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The Effect of Entrepreneurial Attitudes and Individual Attributes on Entrepreneurial Activity in the context of ASEAN Member States: Evidence from Thailand and Vietnam

Eristian Wibisono[*a], *Hoang Thi Phuong Thao*[*]
[*]University of Pecs, Hungary
[a]Member of Policies for Smart Specialisation (POLISS)

Abstract: This study analyzes the influence of entrepreneurial attitudes and individual attributes on entrepreneurial activity in two ASEAN member countries: Vietnam and Thailand. By applying the multinomial logistics regression (MLR) analysis method, the results show that those with an entrepreneurial network, who can read business opportunities, and have skills and knowledge, have a positive and significant influence when deciding to start and invest in others' new businesses. On the other hand, females and those with a secondary education were more likely to engage in entrepreneurial activities. The study also shows that Vietnam's entrepreneurial attitudes and individual characteristics seem to be better, differentiating it from Thailand. The Global Entrepreneurship Monitor (GEM) data from 2017 were the most recent data available at the time of this study. However, the availability of more up-to-date data is considered necessary to enrich and expand the impact of future research.

Keywords: entrepreneurial activities, entrepreneurial attitudes, individual attributes, start/ invest a business, Thailand, Vietnam
JEL Classification: M13, C55

*Corresponding author's e-mail: wibisono.tian@gmail.com
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Introduction

The Association of Southeast Asian Nations (ASEAN) is an organization of ten countries in Southeast Asia consisting of Indonesia, Singapore, Malaysia, the Philippines, Brunei Darussalam, Laos, Vietnam, Thailand, Myanmar, and Cambodia. Comprehensive research into entrepreneurship has been carried out to discover the nature, characteristics, and dynamics of entrepreneurship in this region. Before the COVID-19 pandemic hit, entrepreneurship was growing not only in the United States but globally. However, the onslaught of the health crisis only slowed down the rapid growth of startups, and they quickly recovered with an "Outstanding Resignation" rating in ASEAN countries (Entrepreneurship-Trends-Report, 2022). According to the GEM-2022 report, countries in the ASEAN-6 region are noted as a group of countries that have a high interest in starting new businesses. This is partly motivated by the opportunity to increase their income. Notably, Thailand has a consistent dynamic in generating early-stage entrepreneurs while Vietnam has a higher rate. The report also shows that these two countries have a higher number of established entrepreneurs compared to the other ASEAN member countries.

The GEM survey and analysis demonstrate the diversity of entrepreneur activity around the nations. Efficiency in entrepreneurial activities has become one of the strong drivers of national economies and an important contributor to job creation and innovation in recent years (Pawitan et.al. 2017). As such, studies relating to the critical factors that drive business and entrepreneurial activities provide a meaningful foundation for policymakers to refine economic development strategies and for more effective development (Rusu & Roman, 2017). Entrepreneurship is increasingly important in promoting economic development and creating many impressive innovations in Southeast Asian countries undergoing a remarkable economic transformation. Numerous studies have emerged focusing on the individual and environmental determinants of such individuals' entrepreneurial qualities (Ahmed et al., 2022; Sun et al., 2020). These outcomes add to our understanding of the individual determinants of entrepreneurship. When policymakers understand the psychology and development path of the entrepreneurs who play a significant role in their countries' economies, startup activities become more effective (Hernández-Sánchez, Sánchez-García and Mayens, 2019).

Previous and recent studies suggest that human capital is a major factor for startup success in all countries around the world (Douglas & Fitzsimmons, 2005; Sun et al., 2020). Entrepreneurial attitudes play an important role in explaining career decisions in all four countries studied (Australia, China, India, and Thailand). Furthermore, the extent to which business attitudes explain business intentions varies across cultures. According to a study by Abun (2021), young Filipinos have a strong entrepreneurial spirit and intent. Furthermore, the hypothesis "there is a relationship between entrepreneurial attitude and entrepreneurial intention" has been demonstrated. Sołtysiak (2019) conducted an empirical study in Czestochowa that supports the findings of Douglas & Fitzsimmons (2005) by showing that the formation of business attitudes by providing adequate knowledge for students is the driving force for future entrepreneurship success.

In a business model, mechanisms that can support or encourage the intention to do business while assessing the potential business outcomes are likely to increase business success (Liguori et al., 2019). Other studies also show that when a person perceives entrepreneurship, the intention to start will become more effective. Other factors that support this effectiveness are education, the startup's ecosystem, and business modeling (Hsu et al., 2019). The study by Mahfud et al. (2020) shows that two things strongly encourage the creation of strong new businesses in developing countries, namely entrepreneurial attitudes, and individual attributes. The study also indicates several important capitals in encouraging the creation of new businesses in developing countries: psychological capital, social capital, and business capital. Studies related to entrepreneurial attitudes and individual attributes are still being explored in developing countries.

