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CÁC NHÂN TỐ ẢNH HƯỞNG TỚI Ý ĐỊNH KHỞI NGHIỆP CỦA SINH VIÊN VIỆT NAM

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Tóm tắt

Hoạt động khởi nghiệp của sinh viên đóng vai trò then chốt trong quá trình hiện thực hóa tầm nhìn trở thành “quốc gia khởi nghiệp” của Việt Nam. Do đó, cần xác định các yếu tố chính tác động tới ý định khởi nghiệp của sinh viên. Tồn tại nhiều nghiên cứu về đề tài này, tuy nhiên, còn ít bài viết phân tích sâu về ảnh hưởng trực tiếp gián tiếp của giáo dục tới ý định khởi nghiệp. Để lấp đầy khoảng trống nghiên cứu, các tác giả áp dụng lý thuyết hành vi hoạch định của Ajzen và Fishbein (1980) và bổ sung biến mới là giáo dục khởi nghiệp. Bảng hỏi được phân phát trực tuyến tới sinh viên Việt Nam tại 47 trường đại học. Sau đó, 200 phản hồi hợp lệ được phân tích bằng mô hình cấu trúc tuyến tính bình phương nhỏ nhất từng phần (PLS-SEM). Kết quả cho thấy tác động tích cực của mọi nhân tố ảnh hưởng với ý định khởi nghiệp; trong đó, giáo dục tác động gián tiếp hoàn toàn thông qua hai biến trung gian thái độ và nhận thức kiểm soát hành vi. Từ đó, nghiên cứu đề xuất phương hướng hành động cho sinh viên, trường đại học, chính phủ và xã hội.

Từ khóa: Giáo dục khởi nghiệp, ý định khởi nghiệp, sinh viên khởi nghiệp, lý thuyết hành vi hoạch định.

ANTECEDENTS OF ENTREPRENEURIAL INTENTION AMONG VIETNAMESE STUDENTS

Abstract

Students' entrepreneurial activities play a pivotal role in helping Vietnam accomplish the vision of becoming a “start-up nation.” Therefore, it is necessary to identify key factors affecting the graduates' intention to start their own businesses. There has been vast literature on this topic; however, few studies have closely analyzed the direct and indirect impact of education on entrepreneurial intention. By employing the theory of planned behavior proposed by Ajzen and Fishbein (1980) with the addition of entrepreneurial education as a new variable, this paper attempted to fill this research gap. An online questionnaire was distributed to Vietnamese students

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in 47 universities and received 200 valid responses, which were then analyzed with the PLS-SEM method. The results revealed positive relationships between all antecedents and students' intention to start up, with the impact of education fully mediated by attitude and perceived behavioral control. Practical implications and suggestions for different stakeholders, namely students, universities, the government and the society, were subsequently offered.

Keywords: Entrepreneurial education, entrepreneurial intention, students' entrepreneurship, theory of planned behavior.

1. Introduction

Entrepreneurship is regarded as one of the most effective strategies for a country to attain economic prosperity and sustain its competitiveness in the face of globalization (Keat, Selvarajah & Meyer, 2011). This, in turn, has made it become one of most popular research topics in academic circles (Lee, Chang & Lim, 2005). Amongst groups of potential entrepreneurs, university students are pivotal as they play the role of both backups for current entrepreneurs and springboards for future employment, particularly for high-tech industries in developing nations such as Vietnam (Rasli *et al.*, 2013). For that reason, it is essential for policymakers to thoroughly understand the key factors to graduates' decisions to start their own businesses since they can base on such insightful knowledge to implement appropriate policies to influence students' behaviors. Once students are increasingly interested in running their own companies, a country's economy will unequivocally improve as a whole.

So far, there have been merely a limited number of studies on entrepreneurial intention in Vietnam. Most researchers (Bui *et al.*, 2020) supported the notion that attitude toward entrepreneurship and perceived behavioral control are positively correlated with entrepreneurial intention of Vietnamese students. Education has also been proved by various studies such as those of Diep *et al.* (2019) and Bui *et al.* (2020) to exert a positive impact on Vietnamese students' desire to start their own businesses. Nevertheless, few studies have taken a closer look at the relationship between education and such variables as attitude toward entrepreneurship, subjective norms and perceived behavioral control; in other words, the indirect effect of education on entrepreneurial intention. Meanwhile, the influence of subjective norms on startup decisions is yet to be confirmed due to mixed results. This study attempts to fill these gaps in the existing literature by examining the effects that attitude towards entrepreneurship, subjective norms, perceived behavioral control, and entrepreneurial education have on Vietnamese students' intention to start up, as well as the possible relationships between education and the other antecedents.

