

# Entrepreneurial Self-Efficacy and Entrepreneurial Intention: The Mediating Role of Entrepreneurship Intentional Self-Regulation among Future Entrepreneurs

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## ABSTRACT

Prior studies have explored the correlation between students' entrepreneurial self-efficacy and entrepreneurial intention. Several studies found a strong relationship between them, while others suggested a moderate or even weak correlation. This research aims to explore the mediating effect of entrepreneurship intentional self-regulation (EISR) on the relationship between entrepreneurial self-efficacy (ESE) and entrepreneurial intention (EI) among undergraduate students as the representative of future entrepreneurs in Indonesia. There is a need to explain this concept considering that the emergence of entrepreneurs is one of Indonesia's priorities. Data were collected from 299 undergraduate students in their final year of studies from eight universities, which provide entrepreneurship-based education in Jakarta and Bandung. Hayes's PROCESS Macro in SPSS was used to analyze the effect. The results showed that entrepreneurship intentional self-regulation (EISR) was fully mediated the relationship between entrepreneurial self-efficacy and entrepreneurial intention among undergraduate students in Indonesia. This suggests that universities need to design curriculum and learning methods that encourage students' intention to become entrepreneurs.

## ABSTRAK

Beberapa penelitian sebelumnya telah menyelidiki korelasi antara entrepreneurial self-efficacy dan entrepreneurial intention pada mahasiswa, dimana terdapat beberapa penelitian yang menemukan adanya hubungan yang kuat antara kedua variabel tersebut, sementara penelitian lainnya menggambarkan korelasi dalam tingkat sedang atau bahkan lemah antara keduanya. Penelitian ini bertujuan untuk menguji efek mediasi dari entrepreneurship intentional self-regulation (EISR) dalam hubungan antara entrepreneurial self-efficacy (ESE) dan entrepreneurial intention (EI) pada mahasiswa sarjana tingkat akhir sebagai calon pengusaha di Indonesia. Konsep ini menjadi penting untuk dipahami karena mempertimbangkan aspek lahirnya wirausahawan baru merupakan salah satu prioritas dari pemerintah di Indonesia. Data penelitian dikumpulkan dari 299 mahasiswa sarjana tingkat akhir dari delapan universitas berbeda yang menyelenggarakan pendidikan berbasis kewirausahaan di wilayah Jakarta dan Bandung. Hayes's PROCESS Macro dalam SPSS digunakan untuk menganalisis korelasi yang muncul antara ketiga variabel tersebut. Hasil analisis menunjukkan bahwa entrepreneurship intentional self-regulation (EISR) secara penuh memediasi hubungan antara entrepreneurial self-efficacy dan entrepreneurial intention pada mahasiswa sarjana tingkat akhir di Indonesia. Hal ini berarti perguruan tinggi perlu merancang kurikulum dan metode pembelajaran yang mendorong niat mahasiswa untuk menjadi pengusaha.

## 1. INTRODUCTION

Currently, entrepreneurship is one of the biggest topics widely discussed in many countries, including Indonesia. Entrepreneurship is a process

of generating value on some products or services, which often seen as a risky action, but it brings positive impacts from small to a broader scope, such as job creation, revenue, productivity, and economic

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growth (Austin & Nauta, 2016; Esfandiar, Sharifi-Tehrani, Pratt, & Altinay, 2019; Mishra & Zachary, 2015). Indonesia's Government has successfully created 9.38 million new jobs within three years until 2018 as a positive result of entrepreneurial activities (Bappenas, 2018). President of the Republic of Indonesia also directed all parties to make efforts to accelerate the increasing ratio of entrepreneurs to reach a minimum ratio of 14% (Kuwado, 2018). To meet those expectations, several parties have taken part in generating new entrepreneurs in Indonesia. For instance, the Government focuses on making entrepreneurial regulations while companies contribute through corporate citizenship programs to increase their employees' creativity. Other agencies, such as HIPMI (Indonesian Young Entrepreneurs Association), collaborate with the Government to support creating new entrepreneurs through development programs in innovation events. Lastly, educational institutions also facilitate students with entrepreneurial knowledge and skills to generate new entrepreneurs.

