

# THE EFFECT OF ENTREPRENEURSHIP EDUCATION ON ENTREPRENEURIAL INTENTION IN INDONESIA

Patricia<sup>1)</sup>, Christian Silangen<sup>2)</sup>

<sup>1)2)</sup>Universitas Pelita Harapan, Tangerang

<sup>1)</sup>e-mail: [patricia.fe@uph.edu](mailto:patricia.fe@uph.edu)

<sup>2)</sup>e-mail: [christian.silangen@gmail.com](mailto:christian.silangen@gmail.com)

## ABSTRACT

This research studied the relationship between entrepreneurship education and entrepreneurial intention of university students. Following original research by Zhang, Duysters, Cloudt (2014), Ajzen's theory of planned behavior and Shapero's entrepreneurial event model would be incorporated to identify the effect of exogenous variables such as entrepreneurship education, prior entrepreneurial exposure, perceived desirability and feasibility towards entrepreneurial intention in university students. Furthermore, this study aimed to investigate the selection hypothesis of entrepreneurship education for entrepreneurial intentions. Lastly, this study was also proposing to investigate the moderating effect of the teachers and instructors' enthusiasm (Frenzel et al., 2009), pre-educational entrepreneurship intention (Bae et al., 2014), gender (Verheul et al., 2012), as well as the moderating effect of peers in the classroom (Falck et al., 2012). The data would be collected from one of the private and reputable universities in Indonesia in multiple departments with a form of entrepreneurship education. In this study we found that entrepreneurship education does shape entrepreneurial intention. Students with pre-educational entrepreneurial intention would be more likely to have higher entrepreneurial intention. We also learned that there's a strong relationship between social influence of classmates and entrepreneurial intention. In addition, we found that male and female students have a different perspective about entrepreneurship education that affected their entrepreneurial intention.

Keywords: Entrepreneurship, Intention, Education, Indonesia, University Student.

## ABSTRAK

*Penelitian ini mempelajari hubungan antara pendidikan kewirausahaan dan niat kewirausahaan mahasiswa. Melanjutkan dari penelitian Zhang, Duysters, Cloudt (2014), teori perilaku terencana Ajzen dan model kewirausahaan Shapero akan dimasukkan untuk mengidentifikasi pengaruh dari variabel eksogen, seperti pendidikan kewirausahaan, paparan kewirausahaan sebelumnya, serta keinginan dan kelayakan yang didapat terhadap niat kewirausahaan mahasiswa. Selanjutnya, penelitian ini bertujuan untuk mengetahui hipotesis pilihan pendidikan kewirausahaan terhadap niat kewirausahaan. Terakhir, penelitian ini juga mengusulkan penyelidikan efek moderasi guru dan antusiasme instruktur (Frenzen et al., 2009), niat pra-pendidikan kewirausahaan (Bae et al., 2014), jenis kelamin (Verheul et al., 2012), serta efek moderasi terhadap rekan-rekan di kelas (Falck et al., 2012). Data akan dikumpulkan dari beberapa departemen pada salah satu universitas swasta dan terkemuka di Indonesia dalam hal pendidikan kewirausahaan. Dalam penelitian ini, kami menemukan bahwa pendidikan kewirausahaan tidak membentuk niat kewirausahaan. Mahasiswa dengan niat pra-pendidikan kewirausahaan lebih mungkin memiliki niat pendidikan kewirausahaan yang lebih tinggi. Kami juga melihat bahwa ada hubungan yang kuat antara pengaruh sosial dari teman sekelas dengan niat kewirausahaan. Selain itu, kami menemukan bahwa mahasiswa laki-laki dan perempuan memiliki perspektif yang berbeda tentang pendidikan kewirausahaan yang mempengaruhi niat kewirausahaan mereka.*

*Kata kunci: Kewirausahaan, Niat, Pendidikan, Indonesia, Mahasiswa.*

## 1. Introduction

Entrepreneurship has been the most frequent topic discussed in these past years. Many observers found that entrepreneurship is one of the most important mechanisms to promote economic growth of a country through innovation, employment, and welfare (Elfenbein, Hamilton, & Zenger, 2010; Guerrero, Rialp, & Urbano, 2008; Verheul, Thurik, Grilo, & Van der Zwan, 2012; Zhang, Duysters, & Cloudt, 2013). Joko Widodo, president of Indonesia, optimistically said that the role of entrepreneurs could increase the national economic welfare if they are given the opportunity to develop themselves and their businesses. In 2015, the number of entrepreneurs in Indonesia is only about 1.65 percent of the population (Republika Online, 2016). Based on the research conducted by The Global Entrepreneurship and Development Institute to measure the entrepreneurial ecosystem health, Indonesia was ranked 103th out of 132 countries in the world (Ács, Szerb, & Autio, 2016). This is a positive sign since in the previous year Indonesia was only ranked 120th out of 130 countries (Ács, Szerb, & Autio, 2015). Although there was a big gain in ranks for Indonesia, the global

