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Entrepreneurial Intentions of Vocational Education Students in Indonesia: PLS-SEM Approach

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Abstract: Cultivating entrepreneurial intentions in vocational education students is important in preparing graduates ready for entrepreneurship. However, efforts to foster entrepreneurial intentions are still a serious problem in vocational education. This study examines the structural model of the influence of entrepreneurial interest, technological competence, digital marketing, internship experience, self-efficacy, and entrepreneurial personality on entrepreneurial intentions. Ex-post facto research with a structural approach involving 618 vocational education students in Indonesia. Data was collected through a closed questionnaire with a Likert scale of 1-4 distributed using Google Form media. The collected data were analyzed using structural equation model analysis with path analysis and bootstrap methods. The study results show that technological competence, digital marketing, and apprenticeship experiences significantly affect the growth of entrepreneurial intentions. In addition, self-efficacy and entrepreneurial personality also significantly succeeded in mediating the influence of technological competence, digital marketing, and internship experience on entrepreneurial intentions. Teachers as learning facilitators must foster an interest in entrepreneurship as the basic root of the spur to form aspects of competence and experience needed in the business world. This aspect must also be given and strengthened to form a personality in entrepreneurship and strengthen self-efficacy so that the estuary of entrepreneurial intentions inherent in students will be stronger. This research is limited to certain variables based on the current actual theory. Future research needs to examine more deeply the potential influence of other variables that are more effective in growing students' entrepreneurial intentions in vocational education.

Keywords: Entrepreneurial interest, technological competence, digital marketing, internship experience, self-efficacy, entrepreneurial personality

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1. Introduction

Currently, the rapid growth of the workforce is a crucial issue that is very important to pay attention to, especially the Technical and Vocational Education and Training (TVET) organization as one of the human resource development institutions (Billett, 2006; Nurtanto et al., 2020; Pavlova, 2009; Sariwulan et al., 2020). In developing countries such as Indonesia, the fact has been revealed that the number of vocational education graduates is inversely proportional to the availability of jobs that these graduates can fill (Afandi & Sentot Wijanarka, 2019; Larosa & Munadi, 2019; Sutiman et al., 2022). Data from the Central Statistics Agency (CSA) recorded the number of unemployed graduates of vocational education at 10.38% (1,876,661 people) in February 2022 (Badan Pusat Statistik, 2022). The main causative factor is decreased labor absorption (Boyd, 2012; Sylla, 2013). In addition, another problem is that the vocational education workforce is not strong enough to face labor competition in the free market era, such as in the ASEAN Economic Community (AEC) in Southeast Asia (Adhariani et al., 2019). In simple terms, the uncertainty of career path guarantees and the working age of vocational education graduates are also revealed in the field (Lazarová et al., 2019; Winters et al., 2013). The perception that develops in society is that there is a guarantee for graduates to work in a decent world of work. This parameter exacerbates the problems in vocational education. In addition, the Indonesian government has long determined that vocational education graduates are prepared in three areas: work, continuing studies, and self-employment. There is no effective and measurable pattern of implementing entrepreneurship education in vocational education. Through entrepreneurship education, it is hoped that it will be able to break down the unemployment rate and not only depend on the world of work or continue studies (Stadler & Smith, 2017). More than that, vocational education can create new jobs in the future.

Teaching entrepreneurship subjects to vocational education students is very good in supporting the sustainability of vocational education as a sustainable development institution (Mei et al., 2020; Shu et al., 2020). However, several important factors must be considered to support success in implementing entrepreneurship learning. One of the main factors that play an important role in influencing the success of learning is internal factors within the students themselves (Ayob, 2021). The key factor is the intention of students from within themselves to set up a business (Fayolle & Gailly, 2015; Sawang, 2020). The intention has a big role in influencing students' decision-making for entrepreneurship (Garrett et al., 2020). In addition, optimism can be built properly if it is supported by strong intentions (Bernoster et al., 2018). This is evidenced by previous research, which revealed a significant effect of entrepreneurial intention on his decision to set up a business (Nguyen, 2020; Yi et al., 2020). Other research also confirms that most vocational education graduates who set up a business have had the intention since they were in school.

