

The Effects of Psychological Capital and Entrepreneurship Education on The Sustainable Entrepreneurship Intention of University Students in Hanoi

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ABSTRACT

The research aims to analyze and estimate the effects of entrepreneurship education and psychological capital on the sustainable entrepreneurship intention of university students in Hanoi by information from a review of pertinent literature and a random survey with 408 students in Hanoi. We mainly used quantitative research methods, particularly using the linear regression model with SPSS and SEM to verify. The findings show that both entrepreneurship education and psychological capital positively impact students' sustainable entrepreneurship intentions. Moreover, all 4 components of psychological capital: (1) self-efficacy, (2) optimism, (3) hope, and (4) resiliency are also proven to affect it positively, especially for resiliency. Based on the results, we proposed several solutions to promote the sustainable entrepreneurship behavior of students in Hanoi.

Keywords: Entrepreneurship education, psychological capital, sustainable entrepreneurship intentions.

1. INTRODUCTION

In Vietnam, Entrepreneurship is a special concern of the government and their determination to change the growth model from width to depth associated with labor productivity, science, technology, and innovation. Despite having a lot of efforts to

promote the domestic entrepreneurship model, a few businessmen still "set to" this field, which makes the environment worse and our country lagging behind in the sustainable development era.

Besides, most of the enterprises that gained sustainable development certificates are large enterprises and multinational corporations with long-term international business experience. However, start-up enterprises, usually, have a small and medium scale and are very difficult to meet these standards, even this group of businesses has the highest bankruptcy rate, only about 3% of successful start-up businesses. For instance, after evaluating 500 businesses based on the Number of Developed Enterprises (CSI) in 2019 by the Business Council for Vietnam Development (VBCSD), only 106 businesses met the criteria, in which there is no start-up business. Thus, not only the entrepreneurship situation in Viet Nam but also in the world maintains many problems.

However, the available literatures about the relationship between entrepreneurship education and sustainable entrepreneurship intention show that a few empirical studies have focused on developing economy (Ajike, Nnorom, Akinlabi, Onyia, & Kwarbai, 2015; Byabashiaja and Katono,

2011), for example, Nigeria et al. reported conflicting and ambiguous findings (Lorz, Volery and Muller, 2011; Bae et al., 2014).

In such veins, this commentary article sets to discuss the relationship between psychological capital, entrepreneurship education and the sustainable entrepreneurial intention of students in Hanoi in order to propose some solutions to promote students' sustainable entrepreneurship activities, which is extremely urgent, meaningful in both theory and practice in the current background of Vietnam.

The structure of this paper includes 5 parts: (i) Introduction, (ii) Literature review, (iii) Research method, (iv) Result and Discussion, (v) Conclusions and recommendations.

2. LITERATURE REVIEW

2.1. Entrepreneurship

In the Vietnamese dictionary, "entrepreneurship" means starting a new business, which is derived from the French word "Entreprendre", meaning undertaking. Shapero, 1982 said that "Startup is a process that starts from recognizing opportunities, then developing ideas to create a new business". Otherwise, according to Majid and Koe (2012), entrepreneurship is defined as a process that recognizes, evaluates, and pursues opportunities through creating, and innovates and transfers new value into products to bring benefits. Steven Gedeon (2010) considers entrepreneurship as a broad notion that contains owning a business (Risk Theory), implementing an innovation (Dynamic Theory), acting like an entrepreneur (Traits School), or establishing a new company (Behavioural School). According to Nguyen Ngoc Huyen (2016), entrepreneurship is a process of performing all the necessary work to launch a certain business activity.

2.2. Sustainable entrepreneurship

Sustainable entrepreneurship, a new direction of research, was born at the intersection of sustainability management

and entrepreneurship. In recent years, it has increasingly received attention from researchers with different academic backgrounds (Binder and Belz, 2014; Thompson et al., 2011). It is defined unlike traditional entrepreneurship, which mainly focuses on economic development (Kirzner, 1973; Schumpeter, 1942). According to Hockerts and Wüstenhagen, 2010, sustainable entrepreneurship refers to the discovery, creation and exploitation of business opportunities that contribute to sustainability by creating social and environmental benefits for our community. Thus, it can be considered a part of entrepreneurship, which links entrepreneurship with the economy, society and environment. In this study, the authors propose the concept of sustainable entrepreneurship as focusing on pursuing business opportunities to create products, processes and services, while contributing to maintaining the development of society, economy and environment, thus enhancing the well-being of future generations.