entrepreneurship index's score was only increase by 1.72. This means that the development of entrepreneurship in Indonesia is still limited. Therefore, the promotion of entrepreneurship is important and it has been the main attention of governments. Some studies show that entrepreneurship education is one of the factors that affect entrepreneurial intention (Fayolle & Gailly, 2013; Peterman & Kennedy, 2003; Zhang et al., 2013).

Besides entrepreneurship education, other studies also found that perceived feasibility, perceived desirability, and prior entrepreneurial exposure are positively related to entrepreneurial intention (Fitzsimmons & Douglas, 2011; Guerrero et al., 2008; Krueger, Reilly, & Carsrud, 2000). This study is going to test all the variables mentioned above and see their impacts towards the entrepreneurial intention of college students from different majors. This study also would like to see the moderating effect of student-perceived lecturer's enthusiasm, social influence of classmates, gender, and pre-educational entrepreneurship intention combined with entrepreneurship education to influence entrepreneurial intention. In this study, we have university students from various majors who either

have been exposed to entrepreneurship education or not, as our respondents to see their intention to be entrepreneurs. With an understanding of university students' entrepreneurial intentions, we can better predict whether they will take real action to put their ideas of a new business into realization. The result of this study can be used to identify the factors influencing entrepreneurial intention that will contribute to the formation of entrepreneurs so that the best strategy can be implemented to increase the numbers of entrepreneurs in Indonesia.

## **2. Literature Review and Hypothesis Development**

### **2.1 Entrepreneurial Intention**

Entrepreneurship is defined as the process, brought about by individuals, of identifying new entrepreneurial opportunities and converting them into marketable products or services (Schaper, Volery, Weber, & Lewis, 2010). According to Bird (1988), intentionality is a state of mind directing a person's attention, which leads to experience and action in order to achieve something. Entrepreneurial intention is a state of mind that people wish to create a new firm or a new value driver inside existing organizations. It is a driving force of the

entrepreneurial activity (Wu et al., 2008). The most popular studies that explain the models of entrepreneurial intentions were theory of planned behavior proposed by Ajzen (1991) and Shapero's model of entrepreneurial event (Fitzsimmons & Douglas, 2011; Lee et al., 2011; Zhang et al., 2013). The Entrepreneurial Event Model views the intention to start a new venture depends on three things, namely the perceptions of desirability, feasibility, and the propensity to act. In contrast, the Theory of Planned Behavior outlines that the attitude towards the act, social norms, and perceived behavioral control are the three key factors that influence an individual's intention to perform a given behavior. Both of these models have been tested and shown to have a significant effect in predicting entrepreneurial intentions (Krueger et al., 2000).

People gain knowledge, develop abilities, and have more opportunities to improve their quality of life through education. In developed countries like Indonesia, creating and managing a business requires skills that are acquired through formal education and training. That is why education plays a vital role in teaching and developing entrepreneurial skills (Ács et al., 2016). Previous studies have also shown that entrepreneurship

education has a positive effect towards entrepreneurial intentions (Bae, Qian, Miao, & Fiet, 2014; Fayolle & Gailly, 2013; Zhang et al., 2013).

## **2.2 Perceived Desirability and Perceived Feasibility**

Shapiro defined perceived desirability as the personal attractiveness of starting a business, including both intrapersonal and extra personal impacts. While perceived feasibility is the degree to which one feels personally capable of starting a business (Krueger et al., 2000; Lee et al., 2011; Solesvik et al., 2014). Segal et al. (2005) found that not all people saw themselves as successful and seeing self-employment as a way to obtain desirable outcomes. People must be willing to bear the calculated risk of becoming an entrepreneur to act on their perceived feasibility and desirability. Those with a sense of entrepreneurial self-efficacy (desirability) may be drawn to self-employment's more than working for others. In an entrepreneurial situational opportunity, people must as well decide whether they believe that they own the necessary skills and abilities required to be successful or not (feasibility) (Fitzsimmons & Douglas, 2011). Derived

from these theories, this paper proposed these following hypotheses:

