

FACTORS AFFECTING THE ENTREPRENEURIAL INTENTION OF UNIVERSITIES' STUDENTS: CASE STUDY WITH STUDENTS AT CAN THO UNIVERSITY OF TECHNOLOGY, VIETNAM

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Abstract

This study examines the factors that affect the entrepreneurial intention of universities' students in Vietnam. We do a case study with the students at Can Tho university of Technology (CTUT). We do a survey with 925 students at CTUT and treat the data with SPSS version 27. We use SEM for testing the Linear structural model. The results show that factors that positively influence students' intention to start a business include: (1) Social Norms; (2) Knowledge and Experience; (3) Social Norms; (4) Personal Attitude; and (5) Personal Traits. Interestingly, (6) Educational Support negatively affects the students' intention to start a business. This may be explained by the large difference in applying educational knowledge into entrepreneurial activity between economic students and non-economic ones. The results may provide the orientations so that managers and the government correctly motivate start-up activities in university students.

Keywords: Entrepreneurial intention, TRA, social, education, CTUT

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Tho University
of Technology,
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Received
November 12th 2024
Review
May 24th 2025
Publish
June 30th 2025



AFEBI Management
and Business
Review
(AMBR)

P-ISSN [2548-530X](#)
E-ISSN [2548-5318](#)

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Entrepreneurship is a topic receiving much attention in Vietnam, especially in the context of the country's strong integration with the world economy. Besides, the booming Industrial Revolution 4.0 is both an opportunity and a challenge for today's youth to start a business. It cannot be denied that starting a business is one of the motivations for promoting the economic development of a country (Vo et al., 2021). Moreover, Vietnamese government has paid more attention to entrepreneurship so that it issues more schemes of entrepreneurs, typically the scheme "Supporting students and entrepreneurs to 2025" signed by the Prime Minister on October 30, 2017. It is believed that starting a business creates opportunities for young people and students to develop their creative spirit and independence. Also, start-up brings young people opportunities to apply their knowledge from theory to practice. At the same time, entrepreneurs starting feasible projects could build experiences which may support the latter in term of consulting, training, or ways of accessing capital and attracting investors (Lee & Wong, 2006). This is also an opportunity for young people to turn their dreams and ambitions into reality.

Although the need for employment has become larger in the labor market, the labor force is also increase. Especially, the number of graduates, being one of the important labor forces, is shooting yearly. According to the Vietnamese General Statistics Office, the most recent reported data on the unemployment rate of the country in the third quarter of 2021 is 8.89%, an increase of 1.2% compared to the previous quarter and an increase of 0.75% compared to 0.75% with the same period last year (General Statistic Office of Vietnam, 2021). In the context of that highly competitive labor market, one of the solutions to solve job-finding issue for university students is encouraging entrepreneurship.

Kolvereid & Moen (1997) shows that education on business spirit is very important. It helps equip students with the necessary knowledge and skills in starting and maintaining the business. The literature show that participants in business spirit courses increase the number of immediate student start-ups (Galloway & Brown, 2002). Business spirit courses motivate students in starting a new business and provide them essential knowledge and creative ideas. In turn, business spirit is one of the motivations to promote the economy, and this has led to increasing interest in developing educational programs encouraging business spirit (Gorman et al., 1997).

So, universities in Vietnam have been continuing to create convenient environment for start-up activities. For example, start-up courses are added into educational programs; conferences and meetings on start-up in students are held; start-up championships around the country become yearly activities; or Shark tank TV-series are run to provide fund to profitable projects. Similarly, CTUT, with a multi-disciplinary educational system, provides many programs to encourage students and create conditions for them to engage in start-up activities. For example, CTUT students study start-up course in their program, and CTUT annually holds start-up competitions or runs conferences on entrepreneur. Throughout the programs, the University brings students opportunities to interact with successful start-up businessmen in Mekong Delta, and creates an active start-up environment inside.

However, the activities and intentions to start a business among Vietnamese students in general are still low. In fact, most of the graduates in the surveyed sample are ready to only register as a recruitment at existing businesses, and very few of them want to start a new business. In the same situation, entrepreneurial activities among students studying at CTUT are still rare and almost nonexistent. Meanwhile, there is not many research evaluating the entrepreneurial intentions of the students, especially the CTUT students.

Therefore, examining the factors to promote the entrepreneurial spirit and "ownership mindset" among students, both graduates and undergraduates, is becoming urgent. The examined factors, then, might help managers and the government correctly encourage students starting new business and reduce job-finding-pressure for students themselves and for society. This study will examine the factors that affect the entrepreneurial intentions of students studying at universities. We do a case study with students at CTUT. A survey of 975 students has done. Then, we treat the data with SPSS version 27. The results show that factors that positively influence students' intention to start a business include: (1) Social Norms; (2) Knowledge and Experience; (3) Social Norms; (4) Personal Attitude; and (5) Personal Traits. Interestingly, (6) Educational Support negatively affects the students' intention to start a business. The results may provide the orientations so that managers and the government correctly motivate start-up activities in university students.

LITERATURE REVIEW

Entrepreneurship studies have arisen rapidly since 40 years ago, and many research papers have focused on entrepreneur intention (EI) considered to have the greatest influence on entrepreneurship activities (Maheshwari et al., 2023). For example, Turker & Selcuk (2009) conduct an empirical test on a sample of 300 university students in Turkey and show that educational and structural support factors affect the entrepreneurial intention of students. In more details, Taha et al. (2017) conduct a review study and find that there is a strong relation among Malaysian students entrepreneurial attitude, subjective norms, and perceived behavioral control. Similarly, Martins et al. (2023) use a questionnaire with 716 respondents and show that self-efficacy, peers support, institutional support, and family support positively impact entrepreneurial intention in young graduates. Colman et al. (2021) also

conclude that perceived innovativeness, perceived risk and perceived educational support on the part of a particular group of the University of Cape Town students' entrepreneurial intentions.

