

## The Effect of Digital Literacy on Entrepreneurial Intention through Entrepreneurial Attitude

Mustain<sup>1\*</sup>, F. Danardana Murwani<sup>2</sup>, Imam Mukhlis<sup>3</sup>

Fakultas Ekonomi dan Bisnis Universitas Negeri Malang

**Corresponding Author:** Mustain, [mustain.2204158@students.um.ac.id](mailto:mustain.2204158@students.um.ac.id)

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### ABSTRACT

The lack of Vocational High School graduates who have an entrepreneurial spirit and entrepreneurial intentions and can create new businesses is where the role of digital literacy in entrepreneurship education is needed which is expected to provide a theoretical basis for the concept of entrepreneurship, forming the mindset, attitudes, and behavior of an entrepreneur. This study uses a quantitative approach with Partial Least Squares (PLS-SEM) structural equation modeling to predict and confirm the hypotheses given. This study uses Google Forms for data collection on private vocational students in Mojokerto Regency. Respondents in this study were 150 respondents from the three schools used as research objects. The results showed that Digital Literacy can explain Entrepreneurial Attitude and Entrepreneurial Intention.

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## **INTRODUCTION**

Unemployment is one of the main problems faced by every country. Talking about unemployment means not only talking about social problems but also talking about economic problems because unemployment not only causes social problems but also has an influence on the economic growth of a country, especially a developing country like Indonesia recent years which has experienced an increase in the number of unemployed people. The Open Unemployment Rate (TPT) according to the higher education completed, there are two higher education that experienced an increase in unemployment compared to the previous year, namely college (university) graduates with an increase of 0.88% unemployment rate and vocational high school (SMK) graduates with 0.79% unemployment rate.

In creating SMK graduates who have an entrepreneurial spirit and entrepreneurial intentions and can create new businesses, this is where the role of digital literacy in entrepreneurship education is needed, which is expected to provide a theoretical basis for the concept of entrepreneurship, forming the mindset, attitudes, and behavior of an entrepreneur. Digital literacy in entrepreneurship education is a discipline that is taught because entrepreneurship has a complete and real body of knowledge, has two concepts, namely venture start-up and venture growth, and has its object, namely the ability to create something (Suryana, 2013). The purpose of this entrepreneurial intention is to inspire students to be more independent in entrepreneurship, change the thinking of students who always think that working is a more promising future than entrepreneurship, and bring up the entrepreneurial attitude of students based on the principle of quality and self-confidence in entrepreneurship as the future. An entrepreneurial attitude is the readiness of an individual to respond consistently to the characteristics possessed by an entrepreneur (Meredith, 2005).

Entrepreneurial intention is a will to do something and directs individuals to develop and implement new business concepts (Krueger et al., 2000). In addition, entrepreneurial intention is one of the important variables and has a major influence on the assessment of the success of a business (Johnmark and Munene, 2016). In developing and implementing a student's will, of course, can be influenced by external factors of entrepreneurship education in college which underlies the emergence of entrepreneurial intentions. The urgency of this research is proposed because students of private vocational schools in the Mojokerto district have a considerable opportunity to participate in building the economic system in the Mojokerto area. Through entrepreneurship, private vocational students in Mojokerto not only employ themselves but also others. Moreover, seeing the development of the Mojokerto area which has a lot of potential and a lot of capital both human resources and natural resources to be used as a business. Therefore, digital literacy (about entrepreneurship) needs to be improved continuously by the students of private vocational schools in Mojokerto.

This research contributes to educational institutions, especially private vocational schools in Mojokerto district to keep up to date in providing digital literacy in entrepreneurship practices. Based on the background and state of the art as described, this research has novelty by completing the gaps in previous studies, conducting a comprehensive study of the development of TPB theory at the vocational school's education level as measured by digital literacy with entrepreneurial attitudes as a determinant of entrepreneurial intentions of private vocational schools students in Mojokerto Regency.

## **LITERATURE REVIEW**

### **Digital Literacy**

Digital literacy is the ability to use technology and information from digital devices effectively and efficiently in various contexts such as academic, career, and daily life. Donny (2018: 4) argues that digital literacy is the ability to use information and communication technology (ICT), to find, evaluate, utilize, create, and communicate content or information, with cognitive and technical skills. Hauge and Payton (Akbar, 2017: 13) suggest that digital literacy is defined as the ability of individuals to apply functional skills to digital devices so that they can find and select information, think critically, be creative, collaborate with others, communicate effectively and remain aware of electronic security and socio-cultural developments.

H1: Digital Literacy Increases Entrepreneurial Intention.

H2: Digital Literacy has a positive effect on Entrepreneurial Attitude.

