

# Increasing Students' Entrepreneurial Intention Using Internal and External Factors through Entrepreneurial Self-Efficacy

# Mendy TANTONO, Gracia ONGKOWIJOYO<sup>\*</sup>, Charly HONGDIYANTO and Wendra HARTONO

Universitas Ciputra Surabaya, Indonesia

Entrepreneurship is one of the most important drivers in a country's economic growth in which it contributes to the reduction of unemployment rate. This explains why various institutions have been leveraging resources at their disposal to boost the entrepreneurial intention of students across the country. This research aims to investigate the effect of family environment and entrepreneurship education through entrepreneurial self-efficacy towards students' entrepreneurial intention. This study took on a quantitative approach, where the data obtained from surveys are evaluated statistically using the SmartPLS software. The researcher has taken 215 samples from a population of 458 students in 2018 cohort, majoring in International Business Management of Universitas Ciputra Surabaya, using the simple random sampling method. The findings suggest that there is a positive and significant direct relationship between family environment and entrepreneurial intention, entrepreneurship education and entrepreneurial intention, family environment and entrepreneurial self-efficacy, entrepreneurship education and entrepreneurial selfefficacy, as well as entrepreneurial efficacy and entrepreneurial intention. Furthermore, the results show that entrepreneurial self-efficacy partially mediates the relationship between family environment and entrepreneurship variables towards entrepreneurial intention. This research contributes to the Social Cognitive Theory and implications are discussed.

**Keywords:** family environment, entrepreneurship education, entrepreneurial selfefficacy, entrepreneurial intention, social cognitive theory

JEL Classification: 125, J60

#### 1. Introduction

The rapid population growth in Indonesia caused by a higher birth rate and improved living standards has increased the country's unemployment rate even further. This is due to the limited number of job openings available in response to the number of Indonesians entering the labour force, which accounts for two million

\*Corresponding Author:

Article History:

Cite Reference:

Gracia Ongkowijoyo, Universitas Ciputra Surabaya, Indonesia

Received 28 July 2022 | Accepted 16 September 2022 | Available online 11 October 2022

Tantono, M., Ongkowijoyo, G., Hongdiyanto, C. and Hartono, W., 2022. Increasing Students' Entrepreneurial Intention Using Internal and External Factors through Entrepreneurial Self-Efficacy. *Expert Journal of Business and Management*, 10(2), pp.65-76.

of the total population each year (Indonesia Investment, 2022). The lack of employment opportunities indicates that there is an inadequate number of businesses in Indonesia. Entrepreneurship is a powerful tool that is seen as a developing worldwide practice capable of reducing unemployment while supporting social development and economic growth (Coulibaly, Erbao and Metuge Mekongcho, 2018;Santoso, 2021). Hence, the government, legislators as well as business practitioners have been utilizing resources in their possessions to increase the number of entrepreneurs in the country.

According to The Global Entrepreneurship and Development Index 2018 (Acs and Szerb, 2018), Indonesia is placed in the 94th rank with a Global Entrepreneurship Index of 21, which is considerably low compared to the neighbouring countries, where Thailand has a GEI of 27.4, Malaysia has a GEI of 32.7, Vietnam has a GEI of 23.2, Philippines has a GEI of 24.1 and Singapore has a GEI of 52.7 (Hongdiyanto, 2017). These explain the fact that Indonesia's economic progress and growth lag behind other countries in Southeast Asia, in addition to its high unemployment rate. The reason for the occurrence of this phenomenon is students' lack of entrepreneurial intention in Indonesia. Entrepreneurial self-efficacy, family environment, and entrepreneurship education are considered to be the most significant variables in affecting entrepreneurial intention among others, as they are the most voted variables, each with a value of 68%, 64%, and 52% accordingly, as shown in the results retrieved from the preliminary survey conducted with 25 students with entrepreneurial backgrounds. This serves as the reason why the study research only focused on these variables.

Supporting the preliminary survey results, the role of the family environment is also important in shaping the characters of entrepreneurs. Environmental factors such as family environment are factors that significantly influence students' interest in entrepreneurship (Sudjarwo, Wahyudin and Sudarma, 2019). Iwu *et al.* (2019) also added that entrepreneurship education also acts as one the most significant elements in fostering students' entrepreneurial intention. However, several types of researches revealed that these external factors do not have a direct relationship with entrepreneurial intention. Moussa and Kerkeni (2021), mentioned that the family environment is multidimensional and apparently one of the dimensions, namely, family support which includes both social and financial capital, has no influence on one's entrepreneurial intention. Similarly, Nowiński and Haddoud (2019) stated that entrepreneurship education has an indirect impact on entrepreneurial intention. These findings imply that a mediation variable is needed to mediate the relationship between the independent and dependent variables.

Apart from the external factors, it is essential to analyze the internal factor affecting entrepreneurial intention. Neneh (2019) stated that entrepreneurial self-efficacy contributes to entrepreneurial intention and entrepreneurial behaviour. According to Bandura (1997), self-efficacy beliefs can be developed by interpreting information on one's capability, from which information is derived from four main sources: mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states. This confirms the fact that entrepreneurial self-efficacy is influenced by other variables or factors. In this case, entrepreneurial self-efficacy could be studied as an integrative part or mediation variable in entrepreneurial intention.