Similarly, literature on entrepreneur and factors that affect entrepreneur intention in Vietnam is increasing. Some papers recently use empirical examination to document the factors influencing Vietnamese youth's entrepreneurial intention. For example, Khuong & An, (2016) conclude that personal traits, prior entrepreneurial experience, external environment, social norm and perceived feasibility affect entrepreneurship intention through the positive and negative perception toward entrepreneurship. P. M. Nguyen et al. (2018) also show that knowledge and experience, attitude toward entrepreneurship and perceived behavior control are the three most important factors that influence the entrepreneur intention. Kieu (2022) find that there are 5 main factors that positively influence the startup intention of students in descending order, including: "Attitude to entrepreneurship"; "Behavior control awareness"; "Business education"; "Self-competence" and "Subjective standards". Similarly, A. T. Nguyen et al. (2019) show that Desire for success and challenge, Attitude toward Entrepreneurship, Perceived Behavioral Control, Experiences with Entrepreneurship, and Creativity were positively correlated with the entrepreneurial intentions among Vietnamese youths. Also, Van My & Truong (2023) present nine factors influence the business decisions of young entrepreneurs of the Y generation in Vietnam, such as entrepreneurial education, the background of the family, entrepreneurial ecosystem, knowledge, social valuation, opportunity perception, attitude, business performance, and purposeful entrepreneurial competence.

Some of the papers examine the issue using data collected from different universities or areas. Some others examine the issue clinging to a particular university in Vietnam so that some specific factors may be explored. We also examine the factors affecting the entrepreneur intention using a questionnaire to collect data from CTUT students. This study may help provide more specific factors so that managers and the government correctly motivate start-up activities in university students.

RESEARCH METHODOLOGY

The Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA), developed by Fishbein and Ajzen (Ajzen & Fishbein, 1980), addresses the impact of cognitive components, such as attitude, social norms, and intentions, on behaviors. According to this theory, an individual's attitude towards a certain behavior and norms representing their perceptions of other people's views on that behavior will determine their purchase intentions, which may lead to behavioral performance. A person's attitude toward an action is determined by that person's beliefs about that behavior. In addition, a person follows a subjective standard for an action defined by that person and his or her belief in that attitude (a person's subjective norm towards a behavior is determined by that person's beliefs about that attitude) (Ajzen & Fishbein, 1975). Researchers using the TRA as a behavioral intention framework should be able to predict the performance of any voluntary action unless the intention shifts between assessing and implementing the behavior. Researchers should also be able to anticipate whether a behavior will occur. However, a choice among alternative behaviors was not included (Ajzen & Fishbein, 1980).

Therefore, TRA was adopted to identify factors correlating to and affecting the entrepreneurial intentions of students at Can Tho University of Engineering and Technology.

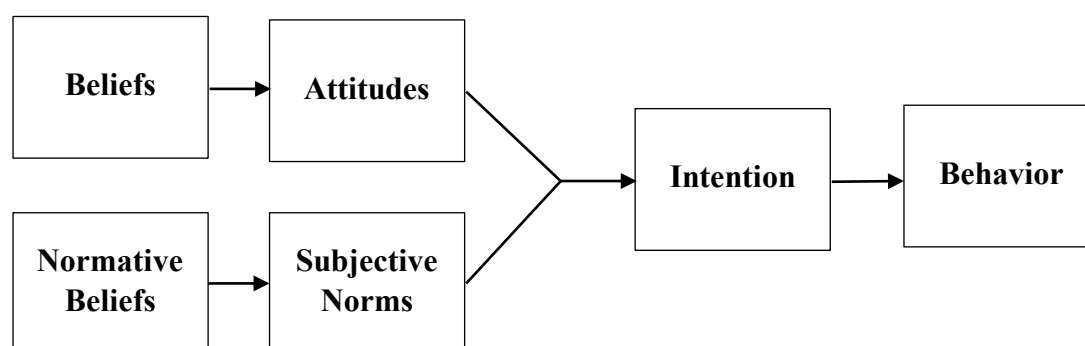


Figure 1.
The Theory of
Reasoned

We start constructing the variables and suppose the hypothesis (Hi) by reviewing which factors may affect Vietnamese students' entrepreneur intention and how they affect it, as following.

Entrepreneurial intention (EI)

Entrepreneurial intentions are the state of mind guiding and directing the actions of a person towards the development and execution of behaviour (Owoseni & Akambi, 2010). According to Ajzen (1991a), the intention of carrying out a given behaviour depends on the person's attitude towards that behaviour. As such, an attitude can increase or decrease the level of intention to engage in any activity. Intention may be defined as an indicator of the will to try something or the effort one is prepared to apply to behave in a particular manner (Ajzen, 1987). The intention is thus the cognitive representation of a person's willingness to display a certain behaviour (Fayolle et al., 2006). Furthermore, Ajzen (1987, 1991a) and Krueger Jr et al. (2000) take up this line of thinking and find intention is assumed to be one of the motivational factors that can influence behaviour, which is related to the willingness of an individual to try something new, and also the effort placed in performing such behaviour. It is also believed that the stronger the intention to get involved in any given activity, the better performance of that individual in that particular activity.

Educational Support (ED)

Many studies have confirmed that the educational environment has a positive influence on students' entrepreneurial intentions (Vojak et al., 2006). Previous researchers have shown that entrepreneurship education is an effective method to equip learners with the necessary knowledge about entrepreneurship (Turker and Sonmez Selçuk, 2009). Furthermore, education will provide students with the knowledge, skills, and attitudes to pursue a business career (Keat et al., 2011). According to Roxas (2014), knowledge about entrepreneurship acquired from a standard entrepreneurship course will enhance individuals' entrepreneurial intentions. In addition, special entrepreneurship skills taught in schools and through special adult education programs by teachers familiar with entrepreneurship activities may also influence the ability of a person to engage in entrepreneurship (Engle et al., 2010). According to Yusof et al., (2007), an appropriate system of support, education, and management capacity development will likely help them succeed because it provides the skills and competencies to start a business and become independent, work as a career choice (Birdthistle, 2008).

Then, we suppose H1.

H1: Support from training programs (or Educational Support - ED) is positively correlated with entrepreneurial intention.

Social Norm (SN)

According to Liñán & Chen (2006), the opposition or support of the most important people for an individual (family members, friends) when starting a business, or awareness of influence from the social community, is defined as awareness of social pressure to perform or not perform a behavior (Ajzen, 1991a). For startup activities, influential groups can be agents that hinder or promote an individual's determination to start a business. With the influence of Confucian tradition in society, like in Vietnam, which has characteristics of collective culture, individuals often consider the opinions of those around them before acting (Son et al., 2023). It is the influence of important and close people that can affect the individual to perform the behavior. Specifically, the influence of family and friends is confirmed to have a positive influence on students' entrepreneurial intentions (Pham et al., 2022; Vo et al., 2021).

