

The impact of individual and environmental characteristics on students' entrepreneurial intention

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ABSTRACT

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The primary objective of this study is to investigate the effects of personal attitude toward entrepreneurship, self-efficacy (individual characteristics) and social capital, country norms (environmental characteristics) on entrepreneurial intention among students at universities and colleges in Vietnam. By collecting data from 210 students in Vietnam, authors employ the quantitative approach such as certain descriptive statistics, explorative factor analysis (EFA), KMO and Bartlett test, correlation coefficient analysis, ANOVA test and multiple regression analysis to test hypotheses. The study investigates the relationship between entrepreneurial attitude, self-efficacy, social capital, country norms and entrepreneurial intention. The result of this research indicates that a large proportion of students only study and only a small percentage of them study and run their own business. In terms of willingness to take the risks, the highest figure belongs to the neutral level. In addition, the correlation coefficient and multiple regressions analysis indicate that all four factors were positively associated with entrepreneurial intention. Specially, country norms are seen as the most influential factors on entrepreneurial intention, followed by social capital, personal attitude, and self-efficacy, respectively.

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1. Introduction

Entrepreneurship is becoming a worldwide phenomenon for its positive contribution to economic development across the globe. Guerrero *et al.* (2008) state that entrepreneurship is considered as an innovative and creative process, which plays the potential role in creating added and new value to products/services, increasing productivity, creating new job opportunities, revitalizing and diversifying markets, improving social welfare, and developing the national economy. Historically, the establishment of new market, the relationship with profit orientation and capital investment (Schumpeter, 1934) led to the beliefs of economics regarding to the responsibility of entrepreneurship for economic growth (Cole, 1965; Weber, 1930). Since “Đổi Mới” (Renovation process) in 1986, the Vietnamese economy has transformed from planned to market-oriented economy. By pursuing the new policies, Vietnam government encouraged internal restructuring. According to the Doing Business 2017 Report of the World Bank, Vietnam ranks 60th among 138 countries in the Global Competitive Report 2017. Vietnam attracted more foreign domestic investment (FDI) than China in 2016 and surpassed Malaysia and Thailand in the Greenfield FDI Performance Index, leading in the region (Doing Business in Vietnam, 2017). In addition, in 2007, FDI in Vietnam reached the highest number over the 10-year period, amounting to USD 35 billion. By the end of November 2017, the figure for FDI projects reached 24,580 registrations, accounting for USD 317 billion. While around 60% of the funds were allocated to the processing and manufacturing industries, 16.6% of FDI projects poured into real estate and only 6.6% was spent on the utility supply sector. In fact, South Korea is still seen as the top investing nation with the registered capital of USD 57.5 billion, accounting for 29% of more than 100 nations and territories, followed by Japan (11%) and Singapore (10%) (VNEXPRESS, 2017). The population of Vietnam is over 92 million people, with the median age of 30, ranked as the 14th most populous nation in the world. As a result, Vietnam attracts many investors because of its potential customers and employees. In terms

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of GDP growth, GDP in 2015 was 6.7%, however, it dropped to only 6.2 % in 2016 before an impressive recovery in 2017, when it reached 6.8%. Consequently, Vietnam's GDP growth has averaged approximately 7% over the last 20 years. Consequently, the recognition of the role of entrepreneurship is growing among government, society and researchers as well. According to the General Statistics Office (GSO, 2017), there are 561,064 active enterprises in Vietnam, increased by 11.1% in comparison with previous year. 126,859 new enterprises were established in 2017, increased by 15%, the highest level of enterprises established, and the average capital of each firm is estimated at 448,800 USD. Keeping pace with the high rate of economic growth of Vietnam, private sectors increased significantly and contributed nearly 40% to GDP and the private firms is projected to contribute 50% to GDP by 2020.