Based on the background problem and data collected above, the purpose of this research is to examine the effect of family environment and entrepreneurship education through entrepreneurial self-efficacy as mediation towards Entrepreneurial Intention of IBM students at Universitas Ciputra Surabaya, Indonesia. The research sample will be taken from Universitas Ciputra's students from the 2018 cohort, majoring in International Business Management, since they have participated in a series of Entrepreneurship Class, who have received sufficient insights and overview on the important factors in becoming future entrepreneurs by completing their business projects. Therefore, the researcher can obtain more reliable data or information to provide a useful model for both academia and entrepreneurship practices.

# 2. Literature Review

# 2.1. Social Cognitive Theory

Social Cognitive Theory (SCT) is a theory introduced by Bandura (1986) as an extension of Social Learning Theory. This theory postulates that learning takes place in a social context, with a dynamic and reciprocal interaction between the individual, their environment, and their behaviour. SCT gives a paradigm to comprehend, forecast, and alter human behaviour (Green and Piel, 2010). This also serves as the fundamental basis as to why this theory is used to analyse the effect of external factors (family environment and entrepreneurship education) through an internal factor (entrepreneurial self-efficacy) on one's entrepreneurial intention.

Tantono, M., Ongkowijoyo, G., Hongdiyanto, C. and Hartono, W., 2022. Increasing Students' Entrepreneurial Intention Using Internal and External Factors through Entrepreneurial Self-Efficacy. *Expert Journal of Business and Management*, 10(2), pp.65-76.

#### 2.2. Family Environment

Family environment creates the environment in which students develop and grow (Hutagalung et al., 2017). Lingappa et al. (2020) stated that family and its socialization give an effect on entrepreneurial attitudes and intentions. Several Indicators of family environment according to Moussa and Kerkeni (2021) are parental support for autonomy as promotion of independence; parental support for autonomy as promotion of volitional functioning; entrepreneurial role model; financial capital, and social capital.

According to Bandura and Walters (1977), individuals learn by observing the actions of their parents. Grønhøj and Thøgersen (2017) mentioned that the family environment, particularly the parents, will deliver a cultural pattern, life outlook, home atmosphere, and patterns that will influence children's attitudes and conduct. Parental entrepreneurship also enables students to be more familiar with numerous entrepreneurial skills to obtain and duties to execute as the family's business successor or even creating a new start-up business (Palmer et al., 2019). Previous research by Moussa and Kerkeni (2021) has also shown that one of the family environment's dimensions, namely the entrepreneurial role model is considered as one of the most influential factors in fostering entrepreneurial intention.

#### 2.3. Entrepreneurship Education

Entrepreneurship Education (EE) refers to the process or method used to encourage people in identifying business opportunities, entrepreneurial knowledge, and skills, and use them in a simulation of forming and operating a new business, in order to promote student's desire, spirit, and entrepreneurial culture (Otache, 2019). Similarly, Neck and Greene (2011) in Puni et al. (2018) stated that EE teaches students the fundamental behavioural attributes that an entrepreneur must have in order to succeed in the face of ambiguity and complexity. Students are able to enhance their abilities and self-confidence through the means of EE, which can increase their intention to become future entrepreneurs (Watson et al., 2017). Based on the literature by Puni et al. (2018), the indicators of EE are divided into two categories. They are; opportunity recognition which includes recognize entrepreneurial approaches, recognize business opportunities, solving economic and social problems with a fee, and entrepreneurship knowledge acquisition which includes entrepreneurial experiences, entrepreneurial awareness, recognize funding resources.

Bandura (1997) stated the social cognitive theory emphasizes the importance of observing others to discover new knowledge and paths by observational learning. This corresponds to the three benefits of EE, which are classified into three categories; learning, inspiration, and incubation resources (Ahmed et al., 2020). EE prepares students to start their businesses by combining their experiences, skills, and knowledge (Jena, 2020, Bazkiaei et al., 2020). Ahmed et al. (2017) remarked that the deciding component of educational activities will lead to the intention to engage in entrepreneurial conduct or behaviour.

#### 2.4. Entrepreneurial Self-Efficacy

Entrepreneurial self-efficacy is an individual's conviction in their capacity to carry out different entrepreneurship-related activities (Rosique-Blasco et al., 2017). Miranda et al. (2017) remarked that individuals who possessed high self-efficacy tend to display intrinsic interest in entrepreneurial behaviours and activities. Students with high self-efficacy are more likely to face obstacles well and make efforts to establish and develop a business successfully (Hemmings, 2018). According to Linan and Chen (2009) in Puni et al. (2018), entrepreneurial self-efficacy has several indicators. These include; confidence in undertaking entrepreneurial-based tasks effectively. confidence in their entrepreneurial knowledge, confidence in controlling start-up development, comfortable in their entrepreneurial skills or abilities, and level of preparation.

Bandura (1997) stated the initial efficacy experiences are derived from one's family. Ahun et al. (2018) added that family environment provides experience and social persuasion that shape an individual's personality. Therefore, family environment may be a favourable atmosphere for training and honing entrepreneurial personalities or characters, which can create opportunities for youngsters to begin directing their interests later in life.

