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## MANAGEMENT | RESEARCH ARTICLE

# Sociological and theory of planned behaviour approach to understanding entrepreneurship: Comparison of Vietnam and South Korea

Phuong Mai Nguyen<sup>1</sup>, Van Toan Dinh<sup>2\*</sup>, Thi-Minh-Ngoc Luu<sup>2\*</sup> and Yongshik Choo<sup>3</sup>

**Abstract:** This study explains entrepreneurship in the context of a comparative analysis of Vietnam and South Korea. For that purpose, it develops an analytical framework based upon both theory of planned behaviour (TPB) and sociological approach to demonstrate whether or how much macro-environmental factors, such as entrepreneurship education, family support and social support, and the three TPB antecedents, including attitude, subjective norms and perceived behaviour control, affect entrepreneurial intention. Primary data were collected from a self-administered survey with 600 students in Vietnam and 550 students in South Korea using the convenience sampling method. Structural equation modelling (SEM) analysis was adopted to test the entrepreneurial intention model in two subsamples. Furthermore, independent sample T-test and multi-group analyses were performed to see differences in entrepreneurial intention between the two countries. This study found significant differences in the entrepreneurial intention between the two



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### PUBLIC INTEREST STATEMENT

This study provides insights into understanding entrepreneurship in a comparative analysis of Vietnam and South Korea. An integrated research framework was built upon both theory of planned behaviour (TPB) and the sociological approach to demonstrate whether or how much macro-environmental factors affect entrepreneurial intention. This study found significant differences in the entrepreneurial intention between the two countries. In Vietnam, among the antecedents of entrepreneurial intention, only perceived behaviour control influence their entrepreneurial intention. On the other hand, in South Korea, all the macro-environmental factors positively affect the three TPB antecedents and entrepreneurial intention. The research results benefit multiple stakeholders in the entrepreneurial ecosystem of both Vietnam and South Korea to create a favourable climate for entrepreneurship. Besides, this study contributes to the existing literature of entrepreneurship in Asian countries and suggests the extension of the TPB-based study to the countries with similar macro-environmental background, such as the ASEAN nations.

countries. In Vietnam, entrepreneurship education and family support positively affect the students' attitude towards entrepreneurship. However, among the antecedents of entrepreneurial intention, only perceived behaviour control influence their entrepreneurial intention. On the other hand, in South Korea, all the macro-environmental factors positively affect the three TPB antecedents and entrepreneurial intention. Moreover, attitude is the most influential factor in entrepreneurial intention.

**Subjects:** Asian Business; Business, Management and Accounting; Entrepreneurship and Small Business Management

**Keywords:** entrepreneurial intention; entrepreneurship education; family support; society support; theory of planned behaviour; Vietnam; South Korea; students

### 1. Introduction

Recently, entrepreneurship has been a salient issue in Asian countries since it is viewed as a driving force of economic development. Entrepreneurship plays a vital role in innovation, economic growth, and job creation for employees (Moica et al., 2012). In Vietnam, the percentage of startups in 2014 was low, achieving only 2%. It is 4% lower than that in 2013 and much lower than the average rate at 12.4% of other factor-driven economies (Monitor, 2018c). This figure has slightly increased in recent years, but it is still low compared to other countries. Until 2017, there are about 3,000 small and medium-sized enterprises (SMEs) in the entrepreneurial ecosystem of Vietnam. New ventures, mainly SMEs from the private sector, account for nearly 50% of GDP and attract about 90% of new employees (Hien & Cho, 2018). Consequently, entrepreneurship development is the right solution for job creation and increasing the dynamics of the economy while reducing the unemployment rate. According to the GEM Report in 2018, the rate of Vietnamese adults who wish to startup was 25%, achieving continuous growth since 2014. However, this rate is still quite low compared to the average rate of other resource-based growth countries. Employment growth was 6.2% in 2017, which is lower than the average rate of 8.4% of other equivalent economies.

In South Korea, startups have been playing a critical role in the economy after a series of structural reforms of the economy to overcome the effect of the 1997 financial crisis. The period of 1998–2000 coincided with the rapid spread of the Internet and the new venture boom that accompanied it (Jung, 2002). It is undeniable that the “entrepreneurial” spirit among the Korean people was kindled after the financial and economic crisis. Up to 2018, the number of startups in South Korea was close to 30,000 with over 100,000 employees. The majority of startups are located in Seoul. Both the old and the young Koreans are starting to embrace entrepreneurship a lot more than in the past (Hemmert et al., 2019). Many Koreans now have a choice of running their own business instead of working for a big conglomerate like Samsung, Hyundai, or LG. In addition, funding for startups in South Korea started to take off in 2014 and reached 1.8 billion USD in 2015. The yearly fund for startups is around 500 to 600 million USD. The Korean government has realised that entrepreneurship was the key to job creation and trying to nurture favourable conditions for startups in the economy (Hemmert et al., 2019).

Vietnam and South Korea are two Asian countries that are quite different in terms of socio-economic development aspects. They are both sizeable economies when we consider the population (51.4 million in Korea and 97.5 million in Vietnam, according to the United Nations data for 2018). However, a significant gap exists in the GDP per capita between the two countries. According to the World Bank, GDP per capita in 2018 of Korea and Vietnam is 40,096 and 2,563, USD, respectively (Lange et al., 2018). Besides, the entrepreneurial activity of the two countries shares some common characteristics. For example, the Total Early-stage Entrepreneurial Activities (TEA) rate in 2018 was 14.7% for Korea and 23.3% for Vietnam (Monitor, 2018a). As mentioned in GEM Report 2018, the fear of failure rate in a startup was quite high for both Korea (32.8%) and

Vietnam (46.6%) (Monitor, 2018b, 2018c). Moreover, the two countries reported not very high participation in entrepreneurship of young people (18 to 24 years old), which is less than 10% (Korea) and 20% (Vietnam) in 2018. These data suggested that Korea and Vietnam, despite their considerable differences in socio-economic growth, are not totally dissimilar in some indexes of entrepreneurship, which would render the comparison of entrepreneurial intention model more attractive.