2.3. Sustainable entrepreneurship intention

Intention is a psychological state that directs an individual's attention to a particular object, goal, or process in order to achieve an outcome that is meaningful to this individual (Bird, 1988). The Theory of Intended Behavior suggests that entrepreneurial intention is the result of the intentions and actions of courageous individuals described by researchers as modern-day heroes (Ajzen, 1987). Lee and Wong (2004) coined the concept of entrepreneurial intention as the first step in the long process of starting a new business. According to Hmieleski and Corbett (2006), entrepreneurial intention can be defined as the intention toward starting a high-growth business. Sustainable Entrepreneurship Intention is known as an individual's ability to practice sustainable entrepreneurship with the desire to create new core values. Not only is it a matter of profit, but

entrepreneurs also need to take care of environmental and social issues.

2.4. Psychological capital affects sustainable entrepreneurship intention

Psychological capital is defined as a state of positive psychological development of an individual and is a state that is changeable, malleable and innovative (Luthans, 2002). Psychological capital is not only an expression of a person's beliefs but also a perception of one's capability (Caza, Bagozzi, Woolley, Levy, & Barker, 2010; Bandura & Locke, 2003). Therefore, psychological capital is considered the foundation for sustainable entrepreneurial intentions. A lot of research papers have demonstrated that psychological capital is the factor that facilitates business innovation leading to sustainable entrepreneurship. Jun Jun Tang (2020) emphasizes that thanks to psychological capital, sustainable businessmen can regulate emotions on facing up to negative situations and adapting better to fluctuations of external influences.

Through many years of development, inheriting from the studies of many psychologists, Luthans (2002) drew the conclusion that psychological capital is characterized by four positive psychological resources: (i) *self-efficacy*, (ii) *optimism*, (iii) *hope* and (iv) *resilience*. All of its aspects are shown to have a significant impact on sustainable entrepreneurial intention:

Self-efficacy which reflects confidence in one's abilities is a type of self-assessment that affects his effort and determination against obstacles (Hsu and Chiu 2004) and has an impact on his cognitive level. Personal perception of self-efficacy has a tremendous influence on how an individual acts, and how his knowledge and skills are formed. Therefore, self-efficacy is considered a positive behavioral factor and has the ability to predict sustainable entrepreneurial behavior (Zhao et al., 2005). When an individual is confident in themselves on creating a sustainable

business, there is a high probability that they will start a business without hesitation in encountering difficulties, and each individual can exhibit a strong sense of control in a general situation.

Optimism is like an individual's expectation of a positive outcome (Scheier and Carver, 1985). Optimism is the premise for resiliency and persistence when an individual attempts to achieve a specific goal. Highly optimists often build positive expectations, promote goal pursuit, and accept to deal with difficult situations (Seligman, 1998); overcome work stress, and tend to be more successful (Totterdell, Wood, and Wall, 2006). An upbeat attitude tends to enhance an entrepreneur's confidence and sustainable entrepreneurship intentions. Optimism increases motivation for sustainable startups (Wang et al., 2021), helps individuals to have higher expectations for business processes and results, thus being more willing to choose a sustainable business model (Giacomin et al., 2013).

Hope is a state of positive psychological motivation based on successful goal orientation and a way to achieve goals (Snyder, 1991). Hope is a person's motivation to achieve aim, and is completely different from day-dream thinking. Laguna (2006) observed that hope is an important predictor of entrepreneurship intention. Hope signifies positive energy that promotes an individual to explore all possible business opportunities and forms a sustainable entrepreneurial intention. It is one of four attributes related to psychological capital that keeps an individual optimistic and allows the individual to think about a sustainable future when starting a business.