According to social cognitive theory by Bandura (1997), there are four major sources of self-efficacy from which an individual's career intention can be nurtured: (1) enactive mastery, (2) vicarious experience,

Tantono, M., Ongkowijoyo, G., Hongdiyanto, C. and Hartono, W., 2022. Increasing Students' Entrepreneurial Intention Using Internal and External Factors through Entrepreneurial Self-Efficacy. *Expert Journal of Business and Management*, 10(2), pp.65-76.

(3) verbal persuasion, and (4) physiological states/arousal. These sources can be delivered to students by entrepreneurship education (Nowiński et al., 2017). Puni et al. (2018) believed that an entrepreneur with entrepreneurial knowledge, such as the ability to read business prospects, is likely to have high self-efficacy. This is in line with the finding of Wu et al. (2021), which confirms the significant and positive association between entrepreneurship education and entrepreneurial self-efficacy.

#### 2.5. Entrepreneurial Intention

Azjen (1991) in Moussa and Kerkeni (2021), stated that entrepreneurship intention is considered to be the first step in the business creation process as it portrays how much effort an individual is eager to make to start a firm. It is an individual's mentality or mindset to achieve a specific business target based on prior experience, attention, and action (Joseph, 2017, Noor et al., 2019). Ismail et al. (2018) provide further explanations for entrepreneurial intention as a mental orientation for individuals, including hope, want, and desire, which influence the decision to become an entrepreneur. Based on the adaptation of "Entrepreneurship Behavioral Intention scale" (Linan and Chen, 2009) in Moussa and Kerkeni (2021) several indicators of entrepreneurial intention include; willingness to pursue, entrepreneurial goal, efforts, determination, entrepreneurial consideration, and ambition.

According to Boyd and Vozikis (1994) in Liu et al. (2019), an entrepreneur's self-efficacy is highly correlated with one's perceived self-ability and entrepreneurial actions. A social cognitive learning theory by Bandura (1997) revealed that an individual's perception of his or her abilities plays a crucial role in fostering their intentions to participate in a specific task or activity. In relation, Hemmings (2018) argued that students who have a high sense of self-efficacy are more likely to overcome problems and work hard to run a successful business. Individuals who have high self-efficacy often portrayed higher intrinsic intention in entrepreneurial behaviour and activities (Puni et al., 2018). These indicate that higher entrepreneurial intention is lead by individual's self-confidence and entrepreneurial self-efficacy when combined with personal initiatives (Solesvik, 2017).

#### 3. Research Model

Based on the research problems, research objectives, and theoretical basis previously discussed, the hypothesis of this research are as follow:

H1: Family Environment has a significant effect towards entrepreneurial intention.

H2: Entrepreneurship Education has a significant effect towards entrepreneurial intention.

H3: Family environment has a significant effect towards entrepreneurial self-efficacy.

H4: Entrepreneurship Education has a significant effect towards entrepreneurial self-efficacy.

H5: Entrepreneurial self-efficacy has a significant effect towards entrepreneurial intention.

H6: Entrepreneurial self-efficacy mediates the effect of family environment towards entrepreneurial intention.

H7: Entrepreneurial self-efficacy mediates the effect of entrepreneurship education towards entrepreneurial intention.



Figure 1. Research Model

#### 4. Research Methodology

The research will be methodically conducted in a quantitative approach in the form of questionnaires, from which results will be calculated using SmartPLS software. Fah and Hoon (2021) stated that population refers to every individual, organization, object, or event in a group sharing similar characteristics from which will be generalized by the researcher. The population used in this study consists of all 458 students of Universitas Ciputra Surabaya from the 2018 cohort majoring in International Business Management. The simple random sampling method also known as probability or chance sampling, since each item in the population has an equal chance of being included in the sample, and each sample has a chance of being chosen in the sampling procedure (Mishra and Alok, 2017). The researcher employs the Slovin method with 0.05 error tolerance in order to compute the number of samples used in this research study, resulting a minimum sample of 214 students.

Data is gathered by distributing questionnaires to the targeted respondents via email and/or text messages. The research variables adopt previous researches' items. Family environment and entrepreneurial intention variables adopt items from (Moussa and Kerkeni, 2021).Entrepreneurship education and entrepreneurial self-efficacy variables adopt items from Puni, Anlesinya and Korsorku (2018). The variable measurement used in this research is 5-point Likert Scale. According to Chyung *et al.* (2017), the Likert scale enables respondents to convey or communicate both the direction and strength of their opinions regarding a topic.

This research is executed using the partial least square method. According to Hair *et al.* (2017), PLS-SEM employed a combination of regression-based path analysis and a structural equation model to estimate the parameters of a set of equations in a structural equation model. To measure this validity, the AVE should be  $\geq 0.50$ , and the outer loading should be higher than 0.7, for social science research, outer loading ranging from 0.4 to 0.7 is acceptable (Hair *et al.*, 2017). According to Hair *et al.* (2017), one of the methods used to assess discriminant validity is the Fornell-Larcker. In this measurement, the quantity inside the variable must be less than the amount within the other variable. Composite Reliability is used to understand and analyse internal consistency reliability. The composite reliability result should be >0.70, however in an exploratory study, a value greater than 0.60 can be regarded as acceptable (Hair *et al.*, 2017).

