

The impact of entrepreneurial education on entrepreneurial intention: The case of Vietnamese

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ABSTRACT

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The objective of this paper was to assess the impact of entrepreneurial education on entrepreneurial intention on students in the North of Vietnam, through two mediating variables; namely entrepreneurship passion and entrepreneurial self-efficacy. The study was conducted on 688 students from both economic and technical university in the Northern region of Vietnam. Data collected using SPSS 22 and Smart PLS 3.0 software shows that entrepreneurial education had a strong impact on entrepreneurial intention in the North of Vietnam. At the same time, entrepreneurial education also had a positive impact on entrepreneurship passion and Entrepreneurial self-efficacy. Time and Team Cooperation maintained a statistically significant moderate role on the relationship between entrepreneurial education and entrepreneurial intention of students in the North of Vietnam.

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1. Introduction

In a global shift from a resource-based economy to a knowledge-based economy, along with the explosion of information technology and the Industrial Revolution 4.0, innovative startups play an important role for development of economy (Ahmed, 2010; Adam et al., 2015). The leverage for creative and competitive capacity is a strong driving force for economic growth and development. At the same time, innovative startups have been contributing to create national police for jobs and addressing global environmental and climate change as social issues. Innovative startup is an enterprise that is capable of applying new technology ideas, with an innovative business model to create potential for rapid growth and take risks to launch new products and services.

Starting a business has been a topic of increasing interest. In this context, many different expectations have been reconnected to serve the goals of macroeconomic development: the main concerns are to increase the potential number of people interested in starting a business. Start-up plans stimulate entrepreneurship and ultimately ensure the survival and growth of startup projects (successful businesses). Start-ups have always played an important role in the global economy, but recently their importance has grown significantly. For this reason, governments around the world have revised their regulations and created incentives to encourage their development. However, statistics show that the initial start-up has a very high failure rate, usually due to lack of strategic planning, misleading marketing investments or inefficient resource allocation, or untrained training, knowledge and skills (Alain et al., 2006).

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Most entrepreneurial intentions are made up of highly motivated people who are more likely to succeed. Vietnamese students are greatly supported in forming startup ideas and forming entrepreneurial intentions and actions. The national startup community has a strong impact on students' entrepreneurial intent, because nowadays, training programs and entrepreneurship competitions in universities are implemented a lot. So, whether these start-up education programs have a positive impact on students' entrepreneurial intentions is an important concern. The objective of this paper is to assess the impact of start-up education on entrepreneurial intent of students in the North of Vietnam. Entrepreneurial education will increase students' passion for entrepreneurship while increasing confidence in their individual competence, which will lead to increased entrepreneurial intent for students in the North of Vietnam. The structure of the paper in addition to the introduction includes a research review, research methods, research results and conclusions.

2. Literature review

2.1. Entrepreneurial education

Entrepreneurial education is a new term different from traditional education. Vaidya et al. (2014) consider that the verb “to teach” means to lead, impart knowledge and skills to a certain content or idea, in which the verb “education” is developmental, inherent and intellectual capacity as well as the province of the learners. Start-up teaching and career education are not oriented towards the same goal. Education is more appropriate for intellectual development, personal personality and encourage them to engage in entrepreneurship, while teaching entrepreneurship is more appropriate for conveying theory and practice to entrepreneurship. Entrepreneurial education is understood as the use of lectures, curriculum and programs, events that provide students with the knowledge and skills necessary for students passionate about pursuing entrepreneurship (Meyer & Allen, 1991). According to Fayolle and Gailly (2015), entrepreneurship education is the training programs related to the skills, knowledge and ethical qualities required by entrepreneurs for learners. The acquisition of knowledge and skills related to the start-up process is a prerequisite for successful entrepreneurship for students. Traditionally, entrepreneurs are people whose genes are inherited from their parents and grandparents, but recently scientists have proven that anyone can become an entrepreneur through the education process, and training (Nnadi & Akpmi, 2005). Most studies indicate that the most comprehensive definition of entrepreneurial education is the combination of communication, skills and competencies in the whole process of entrepreneurship education (Gibb & Hannon, 2006; Ogundele et al., 2012; Bluedorn & Martin, 2008). In this study, the author uses the concept of entrepreneurship education of Alberti et al. (2004), entrepreneurship education is the transmission of knowledge about entrepreneurial competence including necessary skills, spirit the attitudes and knowledge necessary for individuals to turn start-up ideas into startup intentions and entrepreneurship behaviors.