*H1: Perceived desirability is positively related to entrepreneurial intention*

*H2: Perceived feasibility is positively related to entrepreneurial intention*

## **2.3 Prior Entrepreneurial Exposure**

Prior entrepreneurial experience appears as one of the factors affecting entrepreneurial intention. Entrepreneurial experience here may correspond to some types of entrepreneurial exposure which are, an entrepreneurial experience within the family or a close friend of the individual, a past or present job experience in a small firm, and having started his or her own business (Krueger, 1993). Previous studies have shown that individuals with entrepreneurial family background will be more exposed to entrepreneurship or self-employment. Parents as business owners can influence and motivate their children's entrepreneurial intention by serving as role models (Bae et al., 2014; Fayolle & Gailly, 2013; Verheul et al., 2012). Children who were raised up in a family business environment are spontaneously exposed to entrepreneurial atmosphere by seeing, listening, feeling, knowing, and understanding real entrepreneurial events

because parents often teach their children relevant skills, values and confidence that is needed to establish their own business (Carr & Sequeira, 2007). Zhang et al. (2013) expect that friends, relatives, employers, or selves can also serve as role models and positively diffuse their entrepreneurial knowledge that may influence one's entrepreneurial intention. Therefore, as a result of exposure to various role models, this paper proposed the third hypothesis:

*H3: Prior entrepreneurial exposure is positively related to entrepreneurial intention*

#### **2.4 Entrepreneurship Education**

Entrepreneurship education consists of any pedagogical (program) or process of education for entrepreneurial attitudes and skills. The main role of entrepreneurship education program is to increase students' awareness towards entrepreneurship, to allow students to develop entrepreneurial skills, to teach students to put theory into practice, and highlight the entrepreneurial path as a career option (Bae et al., 2014; Fayolle & Gailly, 2013; Oosterbeek, van Praag, & Ijsselstein, 2010). Peterman and Kennedy (2003) showed that particular entrepreneurship support programs were

successful in encouraging entrepreneurs to start a business or to improve their business performance. Wu and Wu (2008) confirm that students who follow entrepreneurship education indeed show a greater intention to start their own business. Another study by Solesvik et al. (2014) found that investment in entrepreneurship education at university could facilitate the total of human capital assets required to discover and/or create new business opportunities, which promote the outcome of an intention to become an entrepreneur. Individuals with higher human capital (i.e., higher and better education, stronger abilities) are more likely to create innovative, high-growth ventures than individuals with low human capital and if these high potential individuals choose not to pursue such opportunities, the entrepreneurial dynamic will suffer (Ács et al., 2016). The above arguments lead to the following hypothesis:

*H4: Entrepreneurship education is positively related to entrepreneurial intention*

The special challenge of entrepreneurship education is in the facilitation of learning to support the entrepreneurial process. The rookie

entrepreneur needs not only knowledge (science), but also new ways of thinking, new kinds of skills and new modes of behavior (arts). The teaching of entrepreneurship in the university context is based on theoretical and practical knowledge. This suggests the need for a shift from teaching to learning in an environment as close to real life as possible. Consequently, the active role of the student in the learning process is very much important (Heinonen & Poikkijoki, 2006). During formal education, students not only acquire knowledge and cognitive skills but also develop pleasant and unpleasant emotions related to learning and achievement. This implies that pleasant emotions are crucial in today's knowledge-based society, which requires life-long learning. Thus, a desirable goal of teaching is to enhance students' pleasant achievement emotions (Frenzel, et al., 2009). In his article, Filion (1994) pointed out that the main concern about entrepreneurial education is not about what is taught but how it is taught. Developing entrepreneur means primarily working on attitudes, not to mention the way teachers delivered the materials and motivated students to become entrepreneurs. Therefore, the following hypothesis was formed:

*H5a: Student - perceived lecturer's enthusiasm towards entrepreneurship is positively related to entrepreneurial intention*

*H5b: Student - perceived lecturer's enthusiasm towards entrepreneurship is expected to have a positive interactive impact on the relationship between entrepreneurship education and entrepreneurial intention*

