational policies and institutions, and teaching effective business strategies.
2. Improved entrepreneurial knowledge. This is retrieved the understanding of theory and practicum, from product planning to marketing and financial aspects that works develop students' entrepreneurial intention.
3. Entrepreneurial Awareness Education. Entrepreneurship Education that emphasizes the desire and intention

c. Instrument Grids

Variabel	Indicator	Adaptation Questions	Source
Entrepreneurial Education	The entrepreneurial education that was received by the students	<ol style="list-style-type: none"> 1. The entrepreneurship education I received was in the form of theory and was complemented by the practice of creating my own business. 2. The entrepreneurship education I received in the Creative Product Entrepreneurship (PKK) subject teaches effective business strategies in accordance with today's modern conditions. 	(Aulia & Saino, 2024)
	Improved entrepreneurial knowledge	<ol style="list-style-type: none"> 1. I understand the theory and practicum, from product planning to marketing and financial aspects well. 	
	Entrepreneurial Awareness Education	<ol style="list-style-type: none"> 1. The existence of entrepreneurial knowledge that has been received fosters entrepreneurial interest in me to start my own business. 	(Mustikawati & Kurjono, 2020)

Source: Data Processed by Author (2024)

(Variable X2)

a. Conceptual Definition

Technological progress is a process of change characterized by the presence of new innovations to improve quality in every aspect of life including entrepreneurship. The technological advances referred to in this study are digital literacy, social media, and AI as a form of the latest technological advances faced by the object of research, namely vocational students. Technological progress has two indicators, namely convenience and comfort.

b. Operational Definition

The application of indicators according to Yusuf (2019) and Kustina et al. (2023) in measuring the use of technological advances includes:

1. Ease, referring to how easy the technology is to use or access by users
2. Comfort, indicating the extent to which the technology provides comfort in its use, both in terms of form and user experience.
3. Strong and wide network, strong and wide network, internet access with strong network min 4G and wide scope.

c. Instrument Grids

Variabel	Indicator	Adaptation Quetions	Source
Technological advancement	Ease	1. I find it easier to learn entrepreneurship theory with access to digital literacy	(Yusuf, 2019)
		2. I foresee using social media in my business to reach the target market	
		3. I realize the presence of AI nowadays facilitates business activities	
	Comfort	1. I enjoy digital literacy to learn entrepreneurship and get information about business	
		2. I am comfortable with social media and will use it for entrepreneurship	
		3. I choose to use AI for convenience of business activities because it is more flexible, practical, and systematic	
	Strong And Wide Network	1. Strong and wide network in accessing digital literacy, social media and AI helps me get information that supports my business plan	(Kustina et al., 2023)

Source: Data Processed by Author (2024)

3. Material and Method

Population

Hermawan (2019) referring to Sugiyono's view, population is a scope that includes certain objects or subjects with specific attributes identified by researchers for research and analysis purposes. The population studied by the researcher is grade 11 and 12 students active in various state vocational schools who have received entrepreneurship education and actively

use digital literacy, social media and AI. The research used an infinite population type, which means that the total population cannot be identified or is infinite. This means that the researcher does not have exact information about the total number of students with these criteria.

Samples

The non-probability sampling technique, as chosen by the researcher, uses purposive sampling method. (Hermawan, 2019) explains that the purposive sampling method considers specific characteristics, so that only respondents who meet certain criteria are selected as research samples. The sample in this study consisted of:

1. 11 and 12 grade students
2. Currently studying at public vocational high schools in DKI Jakarta
3. Have taken entrepreneurship-based subjects (Entrepreneurship Creative Product Subjects (PKK))
4. Active in using digital technology (Digital Literacy, Social Media and AI)

The number of samples used in the study refers to the guidelines provided by (Hair et al., 2014) It suggest that ideally the sample size should be more than 100, at least 5 times the number of indicators, and preferably 10 times the number of indicators to be analyzed with a ratio of 10:1. Therefore, the total sample in this study was calculated by multiplying the number of indicators by 10, resulting in 200 samples.

Data Collection Technique

Data collection was conducted online through Google Forms, and questionnaire distribution was done in person to increase the efficiency of research time. A likert scale with a value range of 1 to 6 was used in this study, where one indicates strongly disagree and six indicates strongly agree.