The inner model of the square equation model consists of Coefficient of Determination ( $R^2$ ), T-test, Path coefficient, F Square (Effect Size), and Q square (Predictive Relevance). Based on Stockemer (2019), R2 (R-Squared) or the coefficient of determination shows the variance's amount in the dependent variable and independent variable(s) in the model. Square correlation in the model's actual and predicted value is calculated, from which range should be around 0-1. If the value of R2 is 0.75, 0.50, or 0.25, the variance is considered substantial, moderate, and weak (Hair *et al.*, 2017). A higher value of R2 shows a higher predictive accuracy. The f<sup>2</sup> effect size is used to measure the change in  $R^2$  value when a particular predictor construct is omitted from the model which can be utilized to assess whether the omitted construct has a substantive effect on the endogenous constructs (Hair *et al.*, 2017). According to Hair *et al.* (2017), f<sup>2</sup> values of 0.02, 0.15, and 0.35, indicate that there is a small, medium, and large effects of an exogenous latent variable, respectively, whereas, an f<sup>2</sup> value less than 0.02, indicate that there is no effect. Hair *et al.* (2017) stated that a greater  $Q^2$  value indicates a higher model's predictive accuracy and relevance.

#### 5. Analysis and Results

#### **5.1. Reliability and Validity Result**

As depicted in Table 1, it can be seen that all of the variables have reached the minimum acceptable AVE value of 0.5. Indicators that have outer loading value within the range of 0.4 to 0.7, such as EE2 and EE3, can still be kept since the AVE value has surpassed 0.5. This indicates that all of the remaining indicators pertained in Table 1 can be utilized for further analysis. With this being stated, the indicators of each variable that are used in this research are accepted since they have been proven to be valid.

In the convergent validity test, three indicators were removed or eliminated from the independent variables to meet the required AVE value of >0.5 as shown in the table above. They are; FE1 "My parents give me more freedom to make my own decisions.", FE2 "My parents let me make my own plans for things I want to do.", and E5 "Entrepreneurial trainings increase my awareness of the duties and rights of entrepreneurs and their commitment to stakeholders." These indicators are removed from the outer loading and AVE calculation due to several factors.

Firstly, FE1 and FE2 might not affect the students' entrepreneurial intention due to the parenting style in the country in which they live in. According to Lin and Fu (1990), the parenting style of Asian parents have been labelled as "authoritarian", "restrictive", and "argumentative". In addition, for Asian, several aspects of parental "control" can be considered as positive qualities such as parental concern, involvement, and affection (Ang and Goh, 2006). These explains the fact why most Asian parets, including Indonesian parents, control their children and restrict them in making their own decisions and plans to some extent.

Another reason that supports the elimination of both FE1 and FE2 indicators is the likelihood that some respondents might feel that any forms of freedom given by their parents are not enough to foster their entrepreneurial intention if not accompanied with certain directions and advices related to the business world. This is because they do not have adequate knowledge and experience on how to make the right decisions and plans to engage in entrepreneurial activities since not all of these students have businesses to run, considering that they are still undergraduates who prioritize their education over everything else. Furthermore, giving more freedom in making their own decisions and allowing them to make their own plans on the things that they want to do does not necessarily mean that these statements are also applied to job-related activities. For instance, students might only receive freedom to make their own decisions and plans to achieve simple needs or wants such as deciding on which country to visit on their holiday, making plans for their birthday party, and other related decisions which has no correlation with their entrepreneurial career choices. Hence, the removal of these indicators can be justified.

EE5 is removed or eliminated since this indicator might not affect students' entrepreneurial intention due to the quality and type of entrepreneurship education that are established in Indonesia. According to Amaliah, Kardoyo and Rusdarti (2021), entrepreneurship education is classified into three categories, namely the "About", "For", and "Through" entrepreneurship. The most common entrepreneurship, "About", involves a more conventional pedagogical practice and is rather instructional since it uses theoretical-based courses to increase students' entrepreneurship awareness (Amaliah, Kardoyo and Rusdarti, 2021). The second type of entrepreneurship, "For", on the other hand, involves teaching styles that are rather practical, explorational, and project-based, since this method aims to prepare students for future entrepreneurial careers intentionally. Last but not least, the "Through" entrepreneurship, focuses on learning by doing approach, where students undertake an actual entrepreneurial learning process (Amaliah, Kardoyo and Rusdarti, 2021).

Out of all of the types of entrepreneurships mentioned above, Indonesia mostly adopts the "About" entrepreneurship, where courses such as management knowledge, marketing, finance, business plan, etc., are commonly found in the entrepreneurship programs that are established in schools or universities. On the contrary, course contents that teach "For" and "Through" entrepreneurship which involves entrepreneurship training, are offered and provided in a much lesser fashion. These explain why the quality of entrepreneurship trainings in Indonesia are still lacking, thus has little to no influence on students' entrepreneurial intention. According to Amaliah, Kardoyo and Rusdarti (2021), several studies suggested that entrepreneurship instruction in Indonesian higher education has proven ineffectual. This ineffectiveness includes a lack of

entrepreneurship education programs around the country, as well as a lack of awareness of how and what proper approaches to teach and develop graduate entrepreneurs are (Amaliah, Kardoyo and Rusdarti, 2021).

