

# IMPLEMENTATION OF THE THEORY OF PLANNED BEHAVIOUR ON ENTREPRENEURIAL INTENTION

Editor's Request	Your Response	Review Submitted	Review Due
2025-10-28	2025-11-10	2025-11-24	2025-11-25

**Krido Eko Cahyono, Nanik Hariyana, Muhammad Tahajjudi Ghifary**

Universitas Pembangunan Nasional "Veteran" Jawa Timur

krido\_eko.ma@upnjatim.ac.id, nanik.hariyana.ma@upnjatim.ac.id, ghifary.ma@upnjatim.ac.id

Jl. Rungkut Madya, Gn.Anyar, Kec.Gn.Anyar, Surabaya, Jawa Timur, 60294

## Abstract

*This study aims to examine the impact of entrepreneurship education on the entrepreneurial intentions of university students in Surabaya. Purposive sampling was applied to a group of 200 college students. The sample criteria included students who had completed entrepreneurship courses for bachelor's degrees and entrepreneurship practicums for vocational programs. This research utilized the Mann-Whitney U-Test via SPSS and partial least squares analysis through SmartPLS. The results of this research indicate the following: 1) attitude, subjective norm, and perceived behavioural control positively and significantly influence entrepreneurial intention, 2) entrepreneurship education significantly and positively affects entrepreneurial intention, 3) entrepreneurship education did not moderate the impact of any theory of planned behaviour variables on entrepreneurial intention, 4) gender did not moderate the relationship between entrepreneurship education and entrepreneurial intention, 5) no difference was found in the entrepreneurial intention levels of male and female college students, 6) no distinction was observed in the entrepreneurial intention levels of bachelor's degree students compared to vocational studies students.*

**Keywords:** Education in Entrepreneurship; Intentions of Entrepreneurs; Gender; Planned Behavior Theory

## Abstrak

*Penelitian ini bertujuan untuk mengkaji dampak pendidikan kewirausahaan terhadap intensi berwirausaha mahasiswa di Surabaya. Pengambilan sampel secara purposif dilakukan terhadap 200 mahasiswa. Kriteria sampel meliputi mahasiswa yang telah menyelesaikan mata kuliah kewirausahaan untuk program sarjana dan praktik kewirausahaan untuk program vokasi. Penelitian ini menggunakan Uji-U Mann-Whitney melalui SPSS dan analisis kuadrat terkecil parsial melalui SmartPLS. Hasil penelitian menunjukkan hal-hal berikut: 1) sikap, norma subjektif, dan kendali perilaku yang dirasakan berpengaruh positif dan signifikan terhadap intensi berwirausaha, 2) pendidikan kewirausahaan berpengaruh signifikan dan positif terhadap intensi berwirausaha, 3) pendidikan kewirausahaan tidak memoderasi dampak variabel teori perilaku terencana terhadap intensi berwirausaha, 4) gender tidak memoderasi hubungan antara pendidikan kewirausahaan dan intensi berwirausaha, 5) tidak ditemukan perbedaan tingkat intensi berwirausaha antara mahasiswa laki-laki dan perempuan, 6) tidak ditemukan perbedaan tingkat intensi berwirausaha antara mahasiswa sarjana dibandingkan dengan mahasiswa vokasi.*

**Kata Kunci:** Pendidikan Kewirausahaan; Niat Wirausaha; Gender; Teori Perilaku

## INTRODUCTION

Entrepreneurship in Indonesia has received special attention from the government over the past two decades. Since the economic crisis in 1998, entrepreneurship has been seen as the best solution to overcome limited job opportunities and high unemployment rates in Indonesia. Based on data obtained from the Central Statistics Agency, unemployment in Indonesia has reached 7 million, while the number of entrepreneurs in Indonesia is still at 3% (Central Statistics Agency, 2019). This indicates that the potential for entrepreneurship in reducing the unemployment rate in Indonesia, particularly in Surabaya, remains very high.

Providing incentives that can spark interest in starting a business is crucial, especially for developing countries like Indonesia. Entrepreneurship plays a significant role in accelerating economic development through the creation of business ideas with various innovations, which then lead to the establishment of businesses. With the increase in the number of businesses, it is hoped that employment opportunities and competition in the market will also increase (Ozaralli & Rivenburgh, 2016). Unfortunately, the majority of the driving forces behind Indonesia's national economic growth at Indonesia are still dominated existing companies compared to new companies (Billah, 2019).

*E-commerce* has also undeniably become one of the options for new entrepreneurs to start their businesses. In line with the continuous development of technology in the digital era, *e-commerce* in Indonesia has also grown rapidly. Indonesia's digital economy contributed 49% to Southeast Asia in 2018 (Rahayu, 2019), which is reasonable considering that 98.6% of Indonesia's population is aware of online buying and selling (APJII, 2017). Given the ease and affordability of access to marketing and markets, as well as sales methods that are no longer limited by location, entrepreneurship through *e-commerce* should be something that attracts students to consider entrepreneurship as a potential career choice in the future.

The government has striving to increase the number of entrepreneurs in Indonesia through various programmes aimed at developing MSMEs, such as the Start-up Entrepreneur Development Fund Assistance Programme initiated by the Ministry of Cooperatives and SMEs (UKM Indonesia, 2019). In the *e-commerce* sector, the government has also tried to stimulate digital businesses in Indonesia with the 1000 Startups Movement in 2018 by the Ministry of Communication and Information Technology (Rizkinaswara, 2018). However, the government's strategy through these programmes will certainly not run optimally without creative young people who have an entrepreneurial mindset. Therefore, since 1995, entrepreneurship education has been instilled from primary school to university (Susilaningih, 2015).