The influence of peers at school is more pronounced than neighborhood effects. It is most likely how well an individual does at school, either academically or socially, that will determine his or her future occupation. Hence, even if we assume that students are not consciously aware of which profession would ideally complement their skills and thus earn the highest future returns, they are undergoing a process that forms the identities that will make them tend toward certain ideas about the ideal job (Falck, Heblich, & Luedemann, 2012). Most students and their peers think that it would be "awesome" to be your own boss, run your own business, not have to take orders from others, and to have high financial reward without fully realize that being an entrepreneur requires

a whole lot more than that, including research and risk calculation. However, between adolescence and adulthood there is a significant decline in both risk taking and risky decision making. Relative to adults, adolescents are more susceptible to the influence of their peers. In some situations, they may take more risks, evaluate risky behavior more positively, and make more risky decisions when they are with their peers than when they are by themselves (Gardner & Steinberg, 2005). In addition, Falck, Hebllich, & Luedemann (2012) also found that peers with entrepreneurial intentions will increase the likelihood that an individual will also have entrepreneurial intentions. Therefore, this study propose the following hypothesis:

*H6a: Social influence of classmates is positively related to entrepreneurial intention*

*H6b: Social influence of classmates is expected to have a positive interactive impact on the relationship between entrepreneurship education and entrepreneurial intention*

Previous studies showed that women have a lower preference for self-employment compared to men because

women are less risk seeking than men (Díaz-García & Jiménez-Moreno, 2010; Verheul et al., 2012). Even women may feel as capable to perform entrepreneurial tasks as men do, women may perceive the environment as more difficult and less rewarding (Zhang et al., 2013). This may lead to lower self-employment preferences and activity rates for women. Nevertheless, based on the report presented by the Global Entrepreneurship and Development Institute, there has been a 7% increase in the percent of female entrepreneurs who intend to grow their business by 50% and employ 10 people within 5 years. This growth aligned with the incremental percentage of female entrepreneurs who participated in some form of higher education (Terjesen & Lloyd, 2015). Therefore, Bae et al. (2014) inferred that it is possible that entrepreneurship education will be more helpful for women to strengthen their skills and increase their entrepreneurial intentions relative to men. Furthermore, the literature is not conclusive on the impact of gender on the association between entrepreneurship education and the willingness to engage in starting a new venture. Thus, the following hypothesis is proposed:

*H7a: Males have higher entrepreneurship intention than females*

*H7b: Gender is expected to have a positive interactive impact on the relationship between entrepreneurship education and entrepreneurial intention*

In sum, we developed a framework to address the impact of entrepreneurship education and its moderating variables on entrepreneurial intention (see Fig. 1). We applied this model in Indonesia and collected data from university students. By collecting data from students who came from different family backgrounds, took different majors in their higher education and associate with various groups of peers, we analyzed the impact of these antecedents towards entrepreneurial intentions.

Pre-educational entrepreneurship intention means that students who enrolled in an entrepreneurship education program have already had the desire to become entrepreneurs and this intention was the one that drove the students to purposely enroll themselves in the program (Bae et al., 2014). This pre-educational entrepreneurship intention can also be obtained by starting a new venture without having an

entrepreneurship education background. Individuals who have experienced having their own business may want to know more about how to maintain and develop their business. In order to do so, they enrolled themselves in entrepreneurship education program. A study which was done by (Oosterbeek et al., 2010) suggested that consideration of pre-education entrepreneurial intention will help us understand the true relationship between entrepreneurship education and entrepreneurial intentions. Prior research implies that a student's entrepreneurial intentions may not be affected by entrepreneurship education, but rather by prior beliefs before enrolling. Thus, we propose following hypothesis:

*H8a: Students with pre-educational entrepreneurship intention have higher entrepreneurial intention than students with no pre-educational entrepreneurship intention.*

*H8b: Pre-educational entrepreneurial intention is expected to have a positive interactive impact on the relationship between entrepreneurship education and entrepreneurial intention*



## 2.5 Conceptual Framework

Figure 1 is the conceptual framework for this paper.