2.2. Entrepreneurial intention

Intention is assumed to be a state of seizing the motivational factors that influence the behavior. So Entrepreneurial intention includes the factors affecting the potential of starting a business. According to Ajzen and Fishbein (1975), the intention of behavior is the subjective probability of a person to whom he will perform certain acts. Originating from the famous definition of Bird (1988) about intention, Krueger and Welpel (2014) define the intention of starting a business as a commitment to establish and own a new business. Entrepreneurial intent is defined in the study of Katz and Gartner (1988) and later by Devonish et al. (2010). Inheritance is the process of seeking information to accomplish the goal of starting a startup business. According to Armitage and Conner (2001), intention represents the motivation an individual attempt to perform an action as planned or a decision made. So, the intention to start a business is the motivation to set up a plan to take action to open a business. Thompson (2009) defines an entrepreneurial intention as an individual's affirmation of his intention to own a new business and to develop a plan to carry out this action at a certain time in the future. Therefore, the intention to start a business is not only a yes or no question but also expressed at a low to high and very high intention level. This definition is fully compatible with the view of Ajzen (1991) that the higher the intention, the greater the likelihood of committing a behavior, and therefore the intention to start a business as an intermediary or a substance and catalysts of actual action (Fayolle & Liñán, 2014). According to Popescu et al. (2016) an individual's entrepreneurial intent can be defined as a dream of starting a new business in the future. This intention also expresses the state of psychological consciousness that precedes action from the research point of view (Shook et al., 2003). The intention to start a business is considered as an important and hidden aspect of starting a business. Simply put, we can identify behavior through the discovery of the intention to perform a behavior (Ajzen, 1991; Ajzen et al., 2009; Ajzen & Fishbein, 1975). Bird (1988) also affirmed his intention to start a business setting the basis for the future start-up action. As such, studies in the world have agreed that entrepreneurship is a planned behavior, and it requires each individual's efforts to achieve it. Therefore, the intention to start a business plays a very important role in shaping entrepreneurial behavior, especially in the case of university students because they are in the future of career orientation.

2.3. The relationship between with Entrepreneurial education and Entrepreneurial intention

Kwong et al. (2012) claim that individuals with a university degree are more likely to participate in the early stages of entrepreneurship than those without a degree and become owners of high-growth companies. In addition, many studies confirm that educational attainment is crucial to entrepreneurship (Vojak et al., 2006). In particular, the research also proves that a technical education background makes it easy for individuals to have the intention to start a business and favor it called the

group “technical visionaries”. Similarly, Samantha Kumara (2012) also asserted that startup training programs have an extremely important position in creating startup individuals and promoting the environment and entrepreneurship culture for a society. De Clercq et al. (2013) cited numerous studies confirming the positive relationship between education and entrepreneurship. Kolvereid and Moen (1997) demonstrated that students attending startup programs were more likely to start a business than non-participants. Koe (2016) also affirmed that participating in training programs on entrepreneurship contributed greatly to the formation and development of student start-up intentions.

3. Research method

3.1. The context

The business environment in general and the start-up environment of Vietnamese students, in particular, have had many changes after the country joined the WTO. However, when Vietnam is open for economic integration, along with the advantage of attracting more foreign direct investment (FDI) into Vietnam, the pressure of competition between domestic enterprises and those with foreign investment is getting more and more fierce. According to the updated World Business Environment Report 2019 published in October 2018 by the World Bank (figures as of June 2018), Vietnam's business environment ranking in 2019 decreased by 6 places to #68/189 (Vietnam's ranking in 2018 has been adjusted from 76/189 to 68/189 because the WB changed the method of researching and assessing data), in which the index of Vietnamese business start-up only ranked 98/189 with 10 procedures and 32 days of implementation. Currently, Vietnamese enterprises, especially small and medium-sized enterprises, have just started their business but still have to operate in a business environment with many difficulties. Firstly, the inadequate infrastructure causes many obstacles for businesses in the business process. Although the enterprises have shifted from using manual labor to machines, the facilities and equipment are still shabby and outdated. The upgrade of Vietnam's physical infrastructure still has many shortcomings and delays, especially in developing critical infrastructures such as roads, bridges, and ferries. Secondly, there are capital difficulties. Lending capital for enterprises and production facilities to renovate technological equipment, expand production is not diversified in form and has many restrictive regulations. Entrepreneurs have creative ideas, determination, and passion but do not have enough capital needed to invest. Thirdly, there are difficulties in labor issues. The competition in attracting labor, especially the foreign-invested sector, has attracted a large number of labors in the provinces, resulting in a shortage of labor for production facilities, small and medium enterprises, both unskilled and technical labor. Although the unemployment rate is still high, the enterprises cannot find the labor force to meet the demand due to the “abundant teachers and shortage of workers”. Fourthly, there is a lack of consumer markets. This is because production is spontaneous and most enterprises do not research and do not fully understand the consumer market and the needs of the people. Besides, the interest of foreign consumers of Vietnamese consumers is one of the reasons for the country's trade deficit in recent years, causing the consumer market to be narrowed. Fifthly, counterfeit goods, pirated goods, and smuggled goods evade taxes in a significant proportion, making the business environment less healthy, causing damage to other businesses, especially small and medium-sized enterprises. Starting a business is still weak in competitiveness.

3.2. Sample

Gender of the surveyed subjects: male got 1,000 votes to collect 726 votes after sorting and dropping the unsatisfactory votes, remaining 688 valid votes (68.8%); women have 268 votes (38.95%). This disparity shows that there is an imbalance in the rate of starting a business by gender, which may partly explain the impact of cultural factors. From the gender structure as shown, most male students intend to start a business than female students. Since the survey subjects are junior and senior, the sample structure by age is mainly from 21 to 23 years old, of which 22 years old account for the largest proportion (41.82%) and 23 years old accounted for the least proportion (19.32%). To serve the multi-group analysis in the following section, the author has collected information on the training majors of students in the Northern region universities. Fig. 1 also shows that the main survey subject is the highest proportion of economic sectors that are then the basis of the technical sector, the structural nature of such a model ensures the similarity between two sectors of economic and technical sectors.