Not only that, the government also initiated the Student Entrepreneurship Programme by the Ministry of Education and Culture, which has been running since 2009 (Hendarman, 2011). The benefits that can be obtained from education, especially entrepreneurship, are supported by a number of previous studies which state that the quality of an entrepreneur can be obtained and developed through education and training activities (Ajzen, 1991; Bryant, 2006; Chen *et al.*, 1998; Krueger Jr *et al.*, 2000; Kundu & Rani, 2008; Xiaoxing, 2020). This statement is also supported by previous research stating that entrepreneurship education is a *platform* that contributes to the global economy by increasing the quantity and quality of entrepreneurs (Bae *et al.*, 2014). Other studies also state that entrepreneurship education entrepreneurship can increase *entrepreneurship awareness* and inspire individuals who have the potential to become entrepreneurs (Hua & Ren, 2020). However, considering the slow growth of the entrepreneurial population in Indonesia over the past three decades, it is necessary to re-examine the effectiveness of these programmes, particularly the Entrepreneurship course at universities, which is the subject of this study, in increasing students' interest in becoming entrepreneurs as a career choice after graduation.

The definition of an entrepreneur is someone who wants to create value through a series of economic activities by identifying and exploiting new products, processes or markets, while entrepreneurship is a phenomenon related to a series of activities carried out by the entrepreneur (Stokes *et al.*, 2010). The function of entrepreneurship education is to provide students at various levels of education with the knowledge, skills, and motivation that can support success in entrepreneurship in various situations in the future (Fiore *et al.*, 2019).

A series of previous studies emphasised the difficulties encountered in evaluating the benefits of entrepreneurship education. Previous research states that there is no empirical research supporting how formal entrepreneurial initiatives and SME (small medium enterprises) courses can increase the probability of someone starting a business (Henry *et al.*, 2005). In line with this research, other studies also state that the real contribution of entrepreneurship education is still not clearly apparent (Hoang *et al.*, 2021; Johnstone *et al.*, 2018; Matlay, 2005; Pittaway & Cope, 2007). Based on this explanation, this study attempts to analyse in more depth the impact of entrepreneurship education on entrepreneurship intention.

Based on previous studies, it was found that students' interest in choosing entrepreneurship as a

profession was low because their mindset still tended to favour employment (Atmaja & Margunani, 2016; Hartono, 2021; Lelliezzia et al., 2020), even though they had been equipped with an entrepreneurship curriculum while they were still in college. This may be because the entrepreneurship curriculum still emphasises theory over innovative activities, thus failing to provide contribution to the development of an entrepreneurial mindset among students. The characteristic of a curriculum that is still limited to theory is also found in undergraduate education in this research object. Based on this explanation, this study was conducted with the aim of analysing the influence of entrepreneurship education in these universities on students' interest in entrepreneurship.

In addition to the entrepreneurship courses at the undergraduate level described above, the university under study also offers practical entrepreneurship courses entrepreneurship practicum courses specifically designed for vocational education levels. These courses can be taken after students completed the entrepreneurship course in the previous semester. The special entrepreneurship practicum course is given to vocational students in order to contribute to the industrial workforce with graduates who have high skills and knowledge in accordance with the 2020-2024 strategic plan of the Directorate General of Vocational Education (Ditjen Pendidikan Vokasi, 2020), which in this study is specifically in the field of entrepreneurship. The above statement is also supported by a series of previous studies stating that extracurricular activities, optional courses, and practical activities related to entrepreneurship can influence a person's entrepreneurial intention (Arranz et al., 2017; Duval-Couetil et al., 2016; Hien & Cho, 2018; Karimi et al., 2016; Nguyen et al., 2021; Piperopoulos & Dimov, 2015).

Through entrepreneurship courses offered at the university level, this study attempts to analyse the impact of such education on students' intentions to become entrepreneurs. This study also aims to examine whether there are differences between students who only take entrepreneurship courses and those who also take entrepreneurship practical activities in terms of their intentions to become entrepreneurs after graduation. Based on a series of empirical studies that have been conducted, education has been proven to have a positive influence on a person's intention to become an entrepreneur (Athayde, 2009; Ferreira et al., 2012; Jun, 2016). Previous research also states that entrepreneurship as an educational programme can help build a person's awareness of entrepreneurial potential as a positive career choice (Anderson & Jack, 2008). Based on the above explanation, the following hypotheses were formulated:

H1a: Entrepreneurship education has a positive effect on entrepreneurial intention

H1b: Entrepreneurial intention of students who undertake entrepreneurship practicums is compared to those who do not take.

The theory of planned behaviour was developed from the theory of reasoned action due to the limitations of the latter in explaining behaviour that is beyond a person's control (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Similar to the Theory of Reasoned Action, an important factor in the Theory of Planned Behaviour is an individual's intention to exhibit specific behaviour (Ajzen, 1991). An individual's intention contains factors that can motivate that person to exhibit certain behaviour. The stronger an individual's intention, the stronger the behaviour exhibited. The theory of planned behaviour then concludes that there are three things that determine an individual's intention, namely attitude, subjective norm and perceived behavioural control (Ajzen, 1991).