The research would first provide a brief summary of previous studies on entrepreneurial intention before elaborating on the methodology and research results. Subsequently, a detailed explanation of the results and practical suggestions would be presented.

2. Literature Review

2.1. Theoretical framework: the theory of planned behavior

In this study, the authors examined Vietnamese university students' entrepreneurial intention, which could lead to their creations of business start-ups. Since the main objective was analyzing intention and behavior, the theory of planned behavior (TPB) proposed by Ajzen and Fishbein (1980) was employed. In summary, the TPB suggests that favorable attitude and subjective norms

towards a behavior, together with a high degree of perceived behavior control, can strengthen one's intention to perform the behavior in question (Ajzen, 1991).

Numerous studies on students' entrepreneurial intention have also employed the TPB (Adekiya & Ibrahim, 2016; Mamun *et al.*, 2017). These studies analyzed the link between entrepreneurial education and business start-up intention, as education programs are seen to equip students with knowledge and competencies that induce their intention towards venture creation (Mamun *et al.*, 2016). Therefore, in this paper, besides the three aforementioned constructs of the TPB model, the role of entrepreneurial education was also examined.

2.2. Definitions and Hypotheses Development

2.2.1. Entrepreneurial intention

Intention is considered the key to understanding the process of business startups (Astorga & Martinez, 2014), the primary and strongest predictor of entrepreneurial behavior (Molaei *et al.*, 2014). Numerous intention models have been proposed in past literature, the majority of which were constructed by variables related to behavioural and psychological characteristics (Valencia-Arias, Montoya & Montoya, 2018). From the behavioral approach, most models include three constructs namely personal attitude, subjective norms and perceived behavioural control (Zapkau *et al.*, 2015), and their articulation contributes to understanding the entrepreneurial intention (Kubberød & Pettersen, 2017).

2.2.2. Attitude towards entrepreneurship

In entrepreneurship context, an attitude refers to the extent to which one perceives entrepreneurial behaviour and its consequences as valuable, beneficial and favourable (Ajzen, 2002). Past literature has measured attitude in different ways. Jena (2020) examined entrepreneurial attitude by the cognitive, affective and behavioral components. Fenech, Priya and Ivanov (2019) identified the need for achievement, behavioral control, innovation and self-esteem as the components of entrepreneurial attitude, while Mamun *et al.* (2017) studied attitude through two entrepreneurial traits - innovativeness and risk-taking propensity. Empirical studies have revealed that attitude strongly and positively influenced entrepreneurial intention (Mamun *et al.*, 2017; Jena, 2020). In our study, we followed the definition of entrepreneurial attitude proposed by Ajzen (2002). Based on the theory and the literature, we proposed the following hypothesis:

H₁: Positive attitude towards entrepreneurship positively impacts entrepreneurial intention among Vietnamese students.

2.2.3. Subjective norms

According to Ajzen (1987), subjective norms refer to an individual's perception of the social pressures for or against the performance of certain behaviors. Such pressures usually originate from those considered important to an individual's life, such as their friends, family and teachers. The underlying determinants of subjective norms are normative beliefs about the likelihood of these significant people supporting or opposing a particular action (Veciana, Aponte & Urbano, 2005). A vast literature on entrepreneurship also found that subjective norms are positively related to intention (Wu & Wu, 2008; Mamun *et al.*, 2017). Empirical studies on venture creation among young Australians by Keat, Selvarajah & Meyer (2011), and among Malaysian students by Mamun *et al.* (2017) also confirmed this relationship. In this study, we also employed Ajzen's (1987) definition and proposed the following hypothesis:

H2: Acceptance of entrepreneurship by subjective norms positively impacts entrepreneurial intention among Vietnamese students.

2.2.4. Perceived behavioral control

According to Ajzen (1991), perceived behavioral control refers to one's perception of the degree of difficulty related to performing a behavior, which reflects past experiences and anticipated impediments. Perceived behavioral control is quite similar to self-efficacy, a concept referring to one's perception of their own capabilities to perform a behavior (Ajzen, 1987). Self-efficacy is also a crucial determinant of the strength of both entrepreneurial intention and behaviors (Boyd and Vozikis, 1994). With regard to entrepreneurship, Krueger (1993) found that the perceived feasibility of successfully launching a business serves as a significant predictor of forming business intent. Mamun *et al.* (2017) asserted a positive and significant effect of perceived behavioral control on business intention, derived from government support, family support, entrepreneurship development programs and quality entrepreneurial education services. In our study, we used the definition as Ajzen's (1991). Therefore, we proposed the following hypothesis:

H3: High perceived behavioral control regarding entrepreneurship positively impacts entrepreneurial intention among Vietnamese students.