Then, we suppose H2.

H2: The influence of family and friends (or Social Norm – SN) has a positive correlation with entrepreneurial intention.

Knowledge and Experience (KE)

In addition to knowledge, experience is also an important criterion that affects an individual's intention to start a business. Nabi & Holden (2008) agree that personal life experiences and learning about starting a business allow them to gradually transform entrepreneurial intentions into actual entrepreneurial activities. Students with self-accumulated business experience during their studies will have a higher advantage and a clearer intention to start a business than those without experience (Devonish et al., 2010). Therefore, in this study, we hypothesize H3.

H3: Knowledge and experience (KE) have a positive correlation with entrepreneurial intention.

Personal Attitude (PE)

Many studies have shown that personal attitudes have an impact on students' entrepreneurial intentions. Krueger Jr et al., (2000) argue that attitude describes a systematic positive or negative evaluation of a specific object. It represents the person's evaluation of the object and comparison with other objects based on the individual's thoughts (perceptions), beliefs (values), and emotions toward things (Hoyer et al., 2017). Boissin et al., (2009) when testing and comparing in the US and French markets, show that "attitude towards entrepreneurship" and "self-efficacy assessment" both positively impact the "startup intention" and career of students. Similarly, in the context of Vietnam, we hypothesize H4.

H4: Personal attitude (PE) has a positive correlation with entrepreneurial intention.

Personal Traits (PT)

Personality is the unique qualities and characteristics of each person. Many researchers have recognized the role of personal personality in a person's entrepreneurial actions (Kirzner, 1983). The entrepreneurial process is closely related to the ability to detect and pay attention to things that no one has ever noticed before. Kihlstrom & Laffont, (1979) believes that "entrepreneurship is a human characteristic of being willing to face uncertainty." Ghasemi et al. (2011) argue that there is a positive relationship between "creative" personality and "entrepreneurship intention", in which the former influences the latter. Meanwhile, Brandstätter (2011) showed that "willingness to innovate," "proactivity," "belief in self-efficacy," "tolerance to pressure," "need for autonomy," and "control oneself" have a positive influence on business creation and "business success.". In short, personal personality plays an important role in successful entrepreneurship (Weichold et al., 2003). So, we suppose H5.

H5: Personal traits (PT) have a positive correlation with entrepreneurial intention.

Perceived behavioral control (PBC)

According to Ajzen, (1991b), perceived behavioral control refers to an individual's perception of the degree of ease or difficulty, whether they are controlled or restricted when performing their actions. The successful possibility of an entrepreneurship can be assessed through the individual's feelings about the ability to survive and develop the business when starting a business, the ability to succeed in business, the personal knowledge and experience, or the ability to access information. An individual with potential entrepreneurial intention must have the desire and perceive the feasibility of the entrepreneurial intention (Shapero & Sokol, 1982). This is close to the concept of personal capacity (Bandura & Wessels, 1997). Specifically, Shapero & Sokol, (1982) concept of self-efficacy (SEE) model refers to the individual's ability to complete entrepreneurial behaviors. On the other hand, the concept of perceived entrepreneurial confidence is different from the perceived ability to control behavior in the sense of being able to perform the behavior, which is the feeling of having the ability to control behavior, promoting self-confidence. Perceived behavioral control has been confirmed to have a positive influence on students' entrepreneurial intentions (Nguyen et al., (2017). We suppose H6 as following.

H6: Perceived behavioral (PBC) control is positively correlated with entrepreneurial intention.

Data and Empirical Model

Data

From March 9th, 2023 to April 25th, 2024, the research is carried out at Can Tho University of Engineering and Technology in Vietnam. Data is gathered using a 38-item questionnaire designed to measure or examine the seven different variables. All questionnaire items were measured using in a 7-point Likert format, ranging from "1 = completely disagree" to "7 = completely agree". This study uses a 7-point Likert scale because this scale is more accurate than a 5-point scale (reducing interruptions) and is easier to answer than a 9-point scale for survey participants. In other words, a quantitative research method is applied to determine if the independent variables significantly affect the dependent variable.

Students received the questionnaire in person, or received an electronic version created with Google Forms through email and several social media platforms, including Facebook and Zalo. For statistical analysis, 975 valid answers from surveys that were completed online and through direct mail were collected, and 925 were used.

The data gained from the questionnaire were subjected to the statistical package for the social sciences (SPSS 27) for processing and analysis in terms of frequencies, mean, standard deviation, skew, and kurtosis. We test the 7-point Likert scale using confirmatory factor analysis CFA. Then, the data were analyzed using multiple correlation analyses to determine the importance of all experimental variables. In the prediction of dependent variables, the advantage of multiple regressions may be a better prediction from multiple predictors (Sekaran & Bougie, 2016). The research employs factor analysis (EFA) to evaluate the influence of the levels of the determinants on entrepreneurial intentions of students.

Basing on literature and the model TRA, we suggest the following empirical model.

The dependent variable: Entrepreneurial intention (Crant, 1996; Gozukara & Colakoglu, 2016; Volek et al., 2016). The independent variables: Educational support (Bae et al., 2014; Rauch & Hulsink, 2015; Volek et al., 2016), Social norm (Krueger Jr et al., 2000; Liñán & Chen, 2006), Knowledge and experience (Pihie & Bagheri, 2013; Zapkau et al., 2015), Personal attitude (Autio et al., 2001; Krueger Jr et al., 2000; Liñán & Chen, 2009), Personal traits (Kaish & Gilad, 1991; Kristiansen & Indarti, 2004; Mhango, 2006; Wang et al., 2016), Perceived behavioral control (Autio et al., 2001; Krueger Jr et al., 2000; Liñán & Chen, 2009). Then:

$$EI = \beta_0 + \beta_1 ED + \beta_2 SN + \beta_3 KE + \beta_4 PE + \beta_5 PT + \beta_6 PBC + e$$

Where EI is the dependent variable; ED, SN, KE, PE, PT, PBC are independent variables explained in section 3.2; β is are the coefficients.