To support the educational efforts in creating entrepreneurship, the Indonesian Ministry of Research, Technology, and Higher Education formed an integrated entrepreneurial program for undergraduate students, namely Indonesian Student Entrepreneurship Program. It is a form of collaboration between the Government and universities that aims to build character and basic entrepreneurship skills among undergraduate students to run a sustainable business and strengthen the universities as an entrepreneurial development institution. Universities provide entrepreneurial education, capital assistance, socialization, and exhibition for students' new businesses. This step runs based on the belief that entrepreneurial education is an important aspect to encourage young entrepreneurs' emergence because it affects students' entrepreneurial attitude and intention to respond to the entrepreneurial chance (Hattab, 2014; Lavelle, 2019; Lindiawati, Usman, & Astuti, 2019).

This phenomenon brings us to the concept of Entrepreneurial Intention (EI), which influences students' career choice to become entrepreneurs (Mauer, Neergaard, & Linstad, 2017; Omoredede, Thorgren, & Wincent, 2015; Palupi & Santoso, 2017). Several studies have discussed EI and its predictors, which could be caused by external or internal factors (Bacq, Ofstein, Kickul, & Gundry, 2017; Liñán, Moriano, & Jaén, 2016; Setia, 2018; Weiss, Anisimova, & Shirokova, 2019). Previous research illustrated the influence of contextual support, like

entrepreneurial role models, on the other hand, suggested the effect of personal factors in affecting students' EI, for example, motivation, personality, self-enhancement, and self-efficacy (Bacq et al., 2017; Liñán et al., 2016; Weiss et al., 2019).

Furthermore, recent studies have much focused on the direct influence of internal factors because its greater effects to students' EI, such as students' belief about their control to perform entrepreneurship effectively or commonly referred as Entrepreneurial Self-Efficacy (ESE) (Bandura, 2012; Esfandiar et al., 2019; Krueger, 2017; Liñán et al., 2016; Mauer et al., 2017). ESE is students' belief about their abilities to perform entrepreneurial roles and tasks successfully (Bandura, 2012; Esfandiar et al., 2019). Most literature argued that ESE is the best predictor of EI (Ajzen, 1991; Mauer et al., 2017), but on the other side, other research found the moderate and even weak correlation between ESE and EI (Kurczewska & Bialek, 2014; Saraih et al., 2018). In general, there are still a few studies explaining the clearer mechanisms that happened between ESE and EI. To clarify these findings, Solesvik (2017) found a mediation effect from personal initiatives in the relationship between students' ESE and intention.

So, to provide a better understanding of the relationship between students' ESE and EI, especially among undergraduate students in Indonesia, we explore the role of Entrepreneurship Intentional Self-Regulation (EISR) as a mediator between these variables. According to Social Cognitive Theory, Self-Efficacy, as general, can affect the Self-Regulation (Bandura 2012). Specifically, EISR adjusts internal resources and external demands to achieve entrepreneurial goals (Geldhof, Weiner, Agans, Mueller, & Lerner, 2014; Gestsdottir & Lerner, 2008). Also, EISR is quite widely investigated in examining the development of entrepreneurial interests, and it is also found to be correlated positively with EI (Geldhof, Porter, et al., 2014; Geldhof, Weiner, et al., 2014; Gestsdottir & Lerner, 2008).

This study involved eight universities with similar vision, mission, and values to generate excellent graduates with an entrepreneurial spirit, such as innovation, business, improvement, and creativity. Majors, curriculums, courses, and methods delivered have prepared to develop students' entrepreneurial mindset and skills. For example, they employ project-based learning that facilitates students to understand the theory and develop a venture. Some entrepreneurial events are regularly held in these universities, namely entrepreneur week, business competition, sharing session, and seminar.