	14010	A vonogo Voniongo	Composito			
Variable	Indicator	Item	Juder	Average variance	Dell's hiller	
			Loading	Extracted (AVE)	Reliability	
Family	X1.3	FE3	0.739			
Failiny	X1.4	FE4	0.767	0.605	0.860	
$(\mathbf{Y}_1)$	X1.5	FE5	0.781	0.005		
(A1)	X1.6	FE6	0.823			
	X2.1	EE1	0.737			
Entrepreneurship	X2.2	EE2	0.665		0.836	
Education	X2.3	EE3	0.682	0.505		
(X2)	X2.4	EE4	0.707			
	X2.6	EE6	0.757			
	Z.1	ESE1	0.725			
Entrepreneurial	Z.2	ESE2	0.736			
Self-Efficacy	Z.3	ESE3	0.793	0.602	0.883	
(ESE)	Z.4	ESE4	0.793			
	Z.5	ESE5	0.828			
Entrepreneurial	Y.1	EI1	0.772			
	Y.2	EI2	0.713			
	Y.3	EI3	0.774	0.597	0.905	
Intention	Y.4	EI4	0.770	0.587	0.895	
(Y)	Y.5	EI5	0.776			
	Y.6	EI6	0.790			

Table	1	Validity	and	Dalia	hilin	Tast
Table I	ι.	vallalty	ana	Kelit	ibility	1 est

Source: Processed Data (2022)

In addition, most of the respondents might feel that entrepreneurial trainings that are provided by the university merely focuses on the use of case studies, business plan creation, short-term business projects, guest lectures or seminars, and other related teaching methods, instead of real-life business practices that are essential to increase students' mental abilities, practical skills, and behaviors to start a new business. Moreover, some of the respondents might not have completed their internship programs, which reflects their unfamiliarity with the internal and external values or philosophies pertained in a business operation, including the rights and duties of entrepreneurs and their commitment to the shareholders since they did not receive on-hand experiences. These provide a solid reason as to why EE5 should be removed in this calculation.

Table 1 also suggests that the values of composite reliability for each of the variable exceeds the value of 0.7. This indicate that all of the variables used are reliable since they are able to meet the minimum requirement value of 0.7. Therefore, there is no need to make any changes on the indicators being used.

Table 2. Fornell-Larcker Test					
Variable	FE	EE	ESE	EI	
FE	0.778	0.305	0.490	0.410	
EE		0.711	0.536	0.464	
ESE			0.776	0.520	
EI				0.766	

Source: Processed Data (2022)

Table 2 shows the results of the Fornell-Larcker which is used to test the discriminant validity. Based on the data above, it can be seen that the correlation between similar variables has a higher value than the correlation between different variables. These results confirm that the variables being used in this research are valid. In conclusion, all of the variables used in this research are proven to be valid and reliable. This is shown from their outer-loading values and composite reliability values which exceeds 0.7 and their AVE value that

reach the minimum requirement of 0.5. Furthermore, the Fornell-Larcker test has also reaffirmed the validity of the variables used as shown in Table 2 above.

Hypothesis	Path	Path Coefficient	T-	P-	Statement
itypothesis	1 atn	(Beta)	Values	Values	
1	$FE(X1) \rightarrow EI(Y)$	0.190	2.266	0.024	The hypothesis is accepted.
2	$EE(X2) \rightarrow EI(Y)$	0.249	3.343	0.001	The hypothesis is accepted.
3	$FE(X1) \rightarrow ESE(Z)$	0.360	5.164	0.000	The hypothesis is accepted.
4	$EE(X2) \rightarrow ESE(Z)$	0.426	6.456	0.000	The hypothesis is accepted.
5	$ESE(Z) \rightarrow EI(Y)$	0.293	3.897	0.000	The hypothesis is accepted.
6	$FE(X1) \rightarrow ESE(Z) \rightarrow EI(Y)$	0.106	3.530	0.000	The hypothesis is accepted.
7	$EE(X2) \rightarrow ESE(Z) \rightarrow EI(Y)$	0.125	2.984	0.003	The hypothesis is accepted.

Note: Family environment (FE), entrepreneurship education (EE), entrepreneurial self-efficacy (ESE), and entrepreneurial intention (EI)

Source: Processed Data (2022)

The results from this research study entail that the direct relationship between family environment and entrepreneurial intention, entrepreneurship education and entrepreneurial intention, family environment and entrepreneurial self-efficacy, entrepreneurship education and entrepreneurial self-efficacy, as well as entrepreneurial self-efficacy and entrepreneurial intention, are significant and positive, as apparent from their t-statistics values which exceed 1.96 and their p-values of  $\leq 0.05$ . Therefore, hypothesis 1 until hypothesis 5 can be accepted. The t-statistic values in the specific indirect effect segment should also be observed and considered in addition to the direct effect in order to conduct a proper mediation effect test. The results of this test are shown in table 3.

According to the data above, it can be stated that the relationship between family environment towards entrepreneurial intention through entrepreneurial self-efficacy as mediation is positive and significant as the t-statistic value is 3.530 (above 1.96), the p-values are  $0.000 (\leq 0.05)$  and the path coefficient are all positive. Similarly, the relationship between entrepreneurship education towards entrepreneurial intention through entrepreneurship education towards entrepreneurial intention through entrepreneurial self-efficacy as mediation is also positive and significant as the t-statistic value is 2.984 (above 1.96) and the p-values are  $0.003 (\leq 0.05)$ . These indicate that entrepreneurial self-efficacy used in this research model acts as a mediation variable that mediates the relationship between family environment and entrepreneurial intention as well as the relationship between entrepreneurship education and entrepreneurial intention.