2.2.5. Entrepreneurial education

A vast literature has found that the introduction of entrepreneurship concepts and approaches in higher education can influence students' perception of entrepreneurship as well as of other job options. (Kubberød & Pettersen, 2017). Entrepreneurial education increases both students' entrepreneurial competencies and self-employment intention (Sánchez, 2013). It is seen to equip students with the skills and knowledge required to successfully run businesses and seize entrepreneurial opportunities (Keat, Selvarajah & Meyer, 2011). Fenton & Barry (2014) indicates that by cultivating a business mindset in students, entrepreneurial education is the most effective way to nurture an entrepreneurial culture and increase the future supply of entrepreneurial graduates. However, a study on Vietnamese students' entrepreneurial intention by Tran *et al.* (2017) rejected the influence of educational support on attitude towards business.

Amidst mixed results, we proposed the following hypothesis:

H4: Entrepreneurial education in university positively impacts entrepreneurial intention among Vietnamese students.

In addition, various studies (Liñán & Chen, 2006) showed that the predictors in the TPB model are also influenced by situational factors and demographic variables such as educational background. Therefore, in our study, we also examined the impacts of entrepreneurial education on students' attitude, subjective norms and perceived behavioral control regarding business startups intention.

In terms of attitude, several studies have found that formal entrepreneurial education has a significant impact on students' entrepreneurial attitude over time (Jena, 2020). Specifically, undergraduates who are exposed to entrepreneurial education develop a more positive attitude to pursuing entrepreneurial careers (Wu & Wu, 2008; Mamun *et al.*, 2016). By cultivating an attitude of innovation, achievement, self-esteem, educators can change students' perception and feeling of entrepreneurship - in other words, their attitude towards this matter. By providing necessary knowledge and skills, entrepreneurial education promotes students' engagement in entrepreneurial

ventures (Wei, Liu & Sha, 2019). Thus, we also proposed a hypothesis consistent with previous research:

H5a: Entrepreneurial education in university positively impacts attitude towards entrepreneurship among Vietnamese students.

Various studies on the relationship between entrepreneurial education and subjective norms have yielded diverse results. Wei, Liu & Sha (2019) concluded that by improving students' skills, knowledge and belief, entrepreneurial education encourages students' subjective norms as well as their intention of venture creation. Nevertheless, some early researchers (Autio *et al.*, 2001) found that the correlation between subjective norms and entrepreneurial intention tended to be weak. Maresch *et al.* (2016) even found a negative relationship between entrepreneurial education and subjective norms regarding science and engineering students, whereas that effect is not apparent among the business student sample. From that basis, we proposed the following hypothesis:

H5b: Entrepreneurial education in university positively impacts perceived acceptance by social norms among Vietnamese students.

Not many studies have directly examined the influence of entrepreneurial education on perceived behavioral control; however, the relationship can be logically induced from past literature. Sánchez (2013) indicates that entrepreneurship-specific competencies can be influenced by entrepreneurship-specific education. This was consistent with the study by Keat, Selvarajah & Meyer (2011), which concludes that quality entrepreneurial education equips students with entrepreneurial competencies that will help them in their entrepreneurial careers. A recent study by Mamun *et al.* (2017) also indicated the significant contribution of government and family support, entrepreneurial developmental initiatives, and entrepreneurial education service quality to perceived behavioral control, which is the determinant of business startup intention. Therefore, it is logical to induce a relationship between entrepreneurial education programs and perceived behavioral control, hence the proposal of the following hypothesis:

H5c: Entrepreneurial education in university positively impacts perceived behavioral control regarding entrepreneurship among Vietnamese students.