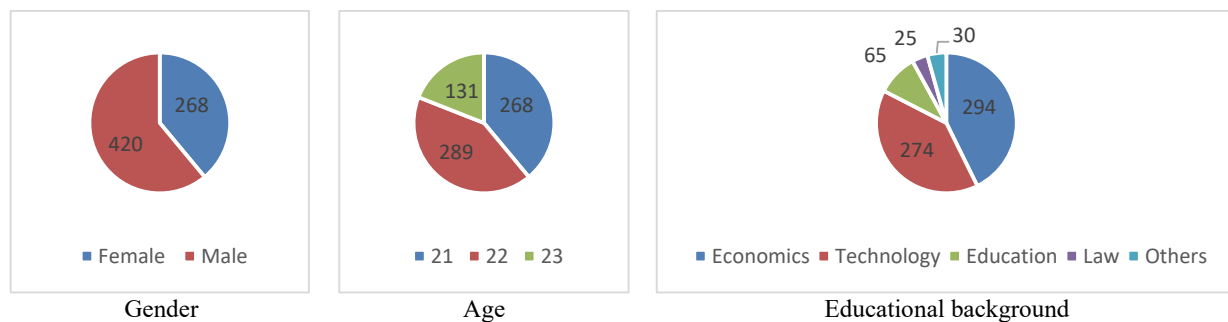


Fig. 1. Personal characteristics of the participants

3.3. Model research

Fig. 2 presents the proposed model of this survey.

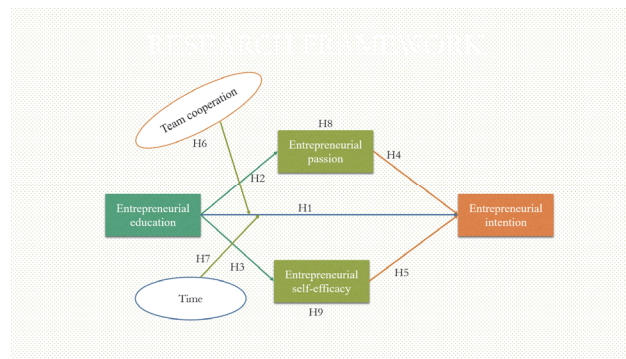


Fig. 2. Research model

All the measures used in the current study were employed from the established scale. Unless otherwise stated, respondents answered all the measures based on 5-point Likert scales, ranging from 1 “strongly disagree” to 5 “strongly agree”. Entrepreneurial education was measured by Walter and Block (2016) four-item scale. Sample item includes “My school education helped me develop my sense of initiative a sort of entrepreneurial attitude” and “My school education made me interested to become an entrepreneur”. Participants rated each item on a 5-point scale ranging from extremely disagree (=1) to extremely agree (=5). Entrepreneurial self-efficacy was measured by Tierney and Farmer (2017) four-item scale. Sample item includes “I have confidence in my ability to solve problems creatively” and “I am very good at developing another set of ideas from other people’s ideas. Entrepreneurial passion was measured by Cardon et al. (2009) 12-item scale. Sample item includes “It is exciting to figure out new ways to solve unmet market needs that can be commercialized” and “Being the founder of a business is an important part of who I am”. Entrepreneurial intention was measured by Li and Wu (2019) four-item scale which was tested in a Chinese environment. Sample item includes “I will actively learn about entrepreneurial knowledge and learn about the detailed process of entrepreneurship”. Participants described how they generally feel on a 5-point scale. Team cooperation was measured by Li and Wu (2019) three-item scale. Sample item includes “Students are willing to sacrifice their self-interest for the benefit of the team”. Time was measured by entrepreneurial intention scale in time: Within 3 months; Within 1 year or more.

3.4 Research hypotheses

Hypothesis H1: Entrepreneurial education has positive effects on entrepreneurial intention.

Hypothesis H2: Entrepreneurial education has positive effects on Entrepreneurial passion.

Hypothesis H3: Entrepreneurial education has positive effects on Entrepreneurial self-efficacy.

Hypothesis H4: Entrepreneurial passion has positive effects on Entrepreneurial intention.

Hypothesis H5: Entrepreneurial self-efficacy has positive effects on Entrepreneurial intention.

Hypothesis H6: Team cooperation moderates the relationship between entrepreneurial education and entrepreneurial intention through entrepreneurial self-efficacy and entrepreneurial passion, such that the relationship is stronger when team cooperation is high than low.

Hypothesis H7: Time moderates the relationship between entrepreneurial education and entrepreneurial intention through entrepreneurial self-efficacy and entrepreneurial passion, such that the relationship is stronger when Time is long than short.

H8: Entrepreneurial passion mediates the relationship between entrepreneurial education and entrepreneurial intention.

H9: Entrepreneurial self-efficacy mediates the relationship between entrepreneurial education and entrepreneurial intention.

