



How to cite this article:

Lestari, E. D., Aryawinata, D. N., & Windson, W. (2024). What motivates students to pursue entrepreneurial endeavours? The predicting roles of entrepreneurial passion and entrepreneurial education *International Journal of Management Studies*, 31(2), 395-430. <https://doi.org/10.32890/ijms2024.31.2.2>

**WHAT MOTIVATES STUDENTS TO PURSUE  
ENTREPRENEURIAL ENDEAVOURS? THE PREDICTING  
ROLES OF ENTREPRENEURIAL PASSION AND  
ENTREPRENEURIAL EDUCATION**

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Received: 29/3/2022    Revised: 5/3/2023    Accepted: 2/4/2023    Published: 30/7/2024

**ABSTRACT**

Entrepreneurship plays a crucial role in the economy of any nation, including Indonesia. Recognizing the demographic advantage, the government has emphasized youth entrepreneurship. Therefore, this study aims to examine how entrepreneurial passion and entrepreneurship education influence students' entrepreneurial intentions. The study employed purposive sampling and collected data from 232 active students in Indonesia. Data analysis was performed using Partial Least Squares (Smart PLS). The results indicate that

entrepreneurial passion directly impacts entrepreneurial intention, whereas the effect of entrepreneurship education is not significant. Additionally, the study confirms the role of entrepreneurship education in fostering entrepreneurial passion. Both entrepreneurial passion and entrepreneurship education influence attitude, subjective norms, and perceived behavioral control. However, only attitude and perceived behavioral control positively affect entrepreneurial intention, while subjective norms show no significant effect. Perceived behavioral control fully mediates the relationship between entrepreneurial passion, entrepreneurship education, and entrepreneurial intention, as indicated by the mediation analysis. Notably, attitude influences the relationship, while subjective norms do not. Policymakers can leverage on these findings to develop entrepreneurial curricula aimed at enhancing entrepreneurial intention among students.

**Keywords:** Entrepreneurial passion, entrepreneurship education, entrepreneurial intention, theory of planned behavior.

## INTRODUCTION

Entrepreneurship is vital to the economy and prosperity of a nation (Zhang et al., 2015) because it fosters technological innovation, creates new jobs, and increases economic efficiency (Asad et al., 2014; Zhang et al., 2014). Despite having the largest population in ASEAN, only 3.47 percent of Indonesians are entrepreneurs. This figure lags significantly behind other ASEAN nations (Lestari, 2022; Yuniar, 2021). Individuals aspiring to become entrepreneurs after graduation contribute to economic progress and benefit society (Moriano et al., 2012). The Indonesian government aims to foster entrepreneurship, leveraging the country's demographic advantages and information technology skills to encourage the younger generation to pursue entrepreneurial endeavors (Aristyo, 2020). However, a study revealed that 83 percent of students chose to pursue employment, while only 4 percent intended to become entrepreneurs (Pranata, 2021). Zhang et al. (2015) and Sabah (2016) argue that entrepreneurship involves planned behavior, as it entails focusing on a specific goal, namely business success. Krueger and Brazeal (1994) and Sabah (2016) also states that recognizing, evaluating, and exploiting opportunities requires detailed planning. TPB's theory-based purposeful model

best explains new venture creation (Fretschner, 2014; Krueger & Carsrud, 1993). The Theory of Planned Behavior (TPB) explains how attitudes, subjective norms, and perceived behavioral control contribute to entrepreneurial passion (Ajzen, 1991; Liñán & Chen, 2009). Thus, intention serves as the best predictor of behavior (Ajzen, 1991, 2002; Krueger & Carsrud, 1993), underscoring the importance of understanding the indicators that shape entrepreneurial intention to assess entrepreneurial activity (Ajzen, 1991; Krueger et al., 2000; Scott & Venkataraman, 2000). Research shows that TPB explains students' entrepreneurial inclinations in both industrialized and emerging nations (Iakovleva et al., 2011; Moriano et al., 2012; Munir et al., 2019).

TPB is a credible theoretical model commonly utilized in student entrepreneurial research. However, it cannot fully explain why someone would become an entrepreneur (Al-Jubari, 2019; Deci & Ryan, 1985). Therefore, Ajzen's (1991) notion that TPB is amenable to new antecedents, encompassing situations that significantly expand the explanation of behavior or intention, is supported. Academics have suggested merging the intent model with other variables, such as the motivational personal component of passion (Anjum et al., 2019; Karimi, 2019; Majeed et al., 2021). Findings from studies conducted by Biraglia and Kadile (2016) and Karimi (2019) indicate that entrepreneurial passion is a distinguishing characteristic of individuals that significantly influences the establishment of entrepreneurial intention. Renko (2012) suggests that launching a new business is challenging, as many entrepreneurs fail before they even begin, and possessing strong entrepreneurial passion assists entrepreneurs achieve their business goals (Arshad et al., 2018; Stenholm & Nielsen, 2019). Consequently, one research path examines entrepreneurial career aspirations from an individual perspective to elucidate various facets of the business success process (Cardon, 2008). According to Cardon et al. (2009, 2013) the entrepreneurial passion inherent in the role of the individual entrepreneur influences cognitive processes related to the goals and outcomes of a specific entrepreneurial process. The results indicate that an entrepreneur's passion significantly predicts their innovation, perseverance, and business effectiveness. Entrepreneurial passion also encompasses an entrepreneur's identity, ingenuity, and determination to succeed in business (Cardon et al., 2013; Karimi, 2019; Lee & Herrmann, 2021; Mol et al., 2020). However, in

entrepreneurial intention studies, the role of entrepreneurial passion in the creation of entrepreneurial intention has not been extensively studied (Sriyakula & Jermsittiparsert, 2019; Karimi, 2019; Moses et al., 2016). Additionally, besides the intention-based model, there are still few studies examining the impact of entrepreneurial passion on TPB's attitude components, such as entrepreneurial attitudes, subjective norms, and perceived behavioral control (Karimi, 2019; Majeed et al., 2021).