The importance of entrepreneurial intentions in supporting entrepreneurship education's success is contrary to the facts revealed directly in the field. A study conducted by Elqadri et al. (2016) showed that vocational education students in Yogyakarta-Indonesia tend to take risks with entrepreneurial intentions is still low at 16.3%. The reason is the risk of income that is not fixed and requires capital, inexperience, and prestige with certain positions or positions in a career. Related research conveys the same thing that reveals difficulties in forming entrepreneurial intentions in students (Ismail et al., 2019; Purusottama & Trilaksono, 2019). In addition, the spirit of learning in entrepreneurship has not emerged significantly (Darmawan et al., 2021). The problem of low entrepreneurial intentions is also influenced by self-efficacy (Nowiński et al., 2019). Self-efficacy will play a role in providing strong confidence to someone to make decisions in entrepreneurship, so if self-efficacy is formed in entrepreneurial learning, it will create a good stimulus for the growth of entrepreneurial intentions in vocational education students (Hassan, 2020; Zubić et al., 2021). However, other strong factors are also supported in forming comprehensive entrepreneurial intentions for vocational education students. The entrepreneurial personality factor is an important factor that can stimulate entrepreneurial intentions to grow in a person (Fragoso et al., 2020; Ng et al., 2021). Entrepreneurial personality refers to the attitudes and characteristics of entrepreneurs or prospective entrepreneurs based on their aspects (Obschonka et al., 2019). Aspects of entrepreneurial personality generally refer to mental attitudes, beliefs, work ethic, results orientation, self and other management, and problem-solving attitudes in entrepreneurship (Porcar & Soriano, 2018; Singh & Rahman, 2012). The strength of these aspects will also help grow entrepreneurial intentions in vocational education students.

On the other hand, the strength or weakness of students' entrepreneurial intentions in vocational education is also supported by several factors related to mastery of student competencies. The shift in technological progress in the 21st century also requires competency upgrades to match developments in entrepreneurship (Bican & Brem, 2020; Sahdan et al., 2017; Sahut et al., 2021). The era of digitalization inherent in the development of 21st-century technology is certainly a focus for upgrading its competence (Kholifah et al., 2021; Mahfud et al., 2022). In this era, comprehensive mastery of digital technology will provide views and develop ways of entrepreneurship more effectively and efficiently (Nambisan, 2017; Rippa & Secundo, 2019). The development of digital technology also presents various online buying and selling places that can increase buying and selling power more efficiently and provide very profitable results (Arifin et al., 2020; Cluley et al., 2020; Mutohhari et al., 2021). In line with this, digital marketing competence is also strongly suspected of being able to stimulate the growth of students' entrepreneurial intentions (Kingsnorth, 2019). In addition, digital marketing will also affect the extent to which self-efficacy and entrepreneurial personality are formed, especially in growing entrepreneurial intentions.

Competence in digital technology and digital marketing must also be balanced with good work experience in students so that they will also be together in growing the entrepreneurial intentions of these students (Yi, 2018). Through the internship program, students can learn firsthand how digital technology plays a role in entrepreneurship. In addition, the internship experience will also provide certain business specifications that students can develop later, which will also affect self-efficacy, personality, and the growth of strong intentions in entrepreneurship (Al-Ghazali & Afsar, 2021; Neneh, 2020; Tentama & Paputungan, 2019). However, the roots that start the growth of entrepreneurial intentions also come from the extent to which entrepreneurial interest exists in a person (Rahman et al., 2020). This means that interest in entrepreneurship is the starting point for forming entrepreneurial intentions (Jamaluddin et al., 2019). The existence of an interest in entrepreneurship in a person will spur him to develop the competencies needed in entrepreneurship so that the estuary of entrepreneurial intentions will grow strongly.

Based on the description of the problem and analysis of innovation in overcoming problems, this study aims to examine the direct influence of entrepreneurial interest, technological competence, digital marketing, and internship experience on the growth of entrepreneurial intentions of vocational education students. In addition, the indirect effect of exogenous variables was also analyzed through the involvement of the role of self-efficacy and entrepreneurial personality as a moderator. Thus, this study aims to determine the answer to these specific research questions:

H1 : There is a significant direct influence of entrepreneurial interest on technological competencies.
H2 : There is a significant direct influence of entrepreneurship interest on the internship experience.
H3 : There is a significant direct influence of technological competence on digital marketing.
H4 : There is a significant direct effect of internship experience on digital marketing.
H5 : There is a significant direct effect of technological competence on self-efficacy.
H6 : There is a significant direct influence of technological competence on entrepreneurial personality.
H7 : There is a significant direct effect of digital marketing on self-efficacy.
H8 : There is a significant direct influence of digital marketing on entrepreneurial personality.
H9 : There is a significant direct effect of internship experience on self-efficacy.
H10 : There is a significant direct effect of internship experience on entrepreneurial personality.
H11 : There is a significant direct influence of technological competence on entrepreneurial intentions.
H12 : There is a significant direct influence of digital marketing on entrepreneurial intentions.
H13 : There is a significant direct effect of internship experience on entrepreneurial intentions.
H14 : There is a significant direct effect of self-efficacy on entrepreneurial intentions.
H15 : There is a significant direct influence of entrepreneurial personality on entrepreneurial intentions.
H16 : There is a significant technological competence in entrepreneurial intentions through the mediating role of self-efficacy.
H17 : There is significant digital marketing on entrepreneurial intentions through mediating role of self-efficacy.
H18 : There is a significant experience of entrepreneurial intention through the mediating role of self-efficacy.
H19 : There is a significant technological competence in entrepreneurial intentions through the mediating role of entrepreneurial personality.
H20 : There is significant digital marketing on entrepreneurial intentions through the mediating role of the entrepreneurial personality.
H21 : There is a significant internship experience in the interest in entrepreneurship through the mediating role of entrepreneurial personality.