4. Research results

The author assesses the reliability of the scales through Cronbach’s alpha for each concept: Entrepreneurial education, Entrepreneurial self-efficacy (Boyd & Vozikis, 1994), Entrepreneurial passion, Entrepreneurial intention, Team cooperation, Time.

Entrepreneurial education (EE) has yielded Cronbach’s alpha = 0.885 at a high level and the corrected item-total correlation of the observed variables > 0.6. Therefore, all 4 observed variables measure the Entrepreneurial education concept to ensure reliability and eligibility for EFA discovery factor analysis. Entrepreneurial passion (EP) has Cronbach’s alpha = 0.874 at a

very high level, but the corrected item-total correlation of the observed variable EP4 and EP 7 are <0.3 . Therefore, these two observed variables are removed from the Entrepreneurial passion variable. After removing EP4 and EP7 scales, the authors rerun Cronbach Alpha reliability and correlate the total variable for the potential. Entrepreneurial passion: Cronbach's alpha = 0.927 at a very high level and the corrected item-total correlation of the remaining observed variables are >0.6 . Therefore, the entire 11 observed variables of the remaining have measured the concept of Entrepreneurial passion for reliability and eligibility to include EFA analysis. Entrepreneurial self-efficacy (ES) has Cronbach's alpha = 0.885 at relatively good levels and the corrected item-total correlation of the remaining observed variables is >0.6 . Thus, the entire four observed variables measure the concept of Entrepreneurial self-efficacy to ensure reliability and eligibility to include EFA analysis. Entrepreneurial intention (EI) has Cronbach's alpha = 0.864 at relatively good levels and the corrected item-total correlation of the remaining observed variables are >0.6 . Thus, the entire four observed variables measure the concept of EI to ensure reliability and eligibility to include EFA analysis. Team cooperation (TC) has Cronbach's alpha = 0.871 at a relatively good level and the corrected item-total correlation of the remaining observed variables are >0.6 . Thus, the entire three observed variables measure the concept of Team cooperation ensuring reliability and eligibility to include EFA analysis. Time has Cronbach's alpha = 0.890 at a good level and the correlator value of the remaining observed variables is >0.6 . Thus, the entire three observations measure the concept of Time ensuring reliability and eligibility to include EFA analysis.

Table 2

The results of KMO and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.898
Bartlett's Test of Sphericity	Approx. Chi-Square	12407.182
	df	406
	Sig.	.000

The result of KMO is equal to 0.898 at the meaning of 1% (P-value = 0.000), which indicates that the KMO coefficient is greater than 0.5 and proves that the number of observed variables is needed to form a factor. In addition, the significance of 0.000 proves that all of the observed variables are correlated with each other, thus satisfying the conditions for further analysis. After analysis of Cronbach's alpha is 29 on observed variable, the analysis of the discovery factor EFA has 6 elements extracted with KMO = 0.898, Eigenvalue >1 , total variance explained = 62,844 $>50\%$ (with Promax rotation and Principal Axis Factoring). Therefore, the analysis of the discovery of EFA is satisfied. With the data that has taken two non-satisfied observed variables, the author sends the remaining data to the Smart PLS 3.0 to conduct the measurement model and test the research hypothesis. The concepts in the measurement model include 6 concepts with 29 observed variables. Since these are repeatable scales and they both have background theory, the dissertation will choose the PLS - Consistent PLS Algorithm method (in case of new scales, using the normal PLS - PLS Algorithm) (Henseler et al., 2015) to evaluate measurement model.

Table 3

Construct Reliability and Validity

	Cronbach's Alpha	rho A	Composite Reliability	Average Variance Extracted (AVE)
Entrepreneurial education	0.887	0.887	0.886	0.660
Entrepreneurial intention	0.863	0.874	0.864	0.616
Entrepreneurial passion	0.927	0.933	0.923	0.528
Entrepreneurial self-efficacy	0.885	0.892	0.885	0.659

The reliability of the scale is the extent to which the measurement of the investigated variable does not encounter errors and the result of the interview is accurate and consistent with reality. A common approach for evaluating reliability is to use Cronbach's alpha with a confidence limit of 0.7 or higher. However, Cronbach's alpha is based on a hypothesis that limits the relative importance of all observed variables. According to Hair et al. (2014), CR (composite reliability) and AVE (Average variance extracted) of the variables in observed variables were also used to evaluate the reliability of an observed variable. The reliability of the observed variables must have the outer loading coefficient greater than or equal to 0.5, meeting the requirements for reliability and the composite reliability coefficient must be greater than or equal to 0.7, achieving synthetic reliability (Hulland, 1999).

Table 4

Discriminant Validity (Fornell-Larcker Criterion)

	Entrepreneurial education	Entrepreneurial intention	Entrepreneurial passion	Entrepreneurial self-efficacy
Entrepreneurial education	0.813			
Entrepreneurial intention	0.540	0.785		
Entrepreneurial passion	0.229	0.376	0.726	
Entrepreneurial self-efficacy	0.458	0.410	0.262	0.812

The measurement of discriminatory validity helps to ensure there is no correlation between the factors used to measure the factors. To measure the discriminant value, the square root AVE of each measurement factor is greater than the latent variable correlations between that factor and other factors, showing the differentiation and reliability of the factors (Fornell & Larcker,

1981). Finally, the load factor of each index results in twice for convergence validity and discriminant validity (Wasko & Faraj, 2005). This is achieved by considering the load factors of an index which is larger than any of its other structures (Chin, 2010; Wasko & Faraj, 2005). According to Fornell and Larcker (1981), the AVE coefficient (average variance extracted) must be greater than or equal to 0.5 so that it would confirm the convergence validity. The load coefficient of each observed variable on the factor is greater than or equal to 0.7 and is meant as evidence of the reliability of the scales. The results of reliability show that the requirements for AVE are satisfied.