To understand the effect of entrepreneurial passion on entrepreneurial intention, short- and long-term entrepreneurial passion development must be examined (Newman et al., 2021; Stenholm & Nielsen, 2019). The founding passion of entrepreneurs in the pre-launch or early stages of creating a business is the least spoken of the three entrepreneurial roles intrinsic to the entrepreneurial process (Lee & Herrmann, 2021). Fostering entrepreneurial passion will encourage more people to establish new businesses, and universities play a crucial role in fostering this passion from an educational standpoint (Arshad et al., 2018; Lee et al., 2021). Therefore, this study analyzes the role of entrepreneurial education as an antecedent to entrepreneurial passion, which has received less attention in studies of entrepreneurial intention (Newman et al., 2021; Uddin et al., 2022).

Entrepreneurship is a discipline and can thus be examined from an academic standpoint (Drucker, 1985). Entrepreneurship education equips students with knowledge, skills, and critical behaviors to manage and grow new businesses (Sriyakula & Jermsittiparsert 2019). Based on prior research, entrepreneurial education can increase entrepreneurial intentions by providing students with a broad understanding of entrepreneurship, thereby developing their ability to perceive possibilities in their environment (Sidratulmunthah et al., 2018) and honing their ability to recognize opportunities in their environment (Puni et al., 2018; Setiawan & Lestari, 2021). However, only few studies evaluate how entrepreneurial education can enhance an individual's passion for establishing a firm (Sriyakula & Jermsittiparsert 2019; Lee et al., 2021; Uddin et al., 2022). Therefore, future studies could assess how entrepreneurial education affects entrepreneurial passion in different countries as entrepreneurial activities can vary in different contexts (Arshad et al., 2018; Liñán & Fayolle, 2015; Neneh, 2020).

In light of the preceding discussion, the reasons for the development of intentions to become entrepreneurs remain elusive in the entrepreneurial context, particularly regarding the relationships between TPB, entrepreneurial passion, and entrepreneurial education. As a result, the goal of our study is to address a gap in the current body of literature on entrepreneurial intention by incorporating entrepreneurial passion and entrepreneurial education as antecedent variables to TPB. Therefore, this study intends to investigate how entrepreneurial passion (Cardon et al., 2009), particularly founding passion, and entrepreneurship education directly affect students' entrepreneurial intention, primarily through TPB (Ajzen, 1991) in Indonesia. The integration of entrepreneurship education and entrepreneurial passion within the TPB framework is undertaken as the results of a meta-analysis by Liñán and Fayolle (2015) indicate that personality factors and entrepreneurial education may be the focus of studies investigating the phenomena of entrepreneurial intention. Despite its theoretical and practical significance, this area has received little attention in entrepreneurship literature (Al-Jubari, 2019).

## **LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **Entrepreneurial Intention**

Entrepreneurial intention refers to a person's subjective evaluation of the likelihood of future business ownership (Crant, 1996). This intention is often assessed using models such as the Entrepreneurial Event Model (Shapero & Sokol, 1982) and the implemented business idea model (Bird, 1988). However, TPB is known as the most reliable predictor of business formation (Gorgievski et al., 2018; Paray & Kumar, 2020) because entrepreneurship is seen as an intentional, deliberate choice (Moriani et al., 2012). TPB combines social and personal traits to predict and explain entrepreneurial intention (Krueger et al., 2000).

The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA) (Ajzen, 1991; Ajzen et al., 1975). Launching a new venture is considered planned behavior,

and thus is best predicted using entrepreneurial intention towards the behavior (Ajzen, 2011; Krueger & Carsrud, 1993). According to the TPB theory, entrepreneurial intention is the individual's endeavor to engage in entrepreneurial activity, influenced by three motivating factors (Ajzen, 1991; Liñán & Chen, 2009). Conceptually, TPB states that three determinants directly predict the formation of behavioral intention: attitudes toward behavior, subjective norms, and perceived behavioral control (Ajzen, 1991; Biraglia & Kadile, 2016; Karimi, 2019). The first determinant is attitude. Ajzen (1991) suggests that attitude reflects how a person examines or assesses (i.e. positively or negatively) the conduct to be performed. Students with a positive attitude towards entrepreneurial activities (Boubker et al., 2021; Gorgievski et al., 2018) and a positive impression of external variables are more likely to select entrepreneurship as a career (Jena, 2020; Paray & Kumar, 2020). Moreover, several studies have found that attitude towards entrepreneurship is a significant predictor of entrepreneurial intention (Al-Jubari, 2019; Awal et al., 2023; Fragozo et al., 2020).

The second predictor is subjective norms, which refers to the social pressure a person feels to conform to the expectations of the social milieu in which they live (Ajzen, 1991). According to the findings by Zhang et al. (2015), subjective norms in the form of a supportive external environment can enhance a person's motivation to start a business. Similarly, a study by Sharahiley (2020) found that affirmation from relatives, close companions, or members of a professional fellowship is an important factor in determining entrepreneurial intention in Saudi Arabia. A similar conclusion was reached in a study conducted by Utami (2017), which determined that support from one's closest relatives and friends enhances the desire to become an entrepreneur. Perceived behavioral control refers to a person's assessment of the ease or difficulty of performing specific activities based on past experiences (Ajzen, 1991). It reflects a person's evaluation of the internal resource control they possess (Ajzen, 1991; Zhang et al., 2015) as well as their assessment of potential barriers to executing the action (Adu et al., 2020). Previous research has demonstrated that perceived behavioral control characteristics are reliable predictors of entrepreneurial intention (e.g. Karimi, 2019; Sharahiley, 2020; Zhang et al., 2015). Consequently, we propose the following hypotheses in this study:

- H<sub>1a</sub> : Attitude significantly and positively influences entrepreneurial orientation.
- H<sub>1b</sub> : Subjective norms significantly and positively influence entrepreneurial intention.
- H<sub>1c</sub> : Perceived behavioural control significantly and positively influences entrepreneurial orientation.

### **Entrepreneurial Intention, Entrepreneurial Passion, and Theory of Planned Behavior**

According to Vallerand et al. (2003), passion is a person's strong inclination toward activities they enjoy and consider essential, for which they are willing to commit significant time and effort. Specifically, entrepreneurial passion is defined as "consciously accessible, intense good sentiments experienced through engagement in entrepreneurial activities connected with roles that are meaningful and significant to the entrepreneur's self-identity" (p. 517). Individuals with a passion for entrepreneurship will dedicate their time and energy to exploring business opportunities, securing financing, and building and growing successful firms. Their passion provides them with the desire and energy to overcome obstacles and uncertainties in the early stages of venture development, funding and establishment of a successful business (Biraglia & Kadile, 2016; Cardon et al., 2013).