### **Entrepreneurial Attitude**

Entrepreneurial attitude strongly refers to the degree to which individuals hold personal judgments positively or negatively to become entrepreneurs through evaluative considerations (Linan, 2009). The attitude of entrepreneurship according to (Andika, 2012) is the tendency to react effectively in response to the risks that will be faced in a business. The object of attitude is outside the individual, but the evaluation of the object is influenced by a person's cognitive abilities and motivation, besides that external influences can also act to change or shape and strengthen attitudes (Rohmah, 2011). When viewed from the other side, attitudes and behavior have a close relationship, systematically (Ajzen, 2005) explaining that behavior is preceded by a conscious decision to act which is contributed by attitudes to shape future behavior. So attitudes are used to measure one's expectations regarding actions before starting a business (Leroy et al., 2009).

H3: Entrepreneurial attitude increases Entrepreneurial Intention

## Entrepreneurial Intention

Intention is a relationship between oneself and something outside of oneself, if the stronger or closer the relationship between oneself and outside, it will have a big influence on intention. When associated with entrepreneurship, intention will form an individual's desire to start or realize entrepreneurship (Souitaris et al., 2007). In the aspect of psychology, intention is positioned as the main determinant of a behavior and is a psychological aspect that affects a person's behavior or actions (Elliot et al., 2003). So that intention can be said to be a person's tendency to choose to do or not do a job.

## METHODOLOGY

### Research Design

This study uses a quantitative approach with PLS-SEM to investigate the impact of digital literacy on entrepreneurial intention and the role of entrepreneurial attitude in mediating engagement (see Figure 1). The main benefit of PLS-SEM is its ability to maximize variance in the dependent variable and estimate data based on the dimensions of the measurement model (Hair et al., 2017).

### Respondents and Data Collection Techniques

Vocational School students in the Mojokerto district participated in this study. When Vocational School is the object of research. 150 respondents have properties with 13 questions Google Form sent via WhatsApp. Data collection was carried out in October 2023, at Raden Rahmat Smks, Mojosari, Roudlotun Nasyiin Smks, Kemlagi, Jaya Negara Smks, Trowulan, Maarif Nu Smks, Jatirejo Smks, Walisongo Smks, Sooko from the total number of students involved in entrepreneurial activities of 1580 students, while to get accurate data the questionnaire distribution population of 240 students with a research sample of 150 students. The research variables are Digital Literacy, Entrepreneurial Attitude, and Entrepreneurial Intention. This study uses a proportionate stratified random sampling technique (proportional stratified random sampling technique).

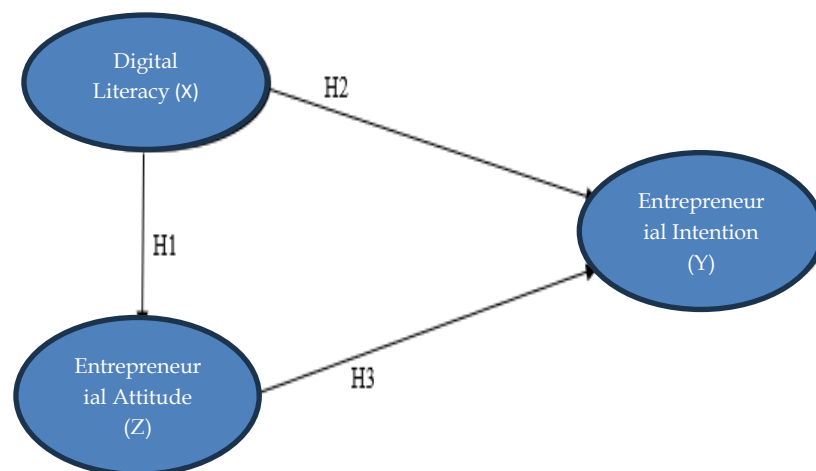


Figure 1. Research Framework

**Table 1. Characteristics of respondents**

Categories		Frequency	%
Gender	Female	137	91.3
	Male	13	8.7
Age of Respondent	17 years old	128	85.3
	>18 years old	22	14.7
Grade Level	XI	126	84
	XII	24	16

Source: analyzed by researchers (2023)

The respondents of this study are listed in Table 1. Most of the respondents were female students, while the majority of the students were 17 years old, 128 students. This table shows that 84% of the respondents were in grade XI of private vocational schools in the Mojokerto district.