Table 5

Cross Loadings

	Entrepreneurial education	Entrepreneurial intention	Entrepreneurial passion	Entrepreneurial self-efficacy
EE1	0.845	0.458	0.163	0.401
EE2	0.779	0.452	0.190	0.316
EE3	0.782	0.387	0.177	0.400
EE4	0.843	0.458	0.212	0.372
EI1	0.334	0.653	0.268	0.279
EI2	0.433	0.805	0.289	0.354
EI3	0.434	0.763	0.275	0.281
EI4	0.482	0.899	0.345	0.366
EP1	0.167	0.235	0.654	0.155
EP10	0.128	0.196	0.531	0.103
EP11	0.199	0.286	0.790	0.202
EP12	0.212	0.283	0.800	0.175
EP13	0.123	0.262	0.653	0.127
EP2	0.217	0.310	0.858	0.286
EP3	0.197	0.287	0.789	0.182
EP5	0.207	0.320	0.866	0.273
EP6	0.070	0.234	0.537	0.131
EP8	0.082	0.238	0.557	0.180
EP9	0.165	0.330	0.835	0.226
ES1	0.330	0.283	0.210	0.706
ES2	0.413	0.382	0.241	0.914
ES3	0.393	0.330	0.197	0.834
ES4	0.347	0.331	0.204	0.779

Table 6

Collinearity Statistics (VIF) Outer VIF Values

	VIF		VIF		VIF
EE1	1.897	EP1	2.362	EP6	1.973
EE2	2.623	EP10	1.888	EP8	2.26
EE3	2.54	EP11	2.176	EP9	2.36
EE4	2.604	EP12	2.256	ES1	2.286
EI1	1.753	EP13	2.053	ES2	2.535
EI2	2.742	EP2	2.308	ES3	2.307
EI3	2.251	EP3	2.301	ES4	2.151
EI4	1.977	EP5	2.588		

From the results in Table 6, it is shown that the variables in the research model are not multicollinearity phenomenon, thus satisfying the conditions for the next analysis.

Table 7

Model Fit (Fit Summary)

	Saturated Model	Estimated Model
SRMR	0.061	0.072
d_ ULS	0.125	0.124
d_ G1	0.447	0.455
d_ G2	0.468	0.465
Chi-Square	1,563.151	1,578.011
NFI	0.886	0.885

All coefficients of SRMR = 0.072 < 0.082, d_ ULS = 12.5% < 95%, d_ G1 = 44.7% < 95%, d_ G2 = 46.8% < 95% met requirements of the goodness of model fit. This proves that the research data is in accordance with the research model or the research model is in accordance with reality in other words.

Table 8

R Square

	R Square	R Square Adjusted
Entrepreneurial intention	0.378	0.375
Entrepreneurial passion	0.252	0.251
Entrepreneurial self-efficacy	0.210	0.209

The R² validity is defined as the percentage of variation in endogenous variables explained by exogenous variables (Chin, 2010). R² validity ranges from 0 to 1. The closer R² is to 1, the better the model fits the data set. Therefore, the R² result is an important index of the relationship between latent variables in the model and are the main criteria for evaluating structural models (Hair et al., 2012). Henseler et al. (2015) showed that the acceptable R² level depends on the research context. The assessment is still given for reference respectively: strong (0.67), average (0.33) and weak (0.19). Therefore, exogenous variables can explain the relatively strong variation of endogenous variables in the thesis (R-square = 0.378).

Table 9
F – square

	Entrepreneurial education	Entrepreneurial intention	Entrepreneurial passion	Entrepreneurial self-efficacy
Entrepreneurial education		0.213	0.262	0.266
Entrepreneurial intention				
Entrepreneurial passion		0.206		
Entrepreneurial self-efficacy		0.225		

According to Henseler et al. (2015), it is necessary to evaluate the effect coefficient f² to consider the effect of exogenous variables on endogenous variables. When F is at levels of 0.02, 0.15 and 0.35, it can be concluded that the impact level corresponds to weak, fair and strong. Thus, exogenous variables have a fair impact on endogenous variables.