According to Cardon et al. (2009, 2013), the entrepreneurial passion framework is based on several different yet significant entrepreneurial identity roles: inventing, creating, and exploring new opportunities; development (i.e. nurturing, growing, and expanding efforts); and founding passion (i.e. building efforts to commercialize and exploit opportunities). This study explored Indonesian students' entrepreneurial passion identities. Bird (1988) asserts that entrepreneurship requires passion, positive energy, drive, and enthusiasm. Passion is a fundamental aspect of entrepreneurship and serves as a personal motivator. The goal is the initial phase of new venture creation (Neneh, 2020), when individuals commence entrepreneurial business planning for new business ventures (Biraglia & Kadile, 2016; Neneh, 2020). Studies by Anjum et al. (2018) in Pakistan and Neneh (2020) in South Africa discovered that entrepreneurial passion for creation and innovation promotes entrepreneurial intention in developing nations. Passionate

entrepreneurs invest time and energy into starting a business, thus enhancing their entrepreneurial interest (Biraglia & Kadile, 2016). Entrepreneurial passion influences and improves a person's creativity and perseverance in business activities (Cardon et al., 2013). Therefore, we propose the following hypothesis:

H<sub>2</sub> : Entrepreneurial passion is significantly and positively related to entrepreneurial intention.

Fayolle and Liñán (2014) propose adding more motivational aspects to the TPB framework to address unanswered questions regarding how TPB explains why people are drawn to entrepreneurship (Al-Jubari, 2019). Karimi (2019) integrates this recommendation within the TPB framework. According to the findings of Karimi's (2019) study, students with a higher degree of entrepreneurial passion have a more optimistic attitude toward entrepreneurship and perceive themselves as more capable of becoming entrepreneurs. Furthermore, a significant and positive emotional boost might reduce an entrepreneur's perception of business obstacles and increase optimism. According to Grichnik et al. (2010), the greater the entrepreneurial passion, the greater the perceived behavioral control. Additionally, Lee et al. (2021) demonstrate that students with an employer background have a greater propensity for founding passion than those who do not. The study by Ma et al. (2020) also indicates that family support, colleagues, and close friends motivate students to establish their own businesses.

H<sub>3a</sub> : Entrepreneurial passion is significantly and positively related to attitude

H<sub>3b</sub> : Entrepreneurial passion is significantly and positively related to subjective norms.

H<sub>3c</sub> : Entrepreneurial passion is significantly and positively related to perceived behavioural control..

### **Entrepreneurial Education, Theory of Planned Behavior and Entrepreneurial Intentions**

TPB posits that the best explanation for a behavior is the intention to perform the behavior. Attitude, subjective norms, and perceived behavioral control, in turn, shape intention (Ajzen, 1988). Student participation in entrepreneurial education has a positive and significant effect on entrepreneurial attitudes, subjective norms, and

perceived behavioral control, according to the research findings of Karali and Thurik (2013) and Paray and Kumar (2020). A study by Abdullahi et al. (2021) found that implementation of entrepreneurship education in Nigeria's higher education increases students' attitudes and subjective norms. Furthermore, according to Rauch and Hulsink (2015) and Fayolle and Gailly (2015), entrepreneurial education improves student's positive attitudes and perceived behavioral control toward entrepreneurship. Previous research has demonstrated that involvement in entrepreneurship education increases an individual's intention to launch a firm (Boubker et al., 2021; Sang & Lin, 2019; Setiawan & Lestari, 2021; Zhang et al., 2014). Entrepreneurship education equips students with the knowledge and abilities to manage complexities and difficult circumstances when making business decisions (Moses et al., 2016). Additionally, research conducted in Morocco indicates that students who participate in practice-based entrepreneurial education benefit from learning by doing (Boubker et al., 2021). Implementing entrepreneurship education in experiential learning promotes students' critical thinking and behavioral control in entrepreneurial activities (Yong, 2022). Therefore, we propose the following hypotheses:

- H<sub>4</sub> : Entrepreneurship education is significantly and positively related to entrepreneurial intention.
- H<sub>5a</sub> : Entrepreneurship education is significantly and positively related to attitude
- H<sub>5b</sub> : Entrepreneurship education is significantly and positively related to subjective norms.
- H<sub>5c</sub> : Entrepreneurship education is significantly and positively related to perceived behavioral control.

### **Entrepreneurship Education, Entrepreneurial Passion and Entrepreneurial Intention**

Entrepreneurial passion is a deliberate, visible, and positive feeling that drives individuals to pursue a career in business (Cardon et al., 2009). Individuals with strong entrepreneurial passion experience intense emotions, sharpen their focus, and take steps to accomplish their objectives. Entrepreneurial passion is a one-of-a-kind affective experience that can be cultivated (Cardon & Kirk, 2015). Souitaris et al. (2007) argue that entrepreneurship education can nurture and develop a passion for entrepreneurship. Moreover, Zhang et al. (2014) found that students who attend entrepreneurial courses exhibit higher

levels of entrepreneurial passion than those who do not. Implementing entrepreneurship curricula, case studies, and participation in business simulations as part of entrepreneurship courses or through practical learning for starting a business at the university level helps foster entrepreneurial aspirations (Arshad et al., 2018). Consequently, we propose the following hypothesis:

H<sub>6</sub> : Entrepreneurship education is significantly and positively related to entrepreneurial passion.

### **The Mediating Role of Attitude, Subjective Norms, and Perceived Behavioural Control**

TPB is a well-accepted and widely applied model in entrepreneurship research (Aloulou, 2016; Heuer & Kolvereid, 2014; Otache, Edopkolor, et al., 2021; Rauch & Hulsink, 2015; Yasir et al., 2021). Previous studies demonstrate that TPB's attitudinal factors mediate motivational variables and entrepreneurial development (Al-Jubari, 2019; Alam et al., 2019). Anjum et al. (2019) discovered that entrepreneurial attitudes mediate entrepreneurial founding enthusiasm and entrepreneurial intention (EI). Perceived behavioral control and attitude mediate the relationship between entrepreneurial passion and EI, according to Karimi (2019) and Anantia et al. (2022). Derochi and Tasavori (2022) found that attitude mediates the relationship between entrepreneurial passion and entrepreneurial intention in both the Iranian and English contexts, whereas subjective norms fully mediate the relationship in Iran but only partially mediate it in England. Additionally, motivated and eager students build entrepreneurial self-capability. Hence, we propose the following hypotheses:

H<sub>7a</sub>: Attitude significantly and positively mediates the relationship between entrepreneurial passion and entrepreneurial intention.