## **2. THEORETICAL FRAMEWORK AND HYPOTHESES**

### **Entrepreneurial Intention**

Entrepreneurial Intention (EI) is one of the individual factors that can affect students' behavior to choose entrepreneurship as their career choice based on their belief and decision associated with past and future evaluation (Bandura, 2012; Omorede et al., 2015). EI is interpreted as an indication of the new entrepreneur's emergence because the higher students' intention will be followed by a higher possibility of becoming an entrepreneur (Esfandiar et al., 2019). It is in line with research conducted by Bogatyreva, Edelman, Manolova, Osiyevskyy, and Shirokova (2019), which stated that students who had EI contributed 2.5 times higher of possibility in creating new ventures than students who had no intention in the next two years.

EI can be influenced by contextual factors such as culture, family, social support, or personal factors, such as motivation, personality, self-efficacy, and self-regulation (Bacq et al., 2017; Geldhof, Weiner, et al., 2014; Weiss et al., 2019). However, personal factors are more dominant in explaining EI compared to external factors (Liñán et al., 2016). One of the personal factors commonly used to understand a specific concept like entrepreneurship is Entrepreneurial Self-Efficacy (ESE), which had a positive correlation with EI (Cardon & Kirk, 2015; Chen, Greene, & Crick, 1998; Gorgievski, Stephan, Laguna, & Moriano, 2018; Hsu, Wiklund, & Cotton, 2017; Yamakawa, Peng, & Deeds, 2015). Similarly, in investigating the context of young entrepreneurship, recent studies have focused on the role of Entrepreneurship Intentional Self-Regulation (EISR) on EI (Bryant, 2007; Geldhof, Weiner, et al., 2014; Gestsdottir & Lerner, 2008). This literature explained the influence of students' beliefs about their capabilities and their self-regulatory strategies to determine specific goals, such as a preference to become an entrepreneur (Chen et al., 1998; Gestsdottir et al., 2015).

Several frameworks that focus on individual factors are used to explain the determinants of EI. For example, the Theory of Planned Behavior (TPB) proposed by Ajzen (1991) suggested three determinants of EI, consisted of (i) attitude toward behavior, defined as students' belief that entrepreneur is a beneficial job, (ii) social norms, defined as students' belief that being an entrepreneur is an attempt to fulfill their significant person's expectancy, and (iii) perceived behavior control, defined as students' belief that they have capabilities to do the entrepreneurial role

successfully (Krueger, 2017). Another commonly used framework to explore EI's predictors is Social Cognitive Theory (Bandura, 1982, 2000). It emphasizes the role of Entrepreneurial Self-Efficacy (ESE) as a significant predictor of EI, which is the same concept as perceived behavior control in TPB (Krueger Jr, Reilly, & Carsrud, 2000).

In this study, we employ Social Cognitive Theory because it assumed students as intentional decision-makers who consider belief about abilities or Entrepreneurial Self-Efficacy as a key factor that can strongly influence Entrepreneurial Intention. This framework is also applied in some literature to predict entrepreneurs' persistence or effectiveness (Chen et al., 1998).

### **Entrepreneurial Self-Efficacy**

Entrepreneurial Self-Efficacy (ESE) was found to be one of the EI's predictors. In the current study, we focus on ESE since it has been explored as an important determinant of various goal-directed behavior, such as entrepreneurial career choice, launching a process of new business, and other entrepreneurs' actions in both developed or developing countries like Indonesia (Chen et al., 1998; Naktiyok, Karabey, & Gulluce, 2010; Newman, Obschonka, Schwarz, Cohen, & Nielsen, 2019). Students with higher ESE are usually associated with higher goals for success and risk-taking skills. They will proactively seek opportunities and show persistence in solving challenges. Additionally, building a new venture is a process that requires specific skills for achieving targets, finding opportunities, and also facing entrepreneurial obstacles (Oyugi, 2015). Therefore, we assumed that higher EI would follow the higher students' ESE.