According to the Global Startup Ecosystem Report-2021, ASEAN startup activities attract funding from global, regional, and local investors. Accordingly, several Thai startups and investment fund groups have stood out in recent times. Vietnam is also considered a "new star" in the region and will emerge as the country with the third-largest startup ecosystem in Southeast Asia by 2022. Individual statistics show that the share of women in Thailand and Vietnam who become entrepreneurs in the early stages is also higher than in other ASEAN countries. Total Entrepreneurial Activity (TEA) data based on the education level also shows that those who have passed secondary level education dominate entrepreneurial activities.

Preliminary research reveals that in-depth studies on entrepreneurial activities in these two countries are also not prevalent. Especially the similarity of individual characters and entrepreneurship statistics in Thailand and Vietnam motivated us to evaluate entrepreneurial activity in both countries, based on entrepreneurial attitudes and individual attributes. These outcomes partly close the research gap in this field and support policymakers in improving economic development strategies in the coming years.

This paper consists of five parts. The following section is a literature review in which we also develop the hypotheses. In the third section, we describe the methodology covering data sources, variables operationalization, and data analysis methods. We then estimate and explain the results in the fourth section. The conclusion in the fifth section closes the paper.

Literature Review and Formation of Hypotheses

A social life connects one person to another. One person's success story will certainly interest other people who want to be like him/her. This relationship can be paralleled with what we said about entrepreneurial networks. The success stories of people who start or run businesses will inspire others in their social environments, and this may even be known by people worldwide, given the sophistication of today's technology and social media. This will help nascent entrepreneurs follow in their footsteps.

Szerb et al. (2007) and Rusu & Roman (2017) highlight that entrepreneurial attitudes such as entrepreneurial networks, skills, and competencies to start new businesses

and understand business opportunities significantly influence individual decisions to start new businesses and invest in other people's businesses. Entrepreneurship education can encourage the creation of positive behavior and attitudes for future entrepreneurs (Dheer, 2017; Sołtysiak, 2019). In addition to measuring entrepreneurial attitudes toward entrepreneurial activities, the study also examines individual characteristics such as education and gender on the tendency to invest in other people's businesses. This study was conducted in three Central and Eastern Europe (CEE) countries: Croatia, Hungary, and Slovenia, citing sociocultural proximity, economic history, and almost concurrent market transition processes. Although the hypothesis stipulates that the three countries differ significantly in who owns the businesses and informal investment, the findings prove that the informal investment conditions of the three countries tend to be homogeneous.

To build a successful business, the entrepreneurial ecosystem must be on board. Therefore, those who can utilize entrepreneurial networks will find it easier to find sources of skilled labor that will support their businesses (Rusu & Roman, 2017). The positive influence of role models is also believed to be an important consideration for someone wanting to start a business. Krueger (2017) suggests that business intentions should be formed from a thorough and rigorous combination of feasibility, opportunity identification, and previous start-up-related experiences. Perceptual factors such as the ability to grasp opportunities, the fear of failure, and self-efficacy should also be considered because, in the early stages of entrepreneurship, new entrepreneurs tend to have a more subjective view than an objective view when making various decisions. Thus, perceptual characteristics are also strongly considered in entrepreneurship modeling studies (Peltonen & Arenius, 2017).

Key facilitators in the entrepreneurial ecosystem such as governments, startup incubators, and successful entrepreneurs act as role models who can also be the catalysts for various startups (Almodóvar-González et.al., 2020). Role models such as successful entrepreneurs can deeply influence a person, and they will usually be regarded highly as an important figure in one's life. In most developed countries, educational institutions provide graduates with innovative knowledge and good role models, which in turn generates the motivation and courage in graduates to undertake entrepreneurial activities (Breznitz & Zhang, 2020). Equipping oneself with various knowledge and skills is mandatory for a business actor. In their development, they must continue to update their knowledge and role-play multiple models that can improve their quality (Manning et al., 2019). In short, the success stories of entrepreneurs and the tips they share with the public in a seminar, for example, will support those who want to start a business (Ndofirepi, 2020). Role models like these will also benefit the personal connections of new entrepreneurs. Success stories will serve as references to success that can be emulated. Many people fail not because they do not have sufficient skills but because they lack access to information outside their environment. With this access, new entrepreneurs will gain a wealth of information on skills, experience, and, quite possibly, financial assistance (Hiền & Trang, 2021).

Getting access to a startup network or participating in a startup ecosystem is a po-

tential entrepreneur's strategy. Startup opportunities and scalability come from the density of the startup ecosystem. It can also form an innovation center based on the success of entrepreneurs and the rapid spread of knowledge (Farooq et al., 2018; Shwetzer et al., 2019). In addition, the start-up ecosystem also creates a favorable business environment, helping potential entrepreneurs find opportunities and realize their expertise and skills (Burkynskyi et al., 2021).

