

Pham Minh; Bao Quoc Lam; Vi Phuong Tran Le

Article

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The e-entrepreneurial intention of students: The role of self-efficacy and education

Minh Pham, Bao Quoc Lam, Vi Phuong Tran Le

ABSTRACT

Objective: The goal of this article is to evaluate the relationship between education and e-entrepreneurial intention (EEI) under the mediated effect of outcome expectation and attitude, as well as the positive moderating role of self-efficacy in that relationship.

Research Design & Methods: This research uses quantitative research methods to assess the relationships in the proposed research model. By convenient sampling, data were collected from 406 students studying at universities in Ho Chi Minh City. The research hypotheses were tested by partial least squares structural equation modelling.

Findings: The results have shown that although education has a more decisive influence on students' attitudes towards e-entrepreneurship than outcome expectations, their outcome expectations are more influential on their EEI than attitude. Another remarkable thing is that this article demonstrates the positive moderating role of self-efficacy on the relationship between attitude and EEI.

Implications & Recommendations: This study confirmed that entrepreneurial education is necessary to form EEI. Besides that, universities need to increase students' self-efficacy by equipping them with the skills required to help them have a more positive attitude towards e-entrepreneurship.

Contribution & Value Added: This article proves that the combination of social cognitive theory (SCT) and theory of planned behaviour (TPB) helps to more comprehensively explain e-entrepreneurship, especially discovering the positive moderating role of self-efficacy in explaining the relationships in these two theories.

Article type: research article

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INTRODUCTION

Entrepreneurship is a phenomenon of worldwide interest and its influence spans many fields (Cassia *et al.*, 2014). According to Reynolds (2000), promoting entrepreneurship is necessary to improve economic development's driving force (Barrachina Fernández *et al.*, 2021). Recognising this, start-up support organisations and government resources have also increased enormously to optimise specific benefits of operations start-ups (Huang *et al.*, 2022; Colombo & Grilli, 2006). Therefore, developing countries (Viu-Roig & Alvarez-Palau, 2020) or emerging economies (Bakos, 2001; Wach *et al.*, 2018) need to focus on research on entrepreneurship.

E-entrepreneurship is a branch of entrepreneurship (Farooq *et al.*, 2018). With the rapid development of the Internet, e-business is prioritised when individuals or organisations decide to start a business (Sukasame *et al.*, 2008; Tan & Li, 2022). Justifying the above statement, Matlay and Westhead (2007) and Al-Shourbaji and Zogaan (2022) argue that e-entrepreneurship solving problems is more flexible and cost-effective than traditional ones. At the same time, e-business makes it easier for young venturers to reach a broader range of customers (Lu *et al.*, 2021; Abdelfattah *et al.*, 2022). Since then, businesses have

been able to easily penetrate the market and improve their competitiveness (Matlay & Westhead, 2005). As a result, e-entrepreneurship is gradually becoming essential to all economies (Farooq *et al.*, 2018).

Most of the studies on entrepreneurship are based on three aspects, namely entrepreneurial intention, entrepreneurship methods, and entrepreneurship outcomes (Stevenson & Jarillo, 2007). Entrepreneurial intention is considered the core foundation of entrepreneurship behaviour (Kolvereid & Isaksen, 2006), which needs strong attention (Trivedi, 2017), because it is a crucial guideline (Hockerts, 2017) that determines the nature of entrepreneurial behaviour (Krueger & Carsrud, 1993). However, the theoretical system of entrepreneurship generally falls on the 25-35-year-old audience (Ahlstrom & Ding, 2014), but the future central workforce is students. On the other hand, studies on e-entrepreneurial intention (EEI) are even more scarce (Lai & To, 2020). Therefore, according to Tuan and Pham (2022), research on students will help build a potential business force more effectively. Thus, this study focuses on students, because they are robust and qualified human resources with high development potential (Curto *et al.*, 2021).

The theory of planned behaviour (TPB) is broadly applied to describe entrepreneurship behaviour (Al-Jubari, 2019; Lingappa *et al.*, 2020; Lortie & Castogiovanni, 2015). Specifically, TPB was proposed by Ajzen (1991) and applied to entrepreneurial intention studies (Joensuu-Salo *et al.*, 2020). Schlaegel and Koenig (2014) also demonstrated that TPB is suitable for explaining entrepreneurial intention, but some studies show that TPB only focuses on behavioural outcomes and performance (Tuan & Pham, 2022). On the other hand, TPB has not yet explained the process of forming behaviour (Al-Mamary *et al.*, 2020), while González-Cutre *et al.* (2014) also pointed out the lack of TPB in the relationship between subjective and contextual factors.