3. Methodology

3.1. Data collection method

This paper employed a causal design with a quantitative approach. The research instrument was an online questionnaire with 28 items measured on a 5-point Likert scale, with 1 being "Totally disagree" and 5 representing "Totally agree". The scales for attitude (ATT), subjective norms (NOR) and perceived behavioral control (CON) were adopted from Lorz's (2011), while entrepreneurial education (EDU) was measured according to Abdullah (2006) and Jaafar & Aziz (2008). Measurements proposed by Liñán & Chen (2006) and Malebanas (2013) were used for the entrepreneurial intention (INT) construct. Items were translated into Vietnamese and modified to better fit the research context. The authors subsequently distributed the questionnaire to Vietnamese students studying in both domestic and foreign universities via Google form, with a focus on the former group. Over two days from 27 to 28 April 2021, the survey received 200 valid responses.

3.2. Data analysis method

The primary data was then analyzed with Partial Least Squares Structural Equation Modelling (PLS-SEM). This model allows estimating complex causal relationships between latent variables

by maximizing the explained variance of the dependent latent constructs (Hair, Ringle & Sarstedt, 2011). Due to the short data collection timespan and convenience sampling method, small sample size and non-normality were expected. Moreover, the structural model was quite complex, serving the research objective of exploring theoretical extensions of previous studies. Hair *et al.* (2019) argued the suitability of PLS-SEM in such situation. SmartPLS version 3.3.3 was utilized to analyze the model.

3.3. Validity and reliability of the measurement models

The authors used Cronbach's alpha and composite reliability (CR) to test the internal consistency of the measurement models. The conditions are having a Cronbach's alpha between 0.70 and 0.95 (Nunnally, 1978) and a composite reliability above 0.80 (Netemeyer, Sharma & Bearden, 2003). Average variance extracted (AVE) was used to test convergent validity, with values equal to or greater than 0.50 considered acceptable (Fornell and Larcker, 1981). Discriminant validity was assessed with cross loadings and the Fornell - Larcker criterion. All indicators' outer loadings on their corresponding construct should be the greatest, and to satisfy Fornell & Larcker's (1981) criterion, the AVE of a latent variable must be higher than the squared correlations between it and other constructs. All requirements for internal consistency, convergent validity and discriminant validity were met. The results are presented in Table 1 and Table 2.

Table 1. Internal consistency, convergent validity, and Fornell - Larcker's criterion for the measurement models (N = 200)

	Cronbach's α	CR	AVE	ATT	NOR	CON	EDU	INT
ATT	0.794	0.867	0.627	0.792				
NOR	0.820	0.881	0.649	0.508	0.806			
CON	0.883	0.915	0.682	0.436	0.323	0.826		
EDU	0.880	0.905	0.577	0.270	0.190	0.558	0.792	
INT	0.912	0.930	0.627	0.657	0.466	0.629	0.405	0.806

Note: the square root of each construct's AVE is given in bold and italics. All statistics are significant at the 1% level.

Source: Authors' calculation (SmartPLS output)

Table 2. Cross loadings report (N = 200)

	ATT	NOR	CON	EDU	INT
att1	0.573	0.213	0.374	0.200	0.340
att2	0.816	0.401	0.358	0.244	0.503
att3	0.853	0.484	0.313	0.213	0.596
att4	0.886	0.460	0.366	0.208	0.600
nor1	0.315	0.749	0.266	0.102	0.350
nor2	0.482	0.828	0.232	0.125	0.370
nor3	0.372	0.775	0.200	0.201	0.294

	ATT	NOR	CON	EDU	INT
nor4	0.456	0.867	0.325	0.180	0.464
con1	0.374	0.289	0.814	0.429	0.516
con2	0.438	0.341	0.847	0.401	0.586
con3	0.298	0.210	0.840	0.505	0.486
con4	0.298	0.160	0.792	0.505	0.464
con5	0.390	0.330	0.834	0.463	0.545
edu1	0.279	0.174	0.584	0.811	0.397
edu2	0.190	0.198	0.482	0.824	0.303
edu3	0.113	0.081	0.356	0.703	0.214
edu4	0.285	0.166	0.431	0.684	0.429
edu5	0.187	0.091	0.333	0.766	0.248
edu6	0.127	0.101	0.326	0.761	0.196
edu7	0.161	0.141	0.309	0.758	0.238
int1	0.471	0.305	0.497	0.292	0.765
int2	0.499	0.373	0.579	0.379	0.842
int3	0.610	0.358	0.486	0.314	0.821
int4	0.570	0.387	0.532	0.388	0.871
int5	0.607	0.407	0.537	0.367	0.902
int6	0.416	0.397	0.545	0.355	0.691
int7	0.502	0.420	0.467	0.270	0.796
int8	0.472	0.299	0.310	0.161	0.607

Note: all statistics are significant at the 1% level.