Individuals who have an entrepreneurial spirit and can read market conditions are generally more skillful in spotting or capturing a business opportunity (Karlidag-Dennis et.al., 2020). The birth of a new entrepreneur begins with the perception of someone who can read opportunities. Training in entrepreneurial knowledge, a part of the process of accumulating business experience, is an essential foundation in the formation of intentions, strategic thinking, and entrepreneurial motivation (Rofifah, 2020). Many empirical studies state a positive relationship exists between the ability to read business opportunities and the birth of new entrepreneurs (Shwetzer et.al., 2019). In addition to being able to read opportunities, starting a business requires intention, action, and the ability to control procedures so that what is attempted can be successful (Hechavarría & Ingram, 2019). The empirical study by Wong & Lee (2005), (Rusu & Roman, 2017), and (Almodóvar-González et.al., 2020) shows that one's capability greatly determines the tendency to engage in entrepreneurial activities. Based on the description above, the research hypotheses are posed:

H1: There is a positive and significant relationship between entrepreneurial networks and the likelihood of starting new businesses and investing in new businesses.

H2: There is a positive and significant relationship between the ability to see future business opportunities and the likelihood of starting a new business and investing in a new business.

H3: There is a positive and significant relationship between having the skills and competencies needed to start a business and the likelihood of starting a new business and investing in a new business.

Honjo & Nakamura (2020) recently conducted an empirical study of the relationship between entrepreneurial activity and informal investment. The results of their research show that those who engage in entrepreneurial activities are more likely to invest in new businesses. Another factor that was found to influence the desire to invest in a business was the entrepreneurial network. They compared the entrepreneurial activity and informal investment in Japan and the other Organization for Economic Cooperation and Development (OECD) countries. The study's results showed that entrepreneurial activity and investment in Japan tended to be higher than in other OECD countries. An empirical study that took a sample of three CEE countries conducted by Szerb et al. (2007) and an empirical study conducted by Honjo & Nakamura (2020), which compared Japan with other OECD countries, motivated us to compare two ASEAN member countries that have a high entrepreneurial tendency, compared to the other ASEAN member countries.

This study assumes that the differences in individual characteristics and entrepreneurial attitudes of the two countries also cause them to differ in their entrepreneurial activities.

Thailand's start-up activities have flourished since 2014, hastening the country's transition to the Fourth Industrial Revolution thanks to an open legal corridor from the government and domestic capital. Along with Southeast Asian countries such as Singapore and Indonesia, the Thai start-up ecosystem has made remarkable progress (The ASEAN Post, 2021). The numbers for starting a business in Vietnam have risen sharply since 2017, partly due to the spillover effects from neighboring countries. This is reflected in the ratio of start-up business activities - TEA. The Total Entrepreneurial Activity (TEA) index includes both successful and unsuccessful start-ups. In 2017, the TEA index was at 23.3 percent, higher than in previous years. The Vietnam start-up report in 2019 reflects the culmination of this trend. In this study, we aspire to test whether the start-up trend in Vietnam is more potent than in Thailand.

H4: Individuals from Vietnam tend to be more likely to start new businesses and invest in new businesses.

Female and male propensities to start enterprises are equal in the same population. However, there are significant gender disparities in the connection of various factors with start-up tendencies (Goel et al., 2014 and Mustafa & Treanor 2022). A systematic literature review with 2,848 research articles from 1950 to 2019 by Cardella et.al. (2020) has summarized the factors explaining women's difficulties in undertaking a business career. The study contributes many tools to overcome the gender gap AND raise the importance of female entrepreneurs for their country's economic growth, especially in developing economies. Numerous studies express that knowledge is the foundation for entrepreneurial trends and ensures success (Jiménez et al., 2015; Wei et al., 2019). Higher education knowledge assists entrepreneurs with in-depth market analysis and risk reduction. It is a critical component of the knowledge-based economy, which developing countries increasingly incorporate into their economic transformations. This study also observed these two issues in the Philippines and Vietnam.

H5: Individuals of the female gender are more likely to start new businesses and invest in new businesses.

H6: Individuals with a minimum of a high school education are more likely to start new businesses and invest in new businesses.

Data and Methodology

This paper is a quantitative study that draws on secondary data from the most recent Global Monitoring Entrepreneurship (GEM) report, GEM 2017. The 2017 GEM data contained various responses from respondents from each country. For this study, we selected two countries to analyze: Thailand and Vietnam. There were 2,001 items of survey data from respondents in Thailand and 2,110 from Vietnamese respondents, bringing the total data from both countries to 4,120. We discovered some missing data during the

initial data process that had to be managed so that at the final stage of the preparation phase, we had 3,950 items of data from respondents in both countries that were suitable for processing.

All the data required for the analysis (variables) were available, in full, in this version of GEM 2017. In this study, we only used two individual attributes that were considered the most dominant, namely gender and education. Given the increasing number of studies involving the role of women in entrepreneurship, we considered including the individual attribute "female" in this study. The modification in the individual attribute variable for "education" was classified as individuals/respondents with a secondary education level.