Based on the goodness fit model, the R-square value of entrepreneurial self-efficacy is 0.405, whereas the R-square value of entrepreneurial intention is 0.346. This indicates that entrepreneurial intention (34.6%) can be explained using the three variables mentioned above, namely, the family environment, entrepreneurship education, and entrepreneurial self-efficacy. While the other 65.4% might be explained by other factors that are not included in this study research. From these results, it can be stated that the r-square values of both variables are weak since neither the value of entrepreneurial self-efficacy variable nor the value of entrepreneurial intention variable has exceeded the value of 0.50.

The f square effect size of both independent variables (family environment and entrepreneurship education) with the mediation variable (entrepreneurial self-efficacy) are considered medium since both of their values have exceeded 0.15 but are still below 0.35. This indicates that the relationship between these variables is significant. Meanwhile, the f square effect size on the relationship between family environment and entrepreneurial intention, entrepreneurial intention, and entrepreneurial intention, as well as entrepreneurial self-efficacy and entrepreneurial intention, are considered small since all of their values are higher than 0.02 but lower than 0.15. This implies that the relationship between these variables is considered significant but has limited practical implications. The  $Q^2$  predictive relevance of both entrepreneurial self-efficacy and entrepreneurial self-efficacy and 0.195 correspondingly. This denotes that both variables have medium predictive relevance since their values are higher than 0.15.

The study shows that the effect of family environment towards entrepreneurial intention is positive and significant. Family, especially parents also serve as role model to their children, which brings an indirect impact on their interest in specific professions, such as entrepreneurship. Therefore, students with entrepreneur parents are more likely to become entrepreneurs in the future as they are inspired to become one themselves. This statement is also supported by Sudjarwo, Wahyudin and Sudarma (2019), which proved that family environment affects entrepreneurship intention significantly. The findings correspond to the social cognitive theory by Bandura (1997) which suggest that individuals learn by mimicking the behaviours of others in their surroundings as a model.

The study shows that the effect of entrepreneurship education towards entrepreneurial intention is positive and significant. Various entrepreneurial training programs have been held by universities and linked external institutions in recent years, and these programs have steadily received recognition. In relation to Social cognitive theory by Bandura (1997) highlights the significance of observational learning in gaining new information and methods, the university often invites successful business owners as guest lecturers, organizes family business visitations, provides more case studies, and real-life business projects. With these given tasks or assignments, students are able to obtain insights and entrepreneurial experiences since they are able to apply all of their entrepreneurial skills and knowledge in the real business world, which further increases their entrepreneurial intention. Previous studies have also confirmed in line with the statement that entrepreneurship education is directly associated with entrepreneurial intention (Ahmed *et al.*, 2020;Iwu *et al.*, 2019;Jena, 2020).

The study shows that the effect of family environment towards entrepreneurial intention is positive and significant. According to Bandura (1997), one's first self-efficacy experiences are drawn from his or her family. In other words, a family has a significant impact on individuals' social development since it is where they acquire the fundamental concepts required for social integration. Inspiration and perceived support from family members can boost their self-efficacy and confidence in their ability to succeed in the future, which can help them make better decisions, such as choosing entrepreneurship as a profession. The statement is supported by research conducted by Amaliah, Kardoyo and Rusdarti (2021), which implies that family environment has a significant influence on entrepreneurial intention.

The study shows that the effect of entrepreneurship education towards entrepreneurial intention is positive and significant. Entrepreneurship education significantly influences entrepreneurial self-efficacy on its four key sources, namely, enactive mastery, vicarious experience, verbal persuasion, and physiological states/arousal as mentioned in social cognitive theory. Through entrepreneurship education, students can gain entrepreneurial experiences and information by carrying out various types of entrepreneurial-based undertakings, which can potentially lead to the development of their entrepreneurial self-efficacy and confidence. The research study reinforced the result study of Puni, Anlesinya and Korsorku (2018), which stated that entrepreneurship education has a significant and positive influence towards entrepreneurial self-efficacy.

The study shows that the effect of entrepreneurial self-efficacy towards entrepreneurial intention is positive and significant. Hsu *et al.* (2019) remarked that self-efficacy refers to an individual's confidence in his or her capabilities to establish and operate a company. This correlates to the social cognitive learning theory which implies that an individual's assessment of his or her abilities is vital in developing their intent to participate in a given task or activity (Bandura, 1997). Hence, it can be reaffirmed that entrepreneurial self-efficacy is an excellent predictor of entrepreneurial intents and behaviour. The result of this study is reinforced from the findings of Sidratulmunthah, Hussain and Malik (2018) and Liu *et al.* (2019) that entail that entrepreneurial self-efficacy is among the significant predictors of an individual's entrepreneurial intention.