Resilience refers to an individual's ability to emerge from adversity, uncertainty, risk or failure and adapt to ever-changing life demands (Masten & Reed, 2002; Tugade & Fredrickson, 2004)). Resilient individuals tend to adapt better in the face of negative experiences and the changes of external environment (Luthans,

Vogelgesang, & Lester, 2006). When an individual does not have the resilience to cope and adjust well to the stresses and strains associated with start-up, it is almost impossible for him to have the intention to start a business. To become an entrepreneur, one has to deal with difficulties from uncertain situations, so resilient people will often aim to develop a sustainable business.

Thus, the hypotheses include:

H1: Psychological capital positively affects sustainable entrepreneurship intention

H1a: Self-efficacy positively affects sustainable entrepreneurship intention

H1b: Optimism positively affects sustainable entrepreneurship intention

H1c: Hope positively affects sustainable entrepreneurship intention

H1d: Resilience positively affects sustainable entrepreneurship intention

2.5. Entrepreneurship education affects sustainable business intention

Entrepreneurship education emphasizes imagination, creativity and risk acceptance in business. According to DeTienne &

Chandler (2004), the definition of entrepreneurship education is providing knowledge about business management, and arouses students' interest in business creation. Cotton, O'Gorman and Stampfi (2002) pointed out that the reason for introducing entrepreneurship curricula in universities is to help students improve their understanding of entrepreneurship, providing them with the way to approach business and prepare them to act like a real entrepreneurs.

Well-established entrepreneurship education can have a significant impact on equipping knowledge and skills for sustainable entrepreneurship (Li et al. 2003). As a result, individuals who are educated in entrepreneurship are more likely to succeed in a sustainable business. The more knowledge and skills a person has, the higher likelihood of success he will engage in a sustainable start-up and maintain business momentum.

Thus, the authors propose the following hypothesis:

H2: entrepreneurship education positively affects sustainable entrepreneurship intention

2.6. Proposed research method

On these above theories and hypotheses, the authors propose the following research model:

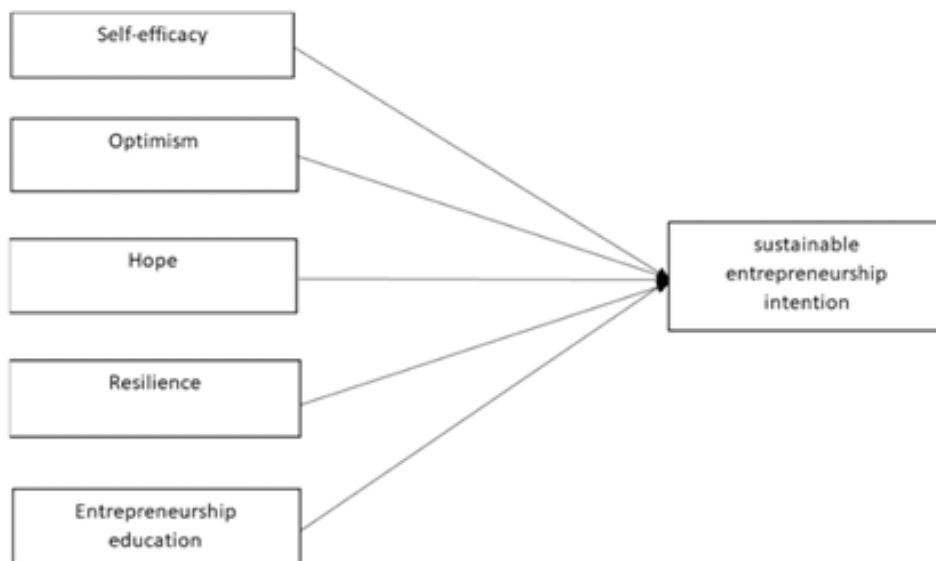


Figure 1: Proposed research model
Source: Compiled by authors

3. RESEARCH METHOD

3.1. Research data

The survey subjects of the study focused on students of universities in Hanoi, mainly the National Economics University, Foreign Trade University, and Hanoi University of Science and Technology. Sampling method is a convenient sampling method and collects survey samples online through Google forms. The results obtained were 437 votes, after cleaning the data, the sample size included in the official study was 408.