Table 1. Operationalized variables

Variables	Type	Definitions	
ENTRACT	categorical	*If the individual:*	
	(Dependent)	0:	has not recently started and has not invested in a new business in the last three years.
		1:	has not recently started but has invested in a new business in the last three years
		2:	recently started but did not invest in a new business in the last three years
		3:	has recently started and has invested in a new business in the last three years
KNOWENTR	dummy	1:	knows another entrepreneur for the last two years
		0:	otherwise
OPPORTU	dummy	1:	views an opportunity to start a business in the next six months
		0:	otherwise
SUPSKILL	dummy	1:	has the expertise to start a new business
		0:	otherwise
COUNTRY	dummy	1:	Vietnam
		0:	otherwise (Thailand)
FEMALE	dummy	1:	Female
		0:	otherwise (Male)
HIGHEDUC	dummy	1:	has a minimum education of high school
		0:	otherwise

Source: author's processed data

In operating on the variables, entrepreneurial activity was chosen as the dependent variable. This variable was a composite of two different categories of data. The first data category was BSTART. In the 2017 GEM data structure, BSTART described individuals who have recently started a business, whether they were self-employed or doing so with

others. The second category of data was BUSINESS. BUSANG described individuals who provided funding for someone else's new venture in the last three years. Thus, combining these two data categories yielded the desired independent variable of entrepreneurial activity, hereafter abbreviated to ENTRACT.

Furthermore, the dependent variable ENTRACT was further categorized into four categories: Category 0, Category 1, Category 2, and Category 3. Category 0 represents those who did not start a new business and did not invest in someone else's new business (abbreviated to No Startup and No Invest). Category 1 represented those who did not start a new business but invested in someone else's new business (abbreviated to No Startup but Yes Invest). Category 2 represented individuals who started a new business recently but did not invest in someone else's new business (abbreviated to Yes Startup but No Invest). Category 3 was the category that represented individuals who had recently started a new business while investing in someone else's new business (abbreviated to Yes Startup and Yes Invest). The third category was considered the reference category.

We conducted a preliminary study of the 2017 GEM data to look at the frequency distribution, 60 percent of the respondents decided not to start a new venture and invest in someone else's new venture, while only 4 percent decided to start a new venture and invest in someone else's new venture. This initial finding formed the basis for further study to analyze the determinants of why most individuals in these two countries were in this situation.

Furthermore, two other groups of variables were used to predict the dependent variable. The first was entrepreneurial attitude. Three variables were operationalized to explain this entrepreneurial attitude: First, the entrepreneurial network, which described individuals who personally knew others who started a business in the last two years, symbolized by KNOWENTR. Second, opportunity was individuals who, in the next six months, saw an opportunity to start a business in their environment, symbolized by OPPORTU. Third, skills were individuals with the expertise to start a new business, such as the skills and knowledge, and were symbolized by SUPSKILL.

Three individual attributes were operationalized: The individual's country of origin, gender, and education. We proxied COUNTRY with Vietnam as the primary dummy variable (COUNTRY, dummy 1) and Thailand as the comparison (dummy 0). The gender FEMALE was also selected as the key dummy variable (FEMALE dummy 1) to distinguish it from MALE. Meanwhile, the education variable was individuals who had at least high school or secondary level education (HIGHEDUC, dummy 1) to distinguish them from those who did not complete high school.

The data analysis procedure was separated into two steps. The first was to describe all the response and predictor variables' frequency statistics. From this statistical description, the characteristics of each respondent based on entrepreneurial activity, entrepreneurial attitude, and individual attributes could be known. This descriptive analysis was also divided into two parts. First was the presentation of each variable based on the differences in the two countries, Thailand and Vietnam, which supported why our study

focused on these two countries. Second, each variable was described in general terms without differentiating between the two countries. It aimed to see the characteristics of each variable before proceeding with the estimation of the mathematical model. This description is presented in two separate tables.

The second step was to estimate the relationship between the predictor variables of entrepreneurial attitude and individual attributes on the response variable of entrepreneurial activity in Thailand and Vietnam. The multinomial logistic regression analysis method was seen to be a suitable method to estimate the model. Since we had four categories, three mathematical models were obtained where one of the categories (Category 3) was defined as the base or reference category. Following the general procedure in multinomial logistic regression, the next step was to perform the model fit test and parameter significance test, and the last step was to interpret the regression results.

Result and Discussion

Descriptive statistical analysis

At this stage we describe all the operationalized variables. The first description, as in Table II, is a statistical description by country (Thailand and Vietnam) to present the frequency composition of each variable in each country. The second description, as in Table III, is a statistical description to describe all the variables in the two ASEAN countries. Table 2 and Table 3 are presented below.

Table 2. Statistical description of variables in Thailand and Vietnam based on data type classification

Description		Thailand (in %)	Vietnam (in %)
Number of respondents		1,916 (48.5%)	2,034 (51.5%)
Entrepreneurial activity	0:	56.2	66.6
in a new business	1:	2.4	7.5
	2:	36.3	21.5
	3:	5.1	4.4
Entrepreneurship network	1:	30.6	60.7
	0:	69.4	39.3
Views an opportunity	1:	48.6	47.2
	0:	51.4	52.8
Has the start up expertise	1:	49.5	53.0
	0:	50.5	47.0
Gender (Female)	1:	51.5	51.3
	0:	48.5	48.7
High scool education level	1:	39.3	55.8
	0:	60.7	44.2

Source: author's processed data

In Table 2, the differences in each country's composition and the frequency of all the variables are revealed. The data obtained were quite balanced, where 51.5 percent of the respondents were from Vietnam, and 48.5 percent from Thailand. This finding expresses how the description of the primary response variables in this study and each category was set. The data showed that more than 50 percent of respondents in both countries were in the first category or Category 0, which was for the respondents who do not start new businesses and do not invest in other people's new businesses. This value indicated that more than half of the respondents in Thailand and Vietnam did not show any entrepreneurial activity.