4.1 Testing the research hypotheses

The bootstrap test result is as follow:

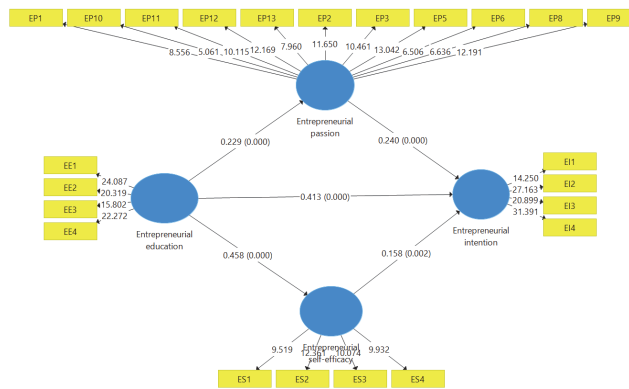


Fig. 3. The bootstrap result

The result in Fig. 3 shows that Entrepreneurial education has a very strong positive impact on Entrepreneurial passion with an impact of 0.229 at a 1% significance level (P-value = 0.000). This means that start-up education programs stimulate the entrepreneurial passion of students from the North of Vietnam. This is completely understandable when participating in startup training courses or startup seminars, or the curriculum integrated with startup knowledge will make students more excited and passionate about starting a business. These programs act as “bait” to promote entrepreneurship and entrepreneurial intent of students. Entrepreneurial education has a very strong impact on Entrepreneurial self - efficacy at the impact level of 0.458 at the 1% significance level (P-value = 0.000). Start-up training programs increase students' confidence in their own competencies, thereby enabling start-up actions to take place at a higher level. At the same time, Entrepreneurial education also has a direct impact on statistical significance to Entrepreneurial intention with a very large impact level of 0.413 at the 1% significance level (P-value = 0.000). Entrepreneurial self - efficacy positively impacts with an average of 0.158 at 1% significance level (P-value = 0.000) on Entrepreneurial intention. Finally, Entrepreneurial passion also has a strong positive impact on Entrepreneurial intention at an impact level of 0.240 at a 1% significance level (P-value = 0.000). Summary of research hypotheses is as follows:

Table 10
Path Coefficients (Mean, STDEV, T-Values, P-Values)

	Original	Original	Standard	T Statistics	P Values
Entrepreneurial education → Entrepreneurial intention	0.413	0.418	0.044	9.432	0.000
Entrepreneurial education → Entrepreneurial passion	0.229	0.233	0.041	5.509	0.000
Entrepreneurial education → Entrepreneurial self-efficacy	0.458	0.463	0.042	10.955	0.000
Entrepreneurial passion → Entrepreneurial intention	0.240	0.243	0.036	6.677	0.000
Entrepreneurial self-efficacy → Entrepreneurial intention	0.158	0.152	0.050	3.160	0.002

Next, the author tests the intermediate role of Entrepreneurial passion and Entrepreneurial self - efficacy in the relationship between Entrepreneurial education and Entrepreneurial intention.

Step 1: The author tests the direct impact of Entrepreneurial education on Entrepreneurial intention. The result is given in Fig. 4. The result shows that Entrepreneurial education has a very strong positive impact on Entrepreneurial intention with an impact of 0.541 at a 1% significance level (P-value = 0.000). This qualifies for an intermediate role of Entrepreneurial passion and Entrepreneurial self - efficacy in the relationship between Entrepreneurial education and Entrepreneurial intention.

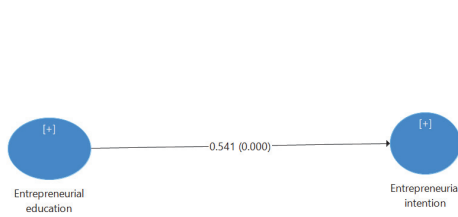


Fig. 4. The direct impact result of Entrepreneurial education on Entrepreneurial intention

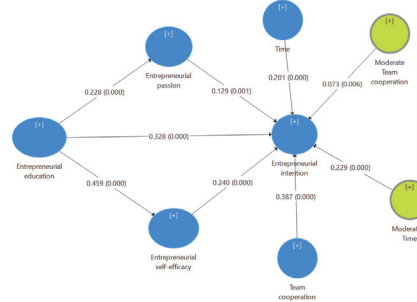


Fig. 5. The bootstrap result with 2 moderator variables

Step 2: In the overall SEM model in Fig. 5, Entrepreneurial education still has a statistically significant impact on Entrepreneurial intention, proving that the relationship between Entrepreneurial education and Entrepreneurial intention is not a full intermediate relationship. Therefore, Entrepreneurial passion and Entrepreneurial self - efficacy has no intermediate role in the relationship between Entrepreneurial education and Entrepreneurial intention. Finally, the author tests the role of Time and Team cooperation are given in Fig. 5. The moderator variable model in Fig. 5 shows that both moderator variables have a statistically significant regulatory role in the relationship between Entrepreneurial education and Entrepreneurial intention with the coefficients of 0.073 and 0.229, respectively. Meaning 1% (P-value = 0.000). To better analyze the regulatory role of Time and Team cooperation, we conducted modeling of regulatory roles of Time and Team cooperation for a more detailed analysis. Based on the impact coefficient, the author graphs the regulatory role as given in Fig. 6.