3.2. Research method

The study used qualitative methods combined with quantitative methods. In which, the qualitative method is used to analyze the theoretical basis and refer to the scale of these studies in the world, then through discussion to adjust it to suit the research purpose as well as the circumstances in Viet Nam. Quantitative research is mainly used to estimate research results, specifically regression analysis using SPSS software and using SEM linear structural model to test hypotheses.

3.3. Scale

Inheriting the scale from studies in the world and adjusting it through qualitative research to suit the research purpose and research context in Vietnam. The results of group discussions with 9 students were used to evaluate the content and adjust the content of some observed variables in the questionnaire. Specifically in this study, the questionnaire was developed by the authors with 6 scales including Self-efficacy (denoted by TT), Optimism (denoted by LQ), Hope (denoted by HV), and Resilience (denoted by KC), are all measured by 4 observed variables. The Entrepreneurship Education Scale (denoted by GD) consists of 5 observed variables inherited from Lorz (2011). The scale of sustainable entrepreneurial intention (denoted as YD) includes 5 observed variables and is inherited from the study of Liñán & Chen (2009). All variables use a 5-

point Likert scale: levels from 1 are strongly disagree to 5 are strongly agree.

4. RESULT AND DISCUSSION

4.1. Descriptive statistics

The number of interviewees with male gender is 149 people (accounting for 36.5%) and female gender is 259 people (accounting for 63.5%). Results of specific distribution according to the number of years entering university, One-year (77 observations - accounting for 18.9%); Two-year (206 observations - 50.5%); Three-year (85 observations - accounting for 20.8%), and Four-year (40 observations - accounting for 9.8%).

Students participating in the survey are relatively confident in their abilities with the majority agreeing with the statement that they feel confident when presenting sustainable entrepreneurship ideas to people around. At the same time, self-assessment of high optimism and hope, they always consider failure as a lesson learned on the path of a sustainable entrepreneur as well as thinking that there will be many ways out of a difficult situation when starting a sustainable business. Accordingly, the level of resilience is also highly appreciated, high consistency with the defined goals to be achieved on the path of starting a business. Entrepreneurship education is considered a highly influential factor, making students aware of their responsibilities and obligations to the community, environment, and society as well as helping to identify business opportunities. The participating students all expressed their determination with sustainable entrepreneurial intentions and agreed to start a sustainable business in the future.

4.2. Reliability analysis

The study analyzes the reliability of the scale using Cronbach's Alpha coefficient for each component scale of psychological capital, entrepreneurship education scale, and sustainable entrepreneurial intention scale. The analytical results obtained the TT scale accepting 4 observations (TT1 - TT4),

the LQ scale accepting 4 observations (LQ1 - LQ4), the HV scale accepting 4 observations (HV1 - HV4), the scale KC accepts 4 observations (KC1 - KC4), the GD scale accepts 5 observations (GD1 -

GD5) and the YD scale accepts 5 observations (YD1 - YD5).

The results of the reliability analysis of the scale are as follows:

Table 1: The results of the scale reliability analysis

Scale		Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if item deleted
Self-efficacy (TT)	TT1	0.911	0.811	0.880
	TT2		0.769	0.894
	TT3		0.807	0.881
	TT4		0.804	0.882
Optimism (LQ)	LQ1	0.938	0.823	0.928
	LQ2		0.853	0.918
	LQ3		0.878	0.910
	LQ4		0.856	0.917
Hope (HV)	HV1	0.908	0.782	0.885
	HV2		0.811	0.874
	HV3		0.809	0.875
	HV4		0.768	0.890
Resilience (KC)	KC1	0.936	0.828	0.923
	KC2		0.842	0.919
	KC3		0.863	0.912
	KC4		0.863	0.912
Entrepreneurship education (GD)	GD1	0.948	0.824	0.942
	GD2		0.886	0.931
	GD3		0.875	0.933
	GD4		0.841	0.939
	GD5		0.864	0.935
Sustainable entrepreneurship intention (YD)	YD1	0.952	0.863	0.942
	YD2		0.884	0.938
	YD3		0.871	0.940
	YD4		0.86	0.942
	YD5		0.859	0.942

4.3. Exploratory factor analysis

In this exploratory factor analysis step, the study uses the Principal Components extraction method along with the Varimax rotation method.