Attitude is an individual's tendency to evaluate something positively or negatively (Eagly & Chaiken, 1993). Intentions, which are influenced by attitudes, are related to the manifestation of specific behaviours and have the potential to be strong indicators of the manifestation of the behaviour in question (Fishbein & Ajzen, 1975). An individual's attitude towards a particular issue depends on that person's belief in the outcome (Shook & Bratianu, 2010). A person's attitude towards business activities can be positive or negative. Attitude can also be interpreted as the extent to which a person responds positively or negatively to situations that occur around the business (Lucky & Minai, 2014). Outcomes play an important role in shaping a person's attitude, in the sense that if the *outcomes* obtained are increasingly positive, then persepsi orang tersebut also will become increasingly positive,

which in turn can enhance the individual's intention to engage in activities related to the desired outcome (Shook & Bratianu, 2010). In the context of this study, the outcome in question is entrepreneurial intention, so that if an individual perceives starting a business as a positive thing, then based on that statement,

their attitude towards starting a business will also be positive.

Subjective norm is defined as the extent to which individuals support (or do not support) the results of certain actions. In a series of studies that have been conducted, subjective norm is measured by asking respondents questions regarding the extent to which people who are closely related to them (family, friends, or colleagues) support the activities they do. In this study, the activity in question is venture creation (Ajzen, 2001; Liñán & Chen, 2009). If an individual considers that the people who play a significant role in their life support (or do not support) the behaviour exhibited, it will influence the manifestation of that behaviour. Based on this explanation, it can be concluded that subjective norm is a form of social pressure from family, friends, and other significant people in a person's life (Ajzen, 1991). Based on this statement, it can be concluded that the support of the respondents' family, friends, and colleagues has a significant influence on the actions they will take, which in the context of this study is entrepreneurial intention. The greater the support from the people around the respondents, then based on the previous explanation, a person's intention to start a business will also be greater.

Perceived behavioural control and behavioural intention are instruments that can predict a person's achievement of something (Ajzen, 1991). Perceived behavioural control is defined by as 's perception of the ease or difficulty encountered in performing an activity (Ajzen, 1991). In this study, this refers to establishing and running a business. Perceived behavioural control is part of the theory of planned behaviour, which states that together with behavioural intention, it can accurately predict a person's achievement of something (Ajzen, 1991).

Previous studies have stated that perceived behavioural control can directly predict behaviour and intention, because the feeling of having control over something can increase a person's willingness to make more effort to achieve success (Armitage & Conner, 2001). Based on these statements, it can be concluded that in the context of this study, the feeling of being able to establish a business will increase a person's willingness to realise the establishment of that business, even if it requires more effort.

The Theory of Planned Behaviour states that intention followed by action is determined by attitude, subjective norm and perceived behavioural control (Ajzen, 1991; Bird, 1988; Gartner & Katz, 1988). Based on this statement, it can be concluded that in the context of this study, the act of establishing a business is greatly influenced by a person's intention, which is formed from their attitude, subjective norm, and perceived behavioural control. Referring to a number of previous studies that show the significant influence of attitude, subjective norm, and perceived behavioural control on entrepreneurial intention (Aloulou, 2016; Dinc & Budic, 2016; Yang, 2013), this study aims to examine the impact of the theory of planned behaviour with the moderation of entrepreneurship education on the intention to start a business, both in undergraduate and vocational study programmes at the universities studied. Based on the previous discussions, the following hypotheses were formulated:

H2: Attitude has a positive influence on entrepreneurial intention

H3: Subjective norm has a positive influence on entrepreneurial intention

H4: Perceived behavioural control has a positive influence on entrepreneurial intention

H5a: The influence of attitude on entrepreneurial intention is moderated by entrepreneurship education

H5b: The influence of subjective norm on entrepreneurial intention is moderated by entrepreneurship education

H5c: Entrepreneurship education acts as a moderator on the effect of perceived behavioural control on entrepreneurial intention.

Globally, the number of women entrepreneurs is lower than that of men (GEM, 2018). This is also reflected in the number of women entrepreneurs in Indonesia, where although women make up 49% of the population of 268 million, only about 11% of them are entrepreneurs (Central Statistics Agency, 2017). This indicates that there is still enormous potential for female entrepreneurs. Therefore, this study was also conducted to examine the possibility of differences in entrepreneurial interest between men and women in both undergraduate and vocational programmes at the universities studied. Based on the previous statement, the following hypotheses were formulated:

H6a: Entrepreneurial intention among female students is found to be higher than that of male students

H6b: The effect of entrepreneurship education on entrepreneurial intention is moderated by gender

This study was conducted with reference to previous research which found that entrepreneurship education has a significant positive effect on entrepreneurial intention (Jun, 2016). However, unlike that study, this study also looks at the effect of entrepreneurship education at two different levels, namely undergraduate and vocational, considering that vocational education has more specific courses on practical activities, namely entrepreneurship practicums. This study was also conducted with reference to other studies showing that subjective norm and perceived behavioural control have a positive influence on e-commerce intention (Suryawirawan, 2020) and the positive influence of attitude, subjective norm and perceived behavioural control on entrepreneurial intention (Dinc & Budic, 2016). However, unlike the above studies, this study included the variable of entrepreneurship education as a moderating variable that is expected to increase the influence of the theory of planned behaviour on entrepreneurial intention. Previous research found that female students had higher entrepreneurial intention than male students (Suryawirawan, 2020), but other studies showed the opposite result (Nowiński et al., 2017). Therefore, this study aims to re-examine the influence of gender on entrepreneurial intention. In addition, gender in this study is also seen as a moderating variable on the influence of entrepreneurship education on entrepreneurial intention.

## **METHOD**

The population and sample limitations in this study were students taking entrepreneurship courses and entrepreneurship practicums. The sampling method used was non-probability purposive sampling, where questionnaires were given to students in Surabaya who had taken entrepreneurship courses entrepreneurship and entrepreneurship practicum, based on a series of previous studies, R<sup>2</sup> is considered sufficient to explain a variable if it has a value of at least 0.25 (Chin, 1998; Falk & Miller, 1992; Hair et al., 2014). According to previous research, the recommended sample size to achieve 80% statistical power in studies with a maximum of five arrows pointing to one variable is 205 respondents for a significance level of 1% with R(2) of at least 0.10. Therefore, at least 205 respondents are needed to conduct the test.