Category 1, which described respondents who did not start a new business but invested in someone else's business, appeared to be different in the two countries. A total of 2.4 percent of respondents from Thailand were in this category. Vietnamese respondents seemed very different, with 7.5 percent of them being in this category, more than double the Thai respondents. Category 2 explains the respondents who started a new business but did not invest in a new business; this also looked quite different in the two countries, namely Thailand had as many as 36.3 percent and Vietnam up to 21.5 percent or in other words, there were 14.8 percent more Thai respondents. Category 3 also showed that respondents from Thailand had a slightly higher frequency than Vietnam, although the difference was only 0.7 percent.

The entrepreneurial network in each country looked to be different and opposite. In Thailand 30.6 percent of the respondents had an entrepreneurial network, while 69.4 percent did not. The condition of the Thai respondents was very different and opposite to that of the Vietnamese respondents, where 60.7 percent of the respondents stated that they knew other people who had started businesses in their environment, while 39.3 percent of those who answered did not know. This was an early indication that the entrepreneurial attitude in Vietnam looked better than in Thailand.

In terms of seeing business opportunities in the future, the two countries were not so different. Under the same conditions, the ability of respondents to see business opportunities in both countries was less than 50 percent, while those who could not see business opportunities were more than 50 percent. Once again, the entrepreneurial attitude in Vietnam looked better than in Thailand. As many as 53 percent of respondents from Vietnam stated that they had the skills needed to start a new business, while respondents from Thailand were 49 percent.

In terms of individual attributes, we tried to raise one of the critical issues regarding gender equality in entrepreneurship in both countries, as raised in the 2017 ASEAN GEM report. This description showed that gender equality was visible in countries with a reasonably similar composition, with around 51 percent of the respondents being female. The educational characteristics of the respondents in these two countries also looked different. As many as 55.8 percent of respondents from Vietnam had a minimum education at the secondary school level, while in Thailand, only 39.3 percent of respondents reached that level. Based on this condition, we expected that the minimum level of education in

secondary schools that we set as this standard would be a factor that influenced entrepreneurial activity.

The following Table 3 describes all the research variables without differentiating them between countries.

Table 3. Statistical description of all variables based on data type classification

Description		Percentage
Number of respondents		3,950
Entrepreneurial activity in a new business	0:	61.5
	1:	5.0
	2:	28.7
	3:	4.7
Entrepreneurship network	1:	46.1
	0:	53.9
Views an opportunity	1:	47.9
	0:	52.1
Has the startup expertise	1:	51.3
	0:	48.7
Country Thailand - Vietnam	1:	51.5
	0:	48.5
Gender (Female)	1:	51.4
	0:	48.6
High school education level	1:	44.2
	0:	55.8

Source: author's processed data

Based on the multinomial categories defined at the beginning of the process, it was obviously that the frequency of the four categories of entrepreneurial activity was very unbalanced. Of the total 3,950 respondents, 61.5 percent were respondents who did not start a new business and did not invest in a new business (Category 0). More than half of the respondents were those who did not have any entrepreneurial activity. Even in the descriptions that distinguished each country, the conditions were similar. Next, 28.7 percent of respondents were in the category of respondents who started a new business, but they did not invest in someone else's new business (Category 2). The minor frequency was respondents in Category 1 and Category 3. Five percent of the respondents in Category 1 did not start a new business but invested in a new business, while the remaining 4.7 percent were respondents who started a new business while investing in a new business belonging to someone else (Category 3; reference category).

Multinomial Logistic Regression Estimation (MLR)

Before going to the regression estimation results, it was nesessary to test some

of the requirements to meet the feasibility of the regression estimation. The first assessment was to test the suitability of the goodness-of-fit model, to detect whether the model formed by this MLR analysis method could explain the data well. The results of the goodness-of-fit test are shown in Table 4 below.

Table 4. The goodness-of-fit result

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	284.431	171	0.000
Deviance	271.656	171	0.000

Source: author's processed data

From the table we can see that the Pearson value had a significance of 0.000 where this value was less than 0.05. This meant that we could state that the model that had been formed could not explain the data well. In addition to the goodness-of-fit test, next we would see how good this model was in terms of the size of the predictor variable's ability to explain the response variable. This measure can be seen from the pseudo R-square value as shown in Table 5 below.

Table 5. The pseudo R-square result

Pseudo R-Square	
Cox and Snell	0.159
Nagelkerke	0.187
McFadden	0.091

Source: author's processed data

The table above shows the magnitude of the Nagelkerke value of 0.187. This value implied that the independent or predictor variable used could estimate and explain the response variable of 18.7 percent. In comparison, 81.3 percent of the other predictor variables outside this model could explain the response variable but were not considered in this study.