When conducting scale analysis for independent variables including factors of psychological capital and entrepreneurial education factors, the study obtained the following results: KMO coefficient = 0.930, Bartlett's test is statistically significant

millet with sig. = 0.000, and there are 5 factors extracted with eigenvalue in the 5th factor = 1.263 and total variance extracted = 82.308%.

When conducting scale analysis for the dependent variable, the sustainable entrepreneurial intention factor, the research obtained the following results: KMO coefficient = 0.908, Bartlett test has statistical significance with sig. = 0.000 and total variance extracted = 83.957%

Table 2: Result of exploratory factor analysis of the scale

Rotated Component Matrix						
	Component					
	1	2	3	4	5	6
Sustainable entrepreneurship intention (YD)						
YD5	.834					
YD1	.823					
YD3	.802					
YD4	.801					
YD2	.797					
Entrepreneurship education (GD)						
GD5		.841				
GD2		.822				
GD3		.819				
GD4		.791				
GD1		.770				

	Component					
	1	2	3	4	5	6
Resilience (KC)						
KC2			.832			
KC4			.804			
KC3			.793			
KC1			.785			
Optimism (LQ)						
LQ4				.816		
LQ3				.812		
LQ1				.800		
LQ2				.790		
Self - Efficacy (TT)						
TT1					.849	
TT2					.808	
TT4					.806	
TT3					.791	
Hope (HV)						
HV1						.835
HV2						.785
HV3						.780
HV4						.779

4.4. Analysis of regression model

From the obtained analysis results, the study can evaluate the fit of the regression model through the adjusted R² coefficient (Adjusted R Square). Specifically, the adjusted R² coefficient is 0.488, which

means that the linear regression model is built to fit the data set at 48.88%.

At the significance level of 10%, the regression equation after analysis has the following results:

$$\text{Model: } YD = 0.456(\text{GD}) + 0.294(\text{KC}) + 0.273(\text{LQ}) + 0.257(\text{TT}) + 0.243(\text{HV}).$$

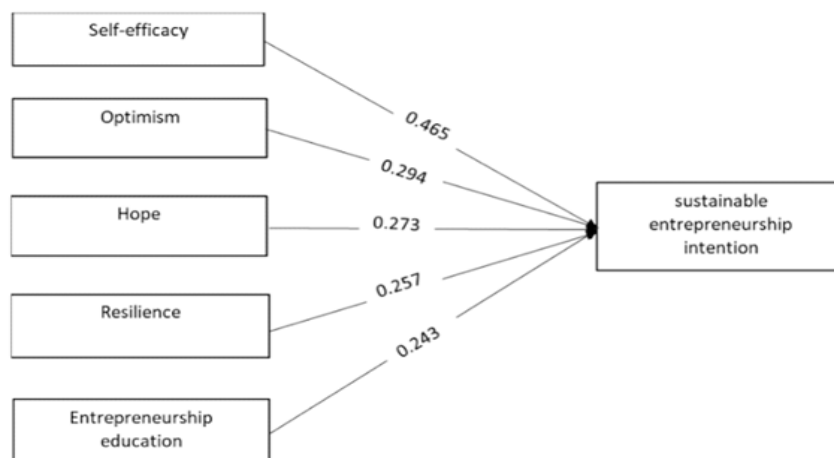


Figure 2: Results of linear regression model analysis on the impact of entrepreneurship education and psychological capital on sustainable entrepreneurship intention.