Although the concept of entrepreneurship has become more universal in the world, lots of studies regarding entrepreneurship has been conducted in industrialized countries, especially in Western countries, in which the market economy has been developed. The business environment, laws and regulations of governments also have facilitated for entrepreneurs to run their own businesses. There are few researches involved in entrepreneurship which conducted in developing countries, especially in transitional economy such as Vietnam. Thus, these research gaps need to fulfill. The objective of this study is to investigate the effects of individual and environmental characteristics on entrepreneurial intention among Vietnamese students and provide an interesting insight to entrepreneurship fields. This study also brings policy makers, educational managers and government a useful sightseeing in terms of youths' entrepreneurship in order to foster them starting up their own business. The questionnaire surveys were sent to students at universities and colleges in Vietnam, but almost these universities and colleges located in the North of Vietnam. Even though more than 400 questionnaires were distributed to Vietnamese students, only 210 questionnaires were fulfilled which were enough to be employed in this research. In addition, *certain descriptive statistics* is used to indicate the frequency, percent, mean and Std. Deviation of respondents' demographic layouts. After that, *explorative factor analysis (EFA)*, *KMO and Bartlett test* are utilized to examine the reliability of the scale and the suitability of data for explorative factor analysis. *Correlation coefficient analysis* also is applied to investigate the relationship between individual characteristics (personal attitude & self-efficacy), environmental characteristics (social capital, country norms) and entrepreneurial intention. Besides, *multiple regression analysis* is implemented to predict the value of dependent variable (entrepreneurial intention) based on the value of independent variables (personal attitude, self-efficacy, social capital and country norms). The study is organized in the following manner: Firstly, theoretical background related to entrepreneurship, entrepreneurial intention, individual and environmental characteristics and hypotheses will be introduced. Secondly, research methodology and conceptual framework (research model) will be described. Thirdly, authors will present the results and discussions of this study. Finally, conclusion and recommendation for further research will be performed.

2. Theoretical background

2.1. Entrepreneur and entrepreneurship

Entrepreneurship is connected to economic activities (Kot *et al.*, 2016, p. 208). In fact, many governments and scientists take consideration into the development of small and medium enterprises, which are considered as the sustainable path to develop national economies (Sivvam, 2012, p.13; Ambrish, 2014, p.225). There are many definitions for entrepreneurship development over the past recent decades. Schumpeter (1960) considered that entrepreneurs are people who create new products or services in new or existing market and entrepreneurship becomes one of the most important factors in countries' economic growth (Schumpeter, 1960, p.12; De Bruin *et al.*, 2006, p. 686). "The environment itself creates entrepreneurship" (Bernat *et al.*, 2016, p. 271), the reason is that operating organizations not only need to react quickly against unanticipated changes, but also they must adapt to unpredicted outcomes of the predicted changes (Timmons, 1990). Kirzner (1985) defined that entrepreneur is a person who might optimize information in such a way in order to discover the new and improved business opportunities (Korpysa, 2012). Talpas (2014, p.198) consider entrepreneurship as a process that can be recognized throughout business activities by showing effective leadership within uncertain market, risks and competitive conditions, while Zimmer and Scarborough (1996, p.19) claimed that entrepreneurs can also be known as owners who, with skillful manner, are able to associate various factors of production, transforming a smaller economic resources into a bigger platform effectively and rising profits. Also, Entrepreneurship is the process of creating and building new venture and new business organization (Shane & Venkataraman, 2000), that not only provides goods and services, creates job opportunities but also contributes to the development of economy and the national income.

Lin *et al.* (2017) argued that "*it is the process of designing, launching and running a new business*", and it also tends to do some topics such as policy, government programs, entrepreneurial training, funds, etc. that not only promote the development of starting a new business but it also supports entrepreneurs in their business activities. In addition, OECD (2006) stresses that entrepreneurship is defined as a process, which entrepreneurs establish and develops enterprises to supply new products and services, or creates additional value to products and services. From this definition, Adekiya and Ibrahim (2015) deduce that entrepreneurs are seen as enterprising individuals involved in an economic behavior with the desirability of setting up and creating value to meet human needs. Therefore, there are many definitions for entrepreneurship. However, in summary, character words, such as willingness to take risks, innovativeness, opportunism, new products, new processes, and creating a new business venture, are concluded in combined definitions (Bird & Brush, 2002, p. 41). Generally, entrepreneurship is a new business creation by a person alone or cooperating with others.