In contrast, social cognitive theory (SCT) shows the association between the individual and the environment (Henley *et al.*, 2017). In other words, the interaction process between subjective and objective factors is shown more clearly in SCT (Chien-chi *et al.*, 2020). In addition, SCT complements TPB as it explains changing behavioural intentions (Chien-Chi *et al.*, 2020). Therefore, the parallel application of these two theories in the research will more comprehensively explain the process of forming and developing entrepreneurial intentions (Wang *et al.*, 2018). That is why this study combines theories of TPB and SCT, thereby comprehensively examining the process of forming entrepreneurial intentions.

Besides, it is argued that self-efficacy and perceived behavioural control are different concepts (Tsai *et al.*, 2016). In contrast, Ajzen (2001) has confirmed their equivalent role (Mair & Noboa, 2006). Agreeing with the view of Ajzen (2001), Tiwari *et al.* (2017) and Wach and Bilan (2021) pointed out the similarity between self-efficacy and perceived behavioural control. Likewise, self-efficacy is a solid predictive indicator influencing entrepreneurial intention (Liu *et al.*, 2019). The positive effect of self-efficacy towards entrepreneurial intention (both direct and indirect) is also supported in many contexts (Hsu *et al.*, 2019; Şahin *et al.*, 2019; Elnadi & Gheith, 2021; Wardana *et al.*, 2021). However, e-entrepreneurship differs from traditional entrepreneurship, because the activities depend entirely on digital platforms (Halbusi *et al.*, 2022), so studying the context of e-entrepreneurship is needed to help better understand online relationships (Lai & To, 2020). Therefore, the article examines self-efficacy's role in the online environment as the crux of the intersection between the contexts of TPB and SCT.

Structurally, the article is divided into five parts. The first part will present the research problem. Part two will present the theoretical basis and the proposed research model. The research method will be shown in the third part. Part four will discuss the results of the study. Part five will present the basis for the management conclusions and implications.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

E-entrepreneurial Intention (EEI)

E-entrepreneurship is establishing a new business that partially or fully operates on the Internet (Gundry & Kickul, 2006; Kollmann, 2006; Millman *et al.*, 2009). Shinnar *et al.* (2018) define e-entrepreneurship as creating new business activities based on Internet resources to sell products or services on the e-commerce system. Zhao *et al.* (2010) argue that EEI is the intention to start a new business activity based on

the Internet, meaning to own an online company. Generally, EEI has not been developed but is determined mainly by entrepreneurial intention (Batool *et al.*, 2015; Abdelfattah *et al.*, 2022), but most studies apply the definition of Zhao *et al.* (2010) because of its comprehensiveness and generality.

E-entrepreneurship is effective, because it enhances communication between stakeholders and makes the operation process faster than traditional (Abdelfattah *et al.*, 2022). Thus, depending on technological change, e-entrepreneurship has helped more and more different activities in enterprises operate more efficiently (Al-Mamary & Alraja, 2022). Therefore, the number of studies in this field is increasing (Chung *et al.*, 2016). Despite this, research on e-entrepreneurship has not been comprehensively conducted in emerging economies (Lai & To, 2020).

Social Cognitive Theory (SCT)

Bandura developed the SCT in 1986. The social cognitive theory argues that individual, behavioural, and environmental factors influence each other (Bandura, 1986). This theory explains that individuals produce different results with the same environmental factors because they possess different characteristics (Wood & Bandura, 1989). Two key features in the model of this theory are self-efficacy and outcome expectation. This theory is applied in the study of behavioural intention (Boudreaux *et al.*, 2019) and entrepreneurial intention (Boutaky & Sahib Eddine, 2022).

Soomro and Shah (2022) state that becoming an entrepreneur is a way for individuals to express their need for achievement. It is considered an expression of outcome expectation when the individuals intend the results they will receive after performing the behaviour. In other words, outcome expectation is an individual's imagination and subjective assessment of the effects of their behaviour (Lent & Brown, 2008), which is a belief about content, a thing, or a phenomenon, that can occur at the end of the behaviour (Lent & Brown, 2013).

Pfeifer *et al.* (2016) point out that outcome expectation strongly influences entrepreneurial intention. In particular, positive expectations of financial gain, independence, or security, vigorously promote their intention to become entrepreneurs (Carter *et al.*, 2003). This factor satisfies personal expectations, in which the main goal is profit (Christopoulos & Vogl, 2015). Besides, e-business helps to simplify procedures, save costs and quickly enter the market (Sukasame *et al.*, 2008). Thus, it encourages businessmen, especially new venturers, to enter the e-commerce market (Matlay & Westhead, 2005). Finally, Segal *et al.* (2002) and Blaese *et al.* (2021) successfully demonstrated the positive impact of outcome expectation on entrepreneurship intention. Since the EEI is an extension of entrepreneurial intention, the hypotheses of the two concepts can be used interchangeably. Thus, we hypothesise:

H1: Outcome expectations positively affect e-entrepreneurial intention (EEI).