Source: Authors' calculation (SmartPLS output)

4. Results

4.1. Descriptive statistics

4.1.1. Sample characteristics

The questionnaire received a total of 200 responses from Vietnamese students in 47 different universities (Table 3). As the convenience sampling method was used, a sizeable portion of the observations were third-year students in Foreign Trade University.

Table 3. Sample characteristics (N = 200)

	N	%
Total	200	100.00

	N	%
Gender	200	100.00
Male	61	30.50
Female	137	68.50
Do not want to disclose	2	1.00
University	200	100.00
FTU	85	42.50
NEU	16	8.00
HLU	6	3.00
Others	93	46.50
Year	200	100.00
1 st Year	26	13.00
2 nd Year	21	10.50
3 rd Year	112	56.00
4 th Year	27	13.50
Others	14	7.00
Economics/Business-related Major	200	100.00
Yes	137	68.50
No	63	31.50

Source: Authors' calculation

4.1.2. Constructs' descriptive statistics

All constructs enjoyed low standard deviations. The expected lack of normality could be observed here, as there was skewness to the left in the attitude and the subjective norms constructs. Attitude towards entrepreneurship and subjective norms were rated quite high, while perceived behavioral control fell below average. Entrepreneurial education and intention to start up lay slightly above average.

Table 4. Constructs' descriptive statistics (N = 200)

	M	SD	Range	Min	Max	N	95% CL
ATT	3.87	0.76	3.25	1.75	5.00	200	0.11
NOR	3.85	0.76	3.27	1.73	5.00	200	0.11
CON	2.69	0.94	4.00	1.00	5.00	200	0.13
EDU	3.03	0.91	4.00	1.00	5.00	200	0.13
INT	3.18	0.95	4.00	1.00	5.00	200	0.13

Source: Authors' calculation

4.2. The structural model

The direct relationships between latent constructs are illustrated in Figure 1. Attitude and perceived behavioral control had medium positive effects on entrepreneurial intention ($\beta = 0.415$ and $\beta = 0.375$ respectively). Subjective norms positively impacted intention to a smaller degree ($\beta = 0.123$). Education slightly affected attitude and subjective norms ($\beta = 0.270$ and $\beta = 0.190$ respectively) and largely increased perceived behavioral control ($\beta = 0.558$). There were no direct statistically significant relationships between education and entrepreneurial intention ($\beta = 0.061$, $p = 0.248$). The values of adjusted R^2 for endogenous constructs are given inside their representative circles.