2.2. Entrepreneurial intention

Bird and Jellinek (1998) described entrepreneurial intention as the level of cognitive awareness related to set up a new business. While Moriano *et al.* (2012) defined entrepreneurial intention as “*the conscious state of mind that precedes action and directs attention toward entrepreneurial behaviors such as starting a new business and becoming an entrepreneur*”, individual entrepreneurial intention can be most appropriately and practically defined as the intention of a person to start up a new own business venture and intentionally plan to do so at some time in the future. However, this time can be imminent and indeterminate, or might never be achieved in the future (Thompson, 2009, p.676). Entrepreneurial intention refers to the intention to carry out entrepreneurial behavior. Krueger and Brazeal (1994) defined entrepreneurial intention as the intent to set up a new business, or the intent to be self-employed (Douglas & Shepherd, 2002) or the intent to own a business (Crant, 1996). There are many reasons such as personal circumstances, social and politic issues and business environment, which might become either big obstacles or motivated factors to transform this intent becoming a reality. Thus, entrepreneurial intention is perceived as an essential and fundamental condition to be a nascent entrepreneur. Whereas entrepreneurship is determined as the emergent process of an organization (Gartner *et al.*, 1992), an individual’s intention to pursue an entrepreneurial career is crucial to this process (Lee *et al.*, 2011, p.126). Moreover, entrepreneurial intention is considered the first step in a series of action to found an organization (Bird, 1988), yet Fishbein and Ajzen (1975) argued that intentions toward a behavior can be seen as important indicators of that behavior. In other words, intentions are still seen as the best predictor of individual behavior (Krueger, 2008). According to Ajzen (1991), who introduced Theory of Planned Behavior, intentions are determined by social/subjective norms and perceived behavioral control. Social norms are considered individual’s perception of his or her behavior that is consistent with significant thoughts of other, while perceived behavior control is the range of the target behavior within the ability of a decision maker (Esfandiar *et al.*, 2017; Zimmerer & Scarborough, 1996; Zhao *et al.*, 2005). Do and Dadvari (2016) also defined entrepreneurial intention as an attentive state of mind that reflects personal experience, awareness and interest toward planned entrepreneurial activity.

2.3. Individual characteristics regarding entrepreneurship

2.3.1. Personal attitude

The personal attitude towards engaging in entrepreneurial activities shows that a person is willing to allocate effort and time to become an entrepreneur if he/she perceives those entrepreneurial activities as positive and professional (Miranda *et al.*, 2017, p.115). Dinc and Budic (2016) defined personal attitude as an individual standing or the mindset on a specific problem and it refers to the attitude toward creating a business in the entrepreneurship framework. Personal attitude related to a person’s belief to become an entrepreneur is also indicated in many studies (Kolvereid, 1996; Autio *et al.*, 2010, Ajzen, 2001). Shook and Bratianu (2010) stated that people’s attitude toward a particular issue depends on their beliefs of achievements. According to psychology approach, in the Theory of Planned Behavior (TPB) model, Ajzen (1991) personal attitudes toward a certain behavior are perceived as subjective conscious phenomena. However, as entrepreneurship approach, Kolvereid (1996) defined personal attitude as “*difference between perceptions of personal desirability in becoming self-employed and organizationally-employed*”. In addition, entrepreneurial attitude refers to personal perceptions of individual desirability of performing entrepreneurial behavior (Tshikovhi & Shambare, 2015, p. 153). Personal attitude also indicates the degree to which a person holds his or her positive or negative evaluation towards entrepreneurial behavior (Miralles *et al.*, 2012). Thus, the relationship between personal attitude and entrepreneurial intention is necessary to explore in the context of transitional economy in Vietnam.

H₁: Entrepreneurial intention is positively related to personal attitude.