3.1 Design Study

Quantitative research is a structured study of a phenomenon, in which quantifiable data is collected using statistical, mathematical, or computational methods (Amelia et al., 2023).. The quantitative research method was chosen because the focus of this research is to examine the relationship between objective variables, using quantitative data that can be measured and analyzed through statistical procedures. Quantitative research methods through descriptive and correlational approaches were used in the research conducted because they were adjusted to the problems studied in this study. According to Sukardi in Solaiman et al. (2021) the primary purpose of correlation research is to analyze whether there is a relationship between two or more variables, and to determine the direction of the relationship, whether it is positive or negative, and how strongly the two or more variables are connected and can be measured. The method used in data collection in this study is a survey. Research through surveys is a type of study conducted to collect facts or data from the field. The aim is to obtain accurate and factual information (Amelia et al., 2023).

3.2 Data Analysis

After compiling the research instrument, next step is to distribute the questionnaire form online through social media. After obtaining the number of samples, data was analyzed using SPSS 29 version. The data analysis techniques used in this study are instrument test, classical assumption test, multiple linear regression analysis, and hypothesis testing.

4. Result

Respondents Profile

Table 4.1 Grade of Responden

Grade	Frequency	%
11	150	75
12	50	25
TOTAL	200	100

Table 4.2 Domicile Of The Respondent's School Of Origin

School Domicile	Frequency	%
Center Jakarta	29	14,5
South Jakarta	49	24,5
East Jakarta	87	43,5
North Jakarta	25	12,5
West Jakarta	10	5
TOTAL	200	100

Table 4.3 Descriptive Data of Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Y	200	15	53	41,47	6,906
X1	200	8	24	20,78	3,195
X2	200	14	42	35,85	5,443

4.1 Instrument Test

Validity Test

Criteria to testing the item score on the overall score can be declared valid if the p-value significance level less based on the real level α (p-value < 0.05), and can be declared very valid if the p-value much less than α (Hair et al., 2014).

Table 4.1.1 Variable Y, X1, X2 Validity Test

Variabel	Butir Pernyataan	Koefisien Pearson	P Value	Keterangan
Entrepreneurial Intention (Minat Berwirausaha)	Y.1	0,528**	0,003	Valid
	Y.2	0,561**	0,001	Valid
	Y.3	0,738**	0,000	Valid
	Y.4	0,781**	0,000	Valid
	Y.5	0,753**	0,000	Valid
	Y.6	0,731**	0,000	Valid
	Y.7	0,817**	0,000	Valid
	Y.8	0,795**	0,000	Valid
	Y.9	0,827**	0,000	Valid

Entrepreneurship Education (Pendidikan Kewirausahaan)	X1.1	0,736**	0,000	Valid
	X1.2	0,808**	0,000	Valid
	X1.3	0,860**	0,000	Valid
	X1.4	0,835**	0,000	Valid
Technological Advancement (Kemajuan Teknologi)	X2.1	0,483**	0,007	Valid
	X2.2	0,880**	0,000	Valid
	X2.3	0,791**	0,000	Valid
	X2.4	0,824**	0,000	Valid
	X2.5	0,779**	0,000	Valid
	X2.6	0,674**	0,000	Valid
	X2.7	0,892**	0,000	Valid

Based on the results of 30 samples validity test for Y, X1, X2 above, the p value for each statement instrument is <0.05 , it can be summed up that all statement instruments in this study are **valid**.

Reliability Test

The questionnaire is considered reliable if the respondent gives a stable response or the statement is consistent over time. Data is considered reliable if Cronbach's alpha is >0.6 or 6% (Hair et al., 2014).

Table 4.1.2 Reability Test Result

Variabel	Cronbach's Alpha	N of Items	Keterangan
Entrepreneurial Intention (Y)	0,878	9	Reliabel
Entrepreneurship Education (X1)	0,815	4	Reliabel
Technological Advancement (X2)	0,868	7	Reliabel

From the reliability test results above, Cronbach's alpha is valued at variable X1 of 0.815, which means $0.815 > 0.6$. Cronbach's alpha on variable X2 is valued at 0,815, which means > 0.6 and the Cronbach's alpha value on variable Y is 0.868, which means > 0.6 , therefore, it can be summed up that all of the statements in this questionnaire are reliable.

4.2 Classical Assumption Test

Normality Test

If the significance value in Kolmogorov Smirnov exceeds 0.05 (>0.05), data normally distributed, otherwise if it is lower than 0.05 (<0.05), data is not normally distributed (Ghozali, 2018).

Table 4.2.1 Kolmogorov-Smirnov Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		200
Normal Parameters ^{a,b}	Mean	0.0000000
	Std. Deviation	3.78238111
	Absolute Positive	0.057
	Negative	0.052
Most Extreme Differences		-0.57
Test Statistic		0.57

Asymp. Sig. (2-tailed)	.200 ^d
a. Test distribution is Normal.	
b. Calculated from data.	
c. Lilliefors Significance Correction.	
d. This is a lower bound of the true significance.	