H<sub>7b</sub>: Subjective norms significantly and positively mediates the relationship between entrepreneurial passion and entrepreneurial intention.

H<sub>7c</sub>: Perceived behavioral control significantly and positively mediates between entrepreneurial passion and entrepreneurial intention.

An experimental study conducted by Rauch and Hulsink (2015) found that entrepreneurial education increases students' positive

attitudes and perceived behavioral control, ultimately motivating them to pursue an entrepreneurial career. The same result was found in Fayolle and Gailly's study (2015), where an entrepreneurship education program positively influenced students' perceived behavioral control and attitudes in the medium term. Entrepreneurship education and programs increase the intention levels of students who had not previously considered pursuing an entrepreneurial career. According to research conducted by Emmanuel et al. (2015), TPB operate as a highly powerful mediator in the link between entrepreneurship education and entrepreneurial intention in Nigeria. Similarly, a study conducted by Paray and Kumar (2020) in India revealed that entrepreneurial education had a significant impact on the three drivers of TPB. In other words, ATB, subjective norms (SN), and perceived behavioral control (PBC) may serve as the pathways through which entrepreneurship education (EE) influences EIs. In practice, this implies that EE would first affect ATB, SN, and PBC before transferring the effects of EE to EIs (Otache, Umar, et al., 2021; Rauch & Hulsink, 2015). Therefore, we propose the following hypotheses:

- H<sub>8a</sub> : Attitude significantly and positively mediates the relationship between entrepreneurship education and entrepreneurial intention.
- H<sub>8b</sub> : Subjective norms significantly and positively mediates the relationship between entrepreneurship education and entrepreneurial intention.
- H<sub>8c</sub> : Perceived behavioral control significantly and positively mediates the relationship between entrepreneurship education and entrepreneurial intention.

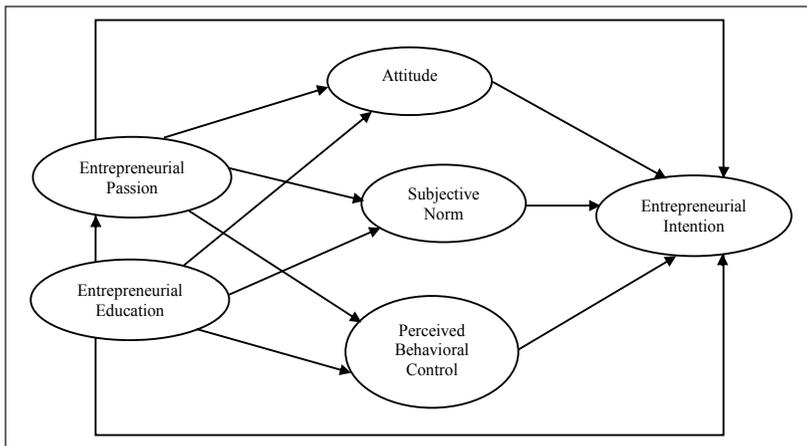
Lastly, Cai et al. (2021) argue that entrepreneurship education that cultivates and nurtures entrepreneurial passion is a key factor driving entrepreneurship. The results of studies conducted by Idris et al. (2018) indicate that entrepreneurship education can also indirectly influence entrepreneurial action choices through entrepreneurial passion, where entrepreneurship education can foster entrepreneurial passion, which in turn influences entrepreneurial behavior choices. Students who choose to pursue entrepreneurship as a career can develop a greater love for entrepreneurship if they receive a solid education in entrepreneurship (Sriyakula & Jermsittiparsert, 2019; Uddin et al., 2022). Consequently, we propose the following hypothesis:

H<sub>9</sub> : Entrepreneurial passion significantly and positively mediates the relationship between entrepreneurship education and entrepreneurial intention.

Based on the results of previous literature studies on entrepreneurial intention and TPB, entrepreneurial passion, and entrepreneurship education, the research framework in this study is as follows:

**Figure 1**

*Research Model*



## METHODOLOGY

This study employed purposive sampling technique. According to Sekaran and Bougie (2016), purposive sampling is used when sample subjects are chosen from groups most capable of providing data. This approach was adopted because the study focuses on currently enrolled students with entrepreneurship education. Despite the significance of entrepreneurship, it is not a mandatory subject in the Indonesian education context. Hence, we also include students from non-business majors. A similar sampling technique was used in a previous study on students' entrepreneurial intention study (Agolla et al., 2019; Utami, 2017). To investigate the impact of entrepreneurship courses on entrepreneurial passion, TPB, and entrepreneurial intention, only students who have taken entrepreneurship courses are sampled.

Data collection for this study was carried out using digital questionnaires in the form of Google Forms administered to active students in Indonesia. Enrolled students who were actively engaged in the course were requested to fill out the initial Google Form and forward it to other students they knew, especially from other universities and cities. Additionally, in order to boost visibility, the author sent questionnaires to other university lecturer partners to enhance visibility. Out of 269 responses received, only 232 (86.24%) had usable data for further investigation. The survey questions included demographic information about the respondents (gender, age, and study program), as well as research aspects related to TPB, such as subjective norms, perceived behavioral control, attitude, and *entrepreneurial intention*. This study also examined aspects of entrepreneurial passion and entrepreneurship education in addition to TPB.

### **Measures**

This research employs validated instruments. The measurement of TPB consisting of attitude, subjective norms, perceived behavioral control, and entrepreneurial intention is derived from Liñán and Chen (2009) and consists of 15 questions. The measurement of the entrepreneurial passion construct is taken from a previous study by Cardon et al. (2013) and consists of five questions. Lastly, nine questions from Keat et al. (2011) are used to investigate entrepreneurship education construct. All study questions were evaluated using a seven-point Likert scale ranging from 7 (strongly agree) to 1 (strongly disagree).