2. Methods

2.1 Research Design

This study is an ex-post-facto study adopting a research design adapted from Cohen et al. (2011). The study involved student respondents in vocational education in Indonesia who had organized learning and entrepreneurship programs in schools. This study uses a quantitative data approach and adopts a Structural Equation Modelling (SEM) analysis technique to measure exogenous variables' direct or indirect effect on endogenous variables, both without mediators and with mediators who have strong support from existing theories. Data on all variables were collected through a questionnaire method distributed online using Google Form.

2.2 Population and Sampling

This study involved vocational students in grade 12th in Yogyakarta-Indonesia. The population selection and samples were not taken from graduates but students still actively studying at school. The selection of students is a vocational school that organizes entrepreneurship learning for approximately two years. The sampling technique was carried out using the clustering technique. The sample selection in a cluster is carried out with the criteria of representative public and private vocational education from each district in the province. Then, considering the difficulty of obtaining a complete and ideal number of samples in online learning conditions, students appointed as

research respondents in each vocational education were voluntarily determined with a self-submission system through a separate questionnaire before conducting the research. A total of 618 students from 10 public and private vocational education. The distribution and dimensions of the research sample are shown in table 1 below:

Table 1 - Background of participants

Dimensions	Category	Public School F (%)	Private School F (%)
Gender	Male	164 (26,54)	158 (25,57)
	Female	160 (25,89)	136 (22,01)
Expertise	Technology and Engineering	131 (21,20)	118 (19,09)
	Information and communication technology	109 (17,64)	98 (15,86)
	Tourism	84 (13,59)	78 (12,62)
Parental background	Civil servant	142 (22,98)	122 (19,70)
	Private employees	119 (19,26)	101 (16,30)
	Entrepreneur	65 (10,52)	72 (11,70)
Regency	Sleman	73 (11,81)	66 (10,68)
	Jogjakarta	68 (11,00)	60 (9,71)
	Bantul	64 (10,36)	58 (9,39)
	Kulonprogo	61 (9,87)	56 (9,06)
	Gunung Kidul	58 (9,36)	54 (8,74)

2.3 Data Collection Methods and Instruments

The data in this study were collected using a questionnaire technique through Google Form, which was carried out from early January to the end of March 2022. A questionnaire with a four Likert scale questionnaire was used, with answer options Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The development of the instrument was carried out by adopting the expert opinion of each variable. The instrument is equipped with the respondent's identity, which includes important attributions including gender, area of expertise occupied, and the place of district-level vocational school. The following description below presents the lattice of the instrument in this study.

The indicators used to compile the questionnaire instrument first ensured the instrument's validity by developing survey items from the scale developed and validated by previous research.

a. ***Entrepreneurial interest*** is measured based on four indicators adopted (Portuguez Castro & Gómez Zermeño, 2021; Sawang, 2020). Important indicators include "*attention to entrepreneurial activity, efforts to learn about a business, participation in entrepreneurial activities, and environmental support*." The four indicators were further elaborated in the form of sub-indicators with a total of six sub-indicators according to the theme of each indicator. The number of entrepreneurship interest questionnaire items that refer to constructing these indicators is twelve.
b. ***Technological competence*** refers to studies (Astuti et al., 2022; Mcgrath et al., 2019; Pavlova, 2009) covering "technology awareness, technological literacy, technological ability, technological creativity, and technology criticality." These five aspects are expanded into ten statements.
c. ***Student Self-efficacy*** is constructed based on indicators that refer to the theory of Bandura (1982), (2010). Bandura revealed three important indicators included in the self-efficacy dimension, namely "*level, generality, and strength*," which were reduced to six sub-indicators. The total number of self-efficacy questionnaire items is ten statements.
d. ***Digital marketing,*** adapted from Kannan & Li (2017); Kingsnorth (2019), consists of five indicators, namely "*accessibility in accessing information and services, two-way interactivity, service and disruption management, capability in digital promotion*." The total number of digital marketing questionnaire items is twelve statements.
e. ***The student internship experience*** was constructed (Billett, 2001; Ryan & Lőrinc, 2018). The important indicators are "*practical experience, formation of work attitudes, job management, and job problem-solving*." The total number of internship experience questionnaire items is ten statements.
f. ***Entrepreneurial personality*** was obtained from Obschonka et al. (2019); Sarwoko & Nurfarida (2021). There are five indicators: "*mental attitude, process orientation, entrepreneurial ethos, self-management, and other people, and problem-solving attitudes in entrepreneurship*." The five indicators were reduced to 10 sub-indicators with ten items in the questionnaire.
g. ***Students' Entrepreneurial intentions*** adopt the opinions of Mahfud et al. (2020); Sawang (2020). Three indicators were adopted: "*high willingness in choosing entrepreneurs, courage in taking risks, and confidence in decision making."* The total number of digital marketing questionnaire items is ten statements.