Many studies attempt to predict and explain entrepreneurial intentions and behaviours based on the theory of planned behaviour (TPB). However, not much research examines how the entrepreneurial climate and institutional factors affect the entrepreneurial intention of young people, and particularly the comparative studies among Asian countries are quite rare. Thus, this study aims to investigate the influence of entrepreneurship education, family support and society support on students' entrepreneurial intention through the mediating role of attitude, subjective norms and perceived behaviour control in the context of Vietnam and South Korea.

This paper is organised as follows. Section 2 briefly addresses the theoretical background of entrepreneurship and factors affecting the entrepreneurial intention. Section 3 presents an analytical framework, hypotheses, measurements, and sampling methods. Section 4 discusses the findings from the data analysis. Section 5 suggests the implications and limitations of this study. A conclusion follows in section 6.

## 2. Theoretical background

### 2.1. Entrepreneurship and entrepreneurial intention

Although entrepreneurship has been an attractive research topic for recent decades in both developed and developing countries, there seems to lack of consensus on the definition and meaning of the concept “entrepreneurship.” There are many ways to define this concept. Some authors gave a broad definition of entrepreneurship that refers to a dynamic process created and managed by an individual who strives to exploit economic innovation to create new value in the market toward achieving a particular need (Kuratko & Audretsch, 2009). Entrepreneurship is also defined as “doing new things or doing things that have been done in a new way” (Schumpeter, 1947).

Entrepreneurship involves the initiation, engagement, and performance of entrepreneurial endeavours embedded in environmental conditions, where an entrepreneurial endeavour is the investment of resources (i.e., cognitive, behavioural, financial, and other resources) into the pursuit (exploration or exploitation) of a potential opportunity (Shepherd et al., 2019).

Entrepreneurial intention is the commitment to start and own a new business (Liñán et al., 2011), (Krueger Jr et al., 2000). It is also defined as the confirmation of an individual about the will to become the owner of a business and formulate the action plan at a certain point of time in the future (Thompson, 2009), (Pruett, et al., 2009), or even merely a motivation to connect action plan to establish a new business (Fayolle & Toutain, 2013; Maresch et al., 2016). Studies also show that an entrepreneurial intention is comparable with a will to achieve an act (Bruyat & Julien, 2001; Fayolle & Toutain, 2013) so that the intention is based on needs, values, practices, and beliefs of the entrepreneur (Hajer & Habib, 2013). Entrepreneurial intention shows the intention of a person to choose to be an entrepreneur for his career. People who have entrepreneurial intentions plan to take calculated risks, gather required resources, and establish their ventures (Karabulut, 2016).

### 2.2. Sociological approach to entrepreneurship

The sociological approach to entrepreneurship has been used in many studies to predict and explain entrepreneurial intention. This approach is based on social behaviour theories which emphasise the environmental or situational determinants of entrepreneurial behaviour and focuses on the person in context (Chen et al., 1998; Mauer et al., 2017; Mueller & Thomas, 2001;

Shapiro & Sokol, 1982). The premise of this approach is that we need to know how the characteristics of the individual interact with the characteristics of the environment to predict the behaviour.

According to this approach, individuals' perceived entrepreneurial capability and the consequent behaviour can be understood in terms of the types of situations encountered and the social (reference) groups to which individuals relate throughout their lives (Gibb & Ritchie, 1982). More specifically, the sources of influence are family background, situational factors and the broader environment of entrepreneurship.

Empirical studies in developed countries find evidence that the entrepreneurial climate with favourable regulatory, cognitive and normative institutions positively influence of entrepreneurial intentions and activities in an economy (Bruton et al., 2010; Ebner, 2006; Wicks, 2001). Regulatory institutions include favourable laws and regulations for business formation and operations as well as supportive mechanisms to recognise individuals' entrepreneurial efforts. Cognitive institutions refer to the level of shared knowledge and information in society about venture creation, operations and growth, which are basically provided to the students through the training program. Entrepreneurship education is about equipping people to work within a global sphere of economic activity and providing individuals with an understanding of facets of the economy and society they live in, and the processes of change that run around them (Taylor & Plummer, 2003). Lastly, normative institutions refer to acceptability and admiration of innovation, creativity and entrepreneurial careers in society (Busenitz et al., 2000; Manolova et al., 2008).

### 2.3. Theory of planned behaviour and entrepreneurial intention

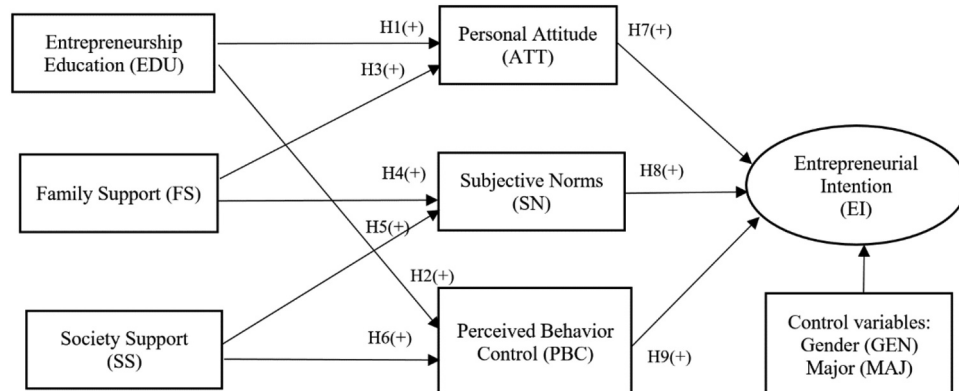
Theory of Planned Behaviour (TPB) by (Ajzen, 1985, 1991) is extended from the Theory of Reasoned Action (TRA). According to this theory, the intention of an individual to perform a specific action shows his readiness and becomes the determinant to perform that behaviour (Ajzen, 2011). Meanwhile, the intention is directly affected by three antecedents, which are attitude towards the behaviour, subjective norms and perceived behaviour control (Ajzen, 1991). Studies on entrepreneurial intention are often based on TPB. In other words, TPB has been considered to be an influential model for explaining entrepreneurial intention in many countries (Aloulou, 2016; Rueda et al., 2015; Van Gelderen et al., 2008).