### **Research Data Analysis**

Data was analysed using PLS-SEM via SmartPLS 3 (Ringle et al., 2014). The PLS-SEM analysis operates in two sequential phases: first, examination of the measurement (outer) model, followed by evaluation of the inner structural model (Hair et al., 2014; Henseler et al., 2009; Wong, 2013). This study employs the common method variance with Harman's single factor analysis approach to evaluate the possibility of construct-related errors (i.e. independent and dependent). The indicators for the queries are identical to those for the common method variance. If the results of Harman's analysis reveal that a single factor accounts for more than 50 percent of the variance, then there may be an issue with general method bias. According to

the statistical findings, the variance of the research data was 40.685 percent. This percentage remains below 50 percent indicating that this study does not suffer from common method variance bias (Hussain, 2018).

## RESULTS

### Results of Descriptive Analysis

According to Table 1, the respondents were mostly female students aged 20 to 22, residing in Jabodetabek, majoring in management/business, without current business ownership, and not from entrepreneurial families.

**Table 1**

#### *Results of Descriptive Analysis*

Item	Answer Category	Number	Percentage (%)
Gender	Male	136	58.62%
	Female	96	41.38%
Age	18-20 years old	101	43.53%
	21-23 years old	130	56.03%
	>23 years old	1	0.43%
Study program	Business studies	156	67.24%
	Non-business studies	76	32.76%

### Results of Measurement (Outer) Analysis Model

The PLS-SEM methodology begins with the measurement (outer) analysis model, which consists of observable indicators and their relationships with constructs. This analysis evaluates the reliability and validity of the construct. In PLS-SEM, the reliability of the measurement (outer) model is assessed using internal consistency (composite reliability) and indicator reliability, while construct validity is evaluated using convergent validity (AVE) and discriminant validity (Hair et al., 2014). A measurement (outer) model is deemed reliable if its composite reliability (CR) value is between 0.60 and 0.70 and its Cronbach's Alpha value is greater than or equal to 0.70 (Hair et al., 2011). In this study, Cronbach's Alpha and CR values

for all variables surpass 0.70, as shown in Table 2, indicating that all research items are reliable.

**Table 2**

*Construct Reliability and Validity*

Variable	Item	Cronbach's Alpha	Composite Reliability	Average Variance Extracted	VIF
Entrepreneurship education	8	0.950	0.958	0.741	1.973
Entrepreneurial passion	5	0.899	0.925	0.711	3.017
Attitude	3	0.781	0.873	0.698	2.406
Subjective norms	3	0.827	0.896	0.742	1.756
Perceived behavioral control	5	0.904	0.929	0.723	3.125
Entrepreneurial intention	4	0.903	0.932	0.774	-

Convergent validity was tested using AVE and construct outer loading indicators. AVE values greater than 0.5 and all outer loading values greater than 0.708 percent indicate good convergent validity (Hair et al., 2014, 2016). All AVE values in Table 2 exceed 0.5. In addition, Table 4 demonstrates that all outer loadings, except for EE 1, exceed 0.7082, indicating good convergent validity. According to Chin (1998) items with values below the requirements need not be analyzed further. Therefore, this study has good convergent validity. Multicollinearity is assessed using the variance inflation factor (VIF), with values less than 5 indicating no multicollinearity issues (Hair et al., 2017). The VIF for this sample ranges from 1.576 to 3.125, indicating no multicollinearity issues.

Discriminant validity was assessed by comparing outer loadings with cross-loadings against other constructs. The total loading value of all indicators outweighs the total cross-loading, as shown in Table 4. Additionally, the Fornell-Larcker Criterion value, compares the square root of AVE to the correlation of latent constructs. In this study, the square root of AVE for each indicator exceeds the correlation between latent constructs, indicating good discriminant validity (Hair et al., 2014, 2016) for each variable, as shown in Table 3. The results of this study's measurement model analysis are as follows:

**Table 3**

*Fornell-Larcker Criterion (Discriminant Validity)*

	Attitude	Entrepreneurship education	Entrepreneurial intention	Entrepreneurial passion	Perceived behavioural control	Subjective norms
Attitude	0.835					
Entrepreneurship education	0.532	0.861				
Entrepreneurial intention	0.769	0.540	0.880			
Entrepreneurial passion	0.696	0.609	0.774	0.843		
Perceived behavioural control	0.728	0.549	0.747	0.773	0.850	
Subjective norms	0.490	0.606	0.479	0.515	0.537	0.861

**Table 4**  
*Outer Loadings and Cross Loading*

	Entrepreneurial education	Entrepreneurial passion	Attitude	Subjective norms	Perceived behavioral control	Entrepreneurial intention
EE_2	0.838	0.523	0.453	0.514	0.472	0.463
EE_3	0.855	0.522	0.446	0.578	0.490	0.448
EE_4	0.876	0.530	0.441	0.560	0.501	0.460
EE_5	0.876	0.539	0.467	0.485	0.481	0.488
EE_6	0.889	0.556	0.513	0.477	0.508	0.518
EE_7	0.844	0.483	0.442	0.487	0.402	0.414
EE_8	0.873	0.490	0.439	0.552	0.433	0.433
EE_9	0.832	0.544	0.456	0.515	0.465	0.483
EP_1	0.507	0.854	0.593	0.416	0.687	0.641
EP_2	0.475	0.822	0.614	0.401	0.613	0.615
EP_3	0.508	0.839	0.520	0.466	0.587	0.637
EP_4	0.536	0.857	0.636	0.462	0.732	0.709
EP_5	0.539	0.844	0.565	0.425	0.633	0.658
ATTE_1	0.478	0.486	0.725	0.447	0.507	0.480
ATTE_2	0.444	0.610	0.877	0.418	0.629	0.679
ATTE_3	0.429	0.635	0.893	0.382	0.675	0.739
SN_1	0.513	0.493	0.416	0.856	0.535	0.462
SN_2	0.444	0.437	0.437	0.862	0.415	0.397
SN_3	0.601	0.397	0.415	0.866	0.375	0.430
PBC_1	0.484	0.701	0.624	0.532	0.826	0.693
PBC_2	0.465	0.635	0.610	0.469	0.871	0.625
PBC_3	0.420	0.619	0.532	0.418	0.829	0.526
PBC_4	0.486	0.687	0.678	0.479	0.900	0.705
PBC_5	0.471	0.639	0.639	0.372	0.822	0.606
EI_1	0.504	0.682	0.672	0.426	0.726	0.858
EI_2	0.467	0.671	0.723	0.399	0.703	0.910
EI_3	0.472	0.679	0.644	0.425	0.603	0.876
EI_4	0.454	0.692	0.662	0.436	0.590	0.874