Theory of Planned Behaviour (TPB)

Entrepreneurial intention and behaviour are considered to be among the most challenging concepts in the group of behavioural intentions (MacMillan & Katz, 1992). One of the most successfully used theories to explain entrepreneurial intention is the TPB proposed by Ajzen in 1991 (Batool *et al.*, 2015; Wach & Wojciechowski, 2016). According to Ernst (2011), TPB is a fundamental theory widely applied to many studies of intention in many fields, supported by many scholars both academically and experimentally (Van Gelderen *et al.*, 2008).

The content of TPB argues that subjective norms, perceived behavioural control, and attitude are the three factors that influence and explain intention. Attitude is often applied in entrepreneurial research (Wardana *et al.*, 2020). Liu *et al.* (2019) reveal that attitude is an individual's subjective perception of himself, people, things, phenomena, etc., which is a positive or negative evaluation of behaviour and the possible consequences of the behaviour (Abdelfattah *et al.*, 2022). From another perspective, Mitchell *et al.* (2002) consider that attitudes towards entrepreneurial behaviour predict adaptability, capacity, and action in the business process. It is confirmed through many studies that attitude is a vital explanatory factor for entrepreneurial intention (Liu *et al.*, 2019) and is an essential indicator of the degree of entrepreneurial behaviour (Bell & Bell, 2016; Fragoso *et al.*, 2020; Jena, 2020; Liu *et al.*, 2019; Rosique-Blasco *et al.*, 2018).

Surprisingly, the relationship between attitude towards e-entrepreneurship and EEI is of little interest to scientists. Even Lai and To (2020) demonstrated that this relationship is not statistically significant. In contrast, Al-Mamary and Alraja (2022) argue that attitude has the most decisive impact on entrepreneurial intention when viewed from the perspective of digital entrepreneurship. These conflicting results suggest evaluating the relationship between attitude and EEI in the new context. The above argument is the basis of the following hypothesis:

H2: Attitude positively affects e-entrepreneurial intention (EEI).

Entrepreneurial Education

Entrepreneurial education develops attitudes, behaviours, and capacities that people can use in their careers as an entrepreneur (Ndofirepi, 2020). Entrepreneurship education is a form of vocational education for students (Fu & Cheng, 2022). Aamir *et al.* (2019) think it is the formal transfer of business knowledge by teaching. Through this, learners are equipped with mindsets, attitudes, and skills to become entrepreneurs (Fayolle & Gailly, 2015). Studies show that people who undergo entrepreneurship education can better identify and take hold of business opportunities (Zhang *et al.*, 2014). Besides, learners are also more aware of how to start a new business and risk management (Cheng *et al.*, 2009).

Entrepreneurial education creates a hypothetical or actual environment, allowing students to experience specific activities related to entrepreneurship behaviour (Wardana *et al.*, 2020). Entrepreneurship education equips students with an entrepreneur's knowledge, skills (Liu *et al.*, 2019), attitude, behaviour, and mindset (Wardana *et al.*, 2020). Through course training, students can make certain judgments about business plans, projects, or strategies (McMullen & Shepherd, 2006). In other words, entrepreneurship education builds awareness of the outcomes of entrepreneurial behaviour. Pfeifer *et al.* (2016) have successfully demonstrated the positive effect of entrepreneurial education as a contextual factor promoting outcome expectations.

Packham *et al.* (2010) examined the influence of entrepreneurial education on students' attitudes in many contexts. According to Liñán (2008), entrepreneurial education creates practical activities such as direct enterprise experience and tutoring from successful entrepreneurs (Wardana *et al.*, 2020). The positive relationship between entrepreneurial education and attitude is also proven by Pfeifer *et al.* (2016) and Wardana *et al.* (2020) and is supported by Lindberg *et al.* (2017), Wach and Wojciechowski (2016), and Wardana *et al.* (2021). Despite this, research on entrepreneurial education in the context of e-entrepreneurship has not received enough attention (Lai & To, 2020). Research on this relationship is rarely done in some Asian countries (Hoang *et al.*, 2020; Lai & To, 2020). The impact of entrepreneurial education in shaping students' entrepreneurial intentions in general and on the electronic environment, in particular, has not been well studied in Vietnam (Nguyen & Nguyen, 2023). Therefore, the following hypotheses are proposed to understand the impact of entrepreneurial education on attitude and outcome expectation in the context of EEI.

H3: Entrepreneurial education positively affects outcome expectations.

H4: Entrepreneurial education positively affects attitude.