In the model, there are 5 factors affecting the intention to start a sustainable business, the level of impact (normalized β value) of the factors is ranked in descending order, which is: (1) **GD** Entrepreneurship education ($\beta = 0.456$), (2) **KC** Resilience ($\beta=0.294$), (3) **LQ** Optimism ($\beta = 0.273$), (4) **TT** Self-Efficacy ($\beta = 0.257$), (5) **HV** Hope ($\beta = 0.243$). In this model, based on the normalized β value, the independent

variables all have a positive impact on YD Sustainable entrepreneurship intention.

4.5. Linear structural model

4.5.1. Confirmatory factor analysis

Regarding the fit of the model, the authors will evaluate based on a number of important indicators and obtain the following results: Chi-square/df = 2,847 < 5; GFI = 0.873 (not meeting the standard greater than 0.9 but also close to and

according to Homburg (1995) is acceptable); CFI = 0.943 > 0.9; RMSEA=0.067 < 0.08. Besides, the model value measurement indexes such as CR,

AVE, MSV, etc. all reached the acceptable threshold, helping to confirm that the model is reliable.

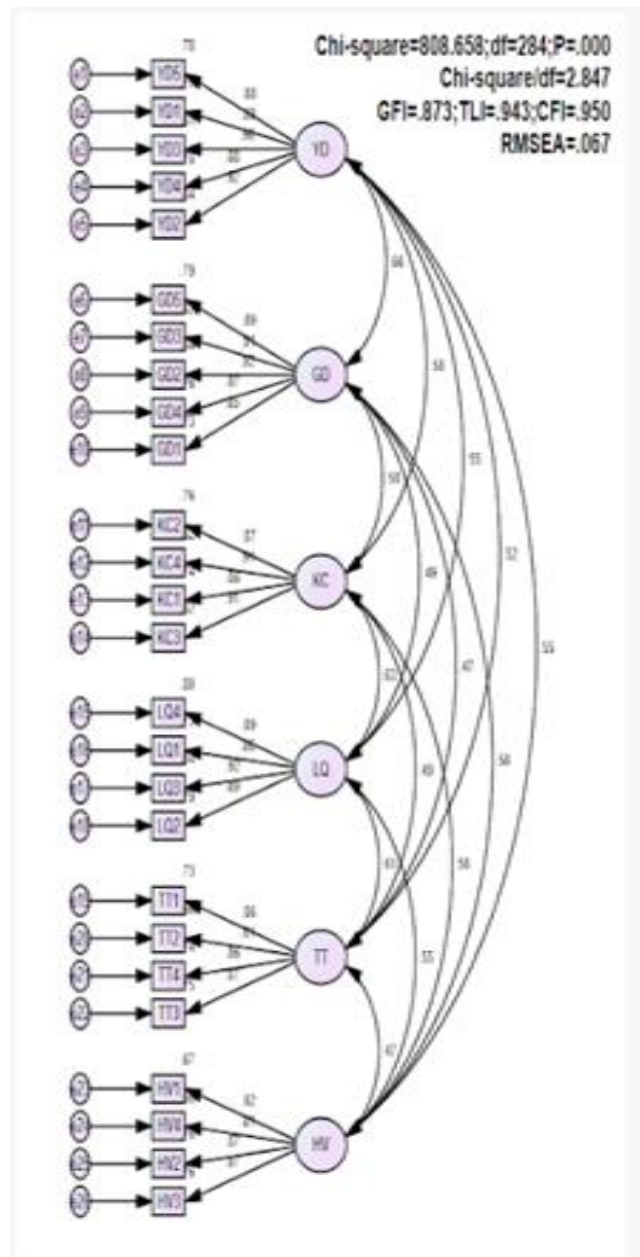


Figure 3: Results of confirmatory factor analysis in research on the effects of entrepreneurship education and psychological capital on sustainable entrepreneurship intention.

4.5.2. Test models and research hypotheses.

The SEM model is considered superior to the regression analysis in SPSS software in analyzing many regression models at the same time. The results of the

model fit assessment are as follows: Chi-square/df = 2,847; GFI = 0.873; CFI = 0.950; RMSEA = 0.067. This result compared with the criteria mentioned above is enough to prove that the research model is suitable for market data.