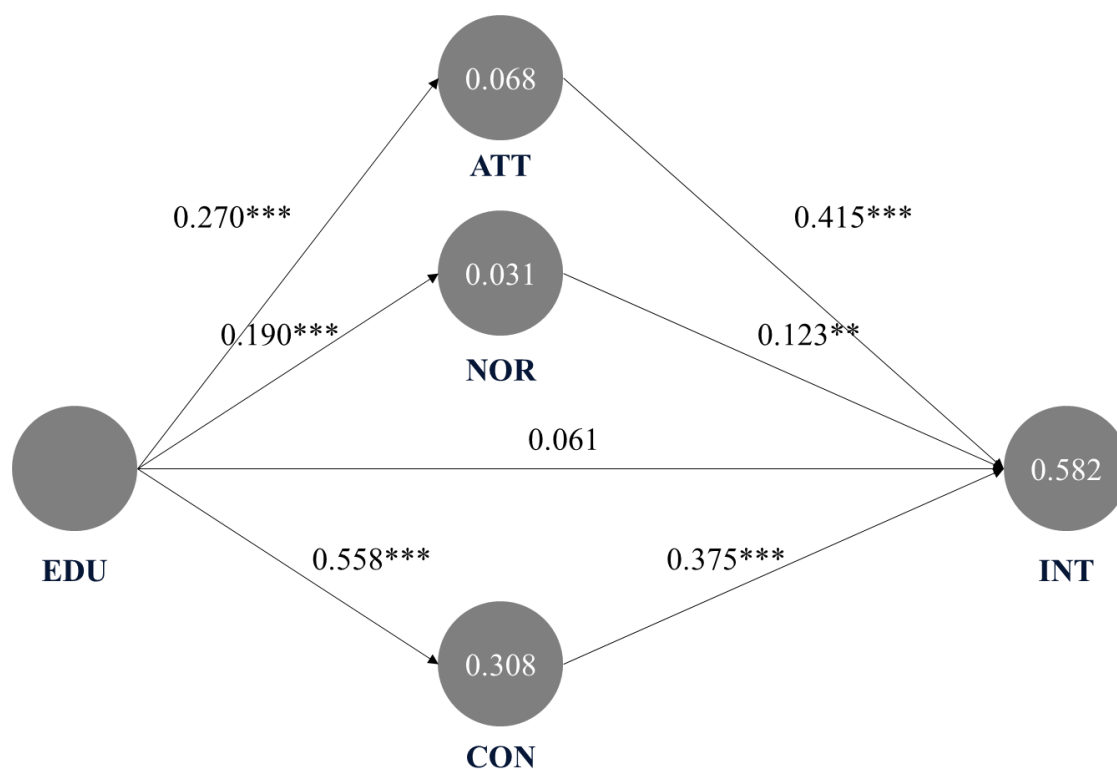


Figure 1. Direct relationships between latent constructs (N = 200)

Note: ***: $p \leq 0.01$; **: $p \leq 0.05$

Source: Authors' calculation (SmartPLS output)

The mediation effects were also evaluated. It was revealed that the impact education had on entrepreneurial intention was fully mediated by attitude and perceived behavioral control, while subjective norms played no role in mediating this relationship (Table 5).

Table 5. Mediation effects (N = 200)

Total Effect			Direct Effect			Specific Indirect Effect			Type		
EDU	→	0.405***	EDU	→	0.061	EDU	→	ATT	→	0.112***	Full mediation
INT			INT			INT					

EDU INT	→	0.405***	EDU INT	→	0.061	EDU INT	→	NOR INT	→	0.023	No effect
EDU INT	→	0.405***	EDU INT	→	0.061	EDU INT	→	CON INT	→	0.209***	Full mediation

Note: ***: $p \leq 0.01$

Source: Authors' calculation (SmartPLS output)

Predictive accuracy was evaluated by using coefficients of determination (R^2) and predictive relevance (Q^2). The R^2 value of an endogenous variable indicates the degree to which it is explained by associated exogenous variables. Chin (1998) articulated the value of 0.67, 0.33 and 0.19 as substantial, moderate and weak. The results showed weak explanatory power of education regarding attitude, subjective norms, and perceived behavioral control while entrepreneurial intention could be moderately explained with this model (Figure 1). Moreover, Stone-Geisser's Q^2 value for the entrepreneurial intention construct was obtained through blindfolding with omission distance $D = 7$. In this model, the entrepreneurial intention construct enjoyed a $Q^2 = 0.361$, which is greater than 0, suggesting predictive relevance (Stone, 1974; Geisser, 1974).

5. Discussion

H₁ was confirmed as positive attitude towards entrepreneurship had a positive direct effect on entrepreneurial intention. The statistic was significant at the 1% level ($\beta = 0.415$, $p < 0.001$), and the effect size ($f^2 = 0.277$) was medium according to Cohen (1988). This is similar to the findings of studies conducted on Indian students by Jena (2020), Chinese students by Wu & Wu (2008), and students from other developing countries. This indicates that positive attitude was an important determinant of entrepreneurial attitude in emerging countries in general.

Vietnamese government and the startup ecosystem seem to be doing well in forging a positive image of entrepreneurship. Judging only from the data collected in our survey, Vietnamese students on average had a high regard for entrepreneurship ($M = 3.87$). It should be noted that the responses were collected from students mostly with economics/business backgrounds, thus generalization must be done with caution.

Subjective norms regarding entrepreneurship also had a positive direct effect on entrepreneurial intention, which confirmed H₂. The statistic was significant at the 5% level ($\beta = 0.123$, $p = 0.022$). This is consistent with several prior studies (Wu & Wu, 2008). However, the effect size ($f^2 = 0.027$) was only small according to Cohen (1988). One possible explanation for this is that entrepreneurs are typically pioneers, thus are less prone to be affected by what other people are supporting or opposing.

Among respondents, descriptive statistics showed that the positive statements regarding social norms were mostly agreed to, with a mean score of 3.85. It is notable that the mean score for the statement regarding parents' approval was lower than those regarding friends' and others' approval. This signals a generation gap in mindsets and values: parents tend to hope that their children have a stable job and income stream, while young people are more open to embrace the notion of starting a business and taking more risks in hope of a higher reward. Again, selection bias must be considered when interpreting the statistics.