2.3.2. Self-efficacy

Cognitive issues reflect individual’s knowledge and skills related to performing and operating a new venture (Baughn *et al.*, 2006). A person’s perception of his or her capabilities of carrying out a specific action is a necessary component of motivation. Desirability of creating a new business can be involved in Bandura’s (1986) construct of self-efficacy. Thus, self-efficacy is an individual’s judgment of his or her capability of executing a targeted behavior (Ajzen, 1987) and entrepreneurial intention might also be affected by self-efficacy factors (Bandura, 1986; Chen *et al.*, 1998). Self-efficacy becomes a useful concept to explain human behavior and it also plays a considerable role in identifying the choice, effort level, and perseverance of individuals (Chen *et al.*, 2004). Bandura (1997) also considered that a person who has high self-efficacy for a particular task is more likely to engage and then perseveres the task than an individual who shows low self-efficacy. Prior researches have been seen self-efficacy as a key predictor to identify entrepreneurial intentions (Lee *et al.*, 2011), self-efficacy either has direct effects on entrepreneurial intention or affects indirectly through perceived feasibility (Krueger, 1993; Krueger *et al.*, 2000). In this study, the degree to which self-efficacy influences directly on entrepreneurial intention in the context of transitional economy in Vietnam will be considered.

H₂: Entrepreneurial intention is positively related to self-efficacy.

2.4. Environmental characteristics regarding entrepreneurship

2.4.1. Social capital

Social capital not only might augment the cognitive and visible assets of entrepreneurs, but it also contributes to information, collaborative bonding, trust, and some other resources among members of social networks (Adler & Kwon, 2002). However,

it is difficult to explain clearly and undisputedly the meaning of social capital (Dolfsma & Dannreuther, 2003; Foley & Edwards, 1997). Social capital shows close support of family and friends involved in the emergence of entrepreneurs (Davidsson & Honig, 2003) but it also reflects the value implanted in the social relationships of both individuals and collectives (Adler & Kwon, 2002; Payne *et al.*, 2011). Social capital can be defined as the totality of both actual and potential support resources implanted within, which is available and drives from the social networks and relationships (Nahapiet & Ghoshal, 1998). In addition, the influences of social capital on entrepreneurial intention has been examined in many prior researches (Lián & Santos, 2007; De Carolis *et al.*, 2009; Schlaegel & Koenig, 2014). Indeed, social capital is seen as the key factor for start-up opportunities (Shane & Venkataraman, 2000), encourages entrepreneurial careers (Liao & Welsch, 2005). Bhagavatula *et al.* (2010) stated that entrepreneurs access support resources to create a new business from their close ties. The effects of close friend and family might be more important than country norms (normative support) in forming the individual's perceived desirability of creating a new business (Baughn *et al.*, 2006). In the country like Vietnam, where normative supports are often the critical restriction for running personal business, social capital could be more influential on entrepreneurial intention. Thus, the following hypothesis are proposed.

H₃: Entrepreneurial intention is positively related to social capital.

2.4.2. Country norms (normative support)

The significance of normative beliefs in determining entrepreneurial attitudes and intentions has been recognized (Ajzen, 1987, 1991). Some recent studies also indicated that the degree to which society and the community admires and respects entrepreneurs can be considered an efficient predictor of entrepreneurship rather than culture measures (Hawkins, 1993; Spencer & Gomez, 2004). In addition, entrepreneurial intention can be driven from social acceptability of entrepreneurial career (Reynolds *et al.*, 2003). Gelard & Saleh (2011) argued that entrepreneurial intention can be shaped by economic, political and cultural mechanisms. The perception of desirability and feasibility, the perception of social and cultural context such as beliefs, attitudes and values are influenced by institutional environment (Díaz-Casero *et al.*, 2009), while the proportion of new business formation and development is directly affected by institutional environment (Aldrich, 1990; Hwang & Powell, 2005). In other words, several factors in institutional environment such as laws, regulations and culture are able to have significant effects on entrepreneurial intention. Bruton *et al.* (2010) proved the relationship between normative institutions, especially in the level of admiration of entrepreneurs and start-up activities held by member of a society, and entrepreneurial intention. Normative support could have positive influence on entrepreneurial intention in Vietnam. Therefore, the following hypothesis should be tested.

H₄: Entrepreneurial intention is positively related to country norms.