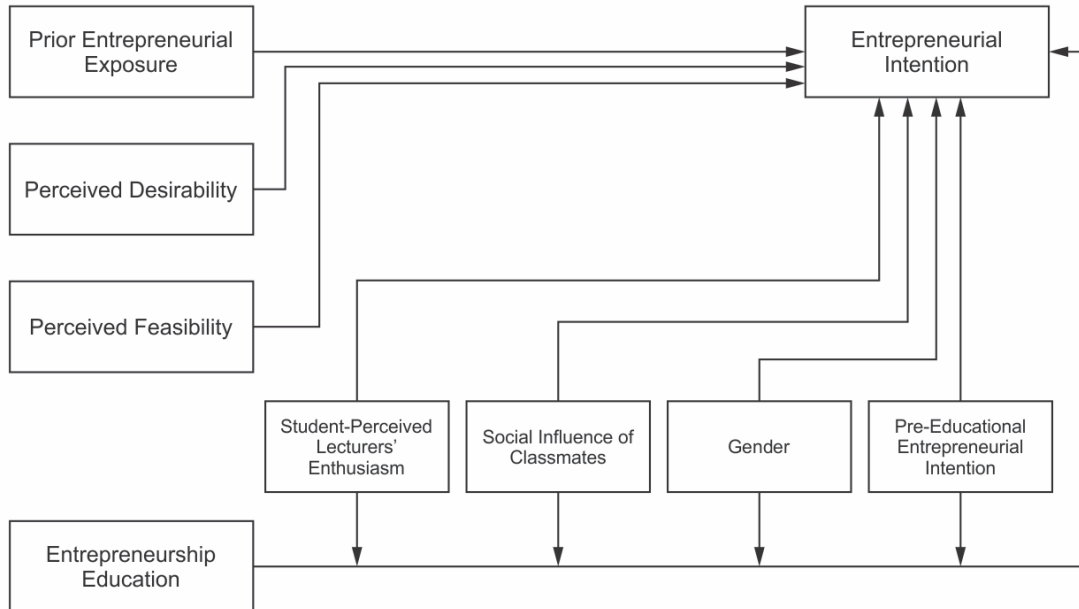


Figure 1. Conceptual Framework

## 3. Data and Methods

### 3.1 Sample

The data for the research were collected from a private university in Indonesia with strong emphasis on entrepreneurship education from December 2015 to January 2016 using a questionnaire-based survey. Students from various departments were included to reduce selection bias. There were 200 questionnaires distributed randomly

among the students, of which 20 questionnaires were either not returned or completely filled, this amounts to 90% response.

All of the students were undergraduate students. Among the respondents, 56% were male and 44% were female, with age ranging from 19-21. The respondents were at their last year in the university.

Table 2 CFA Loading Scores and Cronbach's Alpha

		PD	PF	PLE	SIC
		$\alpha = 0.932$	$\alpha = 0.773$	$\alpha = 0.930$	$\alpha = 0.808$
PD1	If you started your own business, how would you feel?	0.942			
PD2	If you started your own business, how tense would you be?	0.938			
PD3	How enthusiastic are you to have your own business?	0.945			
PF2	If you start your own business, how certain of success are you?		0.903		
PF3	How sure of your capabilities in running business are you?		0.903		
PLE1	Our lecturers are enthusiastic about entrepreneurship.			0.906	
PLE2	Our lecturers try to get us excited about starting our own business.			0.921	
PLE3	Our lecturers enjoy teaching about entrepreneurship.			0.908	
PLE4	Our lecturers encourage us to start our own business.			0.905	
SIC1	Looking at my classmates who have their own business encourages me to start my own business.				0.828
SIC2	My classmates actively encourage me to start my own business.				0.908
SIC3	My classmates had asked me to help them in their own business.				0.814

### 3.2 Measurements

#### 3.2.1 Dependent Variables

*Entrepreneurship intention* (EI) is measured by the question "How likely are you going to start your own business?" on a 7-point Likert scale (very unlikely-very likely).

#### 3.2.2 Independent Variables

*Perceived desirabilities* (PD) and *perceived feasibilities* (PF) are both measured based on Krueger (1993), on a 7-point Likert scale. Perceived desirabilities (PD): (PD1) If you started your own business, how would you feel? (I'd love doing it-I'd hate doing it). (PD2) If you started your own business, how tense would you be? (very tense-not tense at all). (PD3) How enthusiastic are you to have your own business? (very

enthusiastic-very unenthusiastic).

Perceived feasibilities (PF): (PF1) How hard would it be to run a new business? (very easy-very difficult). (PF2) If you start your own business, how certain of success are you? (uncertain-certain). (PF3) How sure of your capabilities in running business are you? (not sure-very sure).

*Prior entrepreneurial exposure* (PE) is measured using a 5-item scale adopted from Krueger (1993). (1) Have you ever started your own business before? (2) Have you ever worked for a startup business? (3) Did your parents have their own business while you were growing up? (4) Have your parents ever started their own business? (5) Do you have relatives that started their own business?

To include both the quantity (breadth) and quality (positiveness) of experience of the exposures, the respondents were asked to answer questions related to their previous exposures to entrepreneurial activities (yes-no questions) as well as the positiveness of the experience. Previous exposure were coded "1" while no exposure were coded "0", positive experience were coded "1" while negative were coded "0", each item were weighted 0.20 which sum to 1 for all the items. The prior entrepreneurial exposure was then calculated as a sum product of the weight, exposure, and experience.