## **Structural Model**

The next step is to conduct a structural model once the validity and reliability of the measurement model have been established. PLS-SEM structural models focus on the predictive power of research models, assessed by determinant coefficient values ( $R^2$ ), path coefficient significant level ( $\beta$  Value), and the T statistic value, unlike CB-SEM, which utilizes goodness-of-fit metrics (Hair et al., 2014, 2016; Ringle et al., 2018). Based on Table 5, the adjusted  $R^2$  value for entrepreneurial intention factors in this study are 70.8 percent, for attitude variables 49.8 percent, for subjective norms variables 36.8 percent, for perceived behavioral control variables 60.4 percent, and for entrepreneurial passion variables 36.8 percent.  $R^2$  values are moderate for attitude factors, subjective norms, and entrepreneurial passion, but high for entrepreneurial intention variables and perceived behavioral control (Hair et al., 2014, 2016; Henseler et al., 2009).

For a structural model's predictive power to be robust, Q2 must be greater than 0 (Hair et al., 2014). Table 5 shows a Q2 value of 0.544, indicating that entrepreneurial passion, attitude, and TPB have a high predictive power for entrepreneurial intention. Additionally, a Q2 score of 0.344 suggests that both entrepreneurship education and entrepreneurial passion have a high predictive value for attitude. Moreover,  $Q2 = 0.283$  indicates that entrepreneurship education and entrepreneurial passion have a moderate predictive value for subjective norms. A Q2 value of 0.433 indicates that both entrepreneurship education and entrepreneurial passion have a high predictive significance for perceived behavioral control, whereas a Q2 value of 0.261 indicates that entrepreneurship education has a moderate predictive significance for entrepreneurial passion.

In the study, the  $\beta$  values and T statistics were used to test the null hypothesis. The  $\beta$  value indicates the predicted variance of a dependent construct per unit of variance of an independent construct. A higher  $\beta$  value suggest a greater effect on the endogenous latent construction. However, it is essential to examine the significance level of the  $\beta$  value using the T-test (Chin, 1998). The hypotheses  $H_{2}$ ,  $H_{3a}$ ,  $H_{3b}$ , and  $H_{3c}$  in Table 5 are accepted in terms of how entrepreneurial passion affects entrepreneurial intention. In this case, entrepreneurial passion directly stimulates the formation of entrepreneurial intention ( $\beta=0.356, t=5.187$ ,

$p = 0.000$ , with a small effect  $f^2=0.147$ ). Furthermore, entrepreneurial passion positively influences the three independent predictors of intention formation in TPB: attitude ( $\beta = 0.591, t = 10.152, p = 0.000$ , with a strong effect of  $f^2 = 0.442$ ), social norms ( $\beta = 0.232, t = 1.872, p = 0.031$ , with a small effect of  $f^2 = 0.057$ ), and personal behavior control ( $\beta = 0.698, t = 11.895, p = 0.000$ , with a strong effect of  $f^2$ ).

**Figure 2**

*Results of Path Analysis*

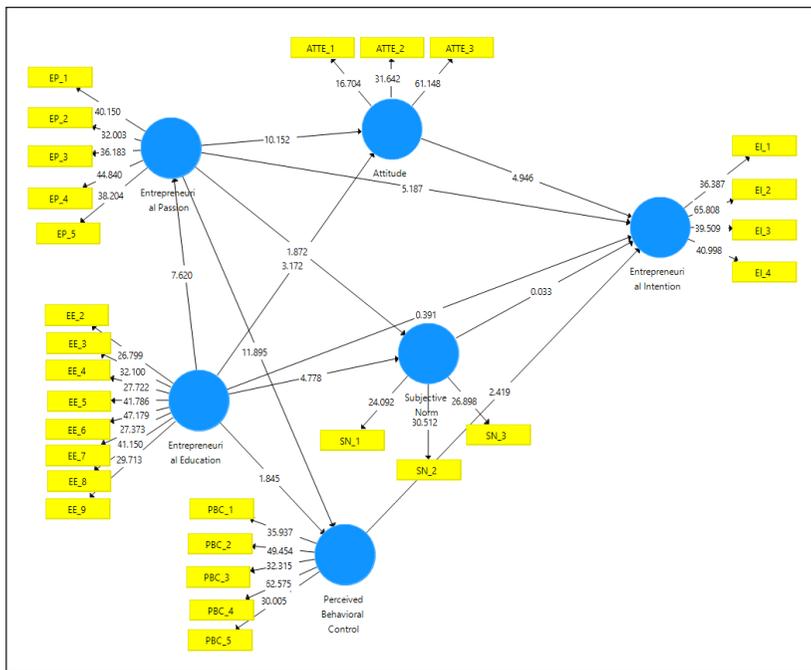


Table 5 shows that hypotheses  $H_{1a}$  and  $H_{1c}$  are accepted, while  $H_{1b}$  is rejected. The formation of entrepreneurial intentions is positively influenced by attitude toward entrepreneurship ( $\beta = 0.372, t = 4.946, p = 0.000$ , with moderate effects of  $f^2 = 0.201$ ) and perceived behavioral control ( $\beta = 0.190, t = 2.419, p = 0.008$ , with a moderate effect of  $f^2 = 0.040$ ), whereas subjective norms ( $\beta = -0.002, t = 0.033, p = 0.087, f^2 = 0.000$ ) have no effect.