3. Methods

3.1. Sample and data collection

This study mainly focuses on examining the effects of individual (personal attitude, self-efficacy) and environmental (social capital, country norms) characteristics on entrepreneurial intention among Vietnamese university/college students. In terms of research techniques, quantitative method and convenient sampling are implemented to investigate the relationship between independent and dependent variables. The following formula has been used to calculate a minimum size of research sample (Szajt, 2014, p.40):

$$n = \frac{u_{\alpha}^2}{4d^2} = \frac{1.64^2}{4 \times 0.06^2} = 187$$

Although about 400 questionnaires were sent to students at universities and colleges in Vietnam, but only 210 ($N=210 > n=187$) students fulfilled the questionnaires, completely. The questionnaires were designed and divided into 2 sections, which based on the aims of research, theoretical background and hypothesizes. In the first section, demographic questions were designed to obtain respondent's information such as ages, genders, education, field of study, current professional activities, the level of willingness to take the risks, and activities related to entrepreneurial behaviours during their studies. In the second section, the questions were used to assess the viewpoints of respondents related to entrepreneurial intention, personal attitude towards entrepreneurship, self-efficacy, social capital and normative support (country norms), which based on six-point Likert scale ranging from 0 (strongly disagree) to 6 (strongly agree).

3.2. Hypothesized model

From literature review part, our hypothesized model is proposed in Fig.1. The research framework also could be transformed into the following equation:

$$y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad (1)$$

where y_i refers to entrepreneurial intention (EI), X_i refers to independent variables such as personal attitude (PA), self-efficacy (SE), social capital (SC) and country norms (CN).

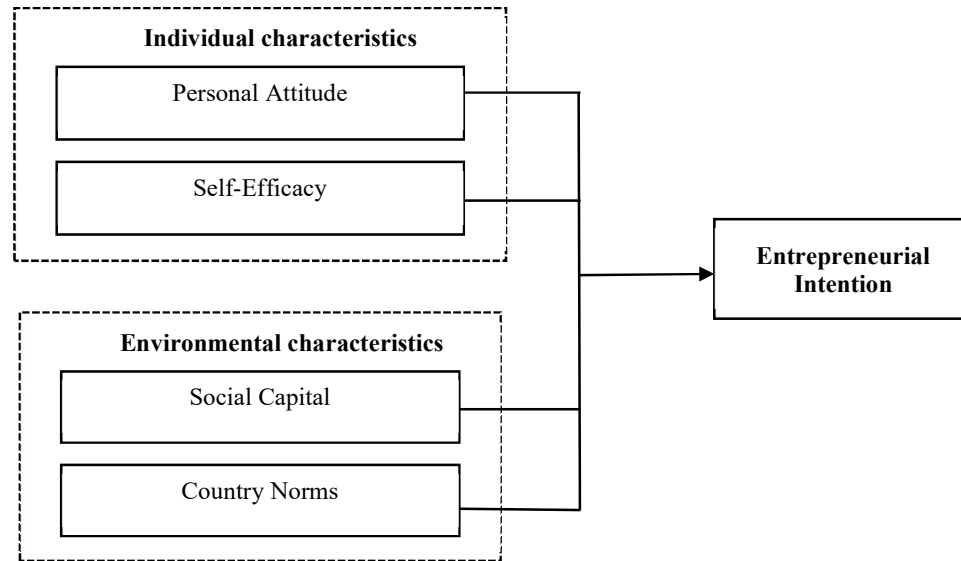


Fig. 1. Research framework

3.3. Factor analysis and reliability

The statistics software SPSS 20.0 is employed to perform explorative factor analysis (EFA) by using three indicators such as KMO measure (Kaiser-Meyer-Olkin), Bartlett's test of sphericity and Eigenvalue for four independent variables (Personal Attitude-PA, Self-efficacy-SE, Social capital-SC and Country norms-CN) and dependent variable (Entrepreneurial intention-EI) composing of 19 attributes. Moreover, some tools of descriptive statistics were also used to indicate the demographic information of the samples. In addition, multiple regressions have been conducted to identify the effects of independent variables (PA, SE, SC, and CN) on dependent variable (EI).