Self-efficacy

Self-efficacy is a critical component of SCT. It is the belief in one's ability to organise and carry out the necessary actions to reach the target (Bandura, 1997). In other words, self-efficacy is confidence in oneself when possessing the necessary skills to perform a behaviour (Liu *et al.*, 2019). Self-efficacy is a factor of great interest in studies on entrepreneurial intention (Pihie & Bagheri, 2013). Through the above definition, it can be understood that self-efficacy is faith in a person's capabilities to own, operate, and manage a business (Santos & Liguori, 2020). Elnadi and Gheith (2021) argue that higher entrepreneurial self-efficacy promotes the individual's ability to adapt and face risks, thereby achieving success in the entrepreneurial process. Batool *et al.* (2015) also argue that self-efficacy in e-entrepreneurship plays an equally important role. Previous studies have also shown that self-efficacy has a mediating role in the relationship between components of previous theories (Batool *et al.*, 2015). However, research on the moderating role of self-efficacy in the formation of e-entrepreneurial intention has not been interesting.

Thus, self-efficacy is essential for looking for business opportunities (Drnovšek *et al.*, 2010) and creating new ideas (Zhao *et al.*, 2010). Besides, much research has demonstrated a strong positive connection between self-efficacy and entrepreneurial intention (Santos & Liguori, 2020; Wilson *et al.*, 2007; Shinnar *et al.*, 2018). Based on SCT, self-efficacy predicts and explains expectations about the outcome of behaviour (Bandura, 1986). When individuals are confident that they can achieve something, their outcome expectations also become stronger (Liguori *et al.*, 2020). In other words, self-efficacy and outcome expectations have a positive relationship (Lent *et al.*, 1994). Besides, Farashah (2015) argues that self-efficacy through outcome expectations enhances entrepreneurial intention, and outcome expectations are also strongly promoted in this relationship (Pfeifer *et al.*, 2016).

Self-efficacy is the self-assessment of the compatibility of skills with an individual's behaviour, while attitude is the evaluation process associated with those beliefs (Tiwari *et al.*, 2017). For example, suppose an individual believes they possess a wide range of abilities (knowledge, skills, experience) in a field; hence, they are likely to perform well in behaviours related to that domain (Ernst, 2011). Piperopoulos and Dimov (2015) and Wardana *et al.* (2020) also support a positive relationship between self-efficacy and attitude toward entrepreneurial intention because when individuals possess confidence, they are willing to take risks (Pihie & Bagheri, 2013). In other words, self-efficacy leads to positive feelings in entrepreneurship (Liñán, 2008). From the presented evidence, the research proposes the last hypotheses:

- H5:** Self-efficacy positively moderates the relationship between outcome expectations and e-entrepreneurial intention (EEI).
- H6:** Self-efficacy positively moderates the relationship between attitude and e-entrepreneurial intention (EEI).

The research model is presented in Figure 1 based on the stated research hypotheses.

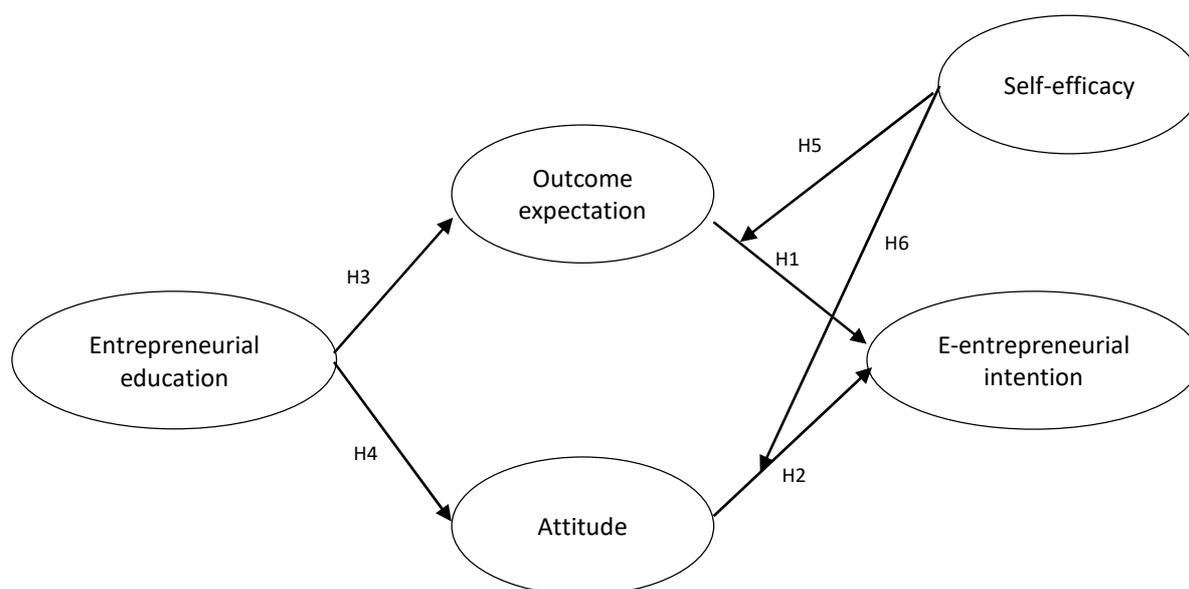


Figure 1. Conceptual framework

Source: own elaboration.