## 3. Methodology

### 3.1. Research model

The research model in this study (See Figure 1) was mainly based on the Theory of Planned Behavior (TPB) developed by (Ajzen, 1985), which has been recently fallen under the umbrella of the reasoned action approach.

Figure 1. Research model.



In this model, three direct antecedents of entrepreneurial intention were the personal attitude towards entrepreneurship, subjective norms, and perceived behavioural control in the TPB. Besides, macro-environmental factors were hypothesised to affect entrepreneurial intention through the three factors of TPB. Previous studies investigated the direct impact of macro-environmental factors on entrepreneurial intention. This study aimed to explore the indirect impact of these factors as it is doubtful that entrepreneurship education, family as well as society support would change the students' attitude towards entrepreneurship and make them perceive the feasibility or the ease of setting a business, then they feel more confident to startup.

In addition, we used two control variables, including gender, and the major (educational specialisation). Gender is a dichotomous variable (0: female, 1: male) which has been reported to impact entrepreneurial intention (Camelo-Ordaz et al., 2016). Moreover, previous studies showed that entrepreneurial intention might differ across education specialisations (Maresch et al., 2016). Thus, we also controlled for business students as a dummy variable to denote whether the student is in a business-related field of study (Economics and Business).

### **3.2. Hypothesis development**

#### **3.2.1. Entrepreneurship education**

The entrepreneurship education program has been recognised as a decisive factor for entrepreneurial intention (Roxas et al., 2008) and help the young entrepreneurs to achieve success (Yusof et al., 2012). Entrepreneurship education promotes entrepreneurial intention by providing necessary exposure through theoretical and practical knowledge about entrepreneurship (Ambad & Damit, 2016). Previous researchers agree that entrepreneurship education develops students' entrepreneurial spirit and aspire them to start a business by equipping individuals with the appropriate knowledge and skills of running a business (Peterman & Kennedy, 2003; Roxas et al., 2008; Turker & Sonmez Selçuk, 2009). In addition to the direct impact of entrepreneurship education on entrepreneurial intention, some studies assume that the effect of entrepreneurship education on entrepreneurship is mediated through its effect on TPB's intervening constructs (Bazan et al., 2019; Ho et al., 2014; Rauch & Hulsink, 2015).

In this study, we assume that entrepreneurship education will directly change the attitude of students towards entrepreneurship and their perception of feasibility so that it makes them feel more confident to start up. Thus, we have the following hypotheses.

*H1: Entrepreneurship education has a positive impact on personal attitude towards entrepreneurship.*

*H2: Entrepreneurship education has a positive impact on perceived behaviour control.*

#### **3.2.2. Family support**

Support from relations is considered as the acceptance and support from family, friends, and others for the business (Turker & Sonmez Selçuk, 2009). A family may affect how young people choose their careers in some ways. Family members, particularly parents, become role models for the younger generation and not only inspire them to follow their career path or let them define their self-concept (Gibson et al., 2011) but also provide fund support (Nanda & Sørensen, 2010) and guidance (Nauta & Kokaly, 2001). However, strong parental expectations may sometimes lead to a psychological dilemma for the students to choose a specific career (Murphy & Lambrechts, 2015). The impact of family on offsprings' entrepreneurial intention is inconclusive. Some studies insisted that family background has a direct positive impact on entrepreneurial intention (Altinay et al., 2012; Zapkau et al., 2015). Other studies claimed that financial support offered by a family to offspring to start an independent venture could be seen as a "poisoned gift" as it entails future financial and non-financial obligations vis-à-vis the family granting support (Sieger & Minola, 2017). Moreover, parental influence on offspring entrepreneurial propensity will be moderated by



the performance of the family firm, with substantial adverse effects in the case of bankruptcy (Mungai & Velamuri, 2011).

Moreover, family support on entrepreneurs may also be supposed to influence the subjective norms that they perceive when they start a business. It is explained in the Theory of Career Choice (Dick & Rallis, 1991). This theory emphasises that an individual's beliefs about career are influenced by three factors: their interpretation of past experiences, their perception of the attitudes and expectations of "socialisers" (e.g., parents, friends, teachers) toward the careers. It posits that the beliefs and experiences of individuals will influence their attitudes toward a particular career then may either push them or hinder them from choosing that career. It is confirmed by (Light & Bonacich, 1988) that early socialisation of young people in a family business would form the values and attitudes toward business ownership. Individuals are supposed to hold a positive attitude towards business ownership if they perceive the positive evaluation of business ownership of other people important to them. As such, the attitudes towards business ownership is supposed to mediate the relationship between family support and entrepreneurial intentions.

In this study, we hypothesise that family support first influences the attitude of students about entrepreneurship and their perception of socialisers, then drives them towards deciding entrepreneurship. Thus, these two hypotheses are raised.