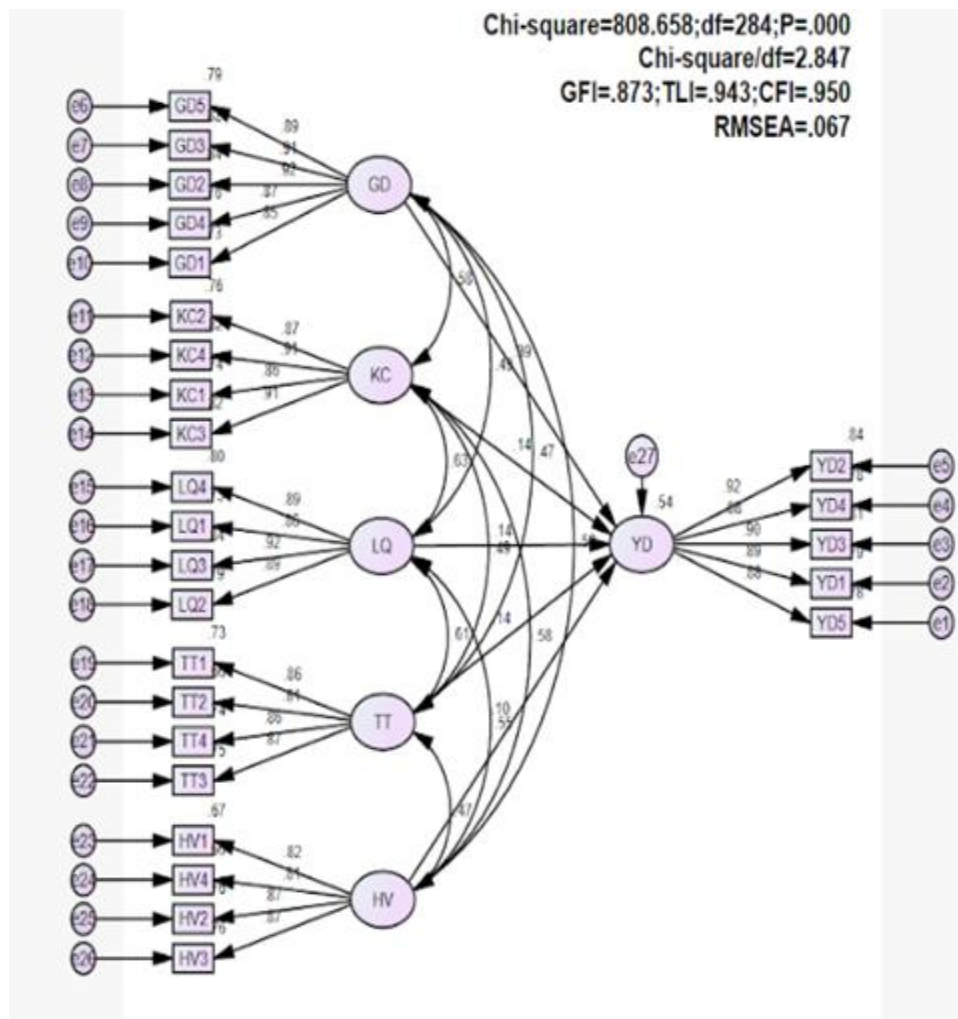


Figure 4: Analysis of results of the linear structural model on the influence of entrepreneurship education and psychological capital on sustainable entrepreneurial intention

Table 3: Analysis results of linear structural model

Hypothesis		Normalized weights	Unnormalized weights	Standard deviation	C.R	P	
H1a	YD <- TT	0.141	0.165	0.06	2.758	0.006	Accepted
H1b	YD <- LQ	0.135	0.127	0.053	2.372	0.018	Accepted
H1c	YD <- HV	0.096	0.121	0.067	1.798	0.072	Not Accepted
H1d	YD <- KC	0.148	0.157	0.059	2.643	0.008	Accepted
H2	YD <- GD	0.386	0.455	0.062	7.297	***	Accepted

Based on the Estimate value in the Squared Multiple Correlations table, the authors determine the level of impact of the independent variables on the dependent variable. Specifically, YD has $R^2 = 0.542$ (or 54.2 %) reflecting the independent variables affecting the % variation of YD.