RESEARCH METHODOLOGY

The Google Form platform collects survey data from respondents through social media. Because the subject of the study was bachelor students, or Gen Z in general, who have an extremely high degree of proximity to the Internet (Priporas *et al.*, 2020), this method was reasonable for efficiently aggregating data. The survey was built with a 5-point Likert scale: '1 = strongly disagree' and '5 = strongly agree'. Surveys were valid when respondents provided information that they had studied entrepreneurship courses at the university. In Table 1, the survey obtained 406 valid questionnaires, 137 men (33.7%) and 269 women (66.3%).

Table 1. Sample description

Variables	Categories	Frequency	Percentage (%)
Year of birth	1999	38	9.4
	2000	44	10.8
	2001	70	17.3
	2002	249	61.3
	2003	5	1.2
Major	Economic – Administration	237	58.4
	Social Sciences – Humanities	86	21.2
	Technology – Engineering	83	20.4
Gender	Male	137	33.7
	Female	269	66.3

Source: own study.

The research inherited the scales from previous studies. In detail, the study used a scale inherited from Wardana *et al.* (2020) with three observed variables for the concept of entrepreneurship education and four observed variables for attitudes towards entrepreneurship. Next, four observed variables were combined from two studies by Farashah (2015) and Blaese *et al.* (2021) to measure the concept of outcome expectations. Finally, a 6-variable scale for self-efficacy and five observed variables for EEI were used from the work of Jeong and Choi (2017). The content of these scales was changed to fit the research context in Vietnam.

Collected data were examined by partial least squares structural equation modelling (PLS-SEM) technique with SmartPLS 3 software. The PLS-SEM analyses a small sample size without proving that the data set achieves normal distribution (Dijkstra & Henseler, 2015). The examination process was separated into two main phases: model and structural measurement assessment (Hair *et al.*, 2019). In the first stage, the indicators to assess the scale's reliability and the data validity were tested. Then, when the indicators were satisfactory, stage two was conducted to test the relationships in the research model.

RESULTS AND DISCUSSIONS

Model Measurement Assessment

The scale needs to satisfy the necessary conditions for measurement verification. Firstly, Cronbach's α (CA) and composite reliability (CR) indices need greater than 0.7 for the scale to reach the required reliability (Hair *et al.*, 2014). The next metric, convergent validity, is measured by average variance extracted (AVE), and outer loadings (Henseler *et al.*, 2015) are more significant than 0.5, and outer loading is more significant than 0.7 (Hair *et al.*, 2017). Finally, with the criterion of Hair *et al.* (2011), the variance inflation factor (VIF) needs to be no more than 5 to ensure data does not appear multicollinear. The results in Table 2 show that the above indicators were satisfied.

Table 2. Data validity and multicollinearity

Factor	Observed Variables	Outer loadings	VIF
Entrepreneurial education (EDU)	<i>CA = 0.875, CR = 0.923, AVE = 0.800</i>		
	The university develops my skills in e-entrepreneurship.	0.871	2.744
	The university provides basic knowledge about e-entrepreneurship.	0.898	2.243
	The university helps get creative ideas for e-entrepreneurship.	0.914	2.298
Attitude (ATT)	<i>CA = 0.832, CR = 0.889, AVE = 0.666</i>		
	E-entrepreneurship brings a lot of interesting	0.751	1.490
	I choose E-entrepreneurship over another career	0.837	2.035
	E-entrepreneurship gives me unique satisfaction	0.830	1.901
	I will start my e-entrepreneurship as soon as I qualify	0.844	2.012

Factor	Observed Variables	Outer loadings	VIF
Outcome Expectations (OUT)	<i>CA = 0.840, CR = 0.893, AVE = 0.677</i>		
	E-entrepreneurship will help me become an independent person	0.795	1.684
	E-entrepreneurship will help me improve my income	0.795	1.662
	E-entrepreneurship gives me higher status	0.849	2.356
	E-entrepreneurship helps me to be respected by others	0.850	2.421
Self-efficacy (SEF)	<i>CA = 0.933, CR = 0.947, AVE = 0.750</i>		
	I am confident in e-entrepreneurship	0.878	3.172
	I can control the creation process of e-entrepreneurship	0.874	3.056
	I know the necessary practical details for e-entrepreneurship	0.860	2.725
	I would have a high probability of succeeding in e-entrepreneurship	0.867	3.068
	E-entrepreneurship would be easy for me.	0.875	3.305
	I can become an e-entrepreneur when I want	0.841	2.373
E-entrepreneurial Intention (EEI)	<i>CA = 0.855, CR = 0.896, AVE = 0.633</i>		
	My professional goal is e-entrepreneurship	0.780	1.610
	I will do my best to start an e-business	0.803	1.858
	I am committed to running an e-venture in the future	0.782	1.873
	I have highly thought of initiating an e-venture	0.775	1.790
	I have a solid intention to start an e-business someday	0.836	2.208

Source: own study.