*Entrepreneurship education* (EE) is measured by looking at the number of entrepreneurial courses the students have taken during their study in the university.

*Student-perceived lecturers' enthusiasm* (PLE) is measured on a 7-point Likert scale (disagree-agree) by using a modified version of the four-item scale used in Frenzel et. al. (2009). (PLE1) Our lecturers are enthusiastic about entrepreneurship. (PLE2) Our lecturers try to get us excited about starting our own business. (PLE3) Our lecturers enjoy teaching about entrepreneurship. (PLE4) Our lecturers encourage us to start our own business.

*Social influence of classmates* (SIC) is measured with a 3-item Likert scale: (SIC1) Looking at my classmates who have their own business encourages me to start my own business. (SIC2) My classmates actively encourage me to start my own business. (SIC3) My classmates had asked me to help them in their own business.

*Gender* and *Pre-educational entrepreneurial intention* (PEI) were both dichotomous categorical moderator for the model. Pre-educational entrepreneurial intention is measured by asking the students what their career choice were before entering the university.

### 3.3 Methodology

Multiple regressions were used to analyze the independent variable. SPSS statistical package was used for the analysis. Equation 1 is the mathematical model that shows the relationships between the variables:

$$EI = \beta_0 + \beta_1 PD + \beta_2 PF + \beta_3 PE + \beta_4 EE + \beta_5 PLE + \beta_6 SIC + \beta_7 (Gender) + \beta_8 (PEI) + \beta_9 (PLE \times EE) + \beta_{10} (SIC \times EE) + \beta_{11} (Gender \times EE) + \beta_{12} (PEI \times EE) + \varepsilon$$

(Equation 1)

#### 4. Results and Discussions

Table 1 shows the result of confirmatory factor analysis. All constructs have satisfying Cronbach's alpha. PF1 was removed due to low loading score. Table 2 shows the descriptive statistics of the variables and interactions.

Table 3 shows the result of multiple regressions on entrepreneurial intention. Six models were generated on different independent variables and interactions. Based on the results, Hypothesis 1 is significantly supported for all models, showing that perceived desirability is positively related to student's entrepreneurial intention. This conforms to previous researches such as Zhang et al. (2013), Guerrero et al. (2008) and Veciana et al. (2005). Perceived feasibility was found to be insignificant

for all models thus Hypothesis 2 is not supported, which conforms to previous researches such as Krueger (1993), Guerrero et al. (2008) that perceived feasibility does not have a positive impact on student's entrepreneurial intention. Hypothesis 3 is significantly supported for all models, showing that prior entrepreneurial exposure is positively related to student's entrepreneurial intention. This result is in line with the previous body of works such as Shapero and Sokol (1982), Krueger (1993), and Zhang et al. (2013). Hypothesis 4 is significantly supported. This shows that entrepreneurship education does have a role in shaping student's entrepreneurial intention, where students who took entrepreneurial classes are more likely have intention to start their own business.

Table 3 Descriptive Statistics

		N	Min	Max	Mean	St. Dev
Perceived Desirability	PD	180	1	7	6.1278	1.03284
Perceived Feasibility	PF	180	2	7	5.3889	0.93885
Previous Entrepreneurial Exposure	PE	180	0	1	0.6511	0.19733
Entrepreneurship Education	EE	180	0	7	2.82	1.959
Student-Perceived Lecturers' Enthusiasm	PLE	180	1	7	5.1125	1.23306
Social Influence of Classmates	SIC	180	1	7	4.7426	1.24564
Gender (Female = 1)	Gender	180	0	1	0.4444	0.49829
Pre-Educational Entrepreneurial Intention (Without = 1)	PEI	180	0	1	0.5389	0.49988
PLE x EE		180	-4.10	4.21	0.2431	1.00258
SIC x EE		180	-2.16	2.94	0.2910	0.89912
Gender x EE		180	-1.44	2.14	0.0529	0.68488
PEI x EE		180	-1.44	2.14	-0.0857	0.66806

Hypothesis 5 suggests a positive relationship of student-perceived lecturer's enthusiasm towards entrepreneurial intention, as well as the interactive effect towards the relationship between entrepreneurial education and intention. Model 2 shows that the coefficient for

student-perceived lecturer's enthusiasm is negative, suggesting a negative relationship towards entrepreneurial intention. The interaction with entrepreneurship education is not significant. Both Hypotheses 5a and 5b were not supported.