We use SEM for testing the Linear structural model. This model has an advantage over traditional linear methods such as multivariate regression because it can account for measurement error. Furthermore, this method allows combining latent concepts with their measurement variables, and allows examining the measurement separately or jointly with the theory model.

RESULT AND DISCUSSION

Demographic information of the data sample

Table 1 present the demographic details of the data sample. All the respondents are students at CTUT. There are 601 female respondents accounting for 65% of the sample, and 324 male respondents accounting for 35% of the sample. The respondents equally come from the first-, the second-, the third-, and the fourth-year.

	Frequency	Percentage
<u>Gender</u>		
Male	324	35.0
Female	601	65.0
<u>Year of study</u>		
1 st year	237	25.6
2 nd year	245	26.5
3 rd year	217	23.5
4 th year	226	24.4
Total	925	100.0

Source: Author

Table 1.
Demographics details
of data sample

Measurement model: Reliability and Validity

Initially, confirmatory factor analysis (CFA) was applied to the theoretical framework to check the validity of the information. Table 2 presents the results. From the initial CFA findings, it was identified that the value of the CFA fit indices represented an adequate model fit (CMIN=2217.597, df= 500; $\chi^2/(df)$ = 4.435; GFI= 0.878; IFI=0.942; CFI=0.942; RFI=0.927; TLI=0.944; NFI=0.927; RMSEA=0.064). To measure the internal consistency among items, Cronbach's alpha was used. In social psychological research, a value above 0.7 is acceptable (Hair et al., 1998). The study shows adequate reliability, as the value ranges from 0.665 to 0.892. Construct reliability was measured using composite reliability. The value ranges from 0.653 to 0.927, which shows that all values exceed the recommended level of 0.6 and above (Bagozzi & Yi, 1988). Furthermore, convergent validity and discriminant validity were also assessed. Convergent validity was measured using the load factor, and the average variance was extracted. The value of the factor loading of all items was above the recommended level of 0.6 (ranging from 0.635 to 0.927), as suggested by Chin et al., (1997). The value of average variance extracted (AVE) was close to 0.5 and higher (Fornell & Larcker, 1981). Table 2 provides the value of reliability and validity

Variables	Items	Factor loading	SMC	Cronbach's α	CR	AVE
Education Support (ED)	ED3	0.892	0.859	0.932	0.927	0.719
	ED2	0.882	0.703			
	ED1	0.869	0.628			
	ED4	0.844	0.705			
	ED5	0.747	0.812			
Subjective Norm (SN)	SN3	0.853	0.823	0.907	0.893	0.676
	SN2	0.823	0.763			
	SN1	0.815	0.586			
	SN4	0.799	0.660			
Knowledge and Experience (KE)	KE2	0.838	0.625	0.902	0.844	0.577
	KE1	0.776	0.409			
	KE3	0.751	0.765			
	KE4	0.665	0.715			
Personal Attitude (PE)	PE1	0.804	0.777	0.930	0.870	0.626
	PE2	0.801	0.801			
	PE3	0.784	0.783			
	PE4	0.777	0.715			
Perceived behavior control (PBC)	PBC3	0.853	0.782	0.932	0.893	0.676
	PBC2	0.823	0.877			
	PBC1	0.815	0.840			
	PBC4	0.799	0.611			
Personal Traits (PT)	PT7	0.822	0.686	0.941	0.653	0.904
	PT6	0.813	0.672			
	PT5	0.809	0.669			
	PT3	0.807	0.694			
	PT4	0.790	0.675			
	PT2	0.780	0.681			
	PT8	0.767	0.603			
	PT1	0.751	0.618			
Enterprenerial Intention (EI)	EI2	0.840	0.792	0.959	0.911	0.673
	EI3	0.835	0.847			
	EI4	0.822	0.758			
	EI5	0.805	0.818			
	EI1	0.801	0.781			

Note: SMC- Squared Multiple Correlation (squared value of correlation between the constructs), C.R- Composite Reliability, AVE-Average Variance Extracted, AVE calculated as $\Sigma SMC / (\Sigma SMC + \Sigma \text{standard measurement error})$.

Source: Authors

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Table 2.
Measurement
Model: Reliability
and Validity

Table 3 provides the value of discriminant validity. A factor correlation below 0.8 indicates adequate discriminant validity. Furthermore, the square root of the AVE of each construct was found to be higher than its correlation value, which also ensures discriminant validity (Chin, 1998). All in all, the theoretical model represents adequate validity (convergence and discrimination) and reliability.

Table 3.
Corelation matrix

	ED	SN	KE	PE	PBC	PT	EI
ED	—						
SN	0.290**	—					
KE	0.052	0.248**	—				
PE	0.030	0.185**	0.570**	—			
PBC	0.605**	0.315**	0.059	-0.005	—		
PT	0.050	0.229**	0.604**	0.618**	0.002	—	
EI	0.148**	0.580**	0.504**	0.489**	0.231**	0.463**	—
Mean	4.970	4.900	4.620	5.200	4.180	4.990	4.580
Std. Deviation	1.295	1.117	1.205	1.248	1.235	1.021	1.366

Note: ED-education support; SN-subjective norm; KE-knowledge and experience; PE-personal attitude; PBC-perceived behavior control; PT-personal traits; EI- enterpreneurial intention.

Source: *Authors*

Exploratory factor analysis (EFA)

Factor analysis is then made for the group of two constructs: educational support, social norm, knowledge and experience, personal attitude, personal traits, perceived behavioral control, and entrepreneurial intention, with the extraction method of principal axis factoring and the rotation method of Promax. All items had qualified values. After running exploratory factor analysis twice for this group, the final results are presented in Table 4.