Experts have validated the research instrument in entrepreneurship to get more accurate validity (Costa et al., 2019). Then tested on students in vocational education with the results of confirmation factor analysis (CFA) and Cronbach alpha values as follows: Entrepreneurial interest (0.890), Technological competencies (0.751), Digital Marketing (0.818), Internship experience (0.889), Self-efficacy (0.939), Entrepreneurial personality (0.836), and Entrepreneurial intention (0.997). All aspects meet the test requirements, namely valid and reliable (above 0.70).

2.4 Data Analysis

Structural Equation Modeling (SEM) analysis is a multivariate statistical analysis used to test the hypothesis of the influence between variables, both direct and indirect effects of exogenous variables on endogenous variables (Hair et al., 2010). The research hypothesis is formulated based on relevant theoretical support related to the line of influence of exogenous variables on endogenous variables directly or using mediation, as proposed in the previous literature review. Path analysis measures the direct effect of exogenous variables on endogenous variables. Meanwhile, this research used the bootstrap method to measure self-efficacy and entrepreneurial personality in mediating the indirect effect of technological competence, digital marketing, and internship experience on entrepreneurial intentions. This study analyzes data using Smart Partial Least Square (SmartPLS 3.0) supporting software because it can handle many variables despite multicollinearity (Dijkstra, 2010).

3. Results

3.1 Validities and Reliabilities of Instruments

Before testing the model using SEM analysis, confirmatory factor analysis was first performed to test the validity and reliability of the instruments and Cronbach's alpha to assess the feasibility and consistency of all indicators in the variables studied. The validity test results show that all indicators on all research variables have an outer loading value that exceeds 0.70. None of the indicators of any variables were dropped. All indicators on all instruments have met the criteria for validity and are ready to be used for research (Johnson & Wichern, 2007). The following table 2 presents the results of the validity tests in more detail.

Table 2 - Validities and reliabilities instruments

Variable	Indicator	Outer Weight	Outer Loading	Decision
Entrepreneurial interest	X1.1	0.767	0.767	Valid
	X1.2	0.825	0.825	Valid
	X1.3	0.801	0.801	Valid
	X1.4	0.811	0.811	Valid
Technological competencies	X2.1	0.781	0.781	Valid
	X2.2	0.748	0.748	Valid
	X2.3	0.941	0.941	Valid
	X2.4	0.757	0.757	Valid
	X2.5	0.904	0.904	Valid
Digital Marketing	X3.1	0.840	0.840	Valid
	X3.2	0.792	0.792	Valid
	X3.3	0.846	0.846	Valid
	X3.4	0.765	0.765	Valid
	X3.5	0.920	0.920	Valid
Internship experience	X4.1	0.824	0.824	Valid
	X4.2	0.963	0.963	Valid
	X4.3	0.936	0.936	Valid
	X4.4	0.944	0.944	Valid
Self-efficacy	X5.1	0.832	0.832	Valid
	X5.2	0.912	0.912	Valid
	X5.3	0.859	0.859	Valid
Entrepreneurial personality	X6.1	0.813	0.813	Valid
	X6.2	0.795	0.795	Valid
	X6.3	0.916	0.916	Valid
	X6.4	0.916	0.916	Valid
	X6.5	0.719	0.719	Valid
Entrepreneurial intention	Y1.1	0.853	0.853	Valid
	Y1.2	0.884	0.884	Valid
	Y1.3	0.704	0.704	Valid

Meanwhile, the reliability test showed that the Cronbach alpha number was included in the reliable criteria on all instruments (Reid, 2014). This shows that the instrument has a good level of consistency for collecting data on each variable. table 3 presents the results of the alpha reliability test.

Table 3 - Reliabilities instruments

Variable	α	rho_A	Composite	AVE	Decision
Entrepreneurial interest	0.890	0.894	0.919	0.696	Reliable
Technological competencies	0.751	0.783	0.857	0.668	Reliable
Digital Marketing	0.818	0.830	0.878	0.642	Reliable
Internship experience	0.889	0.895	0.920	0.697	Reliable
Self-efficacy	0.939	0.967	0.956	0.844	Reliable
Entrepreneurial personality	0.836	0.850	0.902	0.754	Reliable
Entrepreneurial intention	0.887	0.911	0.916	0.689	Reliable