According to Social Cognitive Theory, ESE referred to students' belief about their capabilities to complete entrepreneurial tasks and perform well in entrepreneurship circumstances (Bandura, 1982, 2012; Oyugi, 2015). ESE plays an essential role to increase EI; if we want to increase students' preference to be an entrepreneur, stimulating the ESE will be a useful way (Gorgievski et al., 2018). Several studies have explored the correlation between ESE and EI, where students with higher self-efficacy will have a strong belief that they are capable of performing entrepreneurial roles effectively, then it raises the tendency to start a venture (Bandura, 1982, 2000; Cardon & Kirk, 2015; Chen et al., 1998; Hsu et al., 2017; Yamakawa et al., 2015).

Students' ESE is strongly influenced by experiences, education, and teaching methods (Hsu et al., 2017). Past failure can reduce the preference to

launch a new business. On the contrary, the meaningful entrepreneurial experience can encourage students' belief in their competence, so they carry out their entrepreneurial role (Hsu et al., 2017). Entrepreneurial education, such as development programs, training, seminar, and socialization, also impacts students' belief in handling any problem in the future (Pihie & Bagheri, 2013). Also, teaching methods can affect students' ESE. For example, practical methods, like a case study, simulation, and seminars, can provide real experience and evaluation for students and improve their confidence level in fixing up the entrepreneurial issues, contributing to increasing students' EI (Pihie & Bagheri, 2013).

While other studies suggest that students' ESE is the strongest determinant to EI, other researchers have found different results. Some prior investigations found a weak and moderate correlation between Entrepreneurial Self-Efficacy and Entrepreneurial Intention, in which the coefficient ranges between 0.30 and 0.45 (Karczewska & Bialek, 2014). This literature indicates that underlying psychological mechanisms occur between the relationships.

Students' ESE will be measured using an instrument developed by De Noble, Jung, and Ehrlich (1999), which focuses on cognitive aspects rather than technical and functional aspects. This scale is suitable because it is often used to measure ESE among undergraduate students (Naktiyok et al., 2010). Additionally, this study's participants were specific in that students who had taken entrepreneurship education for at least six semesters, which involved both theoretically and practically in entrepreneurial skills development activities, such as project-based learning and experiences to set up a new business. This measurement consists of six dimensions: developing new product and market opportunities, building an innovative environment, initiating investor relationships, defining core purpose, coping with unexpected challenges, and developing critical human resources (De Noble et al., 1999).

### **Entrepreneurship Intentional Self-Regulation**

In 2012, Bandura stated that ESE levels could affect the levels of Self-Regulation (Bandura 2012). Specifically, Entrepreneurship Intentional Self-Regulation (EISR) is defined as the adjustment process of emotions and thoughts in fitting external demands and internal sources to attain entrepreneurial opportunities (Geldhof, Weiner, et al., 2014; Gestsdottir & Lerner, 2008). Students with

higher ESE will believe they can overcome entrepreneurial obstacles optimally, focus on seeking opportunities, and determining realistic steps to achieve their entrepreneurial goals; hence it influences their decision to become an entrepreneur (Bryant, 2007; Gestsdottir & Lerner, 2008).

The dynamic processes of EISR involve various psychological functions, such as beliefs, emotions, thoughts, and adaptation with the environment to reach the entrepreneurial objectives (Gestsdottir et al., 2015). Several studies believed that there was a correlation between ESE and EISR, where students with higher ESE will have more effort in facing obstacles and produce higher entrepreneurial performances, so they can be more accurate in determining the entrepreneurial chance (Bandura, 1982; Gestsdottir & Lerner, 2008). When dealing with entrepreneurial problems, students with higher EISR will have various ways and solutions and learn from past mistakes to develop themselves and achieve desired goals (Gestsdottir et al., 2015). Moreover, students with higher ESE will recognize and seize the entrepreneurial chance consistently, which boosts their self-confidence, so it enhances their intention to become entrepreneurs (Bryant, 2007). So, in line with this literature, we expect students' ESE will be related to EISR.