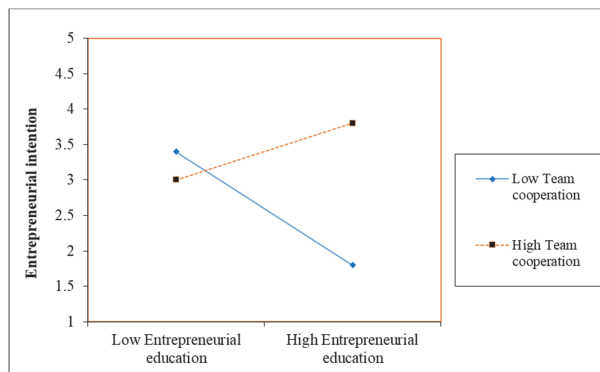


Fig. 6. The regulatory role of Team cooperation

The results of the regulatory impact analysis of Team cooperation shows that if in the course, there are active people who are passionate and enthusiastic and always strong with the will to start a business, they will have a strong impact on the members of the team. The more people who are passionate about starting a business, the more will motivate students' entrepreneurial intent. From there, it shows that the collective spirit is very important, directly affecting the start-up intention of students.

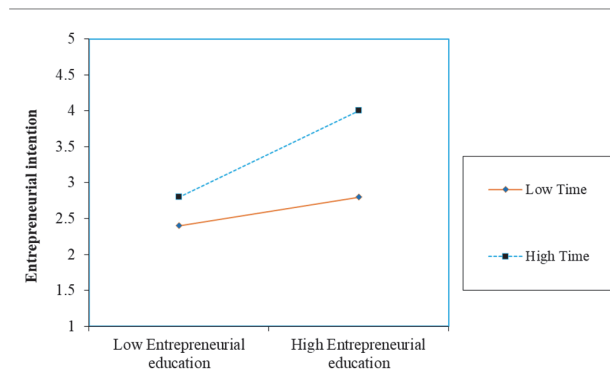


Fig. 7. The regulatory role of Time

According to the results in Fig. 7, Time has a moderate role on the relationship between Entrepreneurial education and Entrepreneurial intention with the intention of starting a business in the shorter time, making the start-up training program more powerful to start a business. Students who have the idea of starting a business within a short time when they study and attend start-up training courses make the entrepreneurial intent stronger, more motivating and easier to turn into action. In addition, with the idea of starting a business in a longer time, the start-up training program still has a positive impact on the intention to start a business but the level of impact is lower, reflected in the slope of the line show the impact of entrepreneurship training affects the lower Entrepreneurial intention.

5. Conclusion

Entrepreneurs are always paying attention and investing for the development of the national economy. Researching the start-up process has been given much attention recently, with a focus on the process of forming an entrepreneurial intention. A lot of process-oriented research shows that before a person starts an entrepreneurial career, he or she needs motivation (the stage of intentional thinking, or the pre-decision phase, according to theory of action phases). This motivation is shaped by their own desire and entrepreneurship. However, motivating alone is not enough, it depends on the ability to identify start-up opportunities through entrepreneurship, and the individuals must not be afraid of risks and persistence associated with startup goals. your karma (the stage of action thinking or the pre-action stage). This is the period of distinguishing between potential entrepreneurs and others. This stage in previous studies was not mentioned. At the same time, the time factor is said to play a role in regulating the relationship between desire and ability to start a business and the intention to start a business is not mentioned. The time factor is one of the significant and significant contributions in this study. With the intention to start a business in the near future (within 3 months), the element of entrepreneurship education will strongly influence the intention to start a business, Besides with the intention to start a business in the long-term future (within 1 year or more) the start-up education factor has a weaker impact on entrepreneurial intent. This is important because for students who intend to start a business in a short time, the training facilities must focus on improving the ability to start a business, fostering knowledge and skills for students, at the same time giving birth. members into incubators, leveraging startup ecosystems to support them. For students who intend to start a business for a long time, it is necessary to focus on arousing the desire and passion for entrepreneurship in students. Passion is one of the prerequisites for entrepreneurs to pursue their entrepreneurial aspirations and goals. But the fact is that not all students know what they are passionate about and be patient for what many people want, but don't know where to start. Therefore, training institutions need to set very clear goals for their students through startup competitions, talks of successful entrepreneurs ...

References

- Adam, A. F., & Fayolle, A. (2015). Bridging the entrepreneurial intention–behaviour gap: the role of commitment and implementation intention. *International Journal of Entrepreneurship and Small Business*, 25(1), 36-54.
- Ahmed, I., Nawaz, M. M., Ahmad, Z., Shaukat, M. Z., Usman, A., Rehman, W.-u. & Ahmed, N. (2010). Determinants of students' entrepreneurial career intentions: Evidence from business graduates. *European Journal of Social Sciences*, 15(2), 14-22.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2),179-211.
- Ajzen, I., Czasch, C. & Flood, M. G. (2009). From Intentions to Behavior: Implementation Intention, Commitment, and Conscientiousness1. *Journal of Applied Social Psychology*, 39(6), 1356-1372.
- Ajzen, I. & Fishbein, M. (1975). Belief, attitude, intention and behavior: An introduction to theory and research.
- Alain, F., Benoît, G. & Narjisse, L. C. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European Industrial Training*, 30(9), 701-720.
- Alberti, F., Sciascia, S., & Poli, A. (2004, July). Entrepreneurship education: notes on an ongoing debate. In *Proceedings of the 14th Annual IntEnt Conference, University of Napoli Federico II, Italy* (Vol. 4, No. 7).
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3), 442-453.
- Bluedorn, A. C. & Martin, G. (2008). The time frames of entrepreneurs. *Journal of Business Venturing*, 23(1), 1-20.
- Boyd, N. G. & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18, 63-63.
- Cardon, M. S., Sudek, R., & Mitteness, C. (2009). The impact of perceived entrepreneurial passion on angel investing. *Frontiers of entrepreneurship research*, 29(2), 1.
- Chin, W. W. (2010). How to write up and report PLS analyses. In *Handbook of partial least squares* (pp. 655-690). Springer, Berlin, Heidelberg.
- De Clercq, D., Dimov, D. & Thongpapanl, N. (2013). Organizational Social Capital, Formalization, and Internal Knowledge Sharing in Entrepreneurial Orientation Formation. *Entrepreneurship Theory and Practice*, 37(3), 505-537.
- Devonish, D., Alleyne, P., Charles-Soverall, W., Young Marshall, A., & Pounder, P. (2010). Explaining entrepreneurial intentions in the Caribbean. *International Journal of Entrepreneurial Behavior & Research*, 16(2), 149-171.
- Farmer, S. M., & Tierney, P. (2017). Considering creative self-efficacy: Its current state and ideas for future inquiry. In *The creative self* (pp. 23-47). Academic Press.