3.2 Model Fit Test

The model suitability test is used to measure the level of conformity of the structural model. The overall fit index of the research model is presented (as the baseline model) in table 4. All the overall fit indices of the baseline model performed well. The absolute fit test consists of (a) Chi-square as a measure of the maximum likelihood-based model suitability test (ML is small), (b) Probability (P) exceeding 0.05, obtained is a relatively small critical number, (c) Goodness of Fit Index (GFI 0.90) as a descriptive measure of model suitability, and (d) Root Mean Square Error of Approximation (RMSEA<0.08) as the approximation value of the mean square root of the error (Jöreskog & Sörbom, 1982). Incremental fit measures include (e) Adjusted GFI (AGFI), which is the adjusted GFI value (≥0.90), and (f) Comparative Fit Index (CFI), which is a measure of the suitability of the comparative-based model with the null model (≥0.90), (g) Tucker Lewis Index (TLI) which measures the relative reduction in discrepancy per degree of freedom (≥0.90), and (h) Standardized Root Mean Square Residual (SRMR) as a measure of absolute fit and standard differences between observed and predicted correlations (<0.05) (Bentler, 1990; Maydeu-Olivares et al., 2018; Tucker & Lewis, 1973).

Table 4 - Model fit test result

The goodness of fit indices	Result	Desired levels
Chi-square	13.501	Small
Probability	0.658	>0.50
GFI	0.922	≥0.90
RMSEA	0.067	<0.08
AGFI	0.916	≥0.90
CFI	0.953	≥0.90
TLI	0.928	≥0.90
SRMR	0.018	<0.05

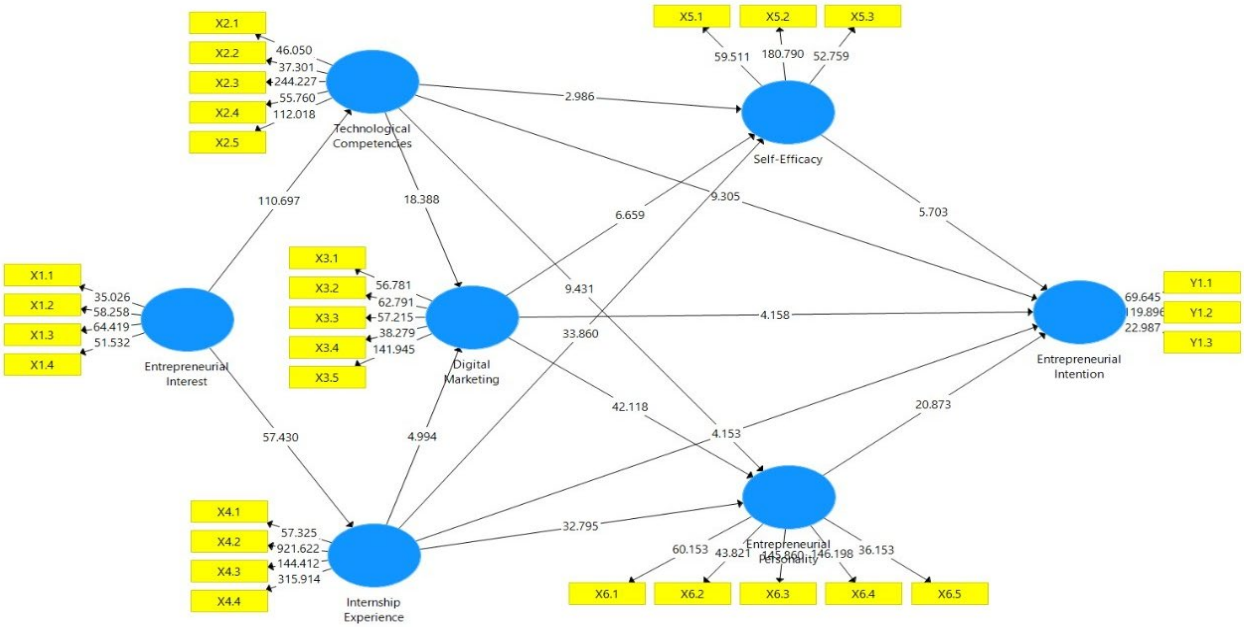

Fig. 1 - Structural model analysis results

Based on these results, it can be concluded that the model is fit based on the acquisition of values included in the goodness of fit category so that structural model analysis can be carried out (Johnson & Wichern, 2007). While the structural analysis model used is presented in figure 1. SEM analysis uses two methods, namely path analysis, to determine the direct effect of exogenous variables (without being mediated) and the indirect effect of endogenous variables (with mediation). For comparison, the second method is bootstrap which serves to assess the level of significance of direct effects, indirect effects and total effects or other values (Streukens & Leroi-Werelds, 2016).

3.3 Direct Effect Test

Hypothesis testing was conducted to determine the direct influence of entrepreneurial interest on technological competence and apprenticeship experience, the effect of technological competence and internship experience on digital marketing, the influence of technological competence, digital marketing and internship experience on self-efficacy and entrepreneurial personality, and the influence of technological competence, digital marketing, internship experience, self-efficacy and entrepreneurial personality towards entrepreneurial intentions. Hypothesis testing 1-15 is seen based on the results of path analysis to determine the value of t-statistic and p-value with a significance level of 5%. In addition, the authors present the confidence intervals obtained at 97.5% (CI 97.5%) with an error rate of 2.5%. The following table 5 shows the results of hypothesis testing using path analysis.