One of the Entrepreneurship Intentional Self-Regulation models frequently used is Selection, Optimization, and Compensation (SOC). SOC model explains the development of entrepreneurship, consisting of four dimensions: elective selection, loss-based selection, optimization, and compensation (Weiner, Geldhof, & Lerner, 2011). Selection is divided into an elective selection that focuses on selecting goals and Loss-Based Selection, which focuses on rearranging the goal after losing the resources or if there is no chance to reach the previous goal (Freund & Baltes, 2002; Geldhof, Weiner, et al., 2014). Optimization involves identifying resources and strategies that can be used to pursue the goals; then, compensation emphasizes using new or alternative resources when the previous resources were not available (Freund & Baltes, 2002; Geldhof, Weiner, et al., 2014).

SOC dimensions were understood as a global factor related to success in work, development plans, and other goal-directed actions, such as determining work choices in adolescence and young adulthood (Gestsdottir & Lerner, 2008). Besides, Geldhof, Weiner, et al. (2014) stated a correlation between EISR and EI, where students with higher SOC skills will have a higher possibility of placing entrepreneurs as their career choice. In particular,

students who believe themselves as self-starters and keep monitoring other opportunities had higher intentions than other students (Geldhof, Porter, et al., 2014; Geldhof, Weiner, et al., 2014). This study uses an EISR questionnaire from Freund and Baltes (2002) to assess Entrepreneurship Intentional Self-Regulation, which consists of four dimensions: elective selection, optimization, compensation, and loss-based selection.

Based on this consideration, the hypothesis of this study is: *The relationship between students' Entrepreneurial Self-Efficacy (ESE) and Entrepreneurial Intention (EI) is mediated by Entrepreneurship Intentional Self-Regulation (EISR).*

### 3. RESEARCH METHOD

#### Sample

Participants of this study were final year undergraduate students who had entrepreneurship-based education from eight universities in Jakarta and Bandung. They were selected by accidental sampling (non-probability sampling), considering participants' availability and the desire to participate (Gravetter & Forzano, 2018). Participants came from several different majors, such as entrepreneurship, management, business management, international business, business administration, and business creation. All participants are in the range of semester 6 to 10.

We sent an online questionnaire using Google form to several students from each university; then, they forward the questionnaire to other students through the group's social network. In some majors, we are also invited to enter their social network, so we directly remind participants. In the initial part of the survey, we provide informed consent that contains the study's objective, estimated time needed to complete the survey, confidentiality, and voluntary statement. To increase the validity scale and ensure that all participants pay attention during the questionnaire filling, we added two attention checking items (Kung, Kwok, & Brown, 2018), consists of "Please choose number 1 (strongly disagree) to fill in this statement" and "Please choose number 7 (strongly agree) to fill in this statement".

Other participant's criteria are the year of studies and education program. Students in the final year of studies will be associated with career choice (Austin & Nauta, 2016; Mauer et al., 2017). Entrepreneurship-based majoring in universities as formed of entrepreneurial education can also influence students' entrepreneurial self-efficacy levels as the predictor variable (Pihie & Bagheri, 2013).

From the 494 questionnaires collected, 187 questionnaires did not pass the attention checking criteria, leaving 307 questionnaires that can be processed. To make sure all data were ready to use, we checked the normality scale, outliers, and extreme responses, then produced eight questionnaires that could not be used because participants' answers tend to be extreme, either 1 or 7 or else strongly disagree or strongly agree in most of the questions. From this step, we got 299 questionnaires that could be processed further. We also conducted a Confirmatory Factor Analysis (CFA) to confirm the variable's structure of our proposed latent variables. We followed the goodness-of-fit indices as suggested by Hu and Bentler (1999), namely CFI with the value  $\geq 0.95$ , RMSEA with the value  $\leq 0.06$ , and SRMR with the value  $\leq 0.08$ . Based on these criteria, our data indicate that the proposed model with separate EI, ESE, and EISR latent variables was not good-fit (CFI = 0.874, RMSEA = 0.056, SRMR = 0.066). We discuss these results later in the discussion section.