Table 4.
Results of the EFA

Variables	Items	Descriptions	Components					
			1	2	3	4	5	6
Personal Trails (PT)	PT7	I always have a sense of breakthrough in work	0.829					
	PT6	I often complete work by myself before asking for help from others	0.815					
	PT3	I always make important decisions at work by myself	0.811					
	PT5	I patiently carry out work until the goal is achieved	0.808					
	PT4	I carry out and complete work under high pressure	0.792					
	PT2	I handle work effectively	0.784					
	PT8	I always love creating new things	0.775					
	PT1	I respond quickly to change	0.758					
Education Support (ED)	ED3	I am encouraged to develop and implement ideas during my studies		0.891				
	ED2	The main curriculum at the school equips me with the ability to start a business		0.880				
	ED1	The school provides practical knowledge and skills related to business		0.868				
	ED4	The school often organizes entrepreneurial orientation activities for students (entrepreneurship seminars and entrepreneurial competitions)		0.841				

Variables	Items	Descriptions	Components					
			1	2	3	4	5	6
Subjective Norm (SN)	ED5	The school often organizes entrepreneurial orientation activities for students (entrepreneurship seminars and entrepreneurial competitions)		0.741				
	SN3	My friends supported me in starting my own business			0.885			
	SN2	My family definitely supported my decision to start my own business			0.868			
	SN4	Everyone advised me to start my own business			0.847			
Perceived behavior control (PBC)	SN1	My family gave me career guidance			0.826			
	PBC3	Starting and maintaining a business will probably be easy for me				0.889		
	PBC2	I know every little useful aspect needed to start a business.				0.887		
	PBC1	I know how to develop a startup project				0.854		
Personal Attitude (PE)	PBC4	If I put in the effort to start a business, I will definitely succeed				0.739		
	PE1	Starting a business and becoming an entrepreneur will satisfy my expectations					0.815	
	PE3	Starting a business and becoming an entrepreneur gives me more advantages than disadvantages					0.814	
	PE2	Starting a business is an activity that is very attractive to me to start my career					0.813	
Knowledge and Experience (KE)	PE4	If I have the opportunity and the necessary resources, I will start a business					0.800	
	KE2	The accumulated knowledge is good enough to help me feel confident when deciding to start a business						0.857
	KE1	I have basic knowledge about startups						0.798
	KE3	Experience helps me learn how to be calm and handle situations						0.758
	KE4	Learning from experience and knowledge from startups has helped me learn how to predict and handle risks						0.677

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Structural model: Good of fit statistic, modeling comparisons and hypotheses testing

Table 5 presents the criteria for measurement model fit. After running CFA and checking modification indices to improve the Chi-square value by correlating within-factor errors (e14 and e18; e15 and e18; e31 and e32; e9 and e13; e10 and e13), the model is now considered suitable for the data collected. Specifically, Chi-square/df = 4.435 (< 5), GFI = 0.878 (> 0.8), TLI = 0.935 (> 0.9), CFI = 0.942 (> 0.9), and RMSEA = 0.061 (≤ 0.8). In addition, all the standardized regression weights are greater than 0.5, and all P-values are equal to 0.000 (< 0.05). They are all acceptable, which indicates the convergence validity of the measurement model.

Table 5.
Criteria for
measurement
model fit

Criteria	Requirements	Proposed Theoretical Framework
CMIN/df (Chi-square/df)	$2 \leq \text{CMIN}/\text{df} \leq 5^{**}; \leq 3^*$	3.935
GFI (Good fit index)	$\geq 0.9^{**}; \geq 0.8^*$	0.885
TLI (Tucker & Lewis index)	≥ 0.9	0.944
CFI (Comparative fit index)	≥ 0.9	0.950
RMSEA (Root mean square error approximation)	≤ 0.8	0.056
R square	> 0.5	0.574

Note: Wheaton et al (1997); Tabachnick & Fidell (2007); MacCallum, Browne & Sugawara (1996); Bentler & Bonett (1980); Hair et al (1998); Joreskog (1969); Carmines & McIver (1981); Chin & Todd (1995), Byrne (2001))

Source: Authors

Discussion

Table 6 shows the results regarding the hypotheses given. Most of the variables of the proposed theoretical framework support our hypothesis. For example, the coefficient of Social Norm $\beta_2 = 0.540$ is significant at 1% level. The result shows that students' entrepreneurial activities are greatly influenced by family and friends, and can even hinder or promote the individual's determination to start a business (Osorio et al., 2017). The un-reported details of the results in this study also confirm that family and friends are factors that have a positive impact on students' entrepreneurial intentions

Table 6.
Hypothesis testing

Path description	Hypothesis	Unstandardized Path Estimates	P-value	Results
PT → Enterprenerial Intention	H5	0.135**	0.000	Supported
ED → Enterprenerial Intention	H1	-0.079*	0.011	Supported
SN → Enterprenerial Intention	H2	0.541***	0.000	Supported
PBC → Enterprenerial Intention	H6	0.121***	0.000	Supported
PE → Enterprenerial Intention	H4	0.246***	0.000	Supported
KE → Enterprenerial Intention	H3	0.214***	0.000	Supported
Observations		925		
Anova test (sig.)		0.000		
R-square		52.1%		

*Note: Significant at * $P < 0.05$; ** $P < 0.01$; *** $P < .001$; CMIN=2217.597, df= 500; $\chi^2/(\text{df}) = 4.435$; GFI= 0.878; IFI=0.942; CFI=0.942; RFI=0.927; TLI=0.944; NFI=0.927; RMSEA=0.064).*

Source: Authors

Similarly, the coefficient of Knowledge and Experience $\beta_3 = 0.214$ is significant at 1% level. The results in details show that students with self-accumulated business experience during their studies will have a higher advantage and clearer entrepreneurial intention than those without experience. This aligns with the result of Devonish et al. (2010). Also, Nabi & Holden (2008) agree that personal life experience and knowledge of entrepreneurship gradually turn students' entrepreneurial intention into actual entrepreneurial activity.