- Fayolle, A. & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial attitudes and intention: hysteresis and persistence. *Journal of Small Business Management*, 53(1), 75-93.
- Fayolle, A. & Liñán, F. (2014). The future of research on entrepreneurial intentions. *Journal of Business Research*, 67(5), 663-666.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.
- Gibb, A., & Hannon, P. (2006). Towards the entrepreneurial university. *International Journal of Entrepreneurship Education*, 4(1), 73-110.
- Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), pp.106-121.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2013). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Thousand Oaks: Sage.
- Henseler, J., & Chin, W. W. (2010). A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling. *Structural Equation Modeling*, 17(1), 82-109.
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial Management & Data Systems*, 116(1), pp.2-20.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of The Academy of Marketing Science*, 43(1), 115-135.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2012). Using partial least squares path modeling in advertising research: basic concepts and recent issues. *Handbook of research on international advertising*, 252.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195-204.
- Katz, J. & Gartner, W. B. (1988). Properties of emerging organizations. *Academy of Management Review*, 13(3), 429-441.
- Koe, W. L. (2016). The relationship between Individual Entrepreneurial Orientation (IEO) and entrepreneurial intention. *Journal of Global Entrepreneurship Research*, 6(1), 13.
- Kolvereid, L., & Moen, Ø. (1997). Entrepreneurship among business graduates: does a major in entrepreneurship make a difference?. *Journal of European Industrial Training*, 21(4), 154-160.
- Krueger, N. & Welpe, I. (2014). *Neuroentrepreneurship: what can entrepreneurship learn from neuroscience (chapter 4)*. Annals of entrepreneurship education and pedagogy, Elgar, Cheltenham, pp.60-90.
- Kwong, C., Jones-Evans, D., & Thompson, P. (2012). Differences in perceptions of access to finance between potential male and female entrepreneurs: Evidence from the UK. *International Journal of Entrepreneurial Behavior & Research*, 18(1), 75-97.
- Li, L., & Wu, D. (2019). Entrepreneurial education and students' entrepreneurial intention: does team cooperation matter?. *Journal of Global Entrepreneurship Research*, 9(1), 35.
- Meyer, J. & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1(1), 61-89.
- Nnadi, M. A., & Akpmi, M. E. (2005). The effect of taxes on dividend policy of banks in Nigeria. Available at SSRN 873828.
- Ogundele, M. O., Sofoluwe, A. O., & Kayode, D. J. (2012). Integrating Entrepreneurship Skills Acquisition in to National Youths Service Corps (NYSC) Programme in Nigeria. *Journal of Entrepreneurship and Management*, 1(3), 24.
- Popescu, C., Bostan, I., Robu, I. B., & Maxim, A. (2016). An analysis of the determinants of entrepreneurial intentions among students: A romanian case study. *Sustainability*, 8(8), 771.
- Shook, C. L., Priem, R. L., & McGee, J. E. (2003). Venture creation and the enterprising individual: A review and synthesis. *Journal of Management*, 29(3), 379-399.
- Samantha Kumara, P. A. P. (2012). Undergraduates' intention towards entrepreneurship: Empirical evidence from Sri Lanka. *Journal of Enterprising Culture*, 20(01), 105-118.
- Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, 33(3), 669-694.
- Vaidya, J., Lorenzi, D., Shafiq, B., Chun, S., & Badar, N. (2014, October). Teaching privacy in an interactive fashion. In *Proceedings of the 2014 Information Security Curriculum Development Conference* (p. 7). ACM.
- Vojak, C. (2006). What market culture teaches students about ethical behavior. *Ethics and Education*, 1(2), 177-195.
- Walter, S. G., & Block, J. H. (2016). Outcomes of entrepreneurship education: An institutional perspective. *Journal of Business Venturing*, 31(2), 216-233.
- Wasko, M. M., & Faraj, S. (2005). Why should I share? Examining social capital and knowledge contribution in electronic networks of practice. *MIS quarterly*, 29(1), 35-57.