Furthermore, 163 participants (54.5%) were male, and 136 participants (45.5%) were female. When viewed from its age range, 57 participants (19.1%) were 19-20 years old, 187 participants (62.5%) were 21 years old, and 55 participants (18.4%) were 22-23 years old. There were 244 participants (81.6%) who already had experience building a venture, and 55 participants (18.4%) were not. Related to the experience of creating products or services, 274 participants (91.6%) already had the experience, and 25 participants (8.4%) were not. Then, 205 participants (68.6%) have parents worked as entrepreneurs, and 94 participants (31.4%) have not.

#### Measurement

All measurements were translated into Bahasa Indonesia to fit the Indonesian culture and reviewed by an expert. Before the data collection, we do the item analysis process to ensure all items are following the dimensions measured and randomize the order of items, so it is not arranged according to each dimension. Seven scales were adopted to measure students' EI, ESE, and EISR, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Before the data collection, we conducted the pilot study to 32 undergraduate students who had the same characteristics as participants of this study. This process aims to validate all items, and as a result, text revisions were carried out on 18 items.

*Entrepreneurial Intention.* We used four items from the EI questionnaire developed by Linan (2008)

to measure students' entrepreneurial intentions. Measurements were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample of the statement was, "I am ready to do anything to be an entrepreneur. Cronbach's alpha coefficient was 0.812.

*Entrepreneurial Self-Efficacy.* Students' ESE was measured using 16 items from a self-efficacy questionnaire developed by De Noble et al. (1999). Questionnaires were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). An example statement was, "I can persist in the face of adversity." The Cronbach's alpha coefficient for this scale was 0.902.

*Entrepreneurship Intentional Self-Regulation.* We used 11 items from the questionnaire developed by (Geldhof, Weiner, et al., 2014) to measure students' entrepreneurship intentional self-regulation. Items were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). An example item was "I select challenging goals," and the Cronbach's alpha coefficient was 0.858.

#### Test of Common Method Variance

Harman's single-factor test was used to test the common method variance issue and determine the majority variance that can be accounted for by one general factor. As a result, we did not find a single factor that accounted for most of the variance. There were 26 factors that have an eigenvalue above one, and the first factor accounted for only 33.158 percent of the variance, so it could not be linked with the common method variance issue (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

#### 4. DATA ANALYSIS AND DISCUSSION

Before presenting the hypothesis testing results, we first discuss CFA results to confirm our proposed model, which suggested that it does not meet the goodness-of-fit indices. Several factors can be caused, such as the high correlation between predictors (ESE and EISR) or the quality of measurement (Hooper, Coughlan, & Mullen, 2008). Due to a high correlation between ESE and EISR, we provided a collinearity test using the Variance Inflation Factor (VIF) in SPSS. We got a VIF scale of 1.00 or less than 10; it means there was no collinearity issue between these two variables (Hair, Black, Babin, Anderson, & Tatham, 1998). Moreover, in some cases, measurement with too many

indicators or items existed in latent variables can decrease the value of the Comparative Fit Index (CFI) as occurred in this study. However, even though our proposed model did not indicate significant results based on CFA results, all measurements could still be used because of its good reliability based on the Cronbach's alpha coefficient.

Means, standard deviations, and correlations between variables are shown in Table 1. Age was not significantly correlated to EI ( $r=0.03$ ,  $p>0.01$ ), experience in building a venture was not significantly related to students' EI ( $r=0.09$ ,  $p>0.01$ ), experience in creating products or services was not significantly correlated to students' EI ( $r=0.00$ ,  $p>0.01$ ), but parents' job as an entrepreneur was significantly correlated to entrepreneurial intention ( $r=0.21$ ,  $p<0.01$ ). We control these variables in the hypothesis testing process, then explored the effects that occurred when relating control variables as predictors to EISR and EI, which are presented in Table 2. As explained above, the parents' job as an entrepreneur was significantly associated with entrepreneurial intention. Similar to Nguyen (2018), it illustrated that students with self-employed parents would have a higher intention to build new venture because parents, as students' role model, can provide entrepreneurial understanding related to a new business establishment.