Table 4 Multiple Regressions Results on Entrepreneurial Intention

		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Perceived Desirability	PD	0.333 ***	0.221 ***	0.222 ***	0.221 ***	0.223 ***	0.221 ***
Perceived Feasibility	PF	0.136	0.011	0.01	-0.003	0.011	0.02
Previous Entrepreneurial Exposure	PE	0.179 ***	0.167 ***	0.165 ***	0.156 ***	0.165 ***	0.172 ***
Entrepreneurship Education	EE	0.179 ***	0.121 **	0.127 **	0.19 ***	0.069	0.177 **
Student-Perceived Lecturers' Enthusiasm	PLE		-0.122 **	-0.123 **	-0.111 *	-0.129 **	-0.126 **
Social Influence of Classmates	SIC		0.261 ***	0.262 ***	0.236 ***	0.268 ***	0.267 ***
Gender (Female = 1)	Gender		-1.54 ***	-0.152 ***	-0.181 ***	-0.156 ***	-0.155 ***
Pre-Educational Entrepreneurial Intention (Without = 1)	PEI		-0.349 ***	-0.349 ***	-0.323 ***	-0.345 ***	-0.346 ***
<i>Interactions</i>							
PLE x EE				-0.026			
SIC x EE					-0.187 ***		
Gender x EE						0.076	
PEI x EE							-0.85
Adjusted R-Squared		0.297	0.466	0.464	0.495	0.466	0.467

Significant: \*\*\*(<=0.01), \*\*(<=0.05), \*(<=0.1)

This finding is quite surprising, whereas we expected that more enthusiastic lecturers would contribute positively towards entrepreneurial intention. One explanation is that perhaps another variable should mediate the relationship between lecturer's enthusiasm and entrepreneurial intention.

Hypothesis 6a suggests a positive relationship of the social influence of classmates towards entrepreneurial

intention. This relationship is significantly supported indicating that classmates do influence a student to have the intention to start their own business. The interaction effect is also supported in model 4. Figure 2 shows the interaction between social influence of classmates and entrepreneurship education toward entrepreneurial intention, where entrepreneurial education does have a positive relationship with entrepreneurial

intention where social influence is low. When social influence is high, this relationship ceases to exist, but entrepreneurial intention is already high enough. Both hypotheses 6a and 6b were supported.

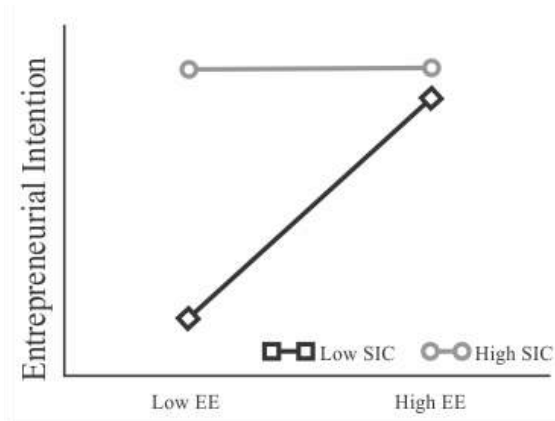


Figure 2. Interaction Between SIC and EE toward EI

One argument for hypothesis 6b is that students with high entrepreneurial intention will be in a social circle with friends and acquaintances who are also interested in starting, or already run their own business, for instances classmates in the same entrepreneurship classes or

program, thus the effect of entrepreneurship education is dampened at high SIC.

Hypothesis 7a suggests that males have higher entrepreneurial intention than females, which is significantly supported. However, Hypothesis 7b which suggests the interaction between gender and entrepreneurship education toward entrepreneurial intention, is not significantly supported.

Hypothesis 8a suggests that students with previous entrepreneurial intention before education will have higher entrepreneurial intention after the education. This hypothesis is supported by all models. Hypothesis 8b is not significantly supported, thus no interaction effect between pre-educational entrepreneurial intention and entrepreneurship education toward entrepreneurial intention.

Table 5. Multi-Group Multiple Regressions Results on Entrepreneurial Intention

		Gender		PEI	
		Male N=100	Female N=80	With N=83	Without N=97
Perceived Desirability	PD	0.366 ***	0.381 ***	-0.021	0.378 ***
Perceived Feasibility	PF	0.022	0.032	0.244 **	-0.086
Previous Entrepreneurial Exposure	PE	0.224 ***	0.028	0.222 **	0.172 *
Entrepreneurship Education	EE	0.04	0.42 ***	0.236 **	0.004
Student-Perceived Lecturers' Enthusiasm	PLE	-0.07	-0.24 **	-0.218 *	-0.042
Social Influence of Classmates	SIC	0.321 ***	0.069	0.205 *	0.358 ***
Adjusted R-Squared		0.414	0.271	0.167	0.357