*H3: Family support has a positive impact on personal attitude towards entrepreneurship.*

*H4: Family support has a positive impact on subjective norms.*

### 3.2.3. Society support

The current context of entrepreneurship is mainly shaped by economic and political mechanisms, which are governed by the actors in public, private and non-governmental sectors (Turker & Sonmez Selçuk, 2009). In such a system, there can be some opportunities or threats for entrepreneurs. If there are some barriers to entry into a specific market, people might show a low tendency for entrepreneurship. The beginning of any startup is believed to be challenging for entrepreneurs. Thus, entrepreneurs want to receive the support of society. The support can be favourable policies at the local government level or central government level to promote entrepreneurship or regulations to create a milieu for entrepreneurs. Several studies showed that society support positively relates to entrepreneurial intention (Turker & Sonmez Selçuk, 2009), (Altinay et al., 2012). The impact of society support on entrepreneurial intention is recognised either directly or indirectly in previous studies. In this study, we assume that society support affects how students perceive the social pressures and feasibility to start a business which mean that two constructs of TPB (i.e. subjective norms and perceived behaviour control) mediate the relationship between society support and entrepreneurial intention. Therefore, we predict as follow:

*H5: Society support has a positive impact on subjective norms.*

*H6: Society support has a positive impact on perceived behaviour control.*

### 3.2.4. Attitude towards entrepreneurship

An attitude is the antecedent of an intention (Karabulut, 2016). Ajzen (2011) defined attitude as "the degree to which a person may have a favourable or unfavourable evaluation or appraisal of the specific behaviour." Krueger Jr et al. (2000) suggested that attitude is described as an enduring system of positive or negative evaluations of an object. It represents the person's assessment of the object and compares it with other objects based on the person's thinking, beliefs, and feelings toward the object.

In many studies, the personal attitude has proven an essential factor to explain intention towards entrepreneurship, whereby a significant positive relationship existed between attitude and

entrepreneurial intention (Çolakoğlu & Gözükar, 2016; Kautonen et al., 2013; Liñán & Chen, 2009). Thus, we propose the following hypothesis:

*H7: Personal attitude has a positive impact on entrepreneurial intention.*

### 3.2.5. Subjective norms

Subjective norms are conceptualised as “the perceived social pressures to perform or not to perform the behaviour” (Ajzen, 2011). Past literature has shown controversial results on the relationship between subjective norms and entrepreneurial intention. Some studies confirmed that subjective norms have a significant positive influence on entrepreneurial intention (Bryat & Julien, 2001; Kautonen et al., 2013). Other studies concluded that subjective norms have traditionally played a weak role in predicting entrepreneurial intention (Gürol & Atsan, 2006; Krueger, 2003). In this study, we also suppose a positive relationship between subjective norms and entrepreneurial intention as the following hypothesis:

*H8: Subjective norms have a positive impact on entrepreneurial intention.*

### 3.2.6. Perceived behaviour control

The internal control behaviour is related to the ability of a person, e.g., the confidence to do business, while the external control is much related to the situation. (Kadir et al., 2012) also confirmed that perceived behaviour control (innovation and risk evaluation) has a positive impact on entrepreneurial intention. (Thu & Le Hieu, 2017) also stated that attitude towards entrepreneurship and the perceived behaviour control have a positive impact on entrepreneurial intention of which the perceived behaviour control has both direct and indirect impact.

Other studies also found that perceived behaviour control positively correlates with entrepreneurial intention (Kadir et al., 2012) in which students were more likely to startup a business when they believed they could perform the tasks related to entrepreneurship. In this regard, we proposed this hypothesis:

*H9: Perceived behaviour control has a positive impact on entrepreneurial intention.*

## 3.3. Measurement instruments

This study paid caution on macro-environment factors that may influence entrepreneurial intention. Thus, the measurement for entrepreneurship education (4 items), family support (4 items), society support (8 items) were adopted and adapted from previous studies by (Adekiya & Ibrahim, 2016; Maresch et al., 2016; Pruett et al., 2009).

In the entrepreneurial intention model, three antecedents of entrepreneurial intention were the personal attitude towards entrepreneurship, subjective norms, and perceived behaviour control. These variables were developed based on Ajzen's theory of planned behaviour (TPB) so that the measurement items were adopted from several studies using TPB such as (Krueger Jr et al., 2000; Liñán et al., 2011; Turker & Sonmez Selçuk, 2009). The entrepreneurial intention was measured through five items adapting from two studies of (Liñán et al., 2011) and (Krueger Jr et al., 2000).

The questionnaire consists of two sections. Section A has three questions about the demographic information of respondents such as gender, grade, and educational specialisation (major). Section B contains 35 items to measure the entrepreneurship education, family support, society support, personal attitude, subjective norms, perceived behaviour control and entrepreneurial intention. All measurements are evaluated using Likert-five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).



### **3.4. Sampling and data collection**

The population of this study include students who are enrolling in bachelor programs of universities in Vietnam and South Korea. In 2019, there were approximately 1.5 million and 2.03 million students in Vietnam and South Korea, respectively. Our empirical analysis was undertaken on a representative sample of Vietnam and South Korea students in Hanoi and Seoul. We chose these two cities due to the high density of higher education institutions in these locations. Hanoi is the hub of higher education with the presence of 96 universities and colleges among 235 higher education institutions in Vietnam. In South Korea, there are currently 433 higher education institutions, 70% of which are located in Seoul.

A self-administered structured questionnaire survey was conducted both online and offline. For the online method, a Google Form-based questionnaire was sent to students through the leaders of the student associations in each university. For the offline method, the questionnaire was delivered in classrooms where the authors teach. After 4 months, 600 and 550 responses were received in Vietnam and South Korea, respectively. Data were then put into SPSS and AMOS version 22 for analysis. The sample characteristics are presented in Table 1.