Based on the data presented can be viewed that Asymp. Sig (2-tailed) of the three variables of entrepreneurship education (X1), social media (X2) and interest in entrepreneurship (Y) is 0.200 which means $0.200 > 0.05$ and it can be concluded that the data in this study are normally distributed.

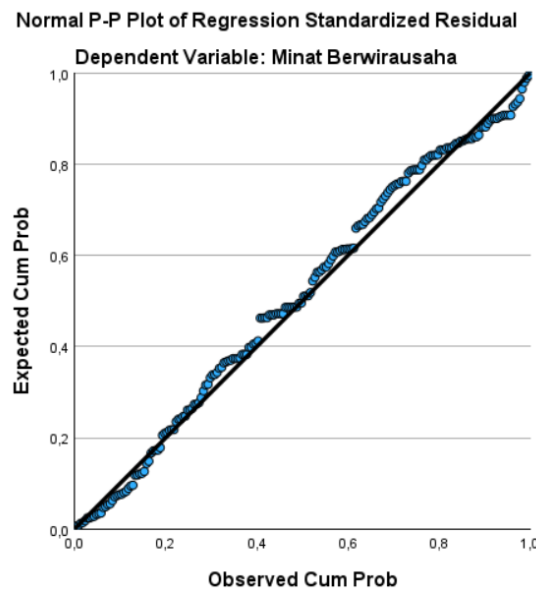


Table 4.2.2 Probability Plot Normality Test

Based on the data presented can be viewed that if the data lies around the line and in the direction of the line, it can be concluded that the data is normally distributed in this study.

Linearity Test

The correlation between variables is considered linear if the Sig. from linearity value is lower or equal to 0.05 (Ardiansyah et al., 2021).

Table 4.2.3 X1 Linearity Test Results With Y

ANOVA Table			Sum of	df	Mean	F	Sig.
			Squares		Square		
Entrepreneurial Intention * Entrepreneurship Education	Between	(Combined)	6189.890	14	442.135	24.771	0.000
	Groups	Linearity	5948.321	1	5948.321	333.266	0.000
		Deviation	241.569	13	18.582	1.041	0.414
		from					
		Linearity					
	Within Groups		3301.985	185	17.894		
	Total		9491.875	199			

Table 4.2.4 X2 Linearity Test Results With Y

ANOVA Table			Sum of Squares	df	Mean Square	F	Sig.
Entrepreneurial Intention * Technological Advancement	Between Groups	(Combined)	6507.374	23	282.929	16.685	0.000
		Linearity	6184.223	1	6184.223	364.692	0.000
		Deviation from Linearity	323.151	22	14.689	0.866	0.639
	Within Groups		2984.501	176	16.957		
	Total		9491.875	199			

The data mentioned above results in the linearity test in the X1 with Y variable as well as the X2 with Y variable, both shows significance value in linearity of 0.000, which means $0.000 < 0.05$ so that it can be concluded that between variable X1 and Y, also variable X2 with Y there is a linear relationship.

Multicollinearity Test

Table 4.2.5 Multicollinearity Test Results

Model		Coefficients ^a						
		Unstandardized Coefficients		t	Sig.	Collinearity Statistics		
		B	Std. Error			Tolerance	VIF	
1	(Constant)	1.896	1.865	1.016	0.311			
	Entrepreneurship Education	0.848	0.150	5.646	0.000	0.315	3.172	
	Technological Advancement	0.612	0.088	6.943	0.000	0.315	3.172	

a. Dependent Variable: Entrepreneurial Intention

From this data, the tolerance value is 0.315, which means $0.315 > 0.10$ on the other hand the VIF value is 3.172, which means $3.172 < 10.00$ so it can be declared if no multicollinearity occurs in the data.

Heteroscedasticity Test

An alternative method to evaluate the presence of heteroscedasticity is to conduct the spearman rank test. Rizkiansyah, Hannie & Sulistiyowati, (2023) state the basis for decision making:

- If the Significance value < 0.05 , then correlated
- If the Significance value > 0.05 , then it is not correlated

Table 4.2.6 Heteroscedasticity Test Results

Correlations		
	Sig. (2-tailed)	Keterangan
Entrepreneurship Education (X1)	.570	no heteroscedasticity.
Technological Advancement (X2)	.761	no heteroscedasticity.