Table 1
Summary of variables

	Variables	Number of items	Cronbach's Alpha
1.	Entrepreneurial intention (EI)	4	0.683
2.	Personal Attitude (PA)	4	0.762
3.	Self-efficacy (SE)	3	0.670
4.	Social capital (SC)	4	0.786
5.	Country norms (CN)	4	0.814

Source: Authors' elaborations based on research study

According to the results of Table 1, Cronbach's coefficients alpha of all variables ranges from 0.670 to 0.814. Thus, the all variables' Cronbach's alpha values are acceptable for testing reliability of the scale. Moreover, 67.503% of variance is explained in the factor analysis and it is also good for validation.

Table 2
KMO and Bartlett's Test

Type of variables	Independent	Dependent
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.886	0.615
Bartlett's Test of Sphericity	Approx. Chi-Square	2015.022
	df	105
	Sig.	0.000

Source: Authors' elaborations based on research study

The results of KMO and Bartlett test for independent and dependent variables are introduced in Table 2. KMO values reach 0.886 and 0.615 for the group of independent variables and dependent variable respectively. It reveals that data is appropriate to investigate and also shows a perfect correlation between variables, as a result, the factor analysis can be implemented. Technically, with 210 students, the factor loadings of EFA should be higher than 4.0. The value of KMO must range from 0.5 to 1.0 in order to be acceptable. In addition, the Bartlett's test of sphericity significant level must be lower than 0.05 (Pallant, 2005). the Bartlett's test result of 0.000 in Table 2 indicates that variables are suitable for factor analysis.

4. Results

Demographic layout of respondents and type of current professional (working) activities is represented in Table 3. The majority proportion of respondents are between 20-24 years old (75.7%), while the figure for respondents who are between 18 and 29 years old and over 24 years old only make up 22.9% and 1.4% respectively. However, 145 of 210 respondents are

female, which accounts for exactly 69.0%, and it is 38% higher than male respondents. Noticeably, 61.0% of them are economic students, compared with only 39% non-economic students.

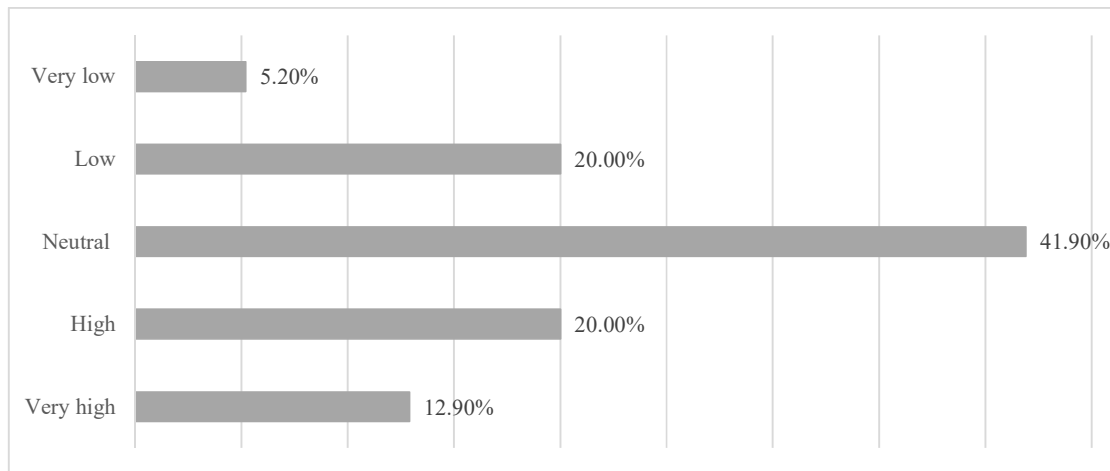
Table 3
Descriptive Statistics of Sample Demographics