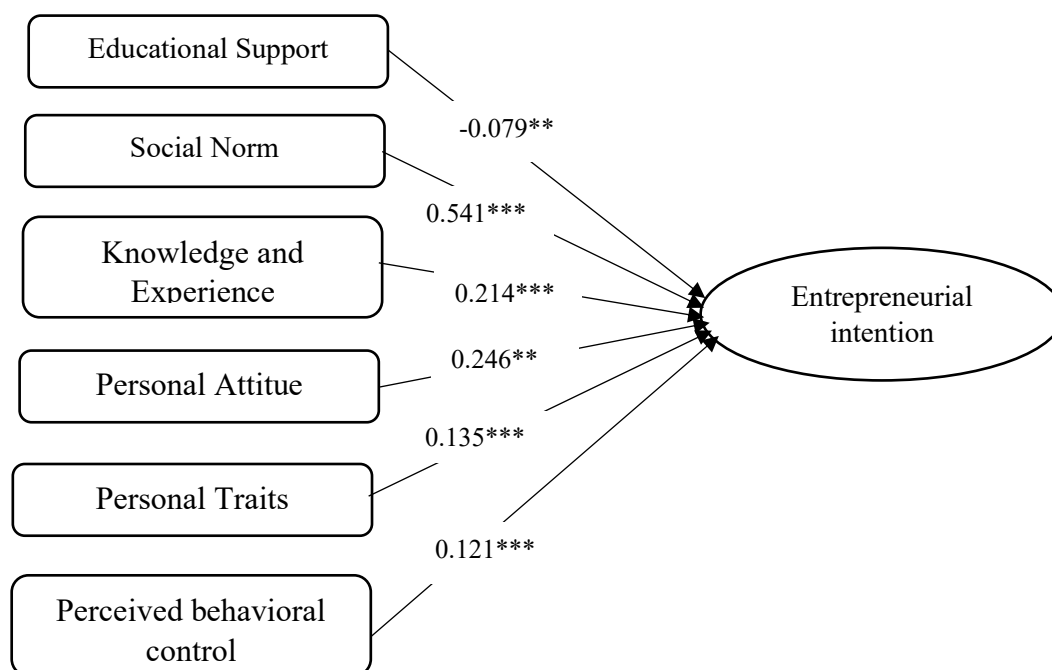
Also, the coefficient of Personal Attitude $\beta_4 = 0.246$ is significant at 1% level. This shows that students studying at the school have a positive perception of entrepreneurship, thereby creating a positive attitude and motivation towards entrepreneurial activities while still in school.

The coefficient of Personal Traits β_5 is also positive ($\beta_5 = 0.135$) and significant at 5% level. In details, students' personal personality traits such as "entrepreneurial action is a characteristic of human readiness to face uncertainties" (Alzahrani, 2021), "willingness to innovate," "proactivity," "confidence in self-efficacy," "withstand pressure," "need for autonomy", and "self-control" (Brandstätter, 2011) affect entrepreneurial intention.

The coefficient of Perceived behavior control is positive ($\beta_6 = 0.121$) and significant at 1% level. This result shows that an individual with potential entrepreneurial intention have the desire and perceive the feasibility of entrepreneurial intention (Shapero & Sokol, 1982). This concept is close to the concept of personal competence of Bandura & Wessels (1997). The study of Ambad & Damit (2016) also shows that perceived behavioral control has a positive relationship with entrepreneurial intention.

Interestingly, the coefficient of Education Support ($\beta_1 = -0.075$) is negative and significant at 10% level. The result suggests that Education Support has a significant negative influence on Entrepreneurial Intention. Then, we dig up the data results to find the reasons how ED affects the EI but in negative way, which is different from our hypotheses H1.

One limitation of our study is that while our questionnaire is designed targeting to economics students, our full sample is dominated by the non-economic students. That our data with 60% of the sample is from non-economic (engineering and technology) students may cause the negative coefficient. In an un-reported data analysis, the sub-sample of non-economic students yields a negative coefficient β_1 while the sub-sample of economic students yields a positive coefficient β_1 . The result suggests that there may exist a large difference in applying educational knowledge into entrepreneurial activity between economic students and non-economic ones. Finally, the proposed theoretical framework, along with the β value, is mentioned in Figure 2.



Notes: Significant at * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

Figure 2.
Factors
affecting the
entrepreneurial
intentions of
students at
CTUT

One of the solutions to solve job-finding issue for university students is encouraging entrepreneurship. Then examining the factors to promote the entrepreneurial spirit and "ownership mindset" among students is becoming important since this might help managers and the government correctly encourage students starting new business. This study examines the factors that affect the entrepreneurial intentions of students studying at universities. We do a case study with students at CTUT, Vietnam.

We find that Social Norm, Knowledge and Experience, Personal Attitude, Personal Traits, and Perceived behavior control significantly positively affect students' entrepreneurial intention, which supported our hypotheses H2, H3, H4, H5 and H6, respectively.

Interestingly, our data show that variable Educational Support negatively and significantly influences the Entrepreneurial Intention. This may be explained by the large difference in applying educational knowledge into entrepreneurial activity between economic students and non-economic ones. This finding could be considered as the limitation of our research since we designed the questionnaire targeting to the economic students rather than the other majors. Then, one suggestion for next studies is that educational support should be target-group specific and thus address the issue of ED separately between economic and non-economic students.

Besides, for next studies, we propose to researchers to continue examining and testing the relationship between "tolerance for ambiguity", "entrepreneurial intention," and other factors belonging to the group of personal characteristics and entrepreneurial intention. Moreover, future studies could do a comparison between entrepreneurial intention of Vietnamese students to that of students from countries around the world.