The study shows that the mediation effect of entrepreneurial self-efficacy on family environment towards entrepreneurial intention is positive and significant. Each individual has his or her family background which can affect their entrepreneurial self-efficacy differently. Those who come from families with entrepreneurial backgrounds have s high sense of self-confidence in their skills and abilities to have entrepreneurial responsibilities since they have acquired the general ideas and experiences on running a start-up firm. Additionally, students who have entrepreneur parents are more assertive in achieving their entrepreneurial careers since they received more supports from their parents, whether it is in the form of moral, social, or financial capital. The findings of this study research validated the previous study by Amaliah, Kardoyo and Rusdarti (2021) which suggests that entrepreneurial self-efficacy mediates the effect of family environment on entrepreneurial intention significantly.

The study shows that the mediation effect of entrepreneurial self-efficacy to entrepreneurship towards entrepreneurial intention is positive and significant. Through the entrepreneurship course and entrepreneurial trainings, students are able to gain entrepreneurial insights which teach them the essential traits to become entrepreneurs, which include bravery, independence, creativity, leadership skills, collaboration skills, and other entrepreneurial abilities. These will eventually shape their confidence or self-efficacy to take part in entrepreneurial activities. These results seem to verify the findings of Zhao, Seibert and Hills (2005), which entails that an individual's entrepreneurial intention can be formed by influencing entrepreneurial self-efficacy through entrepreneurship education by enhancing their expertise in venture creation and recognition of profitable prospects.

# 6. Discussion and Conclusion

The result of this research study denotes that there is a significant and positive relationship between family environment and entrepreneurial intention. This is in line with the previous research conducted by Amaliah, Kardoyo and Rusdarti (2021), which revealed that family environment has a positive and significant relationship with entrepreneurial intention. The study also reveals that the relationship between entrepreneurship education and entrepreneurial intention is significant and positive. This statement is supported by research that was conducted by Wu *et al.* (2021), which implies that entrepreneurship education and entrepreneurial intention. The result from this research study also shows that entrepreneurial self-efficacy has a significant positive effect on entrepreneurial intention. This result is also supported by previous studies conducted by Sidratulmunthah, Hussain and Malik (2018), which reaffirms that entrepreneurial self-efficacy affects entrepreneurial intention significantly.

In relation to the social cognitive theory proposed by Bandura (1997), which stated that individuals learn and copy the behaviours of others through observational learning, this study's results have further elaborated and extended this statement by confirming that individuals learn and behave in accordance to their environment or external factors such as family environment and entrepreneurship education. These variables serve as the major influencing factors of whether an individual mimics a particular behaviour or not. The study also provides several practical implications that universities and governments can do for the development and promotion of entrepreneurial intention and behaviour. These include improving the quality of entrepreneurship education by conducting more real-life business practices, inviting successful entrepreneurs as guests' lecturers, holding more family businesses visitations both in Surabaya and other cities, holding more entrepreneurial contests, offering additional consultations and mentoring sessions to help students understand all of the entrepreneurship-based theories and materials learned in class thoroughly.

Furthermore, universities can raise the standards of their internship program by requiring students to work under multinational companies and extending the internship period from two months to six months, to ensure that students gain more insights, responsibilities, and experiences. Additional lessons in the form of case studies can also be provided to students which enables them to develop innovative and critical thinking skills as they come up with real-life business solutions to solve or tackle any kinds of issues, which exists within the business world, even for the most complex ones. By doing this, students can receive numerous insights and entrepreneurial experiences that can help to foster both their entrepreneurial self-efficacy and entrepreneurial intention.

The study research has certain limitations that should be noted. Firstly, the study does not cover all of the variables that might influence entrepreneurial intention either directly or indirectly which explains the reason why the R-square value is <0.50. In addition, this research only focused on students from cohort 2018, majoring in International Business Management at Universitas Ciputra, as the research subject, due to the corona pandemic which restricts the researcher to gather more information from people of different cohorts, faculties, and universities.

Future researchers should consider other variables aside from family environment, entrepreneurship education, and entrepreneurial self-efficacy that can potentially affect one's perspectives and entrepreneurial intention. These include the need for achievement, desire for independence, internship motivation, etc. They can also broaden the research scope by covering a distinct group of potential entrepreneurs and increasing the samples of respondents in order to execute more in-depth research. This can be executed by tracking and examining the entrepreneurial intention of students from other cohorts and faculties, as well as those who have

graduated. Researchers who are willing to take their research further at a national level can take samples from students in various universities across Indonesia that have to adopt an entrepreneurial-based curriculum.

**Author Contributions:** Mendy TANTONO: Conceptualization, Data curation, and Writing-Draft; Gracia ONGKOWIJOYO: Writing-Original draft preparation, Formal analysis and Supervision; Charly HONGDIYANTO: Methodology, Investigation, Validation; Wendra HARTONO: Visualization and Writing- Reviewing and Editing.

Acknowledgements: This research is supported by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia.

**Funding**: This research was funded by *Dana Penelitian Terapan Unggulan Perguruan Tinggi* from the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia.