Table 5 - Path analysis test result

Path	T Statistic	SE	CI 97,5%	p
Digital marketing → entrepreneurial intention	4.449	0.005	-0.247	0.000
Digital marketing → entrepreneurial personality	44.052	0.002	1.554	0.000
Digital marketing → self-efficacy	6.292	-0.001	0.248	0.000
Entrepreneurial interest → internship experience	56.419	0.000	0.803	0.000
Entrepreneurial interest → technological competencies	112.281	0.000	0.850	0.000
Entrepreneurial personality → entrepreneurial intention	21.944	-0.004	1.373	0.000
Internship experience → digital marketing	4.877	-0.002	0.296	0.000
Internship experience → entrepreneurial intention	4.188	-0.002	0.480	0.000
Internship experience → entrepreneurial personality	30.795	-0.003	-0.994	0.000
Internship experience → self-efficacy	33.157	-0.001	0.735	0.000
Self-efficacy → entrepreneurial intention	5.879	-0.002	0.367	0.000
Technological competencies → digital marketing	17.923	0.002	0.823	0.000
Technological competencies → entrepreneurial intention	8.837	0.003	-0.305	0.000
Technological competencies → entrepreneurial personality	9.643	0.000	0.470	0.000
Technological competencies → self-efficacy	2.995	0.002	0.178	0.003

Interest in entrepreneurship affects technological competence with a t-value of 4.449 and a significance of 0.000, so the first hypothesis is supported. Then the interest in entrepreneurship also affects the internship experience with a t-value of 44.052 and a significance of 0.000, supporting H2. Technological competence affects digital marketing with a t-value of 17.923 and a significance of 0.000, thus supporting H3. Internship experience affects digital marketing with a t-value of 4.877 and a significance of 0.000, so H4 is supported. A t-value of 2.995 and a significance of 0.003 were obtained on the effect of technological competence on self-efficacy, making H5 supported. Then digital marketing affects self-efficacy with a t-value of 6.292 and a significance of 0.000, thus supporting H6. Internship experience affects self-efficacy with a t-value of 33.157 and a significance value of 0.000, so H7 is supported. Likewise, H8 is supported by acquiring a t-value of 9.643 and a significance of 0.000 from the influence of technological competence on entrepreneurial personality. Then digital marketing affects entrepreneurial personality with a t-value of 44,052 and a significance of 0.000, so H9 is supported. Likewise, internship experience affects entrepreneurial personality with a t-value of 30.795 and a significance of 0.000, so H10 is supported.

Furthermore, technological competence affects entrepreneurial intentions with a t-value of 8.837 and a significance of 0.000, thus supporting H11. The direct effect of digital marketing also obtained the same thing with a t-value of 4.449 and a significance of 0.000, supporting H12. Likewise, internship experience affects entrepreneurial intentions with a t-value of 4.188 and a significance of 0.000, so H13 is supported. Then self-efficacy affects entrepreneurial intentions with a t-value of 17.923 and a significance of 0.000, so H14 is supported. Likewise, entrepreneurial personality influences entrepreneurial intentions with a t-value of 21.944 and a significance of 0.000, so H15 is supported.

3.4 Mediation Effect Test

The bootstrap method was used to test and analyze the significance of intervening variables' role in mediating the effects of exogenous variables on endogenous variables. Bootstrapping is used considering that research shows that bootstrapping is the most powerful and reasonable method for obtaining confidence limits for certain indirect effects in most conditions (Preacher & Hayes, 2008). table 6 shows the level of self-efficacy in mediating technological competence, digital marketing, and internship experience in influencing students' entrepreneurial intentions in vocational education. The confidence interval obtained in this bootstrap method is 97.5%. The indirect effect of technological competence on entrepreneurial intentions through the mediation of self-efficacy is obtained by a t-value of 2.666 with a significance value of 0.003. It can be concluded that technological competence indirectly has a significant effect on entrepreneurial intentions through the mediation of self-efficacy, so H16 is supported. Furthermore, the same results were also obtained from the indirect effect of digital marketing on entrepreneurial intentions through the mediation of self-efficacy with the acquisition of a t-value of 4.010 and a significance of 0.000, thus supporting H17. Likewise, the indirect effect of internship experience on entrepreneurial intentions through the mediation of self-efficacy is obtained by a t-value of 6.015 with a significance value of 0.000, so H18 is supported.