Table 1 shows that the majority of Vietnamese respondents were female (75.7%), while the gender distribution in South Korea sample is quite balanced. In terms of the school year, most Vietnamese respondents are first and second-year students. On the contrary, Korean students mainly are in their third and fourth year. Both samples have more business major participants than other majors.

## **4. Research findings and discussion**

### **4.1. Preliminary analysis**

Firstly, we performed the Cronbach's alpha test and confirmatory factor analysis (CFA) to assess the reliability, validity and convergence of the measurement instruments. Thirty-five items of the seven constructs were put into CFA. We used the composite reliability (CR) index and average variance extracted (AVE) index to evaluate the reliability of the measurements.

Table 2 shows that CR and AVE were higher than the required criteria for all the measures (CR>0.6; AVE >0.5) (Bagozzi & Yi, 1988). Moreover, CFA results of 7 constructs also indicated that all items had substantial and significant loadings on their corresponding factor, which provided evidence of convergent validity except for PBC1 in the Vietnam sample as the loading value is below 0.5. So this item was removed from the scale of Perceived Behaviour Control in the Vietnamese sample in the next analysis steps. Test results showed a reasonable fit to the data for both Vietnam and South Korea samples (see Table 2).

### **4.2. Impact of the antecedents on students' entrepreneurial intention**

Structural equation modelling (SEM) analysis was run to examine how the institutional factors affect entrepreneurial intention through the three factors of TPB. Table 3 shows the results of the two countries.

For the Vietnamese sample, when gender and major were included in the SEM analysis as controlling variables, four factors in the entrepreneurial intention model did not significantly relate with others because the p-values are higher than 0.05. Entrepreneurship education (EDU) and society support (SS) did not relate to perceived behaviour control (PBC).

Furthermore, attitude (ATT) and subjective norms (SN) did not influence entrepreneurial intention (EI). It is noteworthy that among three factors of TPB, only perceived behaviour control ( $\beta = 1.475$ ,  $p < 0.001$ ) had a positive influence on the entrepreneurial intention of Vietnamese students. This result is similar to the study of (Maresch et al., 2016) which also concluded that subjective norms even negatively affect the entrepreneurial intention of science and engineering students and that effect is not apparent among business student sample in Austria. Furthermore,

**Table 1. Sample characteristics**

Characteristics	Vietnam (n <sub>1</sub> = 600)		South Korea (n <sub>2</sub> = 550)	
	Frequency	Percent (%)	Frequency	Percent (%)
<b>Gender</b>				
Female	454	75.7	289	52.5
Male	146	24.3	261	47.5
<b>Grade</b>				
First-year	202	33.7	61	11.1
Second-year	209	34.8	87	15.8
Third-year	125	20.8	132	24.0
Fourth-year	55	9.2	177	32.2
Fifth-year	9	1.5	93	16.9
<b>Major</b>				
Economics and Business	433	72.2	232	42.2
Social Sciences (Political Science, International Relation, Sociology, ...)	137	22.8	59	10.7
Humanities and Art (Literature, Language, History, Culture, Philosophy, Music, Design ...)	28	4.7	99	18.0
Natural Sciences (Mathematics, Physics, Chemistry, Biology ...)	1	0.2	11	2.0
Engineering and Information technology	0	0	76	13.8
Medicine, Pharmacy and Nursing	1	0.2	73	13.3

the impact of gender on the entrepreneurial intention of Vietnamese students was not confirmed in this study ( $p = 0.768 > 0.1$ ). However, educational specialisation had a small impact on entrepreneurial intention ( $\beta = 0.106, p < 0.1$ ). In other words, the major variable (MAJ) confounded the relationship among factors of the entrepreneurial intention model.

As shown in Table 3, for the Korean sample, there is not enough statistical evidence to confirm the impact of gender and educational specialisation on entrepreneurial intention because the  $p$ -value of these factors is higher than 0.05. So we concluded that there is no difference in the entrepreneurial intention of male and female students. This finding is supported by other studies by (Camelo-Ordaz et al., 2016; Karimi et al., 2014). Besides, the entrepreneurial intention of Korean business students and non-business ones was reported to be indifferent in this study.

When we controlled for gender and major of the students, as may be observed, the core entrepreneurial intention model was generally supported. Six hypotheses were accepted since all paths in the intention model were positively significant. Among the antecedents of entrepreneurial intention, attitude towards entrepreneurship is the most important factor ( $\beta = 0.474, p < 0.001$ ), followed by subjective norms ( $\beta = 0.282, p < 0.001$ ) and perceived behavior control ( $\beta = 0.256,$

**Table 2. Reliability, validity, convergence of model constructs**

Construct	Cronbach alpha CR (AVE)		Loading			
	Vietnam	South Korea	Item	Vietnam	South Korea	
Entrepreneurship Education (EDU)	<b>0.775</b> 0.767 (0.452)	<b>0.755</b> 0.718 (0.390)	EDU1	0.676	0.662	
			EDU2	0.672	0.674	
			EDU3	0.694	0.607	
			EDU4	0.645	0.547	
Family Support (FS)	<b>0.763</b> 0.760 (0.443)	<b>0.770</b> 0.806 (0.510)	FS1	0.639	0.685	
			FS2	0.698	0.647	
			FS3	0.682	0.800	
			FS4	0.641	0.717	
Society support (SS)	<b>0.884</b> 0.881 (0.481)	<b>0.885</b> 0.882 (0.485)	SS1	0.653	0.592	
			SS2	0.608	0.648	
			SS3	0.716	0.685	
			SS4	0.713	0.711	
			SS5	0.716	0.747	
			SS6	0.691	0.682	
			SS7	0.722	0.733	
			SS8	0.720	0.758	
Attitude towards Entrepreneurship (ATT)	<b>0.682</b> 0.719 (0.394)	<b>0.866</b> 0.875 (0.637)	ATT1	0.504	0.773	
			ATT2	0.690	0.823	
			ATT3	0.661	0.817	
			ATT4	0.638	0.777	