We tested the simple mediation model's hypothesis through Hayes' PROCESS SPSS and chose the number 4 model (Hayes, 2012). We explored the effects that occurred when relating control variables as predictors to EISR and EI. As showed in Figure 1, there was positive and significant effect from ESE to EISR (effect=0.87, SE=0.03,  $t=23.58$ , 95% CI [0.80,0.94]). This supports prior findings that students with a stronger belief about their entrepreneurial capabilities will be more flexible in adapting their strategies to fit entrepreneurial demands and achieve their targets (Bandura, 2012; Gestsdottir & Lerner, 2008).

In addition, students' EISR was found positive and significantly related to EI (effect=0.40, SE=0.11,  $t=3.61$ , 95% CI [0.18,0.62]). It supports a prior study that illustrated that students who have more effort to recognize new business opportunities and look for various ways to face entrepreneurial challenges consistently tend to have a higher tendency to build new ventures (Geldhof, Weiner, et al., 2014; Gestsdottir et al., 2015).

Table 1. Means, Standard Deviation, and Correlations among Variables

Variables	M	SD	1	2	3	4	5	6	7
1. Age	21	0.66	NA						
2. Experience in building a venture	0.82	0.38	0.07	NA					
3. Experience in creating products or services	0.92	0.27	0.05	0.29**	NA				
4. Parents' job as an entrepreneur	0.69	0.46	-0.05	0.01	-0.04	NA			
5. ESE	4.73	0.70	-0.04	0.15**	0.08	0.08	(0.90)		
6. EISR	4.05	0.52	-0.03	0.15**	0.06	0.07	0.81**	(0.85)	
7. EI	5.17	0.56	0.03	0.09	0.00	0.21**	0.38**	0.42**	(0.81)

Note. N=299. \*p<0.05, \*\*p<0.01 (two-tailed). NA: Not Applicable. Age was measure in years. Having experience in building a venture, experience in creating products or services, and having parents working as an entrepreneur were dummy-coded (0=No, 1=Yes). All other scales were measured on a 7-point scale. ESE=Entrepreneurial Self-Efficacy, EISR=Entrepreneurship Intentional Self-Regulation, EI=Entrepreneurial Intention.

Table 2. Results of Mediation Effects for Entrepreneurial Intention

Variables	Outcomes										
	EISR					EI					
	Coeff.	SE.	t	p	Coeff.	SE.	t	p			
Constant	$i_M$	1.65	0.63	2.62	0.00	$i_Y$	0.52	1.21	0.43	0.66	
Age		-0.00	0.02	-0.07	0.93		0.06	0.05	1.19	0.23	
Experience in building a venture		0.03	0.05	0.75	0.44		0.05	0.09	0.51	0.60	
Experience in creating products or services		-0.02	0.07	-0.37	0.70		-0.06	0.13	-0.49	0.62	
Parents' job as an entrepreneur		0.01	0.04	0.29	0.77		0.27	0.07	3.51	0.00	
ESE	$a$	0.87	0.03	23.58	0.00	$c$	0.49	0.07	6.86	0.00	
		-	-	-	-	$c'$	0.14	0.12	1.18	0.23	
EISR		-	-	-	-	$b$	0.40	0.11	3.61	0.00	
		R <sup>2</sup> = 0.66					R <sup>2</sup> = 0.22				
		F(5,293) = 116.79, p = 0.00					F(6,292) = 13.85, p = 0.00				

Note. N = 299. ESE=Entrepreneurial Self-Efficacy, EISR=Entrepreneurship Intentional Self-Regulation, EI=Entrepreneurial Intention.

Finally, the direct effect of students' ESE on EI found to be not significant (direct effect=0.14, SE=0.12,  $t=1.18$ , 95% CI [-0.09,0.38]). On the other hand, there was a significant and positive effect indirectly from ESE to EI, mediated by EISR (indirect effect=0.49, SE=0.07,  $t=6.86$ , 95% CI [0.35,0.63]), then

suggested full mediation effect. It confirmed a significant indirect effect from students' Entrepreneurial Self-Efficacy to Entrepreneurial Intention through Entrepreneurship Intentional Self-Regulation, which supports our hypothesis.