When considered from the data collected above, it can be known that the significance value of the X1 and X2 variables is > 0.05 , which can be concluded if there is no heteroscedasticity.

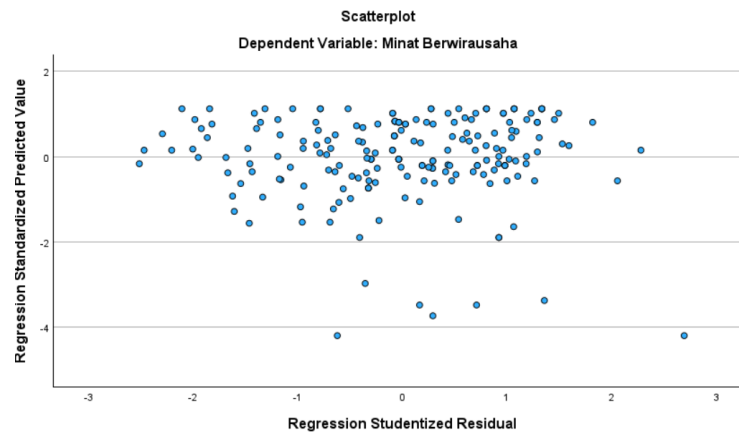


Table 4.2.7 Scatterplot Heteroscedasticity Test Results

4.3 Multiple Linear Regression Analysis

Table 4.3.1 Multiple Linear Regression Analysis Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.896	1.865		1.016	0.311
Entrepreneurship Education	0.848	0.150	0.392	5.646	0.000
Technological Advancement	0.612	0.088	0.482	6.943	0.000

$$Y = a + b_1X_1 + b_2X_2 + e$$

$$Y = 1.896 + 0,848X_1 + 0,612X_2 + e$$

From the regression model it is clear that:

- The constant value of 1,896, means that if the intention of students in DKI Jakarta to become entrepreneurs if not influenced by entrepreneurship education and technological advancement is worth 0 or has no interest in entrepreneurship at all.
- The coefficient value of entrepreneurship education (X1) is 0.848, which means that entrepreneurship education has an effect of 84.8% on student entrepreneurial intention.
- The coefficient value of (X2) is 0.612, which means that the technological advancement has an effect of 61.2% on student entrepreneurial intention,
- "e" is another factor that affects entrepreneurial intention but is not examined in this study.

4.4 Hypothesis testing

Partial Test (t test)

The t-test standard is that the independent variable is significant to the dependent variable if the significance value is <0.05 (Hair et al., 2014).

Table 4.4.1 t Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.896	1.865		1.016	0.311

Entrepreneurship Education	0.848	0.150	0.392	5.646	0.000
Technological Advancement	0.612	0.088	0.482	6.943	0.000

Dependent Variable: Entrepreneurial Intention

Based on data shown above, significance value is 0.000, which means $0.000 < 0.05$, it can be concluded that there is a significant and positive partial influence between variable X1 on Y, as it is between variable X2 on Y. So it can be reached if H1 is accepted, that is, entrepreneurship education has a positive and significant effect on entrepreneurial intention. Also H2 is accepted that technological advancement has a positive and significant effect on entrepreneurial intention.

Simultaneous Test (F test)

The basis of the f test statistical analysis is to be able to compare the value of f count with f table, H0 is rejected and the alternative hypothesis is accepted if f count > f table. In either case, it can be used to compare the significance values in the ANOVA table with the significance value set at 0.05, if the significant value < 0.05 will reject H0, which indicates that the independent variable has an effect on the dependent variable simultaneously (Ghozali, 2018).

Table 4.4.2 F Test Results

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6644.900	2	3322.450	299.901	<,001 ^b
	Residual	2846.975	197	14.452		
	Total	9491.875	199			

Based on the data above, significance value is < 0.001, which means $0.001 < 0.05$. It can be concluded that the variable entrepreneurship education (X1) and variable technological advancement (X2) simultaneously have a significant effect on the variable entrepreneurial intention (Y) H3 is accepted, that is, entrepreneurship education and technological advancement effect on entrepreneurial intention.

Test Coefficient of Determination (R-Square)

The researcher can assume that the higher the R^2 value, the greater the explanatory power of the regression equation and the better the prediction of dependencies (Hair et al., 2014).

Table 4.4.2 R-Square Test Results

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.837 ^a	0.700	0.697	3.802
a. Predictors: (Constant), Technological Advancement, Entrepreneurship Education				
b. Dependent Variable: Entrepreneurial Intention				

Based on the data above shows that the R-Square value of 0.837 can be concluded that entrepreneurship education and technological advancement affect entrepreneurial intention by 83,7% while the rest is influenced by other factors not under study.