Reference

- Ajzen, I. (1987). Attitudes, traits, and actions: Dispositional prediction of behavior in personality and social psychology. In *Advances in experimental social psychology* (Vol. 20, pp. 1–63). Elsevier.
<https://www.sciencedirect.com/science/article/pii/S0065260108604116>
- Ajzen, I. (1991a). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Ajzen, I. (1991b). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological Bulletin*, 82(2), 261.
- Ajzen, I., & Fishbein, M. (1980). *Attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Alzahrani, F. (2021). The Importance of Resilience and Flexibility of Entrepreneur Characters for Coping with a Crisis Situation. *A Systematic Literature Review During Covid-19. Methodology*, 13(18). <https://core.ac.uk/download/pdf/481607667.pdf>
- Ambad, S. N. A., & Damit, D. H. D. A. (2016). Determinants of entrepreneurial intention among undergraduate students in Malaysia. *Procedia Economics and Finance*, 37, 108–114.
- Autio, E., H. Keeley, R., Klofsten, M., G. C. Parker, G., & Hay, M. (2001). Entrepreneurial Intent among Students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, 2(2), 145–160.
<https://doi.org/10.1080/14632440110094632>
- Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). The Relationship between Entrepreneurship Education and Entrepreneurial Intentions: A Meta-Analytic Review. *Entrepreneurship Theory and Practice*, 38(2), 217–254.
<https://doi.org/10.1111/etap.12095>
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94. <https://doi.org/10.1007/BF02723327>
- Bandura, A., & Wessels, S. (1997). *Self-efficacy*. Cambridge University Press Cambridge.
http://happyheartfamilies.citymax.com/f/Self_Efficacy.pdf
- Birdthistle, N. (2008). An examination of tertiary students' desire to found an enterprise. *Education+ Training*, 50(7), 552–567.
- Boissin, J.-P., Branchet, B., Emin, S., & Herbert, J. I. (2009). Students and Entrepreneurship: A Comparative Study of France and the United States. *Journal of Small Business & Entrepreneurship*, 22(2), 101–122.
<https://doi.org/10.1080/08276331.2009.10593445>
- Brandstätter, H. (2011). Personality aspects of entrepreneurship: A look at five meta-analyses. *Personality and Individual Differences*, 51(3), 222–230.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295(2), 295–336.
- Chin, W. W., Gopal, A., & Salisbury, W. D. (1997). Advancing the Theory of Adaptive Structuration: The Development of a Scale to Measure Faithfulness of Appropriation. *Information Systems Research*, 8(4), 342–367.
<https://doi.org/10.1287/isre.8.4.342>
- Colman, M., Da Silva, J., Westermann, B., & Dlamini, S. (2021). The factors that influence the entrepreneurial intentions of university students. *Journal of Entrepreneurship Education*, 24(5), 1–17.
- Crant, J. M. (1996). The proactive personality scale as a predictor of entrepreneurial intentions. *Management*, 29(3), 62–74.
- 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.

- Rauch, Engle, R. L., Dimitriadi, N., Gavidia, J. V., Schlaegel, C., Delanoe, S., Alvarado, I., He, X., Buame, S., & Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behavior & Research*, 16(1), 35–57.
- Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: A new methodology. *Journal of European Industrial Training*, 30(9), 701–720.
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Galloway, L., & Brown, W. (2002). Entrepreneurship education at university: A driver in the creation of high growth firms? *Education+ Training*, 44(8/9), 398–405.
- Ghasemi, M., Shafeiepour, V., Aslani, M., & Barvayeh, E. (2011). The impact of Information Technology (IT) on modern accounting systems. *Procedia-Social and Behavioral Sciences*, 28, 112–116.
- Gorman, G., Hanlon, D., & King, W. (1997). Some Research Perspectives on Entrepreneurship Education, Enterprise Education and Education for Small Business Management: A Ten-Year Literature Review. *International Small Business Journal: Researching Entrepreneurship*, 15(3), 56–77. <https://doi.org/10.1177/0266242697153004>
- Gozukara, I., & Colakoglu, N. (2016). Enhancing entrepreneurial intention and innovativeness of university students: The mediating role of entrepreneurial alertness. *International Business Research*, 9(2), 34–45.
- Hoyer, W. D., MacInnis, D. J., Pieters, R., Chan, E., & Northey, G. (2017). *Consumer Behaviour: Asia-Pacific Edition*. Cengage AU. https://books.google.com/books?hl=en&lr=&id=JRpSDwAAQBAJ&oi=fnd&pg=PR1&dq=Hoyer+and+MacInnis,+2004&ots=PYNIVl4vgh&sig=6iF3pmlXZODxjI7KbIuIOCE_JvQ
- Kaish, S., & Gilad, B. (1991). Characteristics of opportunities search of entrepreneurs versus executives: Sources, interests, general alertness. *Journal of Business Venturing*, 6(1), 45–61.
- Keat, O. Y., Selvarajah, C., & Meyer, D. (2011). Inclination towards entrepreneurship among university students: An empirical study of Malaysian university students. *International Journal of Business and Social Science*, 2(4). <https://researchbank.swinburne.edu.au/items/c4a6a89f-7080-4e56-a1cd-adf1007ec504/1/PDF%20%28Published%20version%29.pdf>
- Khuong, M. N., & An, N. H. (2016). The factors affecting entrepreneurial intention of the students of Vietnam national university—A mediation analysis of perception toward entrepreneurship. *Journal of Economics, Business and Management*, 4(2), 104–111.
- Kieu, P. H. H.-N. T. (2022). Research on factors affecting entrepreneurial intention of university students: Evidence in Vietnam. *Journal of Positive School Psychology*, 6(8), 698–711.
- Kihlstrom, R. E., & Laffont, J.-J. (1979). A General Equilibrium Entrepreneurial Theory of Firm Formation Based on Risk Aversion. *Journal of Political Economy*, 87(4), 719–748. <https://doi.org/10.1086/260790>
- Kirzner, I. M. (1983). *Perception, opportunity, and profit*. Chicago University Press Chicago, IL, USA. <https://cdn.mises.org/AEN%20volume%20%20no%20%20spring%201980.pdf>
- 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.
- Kristiansen, S., & Indarti, N. (2004). ENTREPRENEURIAL INTENTION AMONG INDONESIAN AND NORWEGIAN STUDENTS. *Journal of Enterprising Culture*, 12(01), 55–78. <https://doi.org/10.1142/S021849580400004X>
- Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5–6), 411–432.
- Lee, L., & Wong, P. K. (2006). Entrepreneurship Education—A Compendium of Related Issues. In S. Parker (Ed.), *The Life Cycle of Entrepreneurial Ventures* (Vol. 3, pp. 79–105). Springer US. https://doi.org/10.1007/978-0-387-32313-8_4
- Liñán, F., & Chen, Y. (2009). Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory and Practice*, 33(3), 593–617. <https://doi.org/10.1111/j.1540-6520.2009.00318.x>
- Liñán, F., & Chen, Y.-W. (2006). Testing the entrepreneurial intention model on a two-country sample. <https://idus.us.es/handle/11441/60716>
- Maheshwari, G., Kha, K. L., & Arokiasamy, A. R. A. (2023). Factors affecting students' entrepreneurial intentions: A systematic review (2005–2022) for future directions in theory and practice. *Management Review Quarterly*, 73(4), 1903–1970. <https://doi.org/10.1007/s11301-022-00289-2>.
- Martins, J. M., Shahzad, M. F., & Xu, S. (2023). Factors influencing entrepreneurial intention to initiate new ventures: Evidence from university students. *Journal of Innovation and Entrepreneurship*, 12(1), 63. <https://doi.org/10.1186/s13731-023-00333-9>
- Mhango, M. W. (2006). Assessing entrepreneurial career intentions of family and consumer sciences students in higher education: A model testing approach. Iowa State University. <https://search.proquest.com/openview/93bfe5eb1a316b96083038b77750548f/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Nabi, G., & Holden, R. (2008). Graduate entrepreneurship: Intentions, education and training. *Education+ Training*, 50(7), 545–551.