H₃ was also accepted. Perceived behavioral control had a positive direct impact on entrepreneurial intention. The statistic was significant at the 1% level ($\beta = 0.375, p < 0.001$), and the effect size ($f^2 = 0.203$) was medium. This confirms the findings of previous studies.

Descriptive statistics on perceived behavioral control achieved the lowest average score out of all variables ($M = 2.69$). This suggests that among students with mostly economics/business backgrounds, the notion of starting a business and making it viable is still perceived to be difficult, if not impossible. According to Mamun *et al.* (2017), perceived behavioral control on business intention was derived from government support, family support, entrepreneurship development programs and quality entrepreneurial education services. This indicates that there is insufficient support for Vietnamese students to foster entrepreneurship.

Entrepreneurial education in university did not have a direct effect on entrepreneurial intention ($\beta = 0.061, p = 0.248$) but H₄ was still accepted. This is because there was an indirect effect mediated by positive attitude and perceived behavioral control with full mediation (significant at the 1% level) and no mediation regarding social norms. The result was a positive total effect with a moderate size ($\beta = 0.405, p < 0.001$). This finding is in line with most prior studies, such as those of Sánchez (2013) or Fenton & Barry (2014) but contradicts the study on Vietnamese students by Tran *et al.* (2017). Further research should be conducted to understand the relationship between the two variables, since our own study has some drawbacks that can distort the truth.

H_{5a} was confirmed as entrepreneurial education had a positive impact on attitude towards entrepreneurship. The statistic was significant at the 1% level ($\beta = 0.270, p < 0.001$), and the effect size ($f^2 = 0.079$) was small. The result is consistent with earlier studies such as those by Wu & Wu (2018) and Kassean *et al.* (2015). A plausible explanation is formal education provides a structured and inspirational way for students to view entrepreneurship in a positive light.

Entrepreneurial education positively impacted subjective norms regarding entrepreneurship, confirming H_{5b}. The statistic was significant at the 1% level ($\beta = 0.190, p = 0.009$), and the effect size ($f^2 = 0.037$) was small. The result is similar to the previous research of Autio *et al.* (2001), which found that the relationship between subjective norm and entrepreneurial intention tended to be very weak. A possible explanation is that entrepreneurial education mostly targets young people, who only make up a part of the social norms and acceptance of entrepreneurship, hence the effect of education is not fully realized when it comes to social norms.

Entrepreneurial education had a positive impact on perceived behavioral control regarding entrepreneurship, which was in line with H_{5c}. The statistic was significant at the 1% level ($\beta = 0.558, p < 0.001$) and notably, the effect size ($f^2 = 0.452$) was large. This demonstrates an improvement on the findings of prior studies, which have not directly examined the influence of entrepreneurial education on perceived behavioral control. For example, Sánchez (2013) indicated that entrepreneurship-specific competencies could be influenced by entrepreneurship-specific education. Entrepreneurial education could provide the foundation for students to form a belief in their ability to start and sustain a business.

Based on our results, students themselves should actively engage in the activities such as entrepreneurship sharing sessions, workshops, and seminars, which will help them cultivate an open and positive attitude towards entrepreneurship. Besides, subjective norms also positively impact entrepreneurial intention among Vietnamese students. This suggests that students should partake in clubs and organizations that support student entrepreneurial activities where they are

surrounded by advocates for their start-up decisions. In addition, in order to increase their perceived behavioral control, students are recommended to improve their knowledge and skills related to entrepreneurship via business competitions. Furthermore, since education is significant to forming business intent, students should enroll themselves in qualified entrepreneurship courses to acquire more in-depth knowledge.

As education is pivotal, universities should first design their entrepreneurship programs in a way that fosters students' positive attitude towards entrepreneurship. For instance, they can invite guest speakers who are established entrepreneurs to school to share hands-on experience in the field with the students. Another way is to incorporate innovative teaching methods into their entrepreneurship curriculum. Additionally, universities can raise perceived behavioral control through their entrepreneurship programs so that students will become more confident and take better control of the situational factors when starting their own businesses. Another suggestion for universities is to create a hub for innovation or a similar facility on campus to accommodate student entrepreneurs and startups. Finally, so as to increase subjective norms, which is students' friends' approval in this case, universities should aim to create a pro-entrepreneurship atmosphere on campus. To create this kind of atmosphere, universities can post posters of successful students' startups on the noticeboard, organize startup competitions on a regular basis, and frequently update information related to students' startups on its social platforms to raise students' overall awareness of entrepreneurship.