The significance of the beta coefficient on all predictor variables simultaneously on the response variable is shown in Table 6 below.

Table 6. The model fitting information result

Model	**Model Fitting Information**					
	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	1,519.808	1,538.653	1,513.808			
Final	870.158	1,002.069	828.158	685.650	18	0.000

Source: author's processed data

The final chi-square value was 686.658 where this value was greater than the table chi-square value of 28.8693 and the significance value was 0.000 where this value was smaller than 0.05. This value implied that at least one independent variable or predictor variable in this model had a significant effect on the response or dependent variable.

To partially see the predictor variable's effect, a likelihood ratio test is checked in Table 7 below.

Table 7. The likelihood ratio test result

Likelihood Ratio Tests				
Effect	Model Fitting Criteria		Likelihood Ratio Tests	
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	828.158a	0.000	0	
KNOWENTR	895.636	67.478	3	0.000
OPPORTU	842.557	14.399	3	0.002
SUPSKILL	1,097.075	268.917	3	0.000
COUNTRY	1,018.273	190.116	3	0.000
FEMALE	842.583	14.425	3	0.002
HIGHEDUC	844.639	16.481	3	0.001

Source: author's processed data

The table indicates that all the independent variables used in the study partially and significantly affected the dependent variable. It can be seen from the significance value of all the independent variables, which were smaller than the 0.05 confidence interval, even with four of them being significant at the 0.01 confidence interval.

The following Table 8 presents the results of the multinomial logistic regression (MLR) estimation of the effect of entrepreneurship attitude proxied by KNOWENTR, OPPRTU, and UPSKILL variables and individual attributes proxied by COUNTRY, FEMALE, and HIGHEDUC on entrepreneurial activities in Thailand and Vietnam. Of the four multinomial categories formed, Category 3 (the last category) was chosen as the basis or reference. Therefore, the table that presents the MLR estimation results below was a model for Category 0, Category 1, and Category 2.

Table 8. Entrepreneurship Activity in Thailand and Vietnam: MLR results

Predictor	**Category 0: "not start a new business and not invest in a new business"**			**Category 1: "not start a new business but invest in a new business"**			**Category 2: "start a new business but not invest in a new business"**		
	B	Wald	Exp(B)	B	Wald	Exp(B)	B	Wald	Exp(B)
INTERCEPT	1.798	111.773		0.146	0.437		1.577	82.127	
KNOWENTR	1.154***	40.815	3.172	0.604***	6.508	1.830	0.684***	13.822	1.981
OPPORTU	0.334***	4.039	1.397	0.405**	3.409	1.500	0.061	0.129	0.761
SUPSKILL	1.136***	40.990	3.114	0.738***	10.680	2.092	-0.138	0.553	0.871

COUNTRY	-0.814***	24.624	0.443	-1.548***	42.855	0.213	0.162	0.946	1.176
FEMALE	-0.478***	9.144	0.620	-0.773***	13.546	0.462	-0.420***	6.754	0.657
HIGHEDUC	0.493***	9.607	1.638	0.428***	4.111	1.534	0.242	0.226	1.274

Source: author's processed data
Reference category 3: "start a new business and invest in a new business"
*Note: ***) significance at alpha 5%; **) significance at alpha 10%*

Based on Table 8, the results of all the predictor variables were estimated based on the response variables for the three categories. The first variable KNOWENTR described the entrepreneurial attitude of individuals in both countries related to the entrepreneurial network. This variable described the individual or respondent's relationship with entrepreneurs who had started a new business during the last two years. The coefficient of this variable was positive for the three categories.

In Category 0, the beta coefficient of KNOWENTR was 1.154 and was significant at the 95 percent confidence level. This value meant that the entrepreneurial network had a positive and significant effect on entrepreneurial activity (ENTRACT). The Exp(B) value of 3.172 meant that individuals who did not have an entrepreneurial network (KNOWENTR = 0) were 3.17 times more likely than those who had an entrepreneurial network to decide not to start a new business and not invest in a new business. In Category 1 the beta coefficient of KNOWENTR was 0.604 and was significant at the 95 percent confidence level. This value meant that the entrepreneurial network of individuals in this category had a positive and significant effect on entrepreneurial activity (ENTRACT). The Exp(B) value of 1.830 meant that individuals who did not have an entrepreneurial network (KNOWENTR = 0) were 1.83 times more likely than those who had an entrepreneurial network to decide not to start a new business but invest in a new business. In Category 2, the beta coefficient of KNOWENTR was 0.684 and was significant at the 95 percent confidence level. This value meant that the entrepreneurial network of individuals in this category had a positive and significant effect on entrepreneurial activity (ENTRACT). The Exp(B) value of 1.981 meant that individuals who did not have an entrepreneurial network (KNOWENTR = 0) were 1.98 times more likely than those who had an entrepreneurial network to decide to start a new business but did not invest in a new business. This explanation supported our first hypothesis, that there was a positive and significant relationship between entrepreneurial networks and the propensity to start new businesses and invest in new businesses. This result is like the study of Montoro-Sánchez et.al., (2008), and Peltonen & Arenius (2017). The accumulation of experience in business and the combination of resources such as experience and knowledge make it easy for entrepreneurs to build and choose many solutions to improve business efficiency and alternative solutions in case of risks.