The inter-correlations of a concept need to be less than the square root of the AVE of that concept to satisfy the discriminant validity condition (Henseler *et al.*, 2015). The result revealed that the scales met the requirements (Table 3). This means that the scales used in the article were satisfactory.

Table 3. Discriminant validity

Variables	ATT	EEI	EDU	OUT	SEF
Attitude (ATT)	0.816	–	–	–	–
E-entrepreneurial intention (EEI)	0.354	0.796	–	–	–
Entrepreneurial education (EDU)	0.565	0.270	0.894	–	–
Outcome expectations (OUT)	0.588	0.381	0.509	0.823	–
Self-efficacy (SEF)	0.647	0.375	0.582	0.668	0.866

Source: own study.

Structural Measurement Assessment

Both R^2 and Q^2 are indicators used by many studies to prove the good of the model. Firstly, the R^2 index is 'a valuable tool in evaluating the quality of a PLS model' (Hair *et al.*, 2014). More specifically, R^2 measures the independent variable's explanatory level to the dependent variable in the research model (Hair *et al.*, 2011). Next, the blindfolding technique tests the cross-validated redundancy with the Q^2 index. Since the R^2 does not represent the model's predictive power, the Q^2 is used to measure this (Ringle *et al.*, 2012). The larger the Q^2 index, the more accurate the model's prediction (Hair *et al.*, 2014). In Table 4, the results show that both of the above indicators were acceptable.

Table 4. Coefficient of determination (R^2) and the out-of-sample predictive power (Q^2)

Variables	R^2 Adjusted	Q^2
Attitude	0.320	0.211
Outcome expectations	0.259	0.172
E-entrepreneurial intention	0.171	0.103

Source: own study.

Common method bias is a phenomenon compelled by common variation generated by the sampling method. To ensure this phenomenon does not affect the research results, Kock (2017) proposes to evaluate the inner VIF index of the concepts in the model. If the inner VIFs are less than 3.3, the

common method bias is considered to have no effect (Kock, 2017). The results in Table 5 confirm this when the most extensive inner VIF index was 2.272.

Table 5. Common method bias (with inner VIFs)

Variables	Attitude	E EI	Outcome Expectation
Attitude	–	1.989	–
E-entrepreneurial intention (EEI)	–	–	–
Entrepreneurial education (EDU)	1.000	–	1.000
Outcome Expectation	–	2.212	–
Self-Efficacy	–	2.272	–
Self-Efficacy x Outcome Expectation	–	1.763	–
Self-Efficacy x Attitude	–	1.756	–

Source: own study.

PLS-SEM is a non-parametric method. Therefore, bootstrapping technology is used to verify the significance of the hypotheses and effects. Hair *et al.* (2011) state that the minimum number of samples for the bootstrap test should be 5000. The results are shown in Table 6. According to the analysis, outcome expectation was essential to EEI ($\beta=0.187$). Related studies also demonstrated the critical influence of outcome expectations on forming entrepreneurial intention (Jeong & Choi, 2017). Next, Table 6 presents that attitude positively influences EEI ($\beta=0.140$). This result is supported by studies on entrepreneurial intention, such as Ferreira *et al.* (2022), Maheshwari and Kha (2022), and Yasir *et al.* (2022). Specifically, the data shows that the more students feel interested in e-business, the stronger their intention to e-entrepreneurship will become (Batool *et al.*, 2015).

Table 6. Hypothesis testing

Hypothesis	β	Standard deviation	T-value	P-value	Results
Attitude→E-entrepreneurial intention	0.140	0.071	1.968	0.049	Accepted
Entrepreneurial education→Attitude	0.565	0.045	12.637	0.000	Accepted
Entrepreneurial education→Outcome expectations	0.509	0.039	13.182	0.000	Accepted
Self-efficacy moderated Attitude→E-entrepreneurial intention	0.117	0.047	2.519	0.012	Accepted
Self-efficacy moderated Outcome expectations→E-entrepreneurial intention	0.074	0.057	1.306	0.192	Rejected
Outcome expectations→E-entrepreneurial intention	0.187	0.074	2.508	0.012	Accepted

Source: own study.