The scale used has been modified to 4 levels in order to eliminate the weaknesses of the 5-level scale, because based on previous studies, neutral points are often used when respondents are unsure of their choices. This modification was also made to avoid central tendency so that the direction of the respondents' answers could be seen more clearly (Kulas, 2008; Tsang, 2012). In this study, the difference test was conducted using the Mann-Whitney U-Test through SPSS and Partial Least Square through SmartPLS software.

## **RESULTS AND DISCUSSION**

### **RESEARCH INSTRUMENT TESTING**

The results of the instrument validity test showed that all items in each research variable had a calculated  $r > 0.50$ , so it can be concluded that all items measuring the research variables were valid. From the results of the instrument reliability test, the Cronbach's alpha coefficient for each variable was  $> 0.70$ , so it can be concluded that the items used to measure the research variables were reliable.

Of the 200 research respondents, the majority, namely 136 people (62%), did not take entrepreneurship practicums, while only 64 people (38%) took entrepreneurship practicums. In terms of age, the majority of research respondents were aged 20-21 years, namely 131 people (60%), aged 18-19 years old, there were 45 respondents (21%), respondents aged 22-23 years old, there were 37 respondents (17%), while respondents aged 24-25 years old and 28-29 years old were only 5 respondents (2%) and 2 respondents (1%) respectively. In terms of gender, it was found that the majority of respondents were female, namely 145 people (66%), while male respondents numbered 75 (34%).

Table 1. *Research Instrument Testing*

<i>Variable</i>	<i>Item</i>	<i>r Calculate</i>	<i>Cronbach Alpha</i>
	Att1	0.864	0.822
	Att2	0.769	
	Att3	0.948	
<i>Subjective Norm</i>	SN1	0.785	0.718
	SN2	0.752	
	SN3	0.698	
	SN4	0.748	
<i>Perceived Behavioural Control</i>	PBC1	0.651	0.759
	PBC2	0.580	
	PBC3	0.698	
	PBC4	0.811	
	PBC5	0.604	
	PBC6	0.603	
	PBC7	0.558	
<i>Entrepreneurship Education</i>	EE1	0.818	0.800
	EE2	0.712	
	EE3	0.733	
	EE4	0.768	
	EE5	0.770	
<i>Entrepreneurial Intention</i>	EI1	0.615	0.754
	EI2	0.705	
	EI3	0.752	
	EI4	0.821	
	EI5	0.701	

Mann-Whitney U Test Mann-Whitney between the entrepreneurial intention of students who took entrepreneurship practicum and the entrepreneurial intention of students who did not take entrepreneurship practicum resulted in a significance value of  $0.125 > 0.05$ , concluding that there was no significant difference between the entrepreneurial intention of students who took practicum between the entrepreneurial intention of male students a Entrepreneurship and entrepreneurial intention of students who did not take entrepreneurship practicum. Based on these results, H1b is rejected

Table 2. *Different Test*

<i>Variable</i>	Mean	Mann - Whitny
<i>Entrepreneur Intention</i>	Undertacking	
	Practicum	3.06
	Not Undertacking	
		0.125
	Practicum	3.15
	Student	3.13
	Female Student	3.11

Table 3. *Goodness of fit*

Variable: Indicator	Loading*)	Loading**)	AVE **)	$\sqrt{AVE}$	Composite Reability **)	R <sup>2</sup>	Q <sup>2</sup>
Att : Att1	0,875	0,913	0,788	0,887	0,881		
Att2***)	0,605						
Att3	0,853	0,861					
SN : SN1	0,851	0,874	0,783	0,885	0,878		
SN2***)	0,068						
SN3	0,872	0,896					
SN4***)	0,465						
PBC :		0,846	0,702	0,838	0,876		
PBC1	0,775						
PBC2***)	0,324						
PBC3	0,793	0,869					
PBC4	0,774	0,796					
PBC5***)	0,437						
PBC6***)	0,494						
PBC7***)	0,333						
EE : EE1	0,785	0,790	0,642	0,801	0,877		
EE2	0,751	0,756					
EE3***)	0,254						
EE4	0,807	0,805					
EE5	0,853						
EI :		0,850	0,782	0,885	0,915	0,559	0,408
EI1***)	0,245						
EI2***)	0,576						
EI3	0,867	0,869					
EI4	0,884	0,890					
E15	0,848	0,895					

G : G      1,000      1,000      1,000      1,000      1,000

Test Mann-Whitney between the entrepreneurial intention of male students and the entrepreneurial intention of female students yielded a significance value of  $0.926 > 0.05$  concludes that there is no significant difference between the entrepreneurial intention of male students and the entrepreneurial intention of female students. Based on these results, H6a is rejected.

From the convergent validity test results, it was found that there were 10 indicators that showed a factor loading value of  $< 0.70$ , which meant that they did not meet convergent validity or were invalid. The ten indicators were Att2, SN2, SN4, PBC2, PBC5, PBC6, PBC7, EE3, EI1, and EI2. The indicators that did not meet convergent validity were then reduced and tested again. After reduction, all indicators met convergent validity or were valid with a loading factor value  $> 0.70$ .