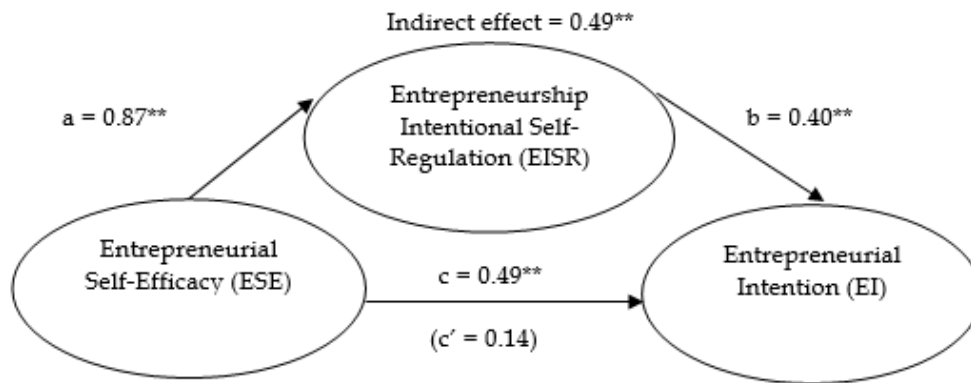


Figure 1. Mediating Effect of Entrepreneurship Intentional Self-Regulation on Relationship between Entrepreneurial Self-Efficacy and Entrepreneurial Intention

As we got a full mediation effect from Entrepreneurship Intentional Self-Regulation in the relationship between students' Entrepreneurial Self-Efficacy and Entrepreneurial Intention, it means we found similarity with previous studies which explained a weak direct correlation between ESE and EI and proved the important role of EISR as a mediator variable (Geldhof, Weiner, et al., 2014; Kurczewska & Bialek, 2014; Saraih et al., 2018; Solesvik, 2017).

## 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

As confirming our hypothesis, this study's results proved that students' Entrepreneurship Intentional Self-Regulation fully mediates the relationship between Entrepreneurial Self-Efficacy and Entrepreneurial Intention. Prior studies have explained several variables that affected the relationship between ESE and EI. One of them is a personal initiative as a mediator variable, explored using the Theory of Planned Behavior framework (Solesvik, 2017). Most research has focused on the Theory of Planned Behavior (TPB); however, we believe that Social Cognitive Theory is a more suitable framework to explore the ESE-EI relationship among undergraduate students in Indonesia. Entrepreneurship education is currently one of the main focuses at some universities in Indonesia because education plays an important role in improving students' belief about their

entrepreneurial abilities or ESE to create new entrepreneurs. Moreover, this framework provides a clearer understanding about the important role of Entrepreneurship Intentional Self-Regulation as a mediator variable between ESE-EI relationship, in which higher ESE will increase the use of self-regulation strategies in realizing entrepreneurial targets, such as setting a goal, using various ways in facing challenges, and in turn improving entrepreneurial intention and performance, and in turn, leads to higher intention to develop a venture (Bandura, 2012; Bryant, 2007; Gestsdottir et al., 2015).

This study also has some practical implications for educational institutions. To boost EI among students, educators can focus on implementing a program to develop students' ESE, such as providing the entrepreneurial subject, courses, and program modules to enhance students' understanding of the process and steps involved in starting a new business. Besides, educators should accommodate students with practical methods, such as case study, simulation, or other development programs, such as training and seminar, to encourage not only students' knowledge but also facilitate valuable experience related to entrepreneurship.

Even though this research can provide a better understanding of the mediating effect of students' EISR in the ESE-EI relationship, it also has several limitations. First, as explained above, we found a not



fit model in the CFA process. Future research should check the quality of measurement, the correlation between latent variables, and respondents' selection (Hooper et al., 2008). Second, the self-report technique used in this research can cause the participant's bias. Although we have guaranteed confidentiality with anonymity, it may also trigger a bias. Therefore, future research should use several combination techniques to measure all variables, such as adding an observation technique or other possible techniques. Lastly, in the context of young entrepreneurship, a longitudinal study can be used to produce a comprehensive explanation about the development and interrelationship between variables.

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