### **Instrument Development and Data Analysis**

A survey was used to study the entrepreneurial intention of private vocational school students. The research instrument was adapted from previous studies and the literature review (Table 1). The questionnaire was translated from English to Bahasa Indonesia and modified for the Indonesian context. The questionnaire was translated from English to Bahasa Indonesia and modified for the local context. Digital Literacy was measured with four items (Fan et al., 2021). The entrepreneurial attitude was measured with five items by Lindsay et.al, (2008). Entrepreneurial intention was measured with five items from Linan & Chen (2006). The questionnaire asked participants to rate each statement from 1 (strongly disagree) to 5 (strongly agree). This study used Smart PLS 3.0 for partial least squares structural equation modeling (PLS-SEM).

## **RESEARCH RESULT**

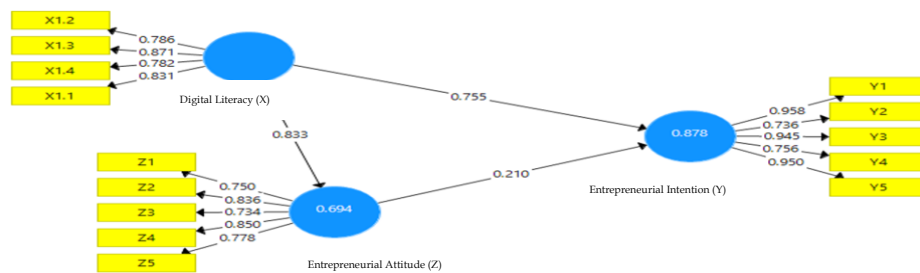
### **External Model Evaluation**

The PLS external model is determined to ensure the presence of reliable instruments. Models with determination criteria are said to be reliable when the composite reliability (CR) and Cronbach's Alpha > 0.05 (Hair et al., 2019). The results showed that the CR value of each construct was 0.890 to 0.941 for dependence (Table 2). A significant average variance extracted (AVE) > 0.50 indicates convergent validity (Hair et al., 2019). Convergent validity was achieved as all items exceeded 0.5 and the AVE of each construct ranged from 0.626 to 0.765 (>0.5). Factor cross-loading was used to test discriminant validity and convergent validity. Table 3 shows cross-loading values for all Digital

Literacy (X), Entrepreneurial Attitude (Z), and Entrepreneurial Intention (Y) variables from 0.734 to 0.958, more than 0.70, indicating discriminant validity.

### Hypothesis Testing

The model tested the hypotheses using structural equation modeling. The researchers used 150 bootstrap samples to display all t-statistics. As seen in Figure 3, all seven hypotheses in this investigation met the criteria, with t-values ranging from 3.239 to 28.596 (>1.96).



**Figure 2. Calculation of Structural Equation Modelling**

Source: processed by researchers (2023)

X : Independent Variabel

Y: Dependent Variable

Z: Average Variable

This study uses the R-square model (R<sup>2</sup>) to show the accuracy of the model prediction. The coefficient of determination (R Square) measures how well an exogenous construct describes an endogenous construct. (Hair et al., 2019) estimates R<sup>2</sup> to be between 0 and 1. R<sup>2</sup> values above 0.75 are large, while 0.50 and 0.25 are small and weak (Hair et al., 2019). The calculation shows that Digital Literacy explains 69.4% of the variance in Entrepreneurial Attitude with reasonable predictability. Entrepreneurial Attitude provides 87.8% of the variance of Entrepreneurial Intention with reasonable predictability (Hair et al., 2020). Next, f<sup>2</sup> determines whether extraneous constructs affect endogenous constructs. According to (Hair et al., 2020), external constructs have a minimal, moderate, and significant influence on endogenous constructs with f<sup>2</sup> values of 0.02, 0.18, and 0.40. In particular, the size of the impact of Digital Literacy on Entrepreneurial Attitude is quite large (f<sup>2</sup> = 0.694). The magnitude of the impact of Entrepreneurial Attitude on Entrepreneurial Intention is also significant (f<sup>2</sup> = 0.878).

**Table 2. Outer Model Calculation**

Construct	Item	$\lambda$	$\alpha$	CR	AVE
Digital Literacy (X)	X1	0,831	0,835	0,890	0,669
	X2	0,786			
	X3	0,871			
	X4	0,782			
Entrepreneurial Attitude (Z)	Z1	0,750	0,851	0,893	0,626
	Z2	0,836			
	Z3	0,734			
	Z4	0,850			
	Z5	0,778			
Entrepreneurial Intention (Y)	Y1	0,958	0,919	0,941	0,765
	Y2	0,736			
	Y3	0,945			
	Y4	0,756			
	Y5	0,950			

Source: analyzed by researchers (2023)

**Tabel 3. Validitas Diskriminan**

	Entrepreneurial Intention (Y)	Digital Literacy (X)	Entrepreneurial Attitude (Z)
Entrepreneurial Intention	0,875		
Digital Literacy	0,930	0,818	
Entrepreneurial Attitude	0,839	0,833	0,791