5. Discussion

Effect of Entrepreneurship Education on Entrepreneurial Intention

Based on the results of the study, the entrepreneurial intention of vocational high school students in DKI Jakarta is positively and significantly influenced by entrepreneurship education.

The results of the t test research it is known that there is a significant relationship between entrepreneurship education and entrepreneurial intention of vocational high school students in DKI Jakarta, with a significance value of t test 0.000 or $0.000 < 0.05$. From the results of the multiple linear regression equation, it is clear that entrepreneurship education increases the intention of vocational high school students in entrepreneurship, this can be seen because the results of the multiple linear equation obtained positive results of 0.848.

This confirms the importance of integrating entrepreneurship education in the vocational high school curriculum to equip students with the necessary knowledge and skills for entrepreneurship. Supandi dan Burhanudin (2024) in their research showed that the application of entrepreneurship education in the curriculum of Vocational High Schools has a positive effect on student entrepreneurial motivation and innovation. This statement is supported by previous research by Reffandi dan Sulistyowati (2023) which states that entrepreneurship education includes a learning process with a curriculum presented to students, while paying attention to the quality of educators who have a deep understanding of entrepreneurship knowledge, which plays a role in stimulating entrepreneurial intention. Through Entrepreneurship Education, the skills to start a business are improved, with the aim of generating entrepreneurial intention.

Effect of Technological Advancement on Entrepreneurial Intention

Technological advancement has a significant influence on the entrepreneurial intention of vocational high school students in DKI Jakarta. It can be seen from the results of the t-test research that has a significance value of 0.000 which implies $0.000 < 0.05$. Technological Advancement (digital literacy, social media, and AI) has a positive effect on the entrepreneurial intention of vocational high school students in DKI Jakarta. This is indicated by the results of the multiple linear regression equation of 0.612 which is positive. Accordingly, schools need to ensure that students have adequate access to relevant technology and digital resources to support entrepreneurial learning and practice.

This is supported by Kumar, Raj and Mehta, (2023) in their research explaining that technology has a significant effect on entrepreneurship, changing the way entrepreneurs start, run and grow their businesses. Yacub et al. (2023) state that business in the Digital Era 5.0 requires awareness of the latest technological advancements and the ability to adapt business models to these changes.

Effect of Entrepreneurship Education and Technological Advancement on Entrepreneurial Intention

It can be seen clearly from the research results that the f test has a significance value of 0.000, which is $0.000 < 0.05$, so it can be concluded that technological advancement and entrepreneurship education together have a significant effect on the entrepreneurial intention of vocational high school students in DKI Jakarta. The coefficient of determination test produces a result of 0.700, meaning that technological advancement and entrepreneurship

education have a combined influence of 70% on the entrepreneurial intention of vocational high school students in DKI Jakarta in starting their own business. Based on the multiple linear regression equation, it is known that $Y = 1.896 + 0,848X_1 + 0,612X_2 + e$ constant value of 1,896, implying that the intention of vocational high school students in DKI Jakarta to start their own business is nil or nonexistent if it is not influenced by entrepreneurship education or technological advancement.

Educational approaches that integrate entrepreneurship materials with the use of technology will be more effective in building students' entrepreneurial intention and skills. . Hadrian et al, (2023) in their research stated that the utilization of technology in the teaching and learning process, especially in the field of vocational education, has become a crucial element. This includes managing technology infrastructure, creating digital content, and training and technology support for students and teachers. Riyadi (2024) stated that the main role of SMK in the Society 5.0 era is to continue to innovate in learning methods to match the needs of the world of work, thus producing graduates who have the skills needed in the workplace.

6. Conclusion, Implication, and Recommendation

This study proves that there is a positive influence of entrepreneurship education and technological progress on the entrepreneurial intention of vocational high school students in DKI Jakarta. The practical implication is that vocational high schools need to develop more comprehensive and interactive entrepreneurship programs, including through real projects, training and collaboration with businesses. Vocational high schools in DKI Jakarta need to ensure that students have adequate access to relevant technology and digital resources to support entrepreneurial learning and practice. Educational approaches that integrate entrepreneurship materials with the use of technology will be more effective in building students' entrepreneurial intention and skills. Vocational High Schools should implements interactive learning programs that integrate entrepreneurship and technology, such as technology-based business projects, app development workshops, and digital startup competitions.

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