Our findings suggest that while students' attitude toward entrepreneurship is relatively optimistic, perceived behavioral control is below average. This calls for urgent actions from Vietnamese government. From political and legal systems standpoints, the state needs to continue to mitigate legal barriers. The government should establish more supportive legal frameworks, especially in business registration, co-founder agreement and intellectual property. Economically speaking, the policymakers need to implement fiscal and monetary policies that can stabilize the macroeconomy, control inflation, and build up business confidence. The state should also provide more grants and preferential loans as well as encourage the establishment of startups in priority industries due to limited resources. Apart from consolidating the policy system, the government's increased spending on many start-up support activities will contribute to the formation of the startup ecosystem. It is essential for the state to serve as a bridge between start-up incubators and support units to form a unified support network. Finally, it is recommended that the government improve the information system. Statistics show that more than 60% of surveyed enterprises were weak in finding customers and 42% of enterprises went bankrupt due to product problems (VCCI, 2019). Therefore, ensuring the dissemination of market information through establishing the National Innovation Startup Portal will help companies understand more thoroughly the demands of the market.

Last but not least, society is part and parcel of adjusting social norms and perceived behavioral control. First, to raise awareness, young citizens need to change their thoughts and attitude toward entrepreneurship. Although starting a business at a young age might seem difficult, they should understand that "Success is not final, failure is not fatal: it is the courage to continue that counts" (Churchill). This spirit of entrepreneurship should be widely spread in the community to ignite people's passion for entrepreneurship. Second, media and communications plays an important role in reshaping public opinion. We should use these tools to promote the openness of society to startup products, which in turn enhances student's entrepreneurial attitude. Finally, each civilian

should either enrol in entrepreneurship courses or educate themselves on the importance of entrepreneurship, hence adopting a more positive attitude towards business startups.

6. Conclusion

While there have been earlier research papers applying the TPB to analyze entrepreneurial intention of Vietnamese students and investigating the plausible effects of entrepreneurial education, our study aims to not only reaffirm prior results but also expand the scope of previous articles by testing the relationships between education and the other three antecedents of entrepreneurial intention.

With the application of PLS-SEM, our findings indicate that positive attitude toward entrepreneurship, subjective norms and perceived behavioral control all positively influenced entrepreneurial intention among Vietnamese students. On the other hand, all three constructs were directly and positively affected by entrepreneurial education in university. Education also exerted a positive indirect impact on entrepreneurial intention fully mediated by positive attitude and perceived behavioral control.

Based on the results and implications, we proposed some suggestions for further entrepreneurship development in Vietnam. For students, it is recommended that they should engage more in entrepreneurial activities as well as clubs and organizations, join business competitions and improve their knowledge and skills through either high-quality entrepreneurship courses on campus or free online courses offered by prestigious institutions. Meanwhile, universities can encourage students' entrepreneurship by inviting guest speakers, integrating state-of-the-art teaching methodologies in the classroom or creating a pro-entrepreneurship atmosphere on campus with start-up posters, frequent competitions and business-related information. Besides, Vietnamese governmental support is indispensable. Specifically, the policymakers should reduce legal barriers, stabilize the economy, channel more financial resources to start-up activities and improve the information system. Finally, it would be an oversight to ignore the role of the society as a whole. Public opinion regarding entrepreneurship should be altered through education and we should capitalize on the merits of media and communications to spread entrepreneurial spirit in the community.

However, our study still has some limitations. Due to the convenience sampling method, a sizable portion of the samples were clustered in third-year students in Foreign Trade University. Therefore, future studies are recommended to include an exhaustive list of universities to assure the representativeness of the results. Besides, the study might accidentally omit some exogenous variables that could have considerable effects on entrepreneurial intention, which might lead to omitted variable bias. Also, the survey may have elicited self-reported answers from students who might not have thorough understanding of entrepreneurship, which may have influenced the accuracy of the findings.

Nonetheless, this study contributes to the existing research stream of entrepreneurial intention amongst young citizens, particularly Vietnamese students. From an academic perspective, our study has further investigated the indirect effect of education on entrepreneurial intention through such factors as attitude towards entrepreneurship, perceived behavioral control and subjective norms. Stakeholders can base on this insightful knowledge to take necessary measures. As regards practical contribution, we have proposed viable solutions for students, universities, the government and the society as a whole. Therefore, this study could serve as a useful reference for policy

implementation and further studies with a view to assisting developing nations such as Vietnam to escape the middle-income trap and become a high-tech industrialized country.

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