- Nguyen, M. T., Ho, T. N., Nguyen, V. V. C., Nguyen, T. H., Ha, M. T., Ta, V. T., Nguyen, L. D. H., Phan, L., Han, K. Q., & Duong, T. H. K. (2017). An evidence-based algorithm for early prognosis of severe dengue in the outpatient setting. *Clinical Infectious Diseases*, 64(5), 656–663.
- Nguyen, P. M., Luu, T. M. N., Dao, T. P. L., Nguyen, T. L., & Tran, T. N. Q. (2018). Factors Affecting Entrepreneurial Intention of Business Students: Case Study of VNU University of Economics and Business. *VNU JOURNAL OF ECONOMICS AND BUSINESS*, 34(2). <https://js.vnu.edu.vn/EAB/article/view/4159>
- O'Hair, D., Friedrich, G. W., & Dixon, L. D. (1998). Strategic communication in business and the professions. <https://emajor.usg.edu/img/pdf/syllabi/ORGL/COMM3330-Syllabus.pdf>
- Osorio, A. E., Settles, A., & Shen, T. (2017). Does family support matter? The influence of support factors on entrepreneurial attitudes and intentions of college students. *Academy of Entrepreneurship Journal*, 23(1), 24–43.
- Owoseni, O. O., & Akambi, P. A. (2010). Entrepreneurial intentions: A theoretical framework. *Journal of Management and Corporate Governance*, 2(4), 132–148.
- Pham, T. T. T., Nguyen, H.-Q., Phan, H., Do, T.-N.-D., Nguyen, T.-B., Tran, T.-H., & Le, T.-L. (2022). Towards a large-scale person search by vietnamese natural language: Dataset and methods. *Multimedia Tools and Applications*, 81(19), 27569–27600. <https://doi.org/10.1007/s11042-022-12138-1>
- Pihie, Z. A. L., & Bagheri, A. (2013). Self-Efficacy and Entrepreneurial Intention: The Mediation Effect of Self-Regulation. *Vocations and Learning*, 6(3), 385–401. <https://doi.org/10.1007/s12186-013-9101-9>
- Rauch, A., & Hulsink, W. (2015). Putting Entrepreneurship Education Where the Intention to Act Lies: An Investigation Into the Impact of Entrepreneurship Education on Entrepreneurial Behavior. *Academy of Management Learning & Education*, 14(2), 187–204. <https://doi.org/10.5465/amle.2012.0293>
- Roxas, B. (2014). Effects of entrepreneurial knowledge on entrepreneurial intentions: A longitudinal study of selected South-east Asian business students. *Journal of Education and Work*, 27(4), 432–453. <https://doi.org/10.1080/13639080.2012.760191>
- Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach. John Wiley & Sons. <https://books.google.com/books?hl=en&lr=&id=Ko6bCgAAQBAJ&oi=fnd&pg=PA19&dq=Sekaran+%26+Bougie,+2016&ots=2D-NV-IZhN&sig=EQph3xM3htOVLgvaNAQsZHkrBbo>
- Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1497759
- Son, N. T., Nguyen, Q. N., & Hoang, T. H. L. (2023). Factors influencing tourist satisfaction with agritourism in the Mekong Delta, Vietnam. *GeoJournal of Tourism and Geosites*, 49(3), 998–1005.
- Taha, K. A. S., Ramlan, S. N., & Noor, I. M. (2017). The factors affecting entrepreneurial intentions of university students in Malaysia. *International Journal of Business and Technopreneurship*, 7(2), 189–202.
- Turker, D., & Selcuk, S. S. (2009). Which factors affect entrepreneurial intention of university students? *Journal of European Industrial Training*, 33(2), 142–159.
- Van My, D., & Truong, N. X. (2023). Entrepreneurship and Factors Affecting Entrepreneurial Decisions. Chapters. <https://ideas.repec.org/h/ito/pchaps/292373.html>
- Vo, H., Trinh, Q.-D., Le, M., & Nguyen, T.-N. (2021). Does economic policy uncertainty affect investment sensitivity to peer stock prices? *Economic Analysis and Policy*, 72, 685–699.
- Vojak, B. A., Griffin, A., Price, R. L., & Perlov, K. (2006). Characteristics of technical visionaries as perceived by American and British industrial physicists. *R&D Management*, 36(1), 17–26. <https://doi.org/10.1111/j.1467-9310.2005.00412.x>
- Volek, J. S., Freidenreich, D. J., Saenz, C., Kunces, L. J., Creighton, B. C., Bartley, J. M., Davitt, P. M., Munoz, C. X., Anderson, J. M., & Maresh, C. M. (2016). Metabolic characteristics of keto-adapted ultra-endurance runners. *Metabolism*, 65(3), 100–110.
- Wang, Q., Wang, Z., Awasthi, M. K., Jiang, Y., Li, R., Ren, X., Zhao, J., Shen, F., Wang, M., & Zhang, Z. (2016). Evaluation of medical stone amendment for the reduction of nitrogen loss and bioavailability of heavy metals during pig manure composting. *Bioresource Technology*, 220, 297–304.
- Weichold, K., Silbereisen, R. K., & Schmitt-Rodermund, E. (2003). Short-term and long-term consequences of early versus late physical maturation in adolescents. *Gender Differences at Puberty*, 241–276.
- Yusof, M., Sandhu, M. S., & Jain, K. K. (2007). Relationship between psychological characteristics and entrepreneurial inclination: A case study of students at University Tun Abdul Razak (Unitar). *Journal of Asia Entrepreneurship and Sustainability*, 3(2), 1.
- Zapkau, F. B., Schwens, C., Steinmetz, H., & Kabst, R. (2015). Disentangling the effect of prior entrepreneurial exposure on entrepreneurial intention. *Journal of Business Research*, 68(3), 639–653.