(Continued)

**Table 2. (Continued)**

Construct	Cronbach alpha CR (AVE)		Loading		
	Vietnam	South Korea	Item	Vietnam	South Korea
Subjective Norms (SN)	<b>0.812</b> 0.800 (0.571)	<b>0.701</b> 0.762 (0.521)	SN1	0.749	0.752
			SN2	0.737	0.586
			SN3	0.781	0.809
Perceived Behaviour Control (PBC)	<b>0.738</b> 0.723 (0.304)	<b>0.834</b> 0.835 (0.420)	PBC1	-	0.656
			PBC2	0.503	0.667
			PBC3	0.553	0.655
			PBC4	0.590	0.705
			PBC5	0.555	0.622
			PBC6	0.553	0.618
			PBC7	0.551	0.609
Entrepreneurial Intention (EI)	<b>0.863</b> 0.853 (0.537)	<b>0.918</b> 0.917 (0.689)	EI1	0.728	0.846
			EI2	0.780	0.858
			EI3	0.694	0.862
			EI4	0.718	0.713
			EI5	0.742	0.861
<b>Model fit indexes</b>					
Chi-square/df	2.372	2.925			
TLI	0.913	0.893			
CFI	0.924	0.908			
RMSEA	0.048	0.059			

**Table 3. SEM analysis results**

Relationship		Vietnam (n <sub>1</sub> = 600)					South Korea (n <sub>2</sub> = 550)				
		Unstandardised Coefficients	S.E	C.R.	p	Unstandardised Coefficients	S.E	C.R.	p		
EDU	→	ATT	.209	.035	5.946	***	.409	.051	8.063	***	
FS	→	ATT	.234	.039	6.016	***	.308	.042	7.328	***	
EDU	→	PBC	.136	.099	1.379	.168	.390	.041	9.588	***	
SS	→	PBC	.339	.214	1.587	.112	.157	.036	4.318	***	
FS	→	SN	.285	.049	5.809	***	.456	.039	11.705	***	
SS	→	SN	.348	.052	6.680	***	.117	.047	2.509	.012	
ATT	→	EI	.020	.092	.215	.830	.474	.047	10.118	***	
SN	→	EI	-.142	.364	-.390	.697	.282	.043	6.497	***	
PBC	→	EI	1.475	.431	3.422	***	.256	.061	4.228	***	
GEN	→	EI	.020	.068	.295	.768	.077	.059	1.303	.193	
MAJ	→	EI	.106	.051	2.071	.038	.030	.060	.498	.618	
Model fit indices		Chi-square/df = 1.391 (p = 0.000), GFI = 0.996, CFI = 0.998, RMSEA = 0.026.					Chi-square/df = 4.009 (p = 0.000), GFI = 0.984, CFI = 0.980, RMSEA = 0.074.				

$p < 0.001$ ). Besides, entrepreneurship education ( $\beta = 0.409$ ) has a stronger influence than family support ( $\beta = 0.308$ ) on Korean students' attitudes towards entrepreneurship. The subjective norms received greater influence from family support ( $\beta = 0.456$ ) than society support ( $\beta = 0.117$ ).

The results for the Korean sample are in line with several studies of (Kadir et al., 2012), (Powell & Eddleston, 2013), (Edelman et al., 2016), (Liñán et al., 2011) that confirmed the positive impact of education and family support on students' entrepreneurial intention through perceived feasibility and perceived desirability of students. Particularly, regarding the mediating impact of TPB's constructs on entrepreneurial intention, the research results of the South Korea sample is in line with studies of (Rauch & Hulsink, 2015), (Ho et al., 2014). While the Vietnam sample, the unrelated relationship between entrepreneurship education and entrepreneurial intention can be contributed to the high rate of first-year students in the sample (33.7%) who may not have taken the entrepreneurship course at their universities.

In both cases of Vietnam and South Korea, gender does not affect the relationship among variables in the entrepreneurial intention. This finding is similar to studies of (Chen et al., 1998) and (Carter et al., 2003) which confirmed that nascent women entrepreneurs did not report significant entrepreneurial intention than their male counterparts.

Regarding the controlling impact of major on students' entrepreneurial intention, Vietnam and South Korea samples showed different results. While the business and non-business students in Vietnam were reported to have a slightly different entrepreneurial intention, the Korean students' entrepreneurial intention was indifferent across majors.

The results of the hypothesis test are summarised in Table 4 for both countries.

#### 4.3. Comparative analysis of the entrepreneurial intention model between Vietnam and South Korea

Independent sample t-tests were employed to investigate the differences between Vietnam and South Korea respondents. As reported in Table 5, there were significant differences in the mean scores of entrepreneurship education (EDU), family support (FS), society support (SS), attitude towards entrepreneurship (ATT), subjective norms (SN), perceived behaviour control (PBC) and entrepreneurial intention (EI) between students of the two countries. Compared to Korean students, Vietnamese students reported higher mean scores for all variables.