In the discriminant validity test, the smallest  $\sqrt{AVE}$  value found was 0.801, while the largest correlation value found was 0.669. These results indicate that all  $\sqrt{AVE}$  values are greater than the correlation values between variables, thus concluding that the discriminant validity of the research variables shows good results. The composite reliability of all variables used in this study was 0.70 ( $>$ ), concluding that the research variables met internal consistency or were reliable.

It is known that the composite reliability value is 0.70, indicating that the research variables have met internal consistency or are reliable. The  $R^2$  Variable entrepreneurial intention of 0.550 means that a large percentage of *entrepreneurial intention* can be explained by *attitude, subjective norm, perceived behavioural control, entrepreneurship education, and gender* is 55.9%, while the remaining 44.1% is explained by other variables outside the research model. The  $Q^2$  *predictive relevance* value obtained is  $0.408 > 0$ , indicating that the model has good *predictive relevance*.

Table 4. *Latent Variable Correlation*

	Att	SN	PBC	EE	EI
SN	0,504				
PBC	0,669	0,512			
EE	0,554	0,444	0,425		
EI	0,632	0,547	0,624	0,517	
G	0,044	0,096	-0,049	0,018	-0,07
$\sqrt{AVE}$	0,887	0,885	0,838	0,801	0,885

The path coefficient of the influence of *attitude* on *entrepreneurial intention* is 0.234 with a t-statistic of  $3.062 > 2.33$  and *p-value* of  $0.001 < 0.01$ . These results conclude that *attitude* has a positive and significant influence on *entrepreneurial intention*. It can be concluded that a more positive *attitude* will increase significantly *entrepreneurial intention*. Based on these results, H2 is accepted.

Table 5. Path Coefficient

	<i>Coeff.</i>	T-Stat	P-Val
Att -> EI	0,234	3,062*)	0,001*)
SN -> EI	0,188	2,830*)	0,002*)
PBC -> EI	0,261	3,676*)	0,000*)
EE -> EI	0,196	3,523*)	0,000*)
Att * EE -> EI	0,127	1,103	0,135
SN * EE -> EI	0,001	0,008	0,497
PBC * EE -> EI	0,044	0,450	0,326
EE * G -> EI	-0,013	0,160	0,437
G -> EI	-0,077	1,493	0,068

The path coefficient of the impact of subjective norm on entrepreneurial intention is 0.188 with a t-statistic of 2.830 > 2.33 and a p-value of 0.002 < 0.01. These results conclude that subjective norm has a significant positive effect on entrepreneurial intention. This indicates that a higher subjective norm can significantly increase entrepreneurial intention. Based on these results, H<sub>3</sub> is accepted.

The path coefficient of perceived behavioural control on entrepreneurial intention is 0.261 with a t-statistic of 3.676 > 2.33 and a p-value of 0.000 < 0.01. These results conclude that perceived behavioural control has a significant positive effect on entrepreneurial intention. It can be concluded that higher perceived behavioural control can significantly increase entrepreneurial intention. Based on these results, H<sub>4</sub> is accepted.

entrepreneurial intention is 0.196 with a t-statistic of 3.523 > 2.33 and a p-value of 0.000 < 0.01. These results conclude that entrepreneurship education has a significant positive effect on entrepreneurial intention. It can be concluded that the higher the entrepreneurship-education, the more significant the increase in entrepreneurial intention. Based on these research, H<sub>1a</sub> is accepted.

Entrepreneurship education was found not to moderate the impact of attitude, subjective norm, and perceived behavioural control on entrepreneurial intention, with t-statistic values of < 2.33, respectively, of 1.103; 0.008, and 0.450, respectively, and a p-value of > 0.01 for each 0.135; 0.497 and 0.326, respectively. These results indicate that higher entrepreneurship education does not strengthen the positive influence of attitude, subjective norm and perceived behavioural control on entrepreneurial intention. Based on these results, H<sub>5a</sub>, H<sub>5b</sub> and H<sub>5c</sub> are rejected.

Influence Gender on entrepreneurial intention is not proven. This conclusion is indicated by a t-statistic value of 1.493 < 2.33 and a p-value of 0.068 > 0.01. Gender was also found not to moderate the effect of entrepreneurship education on entrepreneurial intention, as indicated by a t-statistic value of 0.160 < 2.33 and a p-value of 0.437 > 0.01. These results mean that, for both male and female students, the positive effect of entrepreneurship education on entrepreneurial intention is not significantly different. The effect of entrepreneurship education on entrepreneurial intention among female students is not significantly lower than the effect of entrepreneurship education on entrepreneurial intention among male students. Based on these results, H<sub>6b</sub> is rejected.

## DISCUSSION

The test results show a significant positive effect of attitude on entrepreneurial intention. Although there is inconsistency with previous studies showing that attitude has a negative effect on e-commerce

(entrepreneurial) intention (Suryawirawan, 2020), these results are in line with a series of other studies showing that attitude has a positive impact on entrepreneurial intention (Al-Jubari, 2019a; Dinc & Budic, 2016; Mahfud et al., 2020a).

Subjective norm was found to have a significant positive effect on entrepreneurial intention. This finding is in line with a number of previous studies that prove the positive effect of subjective norm on entrepreneurial intention (Al-Jubari, 2019b; Dinc & Budic, 2016; Mahfud et al., 2020b; Suryawirawan, 2020).

The results of the above test conclude that there is a significant positive effect of perceived behavioural control on entrepreneurial intention. These results are in line with a series of previous studies which state that perceived behavioural control has a positive impact on entrepreneurial intention (Al-Jubari, 2019b; Dinc & Budic, 2016; Mahfud et al., 2020b; Suryawirawan, 2020).