Demographic variables		F	%	Mean	Std. Deviation
1. Age	18 - 19 years old	48	22.9	1.7857	0.44484
	20-24 years old	159	75.7		
	Over 24 years old	3	1.4		
2. Gender	Male	65	31.0	1.6905	0.46340
	Female	145	69.0		
3. Field of study	Economic	128	61.0	1.3905	0.48902
	Non-economic	82	39.0		
4. Education	High School	21	10.0	0.9524	0.38837
	University/College	178	84.8		
	Master	11	5.2		
5. Type of current professional (working) activities	Only studying	110	52.4	1.9857	1.22759
	Studying and working for a company	49	20.0		
	Studying and running own business	9	4.3		
	Studying and looking for a job	49	23.3		

Note: N=210; F: Frequency; %: Percent

Source: Authors' elaborations based on research study

In addition, the main percentage of respondents are university/college students, reaching 84.8%, followed by 10.0% high school students and 5.2% master students. In terms of type of current professional (working) activities, more than half (52.4%) of the students are only studying and, 20% students are studying and working for a company, 23.3% of them are studying and looking for a job, whereas only 4.3% students are studying and running their own businesses. Fig. 2 shows student's willingness to take the risks. Nearly a half (41.9%) of students believe that their willingness to take risks only reach at the neutral level, followed by 32.9% at high and very high level, and 25.2% at low and very low level.



Source: Authors' elaborations based on research study

Fig 2. Respondents' willingness to take the risks

In terms of students' activities involved in entrepreneurial behaviours during their studies, the highest figure belongs to volunteer's activities, reaching 20.5%, followed by seasonal/holiday work (16.7%), manifesting own initiative in non-education (12.4%), obtaining certificates from supplementary and/or extending activities improving their education (11.4%). However, students pay less attention for almost all last activities, only making up from 2.4% to 7.6%. Considerably, 15.2% students do not take any activities.

Table 6 reports an ANOVA, which shows the overall significance of our model. Because of Sig. < 0.05 ($p < 0.05$), our model is significant. The Unstandardized Beta Coefficients in Table 7 provides a measure of the contribution of each independent variable (predictor variable) to dependent variable (criterion variable). Authors use the Unstandardized Beta Coefficients because the model includes the constant (β_0). As a result of research, country norms (CN) has the strongest impact on entrepreneurial intention ($\beta_1=0.362$, $p=0.000$), followed by social capital (SC) ($\beta_2=-0.150$, $p=0.141$), personal attitude (PA) ($\beta_3=0.111$, $p=0.254$) and self-efficacy (SE) ($\beta_4=0.016$, $p=0.847$).

Table 7
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.123	0.193		10.981	0.000
PA	0.111	0.097	0.132	1.144	0.254
SE	0.016	0.083	0.020	0.194	0.847
SC	-0.150	0.102	-0.184	-1.476	0.141
CN	0.362	0.094	0.417	3.834	0.000

a. Dependent Variable: EI

Thus, the Eq. (1) could be completed as following:

$$EI = 2.123 + 0.362 \times CN - 0.150 \times SC + 0.111 \times PA + 0.016 \times SE$$

5. Conclusion

The purpose of this research was to examine the effects of entrepreneurial attitude, self-efficacy (individual characteristics), social capital, country norms (environmental characteristics) on entrepreneurial intention. This research aims to provide an interesting insight about entrepreneurial fields in Vietnam, and it can bring useful recommendation to policy makers, educational managers and the government in order to foster youths' entrepreneurship and improve the entrepreneurial ecosystem. The study has illustrated that country norms had the strongest effect on entrepreneurial intention among university students in Vietnam. Thus, the government and lawmakers should have appropriate policies to ameliorate the entrepreneurial ecosystem in Vietnam. In addition, this study also shows the positive correlations between four independent variables (personal attitude, self-efficacy, social capital and normative support) on dependent variable (entrepreneurial intention). Even though this research provides a new viewpoint to entrepreneurial field, there are some restrictions. Firstly, authors only concentrated on investigating the direct effect of two individual characteristics and two environmental factors on entrepreneurship, the other studies may extend the research model by supplementing mediating variables, or using different variables such as entrepreneurship training programs, culture, perceived behavior control. Secondly, small size of sample is also considered a limitation of this study and this restriction should be remedied in further studies.

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