Moreover, a multi-group analysis was conducted to compare whether Vietnamese and Korean students differ significantly on any path in the proposed model. First, two models were established,

**Table 4. Summary of hypothesis test results**

Relationship	Vietnam		South Korea	
	Hypothesis	Result	Hypothesis	Result
EDU → ATT	H1a	Supported	H1b	Supported
EDU → PBC	H2a	Rejected	H2b	Supported
FS → ATT	H3a	Supported	H3b	Supported
FS → SN	H4a	Supported	H4b	Supported
SS → SN	H5a	Supported	H5b	Supported
SS → PBC	H6a	Rejected	H6b	Supported
ATT → EI	H7a	Rejected	H7b	Supported
SN → EI	H8a	Rejected	H8b	Supported
PBC → EI	H9a	Supported	H9b	Supported



**Table 5. Results of independent t-tests**

Construct	Mean (SD)			t-value
	Total (n = 1,150)	Vietnam (n <sub>1</sub> = 600)	South Korea (n <sub>2</sub> = 550)	
EDU	3.40 (0.70)	3.58 (0.65)	3.19 (0.70)	9.901***
FS	3.01 (0.82)	3.36 (0.63)	2.64 (0.84)	16.293***
SS	3.17 (0.67)	3.42 (0.59)	2.89 (0.65)	14.481***
ATT	3.11 (0.80)	3.32 (0.61)	2.87 (0.90)	9.691***
SN	2.70 (0.81)	2.87 (0.74)	2.52 (0.85)	7.435***
PBC	2.94 (0.69)	3.24 (0.51)	2.61 (0.72)	16.862***
EI	2.96 (1.04)	3.52 (0.72)	2.36 (1.01)	22.086***

Notes: \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

the first model assumes that all parameters were fixed to be equal across groups (fully constrained model); the second model allows these parameters to vary across groups (unconstrained model). Then, the two models were compared using  $\chi^2$  difference test (see Table 6).

This study showed that the two models are significantly different ( $\Delta\chi^2 = 41.704$ ,  $p < 0.01$ ), indicating the two groups differed at the model level. Besides, the country difference on each path in the proposed model was examined. In order to test the country difference on each path, models that are different only on each path in the proposed model were compared. More specifically, the constrained model was made by constraining specific parameters to be equal across groups at a time and compared with the unstrained model using the  $\chi^2$  difference test. These are nested models with the restricted model having one degree of freedom higher than the unconstrained model ( $\Delta df = 1$ ) so that the  $\chi^2$  value will always be higher for the restricted model than for the unconstrained model. If the value of  $\chi^2$  increases significantly when adding the restricted to the path, the country difference is found on the path. As reported in Table 5, the multi-group analysis results revealed that the path from family support (FS) to attitude (ATT) ( $\Delta\chi^2 = 2.584$ ,  $p < 0.001$ ) and from family support (FS) to subjective norms (SN) ( $\Delta\chi^2 = 7.343$ ,  $p < 0.01$ ), as well as the path from society support (SS) to subjective norms (SN) ( $\Delta\chi^2 = 11.338$ ,  $p < 0.01$ ) and society support (SS) to perceived behaviour control (PBC) ( $\Delta\chi^2 = 7.483$ ,  $p < 0.01$ ), were significantly different between Vietnamese and Korean respondents, supporting the difference between the two countries.

It stands to reason that the disparities of institution systems and socio-economic background may be responsible for this difference. Even though both Korea and Vietnam are affected by the Confucianism, the influence of family and society on students' intention to startup in Korea and Vietnam are not the same. While the Korean students' entrepreneurial intention seems to be strongly affected by their family, the Vietnamese students are not. Furthermore, the Korean students also perceive the positive education, family and society support for them to start a business, but the Vietnamese students do not.

The findings of the positive relationship between the macro-environmental factors and the TPB construct on entrepreneurial intention in South Korea are supported by the findings from Global GUESS Report 2018.<sup>1</sup> According to the Global GUESS Report, entrepreneurship education has the desired strong impact on students' entrepreneurial intention. As the number of students attending entrepreneurial education increases, their intention, awareness and motivation for entrepreneurship are consistently higher than those not taking entrepreneurship education (Sieger et al., 2019).

In the case of South Korea, the average university entrepreneurial climate is evaluated to be quite favourable for students with the mean value of 4.1 over the 7-point-scale and students report that they learn quite a lot about entrepreneurship (Sieger et al., 2019). Recently, the Korean

**Table 6. Results of  $\chi^2$  difference test between models**

	$\chi^2$	df
Unconstrained model	28.660	4
<i>Fully constrained model vs. Unconstrained model</i>		
Fully constrained model	70.364	13
Model difference	41.704	9
p-value ( $\chi^2$ )	0.000	
<i>FS to ATT constrained model vs. Unconstrained model</i>		
FS to ATT constrained model	31.244	5
Model difference	2.584	1
p-value ( $\chi^2$ )	0.000	
<i>FS to SN constrained model vs. Unconstrained model</i>		
FS to SN constrained model	36.003	5
Model difference	7.343	
p-value ( $\chi^2$ )	0.007	
<i>SS to SN constrained model vs. Unconstrained model</i>		
SS to SN constrained model	40.048	5
Model difference	11.388	1
p-value ( $\chi^2$ )	0.001	
<i>SS to PBC constrained model vs. Unconstrained model</i>		
SS to PBC constrained model	36.143	5
Model difference	7.483	1
p-value ( $\chi^2$ )	0.006	

government has provided excellent infrastructures for entrepreneurial activities, including facilities, financial attractiveness, and consulting services. It can attract young people and mid-career people to start up their businesses instead of working for large corporations. Thanks to the dynamic actions of the Korean government to develop the entrepreneurship ecosystem, students are more willing to start their own business.

In the case of Vietnam, according to the GEM 2017/2018 report, the lowest ranking indicators in the 2017 entrepreneurial ecosystem are entrepreneurial finance, entrepreneurship education, and government support policies. This situation is reflected in the unrelated relationship between entrepreneurship education and society support on perceived behaviour control in the Vietnamese sample in this study.

It is noteworthy that it may also be the case that sample characteristics partially account for this difference since the Vietnamese sample is mainly made up of participants studying economics and business major in the first and the second-year students. In contrast, the Korean sample is characterised by the third and the fourth year students and more participants from technical programs.