Based on the above explanation, it can be concluded that entrepreneurship education has a significant positive influence on entrepreneurial intention. This supports the researcher's initial hypothesis and is in line with a series of previous studies that state that entrepreneurship education has a positive effect on entrepreneurial intention (Anderson & Jack, 2008; Athayde, 2009; Ferreira et al., 2012; Jun, 2016).

This study cannot prove the existence of a moderating effect of entrepreneurship education on the influence of attitude, subjective norm, and perceived behavioural control on entrepreneurial intention. These results are consistent with a number of previous studies that view entrepreneurship education as a common variable that influences entrepreneurial intention (Anderson & Jack, 2008; Athayde, 2009; Ferreira et al., 2012; Jun, 2016).

From the above discussion, it was found that there was no significant difference between the entrepreneurial intentions of men and women. Although these results are not in line with the researchers' initial hypothesis and previous studies that stated that there are differences between the entrepreneurial intentions of men and women (; Nowiński et al., 2017;

Suryawirawan, 2020), but these results are supported by previous research stating that there are similar results between men and women in their intentions to become entrepreneurs after undergoing entrepreneurship education (LO et al., 2012). These similar results are also believed to be the reason why gender cannot moderate the effect of entrepreneurship education on entrepreneurial intention, as proven by the statistical test results above. However, these results are consistent with previous studies that also did not find gender moderation in the relationship between entrepreneurship education and entrepreneurial intention (Kusmintarti et al., 2018).

The absence of significant differences in entrepreneurial intention between undergraduate and vocational students shows that in this study, there was no difference between students who took entrepreneurship practicum courses and those who did not. This contradicts previous statements that extracurricular activities, optional courses, and practical activities related to entrepreneurship can influence a person's entrepreneurial intention (Arranz et al., 2017; Karimi et al., 2016; Piperopoulos & Dimov, 2015).

From the above explanation regarding the significant positive influence of attitude on entrepreneurial intention, it can be concluded that the more positive a person's attitude towards entrepreneurial activities, the higher their intention to become an entrepreneur. In the context of this study, a positive attitude from students will increase their desire to make entrepreneurship a promising career choice in the future. Based on the findings above regarding the significant positive influence of subjective norm on entrepreneurial intention, it can also be concluded that positive support from the respondent's closest circle, which in the context of this study is students, will increase the students' intention to become entrepreneurs in the future. Not only that, perceived behavioural control, which was found to have a significant positive effect on entrepreneurial intention, proves that the ease felt by the students who were respondents in this study was able to increase their intention to become entrepreneurs in the future. The significant positive effect of entrepreneurship education on entrepreneurial intention also leads to the conclusion that taking both entrepreneurship courses and entrepreneurship practicums has a significant impact on the intention of students in Surabaya to become entrepreneurs.

The absence of a moderating effect of entrepreneurship education on the relationship between attitude, subjective norm and perceived behavioural control on entrepreneurial intention shows that the education obtained by students is unable to improve attitude, subjective norm and perceived behavioural control, which

play a role in shaping a person's intention to become an entrepreneur.

One of the factors contributing to the lack of significant differences is the shortcomings in the entrepreneurship practicum curriculum, so that regardless of the strengths of the students, both vocational and undergraduate, it is not enough to foster greater intentions in them. Another factor that may have contributed to the lack of significant differences between the two levels is that some of the practical course meetings were conducted online due to the Covid-19 pandemic, which may have reduced the students' experience of the creative and innovative atmosphere offered in the entrepreneurship practical course.

## CONCLUSION

Based on the explanation in the previous section, it can be concluded that attitude, subjective norm, and perceived behavioural control have a significant positive effect on entrepreneurial intention; entrepreneurship education has a significant positive effect on entrepreneurial intention; entrepreneurship education is not proven to moderate the effect of variables from the theory of planned behaviour variables on entrepreneurial intention; gender is not proven to moderate the effect of entrepreneurship education variables on entrepreneurial intention; there is no difference in entrepreneurial intention between male and female students; and there is no difference in entrepreneurial intention between undergraduate and vocational students.

This study was conducted on a sample of 200 people. Further research can be conducted on a larger number of respondents so that it can better represent the population and sample used. This study was also conducted only among students. Future research is expected to involve more elements of society. There are inconsistencies in the test results for several variables in this study with previous studies that tested similar things. Future research can be conducted to further confirm these results.

## REFERENCES

- Ajzen, I. (1991). *The theory of planned behaviour*. *Organizational Behaviour and Human Decision Processes*, 50(2), 179–211.
- Ajzen, I. (2001). *Nature and Operation of Attitudes*. *Annual Review of Psychology*, 52, 27–58. <https://doi.org/10.1146/annurev.psych.52.1.27>
- Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behaviour*. Prentice-Hall.
- Al-Jubari, I. (2019a). *College students' entrepreneurial intention: Testing an integrated model of SDT and TPB*. *Sage Open*, 9(2), 2158244019853467.
- Al-Jubari, I. (2019b). *College students' entrepreneurial intention: Testing an integrated model of SDT and TPB*. *Sage Open*, 9(2), 2158244019853467.
- ALOULOU, W. J. (2016). *Predicting Entrepreneurial Intentions of Final Year Saudi University Business Students by applying the Theory of Planned Behaviour*. *Journal of Small Business and Enterprise Development*, 23, 1142–02-2016-0028
- Anderson, A., & Jack, S. (2008). *Role typologies for enterprising education: The professional artisan?* *Journal of Small Business and Enterprise Development*, 15. APJII. (2017). *Infographics on Internet Penetration and User Behaviour in Indonesia*.
- Armitage, C. J., & Conner, M. (2001). *Efficacy of the theory of planned behaviour: A meta-analytic review*. *British Journal of Social Psychology*, 40(4), 471–499.
- Arranz, N., Ubierna, F., Arroyabe, M. F., Perez, C., & de Arroyabe, J. C. (2017). *The effect of curricular and extracurricular activities on university students' entrepreneurial intention and competences*. *Studies in Higher Education*, 42(11), 1979–2008.
- Athayde, R. (2009). *Measuring enterprise potential in young people*. *Entrepreneurship Theory and Practice* 33(2), 481–500.
- Atmaja, A. T., & Margunani, M. (2016). *The influence of entrepreneurship education and entrepreneurial activities on the entrepreneurial interest of students at Semarang State University*. *Economic Education Analysis Journal*, 5(3), 774.
- Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). *The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review*. *Entrepreneurship Theory and Practice*, 38(2), 217–254. <https://doi.org/https://doi.org/10.1111/et.ap.12095>