Entrepreneurial education positively impacts students' expected outcomes, attitudes, and EEI. In more detail, entrepreneurial education strongly contributes to students' positive attitudes ($\beta=0.565$). This result is similar to the findings of Wardana *et al.* (2020). Specifically, after undergoing entrepreneurial education, students can form their attitudes, which is the basis for promoting EEIs (Wardana *et al.*, 2021). In addition, individuals experiencing entrepreneurial education can build outcome expectations of e-entrepreneurial behaviour more effectively ($\beta=0.509$). Through activities in e-entrepreneurship training, individuals can visualise the possible outcomes of e-entrepreneurial behaviour (Liñán, 2008).

The role of self-efficacy in moderating the relationship between attitude and EEI was supported ($p=0.012$, $\beta=0.117$). When individuals are confident in their abilities, their EEI also becomes stronger (Liu *et al.*, 2019). At the same time, one's subjective estimate of the success of e-entrepreneurial behaviour also became more positive. From there, it can enhance students' positive attitudes toward the EEI. This result is consistent with the current context of Vietnam. Specifically, entrepreneurship among Vietnamese students is gradually becoming a trend (Yang, 2019). Therefore, equipping entrepreneurship skills is also considered indispensable. At the same time, e-entrepreneurial is considered less risky and more straightforward to enter than traditional methods (Al Omoush *et al.*, 2018). Thus, it can be assumed that EEI will be less risky, increasing self-efficacy, and ultimately increasing the EEI.

Last, self-efficacy is a vital concept in explaining outcome expectations (Lent *et al.*, 1994) as well as entrepreneurial intention (Neneh, 2022). However, the hypothesis of moderating self-efficacy on the relationship between outcome expectations and EEI was rejected ($p=0.192>0.05$). Vietnam’s culture respects the community and does not overemphasise the power of the individual. Therefore, Vietnamese students often do not have self-efficacy when talking about the outcomes they can achieve in the future. Subsequent studies must examine and interpret this unexpected result in multiple contexts to better understand this moderating relationship’s influence.

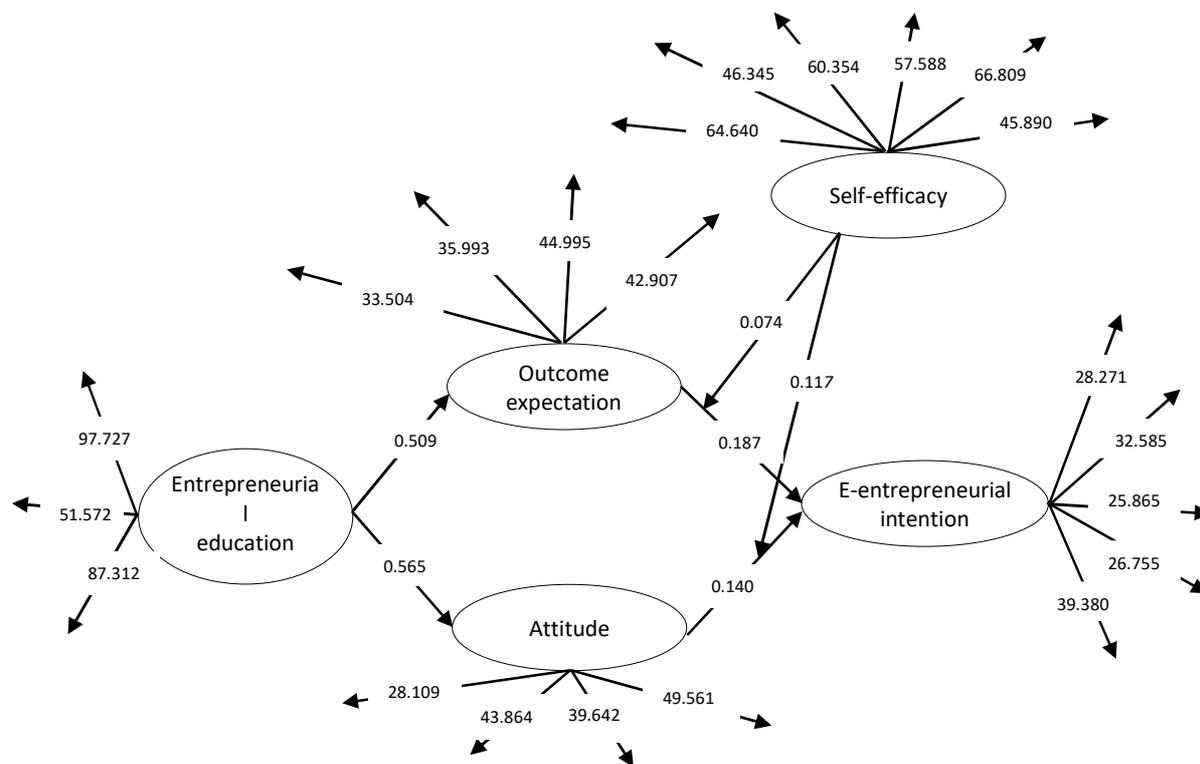


Figure 2. Analysis results
Source: own elaboration.