Meanwhile, table 7 shows the involvement of entrepreneurial personalities in mediating technological competencies, digital marketing, and internship experiences in influencing students' entrepreneurial intentions in vocational education. It can be concluded that technological competence indirectly has a significant effect on entrepreneurial intentions through the mediation of entrepreneurial personality, so H19 is supported. The indirect effect of technological competence on entrepreneurial intentions through the mediation of entrepreneurial personality is obtained by a t-value of 10.258 with a significance value of 0.000. Furthermore, similar results were obtained from the indirect effect of digital marketing on entrepreneurial intentions by mediating entrepreneurial personality with a t-value of 17.955 and a significance of 0.000, thus supporting H20. Likewise, the indirect effect of internship experience on entrepreneurial intentions through the mediation of entrepreneurial personality obtained a t-count value of 20.282 with a significance value of 0.000, so H21 is supported.

Table 6 - The mediating role of self-efficacy

Path	Standardized Analysis with Bootstrapping BC 97,5 % CI					
	Direct Effect		Indirect Effect		Total Effect	
	t-value	Sig	t-value	Sig	t-value	Sig
Technological competencies → Self-efficacy	2.995	0.003	-	-	2.995	0.003
Technological competencies → Entrepreneurial intention	8.837	0.000	2.666	0.008	11.503	0.000
Digital marketing → Self-efficacy	6.292	0.000	-	-	6.292	0.000
Digital marketing → Entrepreneurial intention	4.449	0.000	4.010	0.000	8.459	0.000
Internship experience → Self-efficacy	33.157	0.000	-	-	33.157	0.000
Internship experience → Entrepreneurial intention	4.188	0.000	6.015	0.000	10.203	0.000

Table 7 - The mediating role of entrepreneurial personality

Path	Standardized Analysis with Bootstrapping BC 97,5% CI					
	Direct Effect		Indirect Effect		Total Effect	
	t-value	Sig	t- value	Sig	t-value	Sig
Technological competencies → Entrepreneurial personality	9.643	0.000	-	-	9.643	0.000
Technological competencies → Entrepreneurial intention	8.837	0.000	10,258	0.000	20.34	0.000
Digital marketing → Entrepreneurial personality	44.052	0.000	-	-	44.052	0.000
Digital marketing → Entrepreneurial intention	4.449	0.000	17.955	0.000	22.404	0.000
Internship experience → Entrepreneurial personality	30.795	0.000	-	-	30.795	0.000
Internship experience → Entrepreneurial intention	4.188	0.000	20.282	0.000	24,47	0.000

4. Discussion

Forming and creating prospective entrepreneurs through vocational education is an important asset in overcoming unemployment in Indonesia (Ahmad, 2020; Zhang, 2019). New entrepreneurs are expected to reduce the problem of limited employment opportunities (Ni & Ye, 2018). However, other issues must also be considered, especially vocational education, to produce graduates ready to become entrepreneurs. Previous research has revealed the importance of the entrepreneurial intention aspect in a person who can influence the smooth operation of his business (Ni & Ye, 2018). The intention can play an important role in a person's determination to become an entrepreneur (Anjum et al., 2021). In addition, the intention will affect a person's level of readiness and decision-making for entrepreneurship.

Vocational education that aims to prepare graduates to be ready to work and become entrepreneurs has attempted to foster entrepreneurial intentions through entrepreneurship learning in it (Stadler & Smith, 2017). Through this learning, it is expected to be able to introduce the importance of entrepreneurship in solving various problems in life (Hamburg, 2021). In addition, these efforts are also made to equip skills in running a business (Boldureanu et al., 2020). Entrepreneurship learning in vocational education also includes direct entrepreneurship practices, from planning, organizing, and implementing to marketing. With the introduction and provision of entrepreneurial competencies, the estuary of entrepreneurial intentions can grow optimally (Sawang, 2020). However, other problems also arise, which are proven by previous research. The study revealed that cultivating entrepreneurial intentions in students is very difficult. Vocational education teachers reveal difficulties in instilling a strong intention in students to become entrepreneurs when they graduate (Nurtanto et al., 2022; Sharahiley, 2020). Many students who intend to work tend to have a lower risk than in entrepreneurship (Ahmad et al., 2014; Pandit et al., 2018). This is also confirmed directly by students through previous research.

Provide clear theoretical confirmation that cultivating entrepreneurial intentions in students in education is difficult (Fayolle & Gailly, 2015; Sawang, 2020). The intention is not trivial but enters a high level because the intention will affect the extent to which a person will be serious in entrepreneurship. In cultivating entrepreneurial intentions in students, it is not enough to organize entrepreneurship learning (Chien-Chi et al., 2020). Vocational school teachers must start by forming students' entrepreneurial interests. The next stage is to strengthen the entrepreneurial intention of vocational students. According to Luis-Rico et al. (2020), Interest in entrepreneurship is a basic aspect for prospective entrepreneurs. Without being based on a strong interest in entrepreneurs, a business will not run well. In addition, without interest, a person's goals and business orientation will not be clear. As a result, failure in entrepreneurship will also be high.