### 5. Implications

The analytical essence of this study explains the impact of macro-environmental factors on the entrepreneurial intention with individual characteristics through TPB. However, results in this study suggest that the traditional specification of the entrepreneurial intention model based on linear regression may not be entirely adequate. It would seem that macro-environment such as entrepreneurship education (EDU), family support (FS) and society support (SS) do not play a direct role in determining entrepreneurial intention. Their impacts on entrepreneurship seem to be indirect

through attitude (ATT), subjective norms (SN) and perceived behaviour control (PBC). This result holds for both the Vietnam and South Korea samples. Thus, this study provides empirical evidence from two Asian countries which are both influenced by Confucianism and family traditions but show different results in the test of an integrated sociological and TPB approach to entrepreneurship.

Furthermore, the relative influence of attitude (ATT), subjective norms (SN), and perceived behaviour control (PBC) on entrepreneurial intention (EI) would be different depending on the country when we control the impact of gender and educational specialisation in the entrepreneurial intention model. In the Vietnamese sample, only perceived behavioural control ( $\beta = 1.475$ ) affects entrepreneurial intention. In the Korean sample, ATT has the most substantial effect on EI ( $\beta = 0.474$ ), followed by subjective norms ( $\beta = 0.282$ ) and perceived behaviour control ( $\beta = 0.256$ ). Moreover, multi-group analysis has confirmed the differences in the impact of macro-environmental factors on entrepreneurial intention models of the two countries. Thus, it is concluded that the differences in the country background lead to differences in entrepreneurial models.

The above results suggest these following implications for both entrepreneurs and related stakeholders in the entrepreneurial ecosystem.

Firstly, the entrepreneurial environment of Vietnam is far behind South Korea so that Vietnamese students did not perceive the positive support from family, school and society as their Korean peers did. Thus, the essential step for the Vietnamese government is to enhance and change the institutions of the entrepreneurial ecosystem to make it more favourable for young entrepreneurs. South Korea might be an excellent example for Vietnam to follow. For example, in 2008, South Korea launched the Korea Institute of Startup and Entrepreneurship Development (KISED). Its purpose contributes to the development of the national economy through the growth of startup businesses and job opportunities and promotes the technology-based startups of future entrepreneurs by cultivating the entrepreneurial spirit. KISED's main activities include providing entrepreneurship education and training, conducting research for startup promotion, providing funds, human resources and marketing opportunities, supporting the global expansion of the Korean startups.<sup>2</sup> Recently, the Moon Jae-in administration of South Korea has started the innovation-driven growth policy, which furthered the support for startups and ventures (Korea GEM report, 2019). In addition, the South Korean government has also improved the entrepreneurship education program in all stages of the education system from primary school to college and university level. This policy shows a long-term strategic approach to promote entrepreneurship targeting young Korean citizens.

On the contrary, entrepreneurship education in Vietnam is still scattered and unintegrated in the national education program. The Vietnamese government has initiated the National Entrepreneurship Program to promote entrepreneurship among young people. However, this program has not been integrated into the training and education program of the whole country. So the impact of the program is still limited to small groups of students through several startup contests, activities of a few startup incubation centres in some universities or the website of the national entrepreneurship program, which provides basic information for young people who wish to open their business.

Secondly, this study showed that perceived behaviour control is the only factor of TPB that influence both Vietnamese and Korean students' entrepreneurial intention. This result implies that this factor should be strengthened to stimulate more definite entrepreneurial intention. Thus, we suggest that colleges and universities should support the R&D transfer process to young entrepreneurs in both Vietnam and South Korea. The readiness of technology will be a critical factor for nascent entrepreneurs. It is concluded in the GEM Report in Vietnam and South Korea that the R&D component in the entrepreneurial ecosystem is still growing very slowly. Thus, there must be a dramatic change of this factor in the near future.

Thirdly, attitude towards entrepreneurship is shown to be not significantly irrelevant to the entrepreneurial intention of students in Vietnam but very important in South Korea. This finding implies that the government, universities and family should joint hand to stimulate a positive attitude of students towards entrepreneurial intention in both South Korea and Vietnam, particularly when the career pattern for young people has long been government officer rather than running their own business. Students' attitude might be influenced by their exposure to family business or entrepreneurship education program. Thus, both the family and the school should collaborate to inspire the students to become nascent entrepreneurs.

## 6. Conclusion

Entrepreneurial intention is stimulated by a combination of factors relating to not only individuals such as attitude and perceptions, but also the environment, including family, school, and society. The influence of the environment on these dimensions is today beyond doubt. In this research, the authors tried to select samples so that they are equivalent. Unfortunately, a biased distribution of the sample in business bachelor programs for the Vietnamese sample still exists.

This study investigates the relationship between antecedents of entrepreneurial intention with more caution on the effect of macro-environmental factors on personal attitude towards entrepreneurship, subjective norms, and perceived behaviour control. The results reveal that differences in the social background might lead to differences in the relationship between antecedents of the entrepreneurial intention in the two Asian countries. It is also implied from this study that entrepreneurship education and society support should be enhanced through an active ecosystem to foster entrepreneurship in both countries. Thus, we need a joint hand of the government, the academic institutions, the social, civil organisations, and the families. This study looked at the two countries with a quiet different sociological and historical background. However, for a theoretical generality, it would be worthwhile to extend the TPB-based study to the countries with similar macro-environmental background, such as the ASEAN nations.

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## Notes

1. Global GUESS Report is the publication of Global University Entrepreneurial Spirit Student's Survey. Every 2–3 years, a global data collection effort takes place. The latest data collection was conducted in

late 2018 in 54 countries at more than 3,000 universities and generated more than 208,000 responses.

The report provides insights into students' entrepreneurial career choice intentions and their underlying drivers.

2. <https://www.kised.or.kr/menu.es?mid=a20101000000>

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