**Table 5**  
*Outer Loadings and Cross Loadings*

Path Hypothesis	Standardized Beta ( $\beta$ )	t-statistic	p-value	Decision	R <sup>2</sup>	f <sup>2</sup>	Q <sup>2</sup>
H <sub>2</sub> Entrepreneurial passion -> Entrepreneurial intention	0.356	5.187	0.000	Supported	0.708	0.147	0.544
H <sub>4</sub> Entrepreneurship education -> Entrepreneurial intention	0.022	0.391	0.348	Not Supported		0.001	
H <sub>1a</sub> Attitude -> Entrepreneurial intention	0.372	4.946	0.000	Supported		0.201	
H <sub>1b</sub> Subjective norms -> Entrepreneurial intention	-0.002	0.033	0.487	Not Supported		0.000	
H <sub>1c</sub> Perceived behavioral control -> Entrepreneurial intention	0.190	2.419	0.008	Supported		0.040	
H <sub>3a</sub> Entrepreneurial passion -> Attitude	0.591	10.152	0.000	Supported	0.498	0.442	0.344
H <sub>5a</sub> Entrepreneurship education -> Attitude	0.172	3.172	0.001	Supported		0.037	
H <sub>3b</sub> Entrepreneurial passion -> Subjective norms	0.232	1.872	0.031	Supported	0.368	0.057	0.283
H <sub>5b</sub> Entrepreneurship education -> Subjective norms	0.464	4.778	0.000	Supported		0.226	
H <sub>3c</sub> Entrepreneurial passion -> Perceived behavioral control	0.698	11.895	0.000	Supported	0.604	0.782	0.433
H <sub>5c</sub> Entrepreneurship education -> Perceived behavioral control	0.124	1.845	0.033	Supported		0.024	
H <sub>6</sub> Entrepreneurship education -> Entrepreneurial passion	0.609	7.620	0.000	Supported	0.368	0.589	0.261

Table 5 shows that while the hypotheses  $H_{5a}$ ,  $H_{5b}$ , and  $H_{5c}$  are accepted,  $H_4$  hypothesis regarding the impact of entrepreneurship education on entrepreneurial intention is rejected. Entrepreneurship education failed to influence entrepreneurial intention ( $\beta=0.022$ ,  $t=0.391$ ,  $p=0.348$ ,  $f^2=0.00$ ). Subjective norms ( $\beta=0.464$ ,  $t=4.778$ ,  $p=0.000$ , with a moderate effect of  $f^2=0.226$ ), perceived behavioral control ( $\beta=0.124$ ,  $t=1.845$ ,  $p=0.033$ , with a moderate effect of  $f^2=0.024$ ), and attitude ( $\beta=0.172$ ,  $t=3.172$ ,  $p=0.001$ , with a small effect of  $f^2=0.037$ ), are all positively impacted by entrepreneurship education. The study also sought to determine how entrepreneurship education directly affects entrepreneurial passion.  $H_8$  appears to be accepted in Table 5 ( $\beta=0.609$ ,  $t=7.620$ ,  $p=0.000$ , with a strong effect,  $f^2=0.589$ ).

### **Mediation Analysis**

Table 5 shows that  $H7b$  and  $H8b$  have no mediating effect since subjective norms do not influence entrepreneurial intention (Hair et al., 2014; Hair et al., 2017). As recommended by MacKinnon et al. (2004), 5,000 bootstrap samples were generated for the mediating analysis. In this study, the results of the mediation effect test were analyzed using indirect effect coefficient values, hypotheses 7a, 7c, 8a, 8c, and 9 are all accepted in this study.

Hair et al. (2017) suggest using VAF to quantify the ratio of indirect to overall, confidence intervals, and p-values (refer to Table 6). According to Table 6, attitude and perceived behavioral control mediate both entrepreneurial passion and entrepreneurial intention, as well as entrepreneurship education and entrepreneurial intention ( $p<0.05$ ). Additionally, entrepreneurial passion mediates the relationship between entrepreneurship education and entrepreneurial intention ( $p<0.05$ ).

The VAF value in Table 6 indicates that perceived behavioural control fully mediates both the relationships between entrepreneurial passion and entrepreneurial intention and between entrepreneurship education and entrepreneurial intention, while attitude only partially mediates the relationship between entrepreneurial passion and entrepreneurial intention and between entrepreneurship education and entrepreneurial intention. As depicted in Table 6, entrepreneurial passion partially mediates the relationship between entrepreneurial passion and entrepreneurial intention.

**Table 6**

*Mediation Effect*

	Path Hypothesis	Standardized Beta ( $\beta$ )	t-statistic	p-value	VAF	Decision
H <sub>7a</sub>	Entrepreneurial passion -> Attitude -> Entrepreneurial intention	0.220	4.059	0.000	76.3%	Partial mediation
H <sub>7b</sub>	Entrepreneurial passion -> Subjective norms->Entrepreneurial intention	0.000	0.026	0.490	-	No mediation
H <sub>7c</sub>	Entrepreneurial passion -> Perceived behavioral control ->Entrepreneurial intention	0.133	2.357	0.009	84.2%	Full mediation
H <sub>8a</sub>	Entrepreneurship education -> Attitude ->Entrepreneurial intention	0.064	2.728	0.003	73.2%	Partial mediation
H <sub>8b</sub>	Entrepreneurship education -> Subjective norms -> Entrepreneurial intention	-0.001	0.033	0.487	-	No mediation
H <sub>8c</sub>	Entrepreneurship education -> Perceived behavioral control ->Entrepreneurial intention	0.023	1.478	0.078	83.8%	Full mediation
H <sub>9</sub>	Entrepreneurship education -> Entrepreneurial passion ->Entrepreneurial intention	0.217	4.247	0.000	55.6%	Partial mediation

## DISCUSSIONS

Previous research has underscored the significant impact of a person's passion on their engagement in various activities, including entrepreneurship (Cardon et al., 2009; Lee et al., 2021). However, there remains a scarcity of studies exploring the extent to which entrepreneurial passion fuels one's aspiration for a future career as an entrepreneur. To address this gap, a study conducted utilizing the TPB framework to investigate how entrepreneurship education cultivates entrepreneurial passion and its subsequent influence on the formation of entrepreneurial intention.