In Category 0, the SUPSKILL beta coefficient was 1.136 and was significant at the 95 percent confidence level. This value meant that individuals who had the necessary competencies to start a new business in this category had a positive and significant impact on entrepreneurial activity (ENTRACT). The Exp(B) value of 3.114 meant that individu-

als who had the competencies needed to start a new business (SUPSKILL = 0) were 3.11 times more likely than those who had the competencies needed to start a new business to decide not to start a new business and not to invest in new business. In Category 1, the SUPSKILL beta coefficient was 0.738 and was significant at the 95 percent confidence level. This value meant that individuals who had the necessary competencies to start a new business had a positive and significant effect on entrepreneurial activity (ENTRACT) in this category. An Exp(B) value of 2.092 meant that individuals who did not have the necessary competencies to start a new business (SUPSKILL = 0) were 2.09 times more likely than those who had the necessary competencies to start a new business to decide not to start a new business but invest in new business. This explanation supported our third hypothesis, where there was a positive and significant relationship between having the skills and competencies required to start a business and the propensity to start a new business and invest in a new business. The studies by Krueger (2007), Galanakis & Giourka (2017), and Hernández-Sánchez et.al. (2019) support this outcome, the decision to start a business being based on potential opportunities through self-perception, the ability to seek opportunities, expert knowledge, and soft skills.

The fourth predictor variable COUNTRY described individuals who came from two different countries, namely Thailand and Vietnam. Vietnam was set as a dummy control variable (dummy = 1) and Thailand as a dummy = 0. The coefficient on this variable was negative and significant for Category 0 and Category 1, while the coefficient in Category 2, although the value was positive, had no significant effect on ENTRACT.

In Category 0, the COUNTRY beta coefficient was -0.814 and significant at the 95 percent confidence level. The Exp(B) value of 0.443 meant that individuals from Thailand (COUNTRY = 0) were 0.44 times less likely than those from Vietnam to decide to not start a new business and not invest in a new business. In Category 1, the COUNTRY beta coefficient was -1.548 and was significant at the 95 percent confidence level. An Exp(B) value of 0.213 meant that individuals from Thailand (COUNTRY = 0) were 0.21 times less likely than those from Vietnam to decide not to start a new business but invest in a new business. This explanation supported our fourth hypothesis, which said that individuals originating from Vietnam were more likely to start new businesses and invest in new businesses.

The fifth predictor variable FEMALE explained the gendered character of entrepreneurial activity in both countries. This variable distinguished between female and male. We set female as a dummy control variable (dummy = 1) and male as a dummy = 0. The coefficient on this variable was negative and significant in all three categories.

In Category 0 the beta coefficient of FEMALE was -0.478 and was significant at the 95 percent confidence level. The Exp(B) value of 0.620 meant that a male individual (FEMALE = 0) was 0.62 times less likely than a female to decide not to start a new business and not invest in a new business. In Category 1, the beta coefficient of FEMALE was -0.773 and was significant at the 95 percent confidence level. The Exp(B) value of 0.462 meant that individuals who were male (FEMALE = 0) were 0.46 times less likely than a

female to decide not to start a new business but invest in a new business. In Category 2 the beta coefficient of FEMALE was -0.420 and significant at the 95 percent confidence level. The Exp(B) value of 0.657 meant that an individual who was male (FEMALE = 0) was 0.42 times less likely than a female to decide to start a new business but not invest in a new business. This explanation supported our fifth hypothesis, where females were more likely to start new businesses and invest in new businesses. This study finds differences in entrepreneurship decisions related to gender. Meanwhile, previous papers, namely research by (Trevelyan, 2011), show that the decision to start a business is not directly affected by gender. Business passion and the entrepreneurial qualities of men and women also did not make an immediate difference in creating a business (Koellinger et al., 2013; Oosterbeek et al., 2010). Langowitz & Minniti, (2017) discovered that women have a worse perception of themselves and the business environment than men.

The sixth predictor variable HIGHEDUC described an individual's minimum education level in both countries. This variable distinguished individuals with a minimum education of high school graduation and those who did not graduate from high school. We set a minimum education level of high school graduation as a dummy control variable (dummy = 1) and those who did not finish high school as a dummy = 0. The coefficient on this variable was positive and significant in Category 0 and Category 1.