Source: analyzed by researchers (2023)

**Table 4. Hypothesis Testing**

	Relationship	$\beta$	T-value	P-values	Decision
H <sub>1</sub>	Digital Literacy -> Entrepreneurial Intention	0,755	13,335	0,000	Not Rejected
H <sub>2</sub>	Digital Literacy -> Entrepreneurial Attitude	0,833	28,596	0,000	Not Rejected
H <sub>3</sub>	Entrepreneurial Attitude -> Entrepreneurial Intention	0,210	3,281	0,001	Not Rejected
H <sub>4</sub>	Digital Literacy -> Entrepreneurial Attitude -> Entrepreneurial Intention	0,175	3,239	0,001	Mediation

Source: analyzed by researchers (2023)

## **DISCUSSION**

This study answers four hypotheses. Effect of Digital Literacy on Entrepreneurial Intention in Private Vocational Students in Mojokerto Regency. Based on the results of the study it is known that the proof of the first hypothesis of the study is shown by the Digital Literacy variable has a positive and significant effect on Entrepreneurial Intention with a p-value of 0.000 ( $<0.05$ ), and the t value is 13.335 ( $>1.96$ ). This is because the Digital Literacy that students have taken increases Entrepreneurial Intention. This finding is in line with research previously conducted by (Erlanitasari et al., 2020; Nuryana et al., 2020; Sariwulan & Suparno, 2020; Suherman & Yusuf, 2021; Suryani, U., Arief, M., Bramantoro, S., & Hamsal, 2022; Wardana et al., 2020), with the results of their research stating that Digital Literacy has a major influence on Entrepreneurial Intention. These results indicate that the better the Digital Literacy that students get, the more it can encourage students to realize Entrepreneurial Intention, which later students can create new entrepreneurs.

Furthermore, the Second Hypothesis is known that the Digital Literacy variable has a significant positive effect on Entrepreneurial Attitude, the p-value of 0.000 ( $<0.05$ ) and the t-value of 28.596 ( $>1.96$ ) indicates a significant relationship. These results are in line with previous research conducted by (Bratianu et al., 2020; Hessel et al., 2008; Kakouris & Liargovas, 2021; Nowiński & Haddoud, 2019) with the results of their research stating that Digital Literacy influences Entrepreneurial Attitudes. These results indicate that the better the Digital Literacy obtained for entrepreneurship, the better it can be in shaping students' entrepreneurial attitudes.

For the Third Hypothesis, it is evidenced that the Entrepreneurial Attitude variable has a significant positive effect on Entrepreneurial Intention with a p-value of 0.001 ( $<0.05$ ) and a t-value of 3.281 ( $>1.96$ ). These results are in line with research that has been done before by (Amofah & Saladrigues, 2022; Esnard-Flavius, 2010; Izquierdo & Buelens, 2011; Lope Pihie & Bagheri, 2011) with the results of his research that the Entrepreneurial Attitude has a great influence on Entrepreneurial Intention. These results indicate that the better the entrepreneurial attitude of students, it has a positive impact on increasing entrepreneurial intention. Because Entrepreneurial Attitude can have a positive impact on Entrepreneurial Intention which will later form entrepreneurship.

The last discussion related to the fourth hypothesis that has been done shows that there is a significant influence between Digital Literacy on Entrepreneurial Intention through the Entrepreneurial Attitude of students with a p-value of 0.001 ( $<0.05$ ) and a t-value of 3.239 ( $>1.96$ ). This means that the implementation of good Digital Literacy in students and driven by an Entrepreneurial Attitude can have an impact on increasing Entrepreneurial Intention. Entrepreneurial Attitude has an effective role as a partial mediator between Digital Literacy and Entrepreneurial Intention. Digital Literacy in this study has an impact on the formation of student entrepreneurial intentions, considering that increasing digital literacy needs to support a good entrepreneurial attitude.

## CONCLUSIONS AND RECOMMENDATIONS

For Vocational students in the Mojokerto district, it is suggested that future research could focus on the practical development of digital literacy in the entrepreneurship curriculum. Propose studies that focus on interventions or digital literacy development programs that directly influence students' entrepreneurial intentions and attitudes. Review integrated learning strategies that combine technology with entrepreneurial attitude development. Further, examines the role of entrepreneurial attitudes as a mediator in the relationship between digital literacy and entrepreneurial intentions to understand the dynamics of the relationship in greater depth. The ultimate goal is to provide more detailed insights into how digital literacy can more effectively influence the formation of entrepreneurial attitudes and intentions in educational settings.

## ADVANCED RESEARCH

This research needs to be developed in terms of increasing entrepreneurship in vocational high schools using different methods so that it can be used as a reference in terms of developing vocational high school students.

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