The growth of interest in entrepreneurship will indirectly affect the growth of entrepreneurial intentions. This is because a person's growing interest in entrepreneurship will construct the aspects needed to grow entrepreneurial intentions (Jamaluddin et al., 2019; Rahman et al., 2020). These aspects will continue to change along with the development of knowledge and technology, for that interest in entrepreneurship has at least become the basic capital informing aspects that can support the growth of entrepreneurial intentions (Luis-Rico et al., 2020). Interest in entrepreneurship that previously had become the basic capital will spur someone to upgrade their competence with current developments (Ganati et al., 2019). In the 21st century, the dominance of digital-based technology in work is certainly an important aspect that students can address properly when they are interested in entrepreneurship (Oppong et al., 2020). Digital technology provides comprehensive benefits to support a job or business (Elia et al., 2020; Sutiman et al., 2022). With an interest in entrepreneurship, students will be motivated to develop digital technology competencies, which can later be used to support running a business (Islami, 2019; Oppong et al., 2020). Besides this, when capital in the form of an interest in entrepreneurship is in a person, that person will also be motivated to expand

his experience in work (Yi, 2018). The breadth of work experience can provide a comprehensive understanding of business, production, marketing, and customer service. Thus, interest in entrepreneurship will spur the growth of technological competence and expand one's experience (Arafeh, 2015; Varghese et al., 2012).

The formation of technological competence and the wider internship experience will also spur other aspects to support the growth of entrepreneurial intentions in vocational education students (Monllor & Soto-Simeone, 2020). Digital technology competence and internship experience based on an interest in entrepreneurship will affect the formation of digital marketing abilities (Hamburg, 2021). Digital marketing is a response to digital technology, which is now widely integrated to support the marketing of products or services more efficiently and effectively (Kingsnorth, 2019; Krishnamoorthy & Srimathi, 2019). Digital marketing will facilitate marketing the results of one's business without the need for a strategic physical place. Good digital marketing skills will make the product of business results known and of interest to the wider community without opening a physical store (Kingsnorth, 2019). This aspect also leads to the stronger one's intention to set up a business (Ahmad et al., 2014; Wijaya & Padmanegara, 2021). Technological competence, internship experience, and support for digital marketing capabilities are strong aspects that can influence students' growth of entrepreneurial intentions.

However, in growing entrepreneurial intentions, aspects of technological competence, digital marketing, and internship experience do not necessarily only have a direct effect. These aspects require aspects of support that can channel their influence on the growth and development of entrepreneurial intentions. Self-efficacy is one aspect that can be a forum for these three aspects in influencing entrepreneurial intentions indirectly and has been proven through previous research (Neneh, 2020; Rosique-Blasco et al., 2018). Strong technological competence and supported by comprehensive digital marketing capabilities will certainly increase confidence in their ability to run a business in this digitalization era (Naushad & Malik, 2018). In addition, the breadth of internship experience that provides experience in business management will, of course, also increase self-confidence capital in entrepreneurship abilities (Lackéus, 2020; Lim et al., 2021). Thus, the estuary will indirectly foster entrepreneurial intentions in line with the efficacy growth caused by the formation of technological competence, digital marketing capabilities, and internship experience.

In addition to self-efficacy, relevant research reveals that entrepreneurial personality can also be a good mediator in mediating the indirect effect of technological competence, digital marketing skills, and internship experience on the growth of entrepreneurial intentions in students (Adiandari et al., 2019; Do et al., 2020; Fragoso et al., 2020). High technological competence and digital marketing capabilities will indirectly determine how entrepreneurial intentions grow, which is also caused by the growth of work attitudes, mentality, beliefs, and work ethic, which are part of the entrepreneurial personality (Yıldırım et al., 2016). In line with the variables that shape entrepreneurial intention, it is inseparable from vocational students in running a business, namely skills that are formed from continuous practice. Students' entrepreneurial intention is increasingly being strengthened as the process, and natural skills go. Finally, TVET comprehensively constructs students' experiences to strengthen students' entrepreneurial intentions.

5. Conclusion

TVET in vocational education plays an important role in producing graduates who are not absorbed in the world of work by training entrepreneurship skills. In addition to entrepreneurship learning programs, vocational education must also foster entrepreneurial intentions, which are decisive for students' readiness and decision-making for entrepreneurship. This study reveals the aspects that construct the growth of entrepreneurial intentions in vocational education students. Interest in entrepreneurship is the foundation that must be grown to construct the aspects needed to grow entrepreneurial intentions. After interest is formed, students will be motivated to develop technological competence and digital marketing and expand work experience to channel their interest in entrepreneurship. Digital technology competence, marketing, and internship experience are the most important aspects of directly growing entrepreneurial intentions. In addition, these aspects also directly affect self-efficacy and personality in entrepreneurship which is an important capital for the growth of entrepreneurial intentions in students. Finally, vocational education focuses on strengthening entrepreneurial intentions to produce graduates who are ready for entrepreneurship. However, further studies are important to involve the environment in vocational schools in shaping entrepreneurial intentions. Moreover, the quality of entrepreneurship learning must be researched and adapted to other vocational schools.

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