- Billah, H. M. (2019). *Entrepreneurship: The Key to Indonesia's Economics Growth*. Liputan6. <https://www.liputan6.com/regional/read/4079235/entrepreneurship-key-to-indonesia's-economic-growth>
- Bird, B. (1988). *Implementing Entrepreneurial Ideas: The Case for Intention*. *The Academy of Management Review*, 13. <https://doi.org/10.2307/258091>
- Bryant, P. T. (2006). *Improving entrepreneurial education through self-regulatory skills*. *VentureWell. Proceedings of Open, the Annual Conference*, 279.
- Chen, C. C., Greene, P. G., & Crick, A. (1998). *Does entrepreneurial self-efficacy distinguish entrepreneurs from managers?* *Journal of Business Venturing*, 13(4), 295–316.
- Chin, W. W. (1998). *The Partial Least Squares Approach to Structural Equation Modelling*. *Advances in Hospitality and Leisure*.
- Dinc, M., & Budic, S. (2016). *The Impact of Personal Attitude, Subjective Norm, and Perceived Behavioural Control on Entrepreneurial Intentions of Women*. *Eurasian Journal of Business and Economics*, 2016, 23–35. <https://doi.org/10.17015/ejbe.2016.017.02>
- Directorate General of Vocational Education. (2020). *Strategic Plan (Renstra) of the Directorate General of Vocational Education 2020-2024*.
- Duval- Couetil, N., Shartrand, A., & Reed, T. (2016). *The role of entrepreneurship program models and experiential activities on engineering student outcomes*. *Advances in Engineering Education*, 5(1), n1. <http://files.eric.ed.gov/fulltext/EJ1090582.pdf>
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.
- Falk, R. F., & Miller, N. B. (1992). *A Primer for Soft Modelling*. University of Akron Press.
- Ferreira, J. J., Raposo, M., Rodrigues, R., Dinis, A., & Paço, A. (2012). *A Model of Entrepreneurial Intention: An Application of the Psychological and Behavioural Approaches*. *Journal of Small Business and Enterprise Development*, 19, 424440. <https://doi.org/10.1108/1462600121250144>
- Fiore, E., Sansone, G., Paolucci, E., & Xi, C. (2019). *Entrepreneurship Education in a Multidisciplinary Environment: Evidence from an Entrepreneurship Programme Held in Turin*. *Administrative Sciences*. <https://doi.org/10.3390/admsci9010028>
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research*, 27. Gartner, W., & Katz, J. (1988). *Properties of Emerging Organisations*. *The Academy of Management Review*, 13. <https://doi.org/10.2307/258090>
- GEM. (2018). *Global entrepreneurship monitor–2017/2018 global report, global entrepreneurship research association (GERA)*.
- Hair, J. F., Ringle, C. M., Hult, G. T. M., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modelling*. SAGE Publications, Inc.
- Hartono, H. (2021). *Changing University Students' Mindset: From Job Seekers to Job Creators*. *Technium Social Sciences Journal*, 18. <https://doi.org/10.47577/tssj.v18i1.3026>
- Hendarman, --. (2011). *Policy Review of PMW (Student Entrepreneurship Programme)* *Journal of Education and Culture*, 17(6), 635–646. [https://doi.org/https://doi.org/10.24832/j\\_pnk.v17i6.55](https://doi.org/https://doi.org/10.24832/j_pnk.v17i6.55)
- Henry, C., Hill, F., & Leitch, C. (2005). *Entrepreneurship Education and Training: Can Entrepreneurship Be Taught? Part II*. *Education + Training*, 47, 98–111.
- Hien, D. T. T., & Cho, S. E. (2018). *Relationship between entrepreneurship education and innovative start-up intentions among university students*. *International Journal of Entrepreneurship*, 22(3), 1–16. <https://www.abacademies.org/articles/relationship-between-entrepreneurship-education-and-innovative-startup-intentions-among-university-students-7456.html>
- Hoang, G., Le, T. T. T., Tran, A. K. T., & Du, T. (2021). *Entrepreneurship education and entrepreneurial intentions of university students in Vietnam: the mediating roles of self-efficacy and learning orientation*. *Education + Training*, 63(1),
- Hua, S., & Ren, Z. (2020). *“Online+ Offline” course teaching based on case teaching method: a case study of entrepreneurship education course*. *International Journal of Emerging Technologies in Learning (IJET)*, 15(10), 69–85. <https://doi.org/https://doi.org/10.3991/ijet.v15i10.13999>