**Conflicts of Interest**: The authors state that they have no conflicts of interest.

#### References

- Acs, Z.J. and Szerb, L.L., Ainsley, 2018. Global Entrepreneurship Index 2019 [online]. Available at: https://thegedi.org/2018-global-entrepreneurship-index/ [Accessed on 10 March 2022]..
- Ahmed, T., Chandran, V.G.R., Klobas, J.E., Liñán, F. and Kokkalis, P., 2020. Entrepreneurship education programmes: How learning, inspiration and resources affect intentions for new venture creation in a developing economy. *The International Journal of Management Education*, 18(1), p.100327.
- Amaliah, R., Kardoyo, K. and Rusdarti, R., 2021. The Impact of Entrepreneurial Knowledge, Personality, Motivation and Family Environment on Entrepreneurial Intention Through Self Efficacy. *Journal of Economic Education*, 10(2), pp.149-157.
- Ang, R.P.H. and Goh, D.H.L., 2006. Authoritarian Parenting Style in Asian Societies: A Cluster- Analytic Investigation. *Contemporary Family Theraphy*, 28(1), pp. 131-151.
- Bandura, A., 1997. Self-efficacy: The exercise of control. New York: W.H. Freeman.
- Chyung, S.Y., Roberts, K., Swanson, I. and Hankinson, A., 2017. Evidence-based survey design: The use of a midpoint on the Likert scale. *Performance Improvement*, 56(10), pp.15-23.
- Coulibaly, S.K., Erbao, C. and Metuge Mekongcho, T., 2018. Economic globalization, entrepreneurship, and development'. *Technological Forecasting and Social Change*, 127, pp.271-280.
- Fah, L.Y. and Hoon, K.C., 2021. *Quantitative Approaches in Educational Research*. Universiti Malaysia Sabah Press.
- Hair Jr, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M., 2017. A primer on partial least squares structural equation modeling (PLS-SEM). Sage publications.
- Hsu, D.K., Burmeister-Lamp, K., Simmons, S.A., Foo, M.D., Hong, M.C. and Pipes, J.D., 2019. "I know I can, but I don't fit": Perceived fit, self-efficacy, and entrepreneurial intention. *Journal of Business Venturing*, *34*(2), pp.311-326.
- Indonesia Investment, 2022. Unemployment & Employment in Indonesia. [online]. Available at: https://www.indonesia-investments.com/finance/macroeconomic-indicators/unemployment/item255 [Accessed on 10 March 2022].
- Iwu, C.G., Opute, P.A., Nchu, R., Eresia-Eke, C., Tengeh, R.K., Jaiyeoba, O. and Aliyu, O.A., 2021. Entrepreneurship education, curriculum and lecturer-competency as antecedents of student entrepreneurial intention. *The International Journal of Management Education*, 19(1), p.100295.
- Jena, R.K., 2020. Measuring the impact of business management Student's attitude towards entrepreneurship education on entrepreneurial intention: A case study. *Computers in Human Behavior*, 107, pp.1-10.
- Lin, C.-Y.C. and Fu, V.R., 1990. A Comparison of Child-Rearing Practices among Chinese, Immigrant Chinese, and Caucasian-American Parents. *Child Development*, 61(2), pp. 429-433.
- Liu, X., Lin, C., Zhao, G. and Zhao, D., 2019. Research on the effects of entrepreneurial education and entrepreneurial self-efficacy on college students' entrepreneurial intention. *Frontiers in psychology*, *10*, p.869.
- Mishra, S.B. and Alok, S., 2017. Handbook of Research Methodology. India: Aducreation Publishing.

- Moussa, N.B. and Kerkeni, S., 2021. The role of family environment in developing the entrepreneurial intention of young Tunisian students. *Entrepreneurial Business and Economics Review*, 9(1), pp.31-46.
- Neneh, B.N., 2019. From entrepreneurial intentions to behavior: The role of anticipated regret and proactive personality. *Journal of Vocational Behavior*, 112, pp.311-324.
- Nowiński, W. and Haddoud, M.Y., 2019. The role of inspiring role models in enhancing entrepreneurial intention. *Journal of Business Research*, 96 183-193.
- Puni, A., Anlesinya, A. and Korsorku, P.D.A., 2018. Entrepreneurial education, self-efficacy and intentions in Sub-Saharan Africa. *African Journal of Economic and Management Studies*, 9 (4), pp. 492-511.
- Santoso, S., 2021. Relationship between Social Media, Organizational Support, Subjective Norms and Perceived Behavioral Control to Form Entrepreneurial Intention. *Expert Journal of Business and Management*, 9 (1), pp. 1-10.
- Sidratulmunthah, Hussain, S. and Malik, M.I., 2018. Towards nurturing the entrepreneurial intentions of neglected female business students of Pakistan through proactive personality, self-efficacy and university support factors. *12*, (3), pp. 363-378.
- Stockemer, D., 2019. *Quantitative Methods for the Social Sciences: A Practical Introduction with Examples in SPSS and Stata.* Canada: Springer International Publishing AG.
- Sudjarwo, R., Wahyudin, A. and Sudarma, K., 2019. The Role of Self-Efficacy in Mediating the Effect of Entrepreneurial's Knowledge, Personality and Family Circles Against the Enterprise's Interest. *Journal of Economic Education*, 8 (1), pp. 67-74.
- Wu, L., Jiang, S., Wang, X., Yu, L., Wang, Y. and Pan, H., 2021. Entrepreneurship education and entrepreneurial intentions of college students: The mediating role of entrepreneurial self-efficacy and the moderating role of entrepreneurial competition experience. *Frontiers in psychology*, 12.
- Zhao, H., Seibert, S.E. and Hills, G.E., 2005. The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, 90(6), pp. 1265-1272.