CONCLUSIONS

Our research results highlighted that entrepreneurship education strongly impacts students’ intention to be entrepreneurial. According to Wach and Wojciechowski (2016), building an appropriate education system to stimulate entrepreneurship plays an important role in the economy. Therefore, universities must focus on combining theoretical equipment and practical student skills. In addition to transmitting existing knowledge, universities also need to pay attention to creating activities that stimulate creative thinking in students.

Outcome expectations directly influence the formation of EEI. Universities need to understand students’ expectations of e-entrepreneurship. It is the basis for effective expectation management (Wardana *et al.*, 2020). Besides, attitude also predicts EEI. Specifically, most respondents confirmed that they would have the e-entrepreneurial starting as soon as they had the opportunity. Therefore, universities must strengthen connections with businesses and organisations that support start-ups so that students are more aware of e-entrepreneurship and the benefits of this behaviour.

In this study, self-efficacy was considered the critical point of the intersection of SCT and TPB. Moreover, this study also identified a moderating role of self-efficacy in the formation of e-entrepreneurial intention, in addition to other roles discovered in previous studies such as direct effects (Alzamel *et al.*, 2020) or mediate effects (Batool *et al.*, 2015). This shows that to improve students’

attitudes towards e-entrepreneurship, the university needs to help students to have strong self-efficacy. Starting an e-business is not easy (Mahajan & Venkatesh, 2000), thus, universities must better prepare learners with the knowledge and expertise to control their EEs. In addition, students must be helped to realise their abilities truly. Therefore, universities must combine theory and practice for students to use their skills more effectively.

The article examined the relationship between entrepreneurial education, outcome expectations, attitudes, and self-efficacy towards EEI. The research results contribute to an incomplete theoretical system of e-entrepreneurial meaning. Besides, universities can apply research results to promote EEI among students. Although there were essential contributions in both practice and theory, the research still faces certain limitations. Firstly, the scope of the study was confined to Ho Chi Minh City, leading to a decrease in representativeness. Besides, the study was not able to test for differences in cultural factors (Wardana *et al.*, 2021) or geographical factors (Hatak *et al.*, 2015).

Secondly, the direct relationship between entrepreneurial education and EEI was not examined. Entrepreneurial education is considered the predictor of entrepreneurial intention (Zhang *et al.*, 2014). Its role is also demonstrated by Soomro and Shah (2022). Therefore, future studies should also consider this relationship. Thirdly, the relationship between working environment factors and each person's individuality was not clearly shown. Environmental factors in research on entrepreneurial intention are often considered perceived social support (Neneh, 2022) or institutional environment (Díaz-Casero *et al.*, 2012). Future studies may consider testing a better research model that combines subjective and contextual factors. Finally, the survey used the convenience sampling method for collecting data, so the common variance bias may happen, and whether the participant was correct or not was not checked. Further studies should use probabilistic sampling methods to improve the test's reliability.

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Authors

The contribution share of authors is equal and amounted to 33.3% for each of them. Minh Pham – methodology, data analysis, Bao Quoc Lam – conceptualisation, literature writing, Vi Phuong Tran Le – discussion writing, article editing.

Minh Pham

PhD in Business Administration (2019). Vice Head of Administration Department, Ho Chi Minh City Open University. His research interests include social marketing, entrepreneurship, and supply chain management.

Correspondence to: Minh Pham, PhD, Department of Administration, Faculty of Business Administration, Ho Chi Minh City Open University, 35 – 37 Ho Hao Hon, Ho Chi Minh City Vietnam, email: minh.p@ou.edu.vn

ORCID  <http://orcid.org/0000-0003-4200-0810>

Bao Quoc Lam

Final year student in International Business Administration. Researcher at Ho Chi Minh City Open University. His research interests include career behaviour and entrepreneurship.

Correspondence to: Bao Quoc Lam, Faculty of Business Administration, Ho Chi Minh City Open University, 35 – 37 Ho Hao Hon, Ho Chi Minh City Vietnam, email: 1954082006bao@ou.edu.vn

ORCID  <http://orcid.org/0000-0002-0438-9629>

Vi Phuong Tran Le

Master student in Business Administration. Researcher at Ho Chi Minh City Open University. Her research interests include career behaviour and sustainable human resource management.

Correspondence to: Vi Phuong Tran Le, School of Advance Study, Ho Chi Minh City Open University, 35 – 37 Ho Hao Hon, Ho Chi Minh City Vietnam, email: phuongvile1104@gmail.com

ORCID  <http://orcid.org/0000-0002-9756-7219>

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Conflict of Interest

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