The hypothesis testing showed that entrepreneurial founding passion directly influences entrepreneurial intention, whereas entrepreneurship education has no discernible influence. Entrepreneurial passion's direct effect on entrepreneurial intention suggests its role as a robust predictor of entrepreneurial intention formation (Anjum et al., 2018; Sriyakula & Jermittiparsert, 2019; Nasiru et al., 2015; Neneh, 2020). Individuals with a strong passion and determination to a new venture exhibit heightened intention to embark on the entrepreneurial path (Biraglia & Kadile, 2016; Nasiru et al., 2015; Neneh, 2020). Cardon et al. (2009) many startups encounter challenges such as rejection of novelty-related business plan and funding challenges. However, potential entrepreneurs who are passionate about overcoming hurdles, uncertainty, and a lack of finance are motivated and energetic if they have positive founder identity.

Moreover, findings of this study indicate that entrepreneurship education has a negligible direct effect on entrepreneurial intention are consistent with previous studies (Mahendra et al., 2017; Nasiru et al., 2015; Ng et al., 2021). In this study, entrepreneurship education promotes the development of entrepreneurial passion, which eventually influences the development of student entrepreneurial intention. In essence, while entrepreneurship education may not immediately enhance entrepreneurial intention, it equips students with the knowledge, skills, and abilities necessary to initiate a business venture, thereby nurturing students' internal motivation and fostering entrepreneurial passion. Notably, this study establishes a link between entrepreneurship education, entrepreneurial passion, and entrepreneurial intention. Entrepreneurial passion partially mediates the relationship between entrepreneurship education and

entrepreneurial intention, corroborating previous research findings (Sriyakula & Jermsittiparsert, 2019; Paray & Kumar, 2020; Uddin et al., 2022) suggesting that entrepreneurship education fosters entrepreneurial passion, thereby catalyzing aspirations for an entrepreneurial career.

The findings of this study demonstrate the positive influence of both entrepreneurship education and entrepreneurial passion, identified as antecedents of entrepreneurial intention within the TPB framework, on attitude, subjective norms, and TPB. Previous studies have consistently supported the role of entrepreneurship education as an antecedent of entrepreneurial intention within TPB (Paray & Kumar, 2020; Rauch & Hulsink, 2015; Sun et al., 2017). Even if not directly influenced, students exposed to entrepreneurship education acquire the knowledge and skills necessary to start a business, thereby increasing their likelihood of doing so in the future. Entrepreneurship education equips students with the know-how and cognitive development crucial for entrepreneurship, enhancing their passion for the field. Moreover, it introduces students to various learning partners such as professor, guest lecturer, practitioner mentors, and friends as learning partners who support subjective standards. Mastering entrepreneurship education also assists students in navigating the early stages of business establishing, enhancing perceived behavioral control in entrepreneurship (Paray & Kumar, 2020; Sun et al., 2017).

The positive impact of entrepreneurial passion as an antecedent of entrepreneurial intention on the formation of perceived behavioral control and attitude aligns with findings of earlier research by Karimi (2019). Entrepreneurial passion has a positive impact on the formation of perceived behavioral control and attitude. Greater enthusiasm for entrepreneurial pursuits correlates with a more optimistic outlook, and increased confidence in one's ability to become an entrepreneur in the future. This finding is consistent with the research by Lee et al. (2021) suggesting that individuals exposed to entrepreneurial backgrounds during upbringing are more inclined towards future entrepreneurship.

In addition, the results highlight that not all TPB constructs equally influence entrepreneurial intention. This study underscores the significance of attitude as a critical determinant of entrepreneurial intention. While TPB exhibits considerable forecasting powers for entrepreneurial intention, subjective norms display a modest

correlation with it. This observation is consistent with prior studies indicating a diminishing relevance of subjective norms in shaping entrepreneurial intention within the TPB framework (Karimi, 2019).

### **CONCLUSION, IMPLICATIONS, LIMITATIONS, AND DIRECTIONS FOR FUTURE RESEARCH**

This study underscores the pivotal role of entrepreneurial passion in shaping entrepreneurial intention, highlighting its significant direct influence compared to the relatively minor indirect influence of entrepreneurship education. By integrating the TPB framework with entrepreneurial passion and entrepreneurship education, this research provides insights into the drivers of entrepreneurial pursuits. The findings reveal that perceived behavioral control fully mediates the relationship between entrepreneurial passion and intention, while subjective norms show no mediation effect. Additionally, entrepreneurial passion serves as a mediator between entrepreneurship education and entrepreneurial intention.

Theoretical implications of this study include enriching our understanding of the positive influence of emotional components particularly, entrepreneurial passion, on entrepreneurial intention formation. Moreover, the study underscores the importance of entrepreneurship education in fostering knowledge retention and cultivating the positive emotions necessary for developing entrepreneurial passion. In addition, the findings of this study lend credence to the conclusions drawn from earlier research, which state that TPB constitute a robust theoretical framework that is capable of providing an effective explanation for the process of students developing entrepreneurial intentions. According to the findings of this research, the components of TPB, specifically a person's attitude toward entrepreneurship and their level of perceived behavioral control, are powerful predictors for the development of intentions.

Practically, the results of this study can inform policymakers, government agencies, universities, and educators in designing curricula and entrepreneurship education programs that nurture students' business passion and foster ambition for entrepreneurial endeavors. Entrepreneurship education should be able to assist students to uncover and explore self-identities, particularly

powerful and conspicuous ones that can motivate the development of entrepreneurial passion-based business ideas. Despite its contributions to entrepreneurial literature, this study has limitations. It used non-probability sampling and focused solely on students in Indonesia, limiting generalizability. Future studies could explore TPB's applicability across diverse groups and countries (Moriano et al., 2012). Additionally, this study exclusively examined founding passion, warranting further investigations into other dimensions of entrepreneurial passion and identity. Moreover, future studies could delve into the interplay between personality traits, contextual factors, and entrepreneurial intention within the TPB framework, and explore the transition from intention to behavior. Entrepreneurial identities can be researched with relation to one's passion in a specific field. This study examined the original passion of entrepreneurial passion. Entrepreneurial identities can be researched with one's related passion (Karimi, 2019). Last, this analysis employs entrepreneurial passion and entrepreneurial education as entrepreneurial intention TPB antecedents. Study on personality and context can be pursued further. This study measures intention so future studies can examine intention and behavior in TPB (Ajzen, 2002).

### **ACKNOWLEDGEMENT**

This research can be done and completed well because of the support of Universitas Multimedia. This research can be carried out properly due to research funding from Multimedia Nusantara University with contract number: 039/PI/LPPM-UMN/III/2020

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