In Category 0, the beta coefficient of HIGHEDUC was 0.493 and significant at the 95 percent confidence level. The Exp(B) value of 1.638 meant that individuals who did not have a minimum of a high school education (HIGHEDUC = 0) were 1.64 times more likely than those who had a minimum of a high school education to decide not to start a new business and not invest in new businesses. In Category 1, the beta coefficient of HIGHEDUC was 0.428 and was significant at the 95 percent confidence level. The Exp(B) value of 1.534 meant that individuals who did not have a minimum of a high school education (HIGHEDUC = 0) were 1.53 times more likely than those with a minimum of a high school education to decide not to start a new business but invest in a new business. This explanation supported our fifth hypothesis, which said that individuals with a minimum of a high school education tended to be more likely to start new businesses and invest in new businesses. This decision is supported by similar arguments and research models by other researchers, namely, Díaz-García & Jiménez-Moreno (2010); Feder & Nițu-Antonie, (2017); and Karimi et al., (2013).

The following Table 9 presents the results of the evaluation of the model based on its classification.

Table 9. The classification result

Classification					
Observed	Predicted				
	NO start, NO invest	NO start, YES invest	YES start, NO invest	YES start, YES invest	Percent Correct
NO start, NO invest	2,146	0	285	0	88.3%

NO start, YES invest	175	0	23	0	0.0%
YES start, NO invest	677	0	457	0	40.3%
YES start, YES invest	109	0	78	0	0.0%
Overall Percentage	78.7%	0.0%	21.3%	0.0%	65.9%

Source: author's processed data

The table shows that the classification accuracy of the four categories is very much different. Category one has a classification accuracy of 2,146 respondents, while the correct classification for Category 2 is 23 respondents. Unfortunately, the classification accuracy for Categories 1 and 3 is 0. Thus, the classification accuracy of the model that can be estimated in this study is 65.9 percent.

Conclusion and Recommendations

This study analyzes the influence of entrepreneurial attitudes and individual attributes on entrepreneurial activities in two ASEAN member countries, namely Vietnam and Thailand. The estimation results of this study show that entrepreneurial networks, the ability to read future business opportunities, and the skills and competencies needed to start a new business have a positive and significant influence on an individual's decision to start a new business and invest in someone else's new business.

This research data reveals a preference for investing in starting a business in Thailand and Vietnam. Potential entrepreneurs become more guarded due to the vast network of startup information, the spread of role models, and the ability to read business opportunities. The estimation results also show that gender and educational attributes are significantly different. Those who are female and have at least a high school education are more likely to start new businesses and invest in others' businesses. With better individual characteristics and entrepreneurial attitudes, Vietnam seems to differentiate itself from Thailand.

Based on the experimental outcomes, several policy proposals are offered. A system for solutions to improve economic development policies and lubricate the startup environment that focuses on (1) significantly improving the business environment, (2) improving the environment's position in the international ranking's business market, (3) boosting competitiveness to adapt to the Fourth Industrial Revolution's development trends, and (4) boost economic resilience in the context of the COVID-19 pandemic.

Before the COVID-19 pandemic broke out, Indonesia, Thailand, Vietnam, and Malaysia possessed the ideal combination of economic growth, population size, working age, level of investment, and entrepreneurial enthusiasm, which led to these countries playing essential roles in the world for entrepreneurial activities. These markets are four of the fastest growing in the world, with an average gross domestic product growth rate of 5.3 percent, of which Vietnam is the fastest growing country, by up to 7.3 percent, and Thailand, up to 2.3 percent in 2019.

To increase the contribution of entrepreneurship to economic development, in

other words, to improve entrepreneurship's efficiency and sustainable orientation, empirical studies on individual behavior as well as the influencing factors for the decision of starting a business or investing in a business need to be implemented in each country and many countries at the same time for comparison and benchmarking. Business knowledge and models are considered essential factors affecting the intentions and decisions of potential entrepreneurs in starting a business or investing in startup projects. Therefore, embedding knowledge earlier and more flexibly into educational programs is necessary.

In addition, the exchange of academic and entrepreneurship models between countries should also be promoted, especially by the group of Southeast Asian countries, which have many similarities in resources and a history of economic development. Expand the national startup network to regional and inter-regional areas to maximize the startup opportunities for each nation. Allying with countries will open many opportunities for the flow of labor, capital, and startup ideas between countries. Then, investment opportunities and the ability to attract investment are expanded. Lastly, simplify the administrative procedures to lubricate the technology's and startup model's transfer between countries. This activity supports technology diffusion and closes the development gap between countries.

This paper has some technical limitations. The data used is GEM's 2017 APS Global Individual Level Data which is the most recent GEM data at the point in time of this study. However, the authors clearly recognize that the data collection process by the GEM data provider (GEM consortium) has its own challenges. GEM data was collected from at least 2,000 respondents across 47 countries. Currently, the GEM Global Report 2021/2022 is available, but it is not expected that the full data set will be available every year. While it was eventually discovered that the 2018 GEM data was available, the issue of preparing and processing the raw data was complicated. For example, for a country with 2,000 respondents, the data could reach less than 2,000 respondents. One of them could not be analyzed due to missing data issues. This process is again time-consuming. Therefore, GEM 2017 was chosen to continue estimating the model. Future researchers can easily duplicate this method with different data years, either before or after GEM 2017, depending on their resources.

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