Significant: \*\*\*(<=0.01), \*\*(<=0.05), \*(<=0.1)

Another take on the data is to analyze it by grouping the data into two separate groups. For this, we split the data based on the two dichotomous variables: Gender and PEI. Table 4 shows the results of multi-group multiple regression analysis. It is found that for male students, perceived desirability, previous entrepreneurial exposure, and social influence of classmates were significant predictors of entrepreneurial intention. Interestingly, both entrepreneurship education and student-perceived lecturers' enthusiasm were significant for females, but not for males. Perceived desirability is also significant for female. Previous entrepreneurial exposure however, is not significant for female.

For those with pre-educational entrepreneurial intention, perceived desirability ceased to be significant. Student-perceived lecturers' enthusiasm

and social influence of classmates were only significant at  $p < 0.1$ . Interestingly, perceived feasibility is found to be significant along with previous entrepreneurial exposure and entrepreneurship education. For those without pre-educational entrepreneurial intention, perceived desirability is significant as well as social influence of classmates. Previous entrepreneurial exposure is only significant at  $p < 0.1$ . Entrepreneurship education is found to be insignificant.

## 5. Conclusion

Entrepreneurship is very important, especially in developing country such as Indonesia where entrepreneurs are expected to have a greater likelihood for upward mobility (Quadrini, 1999), which is very important in a nation with high level of poverty. One way to create an

entrepreneur is to give entrepreneurship education which will provide motivation, knowledge, and skills for starting a company (Cho, 1998), however the knowledge regarding the effect of entrepreneurship education on entrepreneurial intention is quite sparse, especially in the perspective of developing countries (Zhang et al., 2013).

This paper was written to further understand the impact of entrepreneurial education on entrepreneurial intention, especially on Indonesian students' perspective. We found that entrepreneurship education does shape entrepreneurial intention; that students who took entrepreneurship classes are more likely to have the intention to start their own business.

We found that lecturers' enthusiasm in promoting and teaching entrepreneurship is not directly related to entrepreneurial intention. We suggest that a variable may be mediating the effect of lecturers' enthusiasm toward entrepreneurial intention. It is also interesting to ponder on this issue especially in the context of entrepreneurship education in Indonesia where many entrepreneurship lecturers and professors came from the academic world, and not the professional world.

Gender discrepancy in entrepreneurship education is not a surprising finding especially in a patriarchal culture like Indonesia. It is imperative that educators and policy makers should look into empowering more women to be entrepreneurs both in education and in practice.

There is a strong relationship between social influence of classmates and entrepreneurial intentions. Students who are exposed to stronger influence will have more likelihood to have the intention to start their own business. From the interaction, we also learn that the effect is dampened for high social influence, where it is likely that students with already high entrepreneurial intention would mingle with those who have high social influence. We suggest for policy makers and educators to put into considerations the effect of classmates in entrepreneurship education programs. One way is to make the classes more homogenous by mixing those who have high entrepreneurial intention with those who do not.

We also learn that students who have entrepreneurial intention even before they enter the education will be more likely to have higher entrepreneurial intention after the education. This



suggests that students who want to start their own business are more likely to enroll themselves to entrepreneurial classes or program. In practice, this can be quite distressing, especially when entrepreneurship education is intended to foster new entrepreneurship, to make those who are not interested to become interested in becoming entrepreneur. Those with prior intention would enroll to study more on how to be start, run, or manage the business. The practical implication for policy makers and educators is that they should pay more attention to motivate students to be entrepreneurs, to make them interested in becoming entrepreneurs, especially in introductory entrepreneurship classes.

When we split the data based on gender, we found that entrepreneurship education is not a statistically significant predictor for entrepreneurial intention for male students. It is however, significant for female. This suggests that female students receive entrepreneurship education better, and that entrepreneurship education has a good

chance in motivating female students to start their own business. This is in line with our previous suggestion to empower more women to be entrepreneurs. Male students however, may not need entrepreneurship education to have the intention to start their own business.

This study has its limitations. First, we only look at entrepreneurial intention and not action. We recommend that more complete research be conducted in order to assess the actual impact of entrepreneurship education to entrepreneurial action. Second, the students were from one private university in Indonesia. We suggest future researchers to include more universities in order to have larger dataset. Third, we used survey to measure several variables such as pre-educational entrepreneurship intention. Self-reporting from memory may cause bias in the result. We suggest that researchers conduct longitudinal study across different points in time to see before and after entrepreneurship education.

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