- Johnstone, L., Monteiro, M. P., Ferreira, I., Westerlund, J., Aalto, R., & Marttinen, J. (2018). Language ability and entrepreneurship education: Necessary skills for Europe's start-ups? *Journal of International Entrepreneurship*, 16(3), 369–397.
- Jun, H. Y. (2016). Self-Efficacy as Moderator in Entrepreneurship Education and Entrepreneurial Intention: Comparison between Korean and Chinese University Students. *The Journal of Small Business Innovation*, 19(1), 17–35.
- Karimi, S., Biemans, H. J. A., Lans, T., Chizari, M., & Mulder, M. (2016). The impact of entrepreneurship education: A study of Iranian students' entrepreneurial intentions and opportunity identification. *Journal of Small Business Management*, 54(1), 187–209.
- Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5–6), 411–432.
- Kundu, S., & Rani, S. (2008). Human resources' entrepreneurial attitude orientation by gender and background: A study of Indian Air Force trainees. *International Journal of Management and Enterprise Development - Int J Manag Enterprise Dev*, 5.
- Kusmintarti, A., Ismanu, S., & Riwayatanti, N. (2018). Gender as a Moderator of the Influence of Entrepreneurial Education and Entrepreneurial Characteristics on Entrepreneurial Intention. *International Journal of Engineering & Technology*, 7, 469.
- Lelliezzia, P., Musadeq, A., & Arik, P. (2020). Effect of Entrepreneurship Education and Entrepreneurial Characters Toward Entrepreneurial Intention with Business Motivation as Intervening. *Wacana Journal of Social and Humanity Studies*, 23(3).
- Liñán, F., & Chen, Y.-W. (2009). Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory and Practice*, 33, 593–617.
- L.O, C, Sun, H & Law, K. (2012). Comparing the Entrepreneurial Intention between Female and Male Engineering Students: Implications for Entrepreneurship Education. *Journal of Women's Entrepreneurship and Education*, 1, 28–50.
- Lucky, E. O., & Minai, M. S. (2014). A qualitative study of the attitudes of prospective graduates towards entrepreneurial intentions. *Entrepreneurship and Innovation Management Journal*, II, 2, 128–134.
- Mahfud, T., Triyono, M. B., Sudira, P., & Mulyani, Y. (2020a). The influence of social capital and entrepreneurial attitude orientation on entrepreneurial intentions: the mediating role of psychological capital. *European Research on Management and Business Economics*, 26(1), 33–39.
- Mahfud, T., Triyono, M. B., Sudira, P., & Mulyani, Y. (2020b). The influence of social capital and entrepreneurial attitude orientation on entrepreneurial intentions: the mediating role of psychological capital. *European Research on Management and Business Economics*, 26(1), 33–39.
- Matlay, H. (2005). Entrepreneurship Education in UK Business Schools: Conceptual, Contextual and Policy Considerations. *Journal of Small Business and Enterprise Development*, 12, 627–643.
- Nguyen, T. T., Nguyen, L. T. P., Phan, H. T. T., & Vu, A. T. (2021). Impact of Entrepreneurship Extracurricular Activities and Inspiration on Entrepreneurial Intention: Mediator and Moderator Effect. *SAGE Open*, 11(3). <https://doi.org/10.1177/21582440211032174>
- Nowiński, W., Haddoud, M., Lančarič, D., Egerová, D., & Czeglédi, C. (2017). The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions. University students in the Visegrad Countries. *Studies in Higher Education*, 44, 1–19.
- Ozaralli, N., & Rivenburgh, N. K. (2016). Entrepreneurial intention: antecedents to entrepreneurial behaviour in the USA and Turkey. *Journal of Global Entrepreneurship Research*, 6(1), 3.
- Piperopoulos, P., & Dimov, D. (2015). Burst bubbles or build steam? Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions. *Journal of Small Business Management*, 53(4), 970–985.
- Pittaway, L., & Cope, J. (2007). Entrepreneurship Education: A Systematic Review of the Evidence.

- International Small Business Journal: Researching Entrepreneurship*, 25 (5).  
<https://doi.org/10.1177/0266242607080656>
- Rahayu, N. (2019). *Rapid Growth Rapid Growth of E-Commerce in Indonesia*. Warta Ekonomi. <https://www.wartaekonomi.co.id/read216302/pertumbuhan-e-commerce-pesat-di-indonesia.html>
- Rizkinaswara, L. (2018). *1000 Digital Startups*. Directorate General of Informatics Applications. <https://aptika.kominfo.go.id/2018/11/1000-startup-digital/>
- Shook, C., & Bratianu, C. (2010). Entrepreneurial intent in a transitional economy: An application of the theory of planned behaviour to Romanian students. *International Entrepreneurship and Management Journal*, 6,
- Stokes, D., Wilson, N., & Mador, M. (2010). *Entrepreneurship*. Cengage Learning.
- Suryawirawan, O. A. (2020). Theory of Planned Behaviour Approach and Gender Differences on Students' Intention to Practice Online Business. *Jurnal Dinamika Manajemen*, 10, 138–147.
- Susilaningsih, --. (2015). Entrepreneurship Education In Higher Education Institution: Is Important For All Professions. *Jurnal Economia*, 11(1), 9 <https://doi.org/https://doi.org/10.21831/economia.v11i1.7748>
- UKM Indonesia. (2019). *Government Assistance for New Entrepreneurs in 2019*. UKM Indonesia. <https://www.ukmindonesia.id/baca-deskripsi-program/>
- Xiaoxing, Q. (2020). Research on Innovation and Entrepreneurship Education. *Higher Education Research*, 5(6), 209. <https://doi.org/10.11648/j.her.20200506.11>
- Yang, J. (2013). The Theory of Planned Behaviour and Prediction of Entrepreneurial Intention Among Chinese Undergraduates. *Social Behaviour and Personality : An International Journal*, 41.