Based on the data in the table, the research team found that there are 4 factors, except HV Hope, that have no impact on the intention to start a sustainable business and the level of impact (according to the normalized weight value) of the employees. The factors in descending order are: (1)

Education Entrepreneurship Education (0.386), (2) KC Resilience (0.148), (3) TT Self-efficacy (0.141), (4) LQ optimistic (0.135). The variables, except HV, have a positive impact on YD Sustainable entrepreneurship intention. For detailed results, see the Standardized Regression Weights table.

In addition, the authors point to the second research direction on the relationship between overall psychological capital and sustainable entrepreneurial intentions of students. The research model consists of three main structures, namely Total

Psychological Capital (TL), Entrepreneurship Education (GD), and Sustainable Entrepreneurial Intent (YD). The obtained analytical results also help to conclude that there is a positive relationship with statistical significance at a 1% significance level between overall psychological capital and sustainable

entrepreneurial intention. The level of impact of overall psychological capital on the intention to start a sustainable business is 0.514, much higher than the individual impact of each component of psychological capital on the intention to start a sustainable business of students.

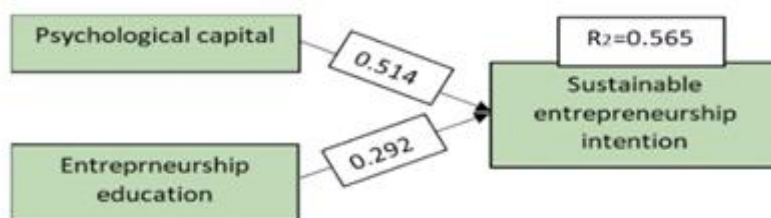


Figure 5: Effects of entrepreneurship education and psychological capital on sustainable entrepreneurial intention.

5. CONCLUSIONS AND RECOMMENDATIONS

Research topic on the impact of psychological capital and entrepreneurship education on the sustainable entrepreneurial intention of students. In which the relationship between psychological capital and sustainable entrepreneurial intention is considered from two angles, namely the overall perspective and the perspective of the components of psychological capital.

The study used qualitative research methods combined with quantitative research methods. Using qualitative research methods to create a theoretical foundation as well as build and adjust the scale of concepts. In this study, the psychological capital scale includes 16 observed variables used to measure four components: self-efficacy, optimism, hope, and resilience. Entrepreneurship education is measured by 5 observed variables and the sustainable entrepreneurial intention scale includes 5 observed variables. The quantitative research method is used to estimate research results, specifically using a linear regression model with SPSS and SEM to test the research hypotheses.

Research results show that entrepreneurship education and overall psychological capital both have an impact on students' sustainable entrepreneurship intentions. In "Entrepreneurship education"

is said to be the most influential factor, the better the students are educated about entrepreneurship, the higher the intention to start a sustainable business will be. Besides, the 4 components of psychological capital are: self-efficacy, optimism, hope, and resilience all have an impact on the intention to start a sustainable business and the highest level is resilience. In addition, the impact level of psychological capital as a whole is much higher than that of individual components of psychological capital.

Based on the research results, some proposed solutions to promote sustainable entrepreneurship activities of students are as follows:

First, for the management agencies, it is necessary to develop a legal framework and have policies to support entrepreneurs with sustainable entrepreneur potential in tax, loan capital, competitiveness, etc., so that businesses can operate effectively, thereby increasing self-efficacy for students who intend to start a sustainable business

Second, it is necessary to improve both the quality and quantity of consultants for sustainable start-ups. It is necessary to have an association with foreign educational institutions to learn sustainable start-up models in the world.

Third, create a favorable and creative learning environment, organize and

encourage students to participate in extracurricular activities so that students have the opportunity to hone necessary skills. Listening and helping students overcome difficulties, creating confidence for students in life.

Finally, for educational institutions, it is necessary to develop training programs on sustainable entrepreneurship disciplines and strengthen connections with sustainable businesses to improve the knowledge and skills of entrepreneurship students.

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