

CREATIVITY, PROACTIVE PERSONALITY, AND ENTREPRENEURIAL INTENTION: THE ROLE OF ENTREPRENEURIAL ALERTNESS

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ABSTRACT

Millions of people live in uncertainty even more after the COVID-19 pandemic. Therefore, creativity, proactive personality, entrepreneurial alertness, and entrepreneurial intention are required to reach the break-even point or gain business opportunities during the pandemic. This research aims to analyze the effects of university students' creativity and proactive personality towards entrepreneurial intention through a mediating role of entrepreneurial alertness in Indonesia. The research is quantitative and it uses non-probability sampling. The respondents for this study are 370 university students in Indonesia. The data was gathered using an online questionnaire and tested using Structural Equation Modeling-Partial Least Square (SEM-PLS) with SmartPLS 4.0 by conducting validity, reliability, and hypothesis tests. Based on the hypothesis testing, the research shows that creativity has a positive effect on entrepreneurial alertness, proactive personality has a positive effect on entrepreneurial alertness, entrepreneurial alertness has a positive effect towards entrepreneurial intention, creativity has a positive effect towards entrepreneurial intention through a mediating role of entrepreneurial alertness, and proactive personality has a positive effect towards entrepreneurial intention through a mediating role of entrepreneurial alertness.

Keywords: creativity; proactive personality; entrepreneurial alertness; entrepreneurial intention; innovation

INTRODUCTION

Entrepreneurship has been regarded as a revolutionary force in the new global economy (Antoncic & Hisrich, 2003). Rais (2021) stated that 11,7 million individuals are starting their own businesses during the COVID-19 pandemic which has been a crucial macroeconomic event and lead towards future economic planning. According to Badan Pusat Statistik (2021), there are 46,355 small-medium enterprises in Indonesia where 84,08% of the small-medium enterprises sold their products through e-commerce (i.e., Tokopedia and Shopee) during the COVID-19 pandemic because majority of offline stores were closed during that time, hence why they are forced to sell through e-commerce. Samo and Hashim (2016) reported that both entrepreneurial alertness and intention have played a key role for the past few years because entrepreneurial alertness and intention are parts of the entrepreneurial process since this allows students to pursue opportunities and career.

According to Ratten (2020), both entrepreneurial alertness and intention lead individuals to have a mindset of seeing crisis (i.e., COVID-19 pandemic) as a business opportunity and support each individual that the crisis will recover in the next few years. Entrepreneurial intention is a powerful fortuneteller in the entrepreneurship since it has a large influence on millennials, because their psychological traits shift towards entrepreneurship activities (i.e., plan to start a business and taking a risk) during the COVID-19 pandemic (Hassan & Fatima, 2013; Satyalakshmi, 2017). This study has been confirmed by Hassan et al. (2020) that opportunities of starting a business during the COVID-19 pandemic has a significant impact towards entrepreneurial intention. Entrepreneurial alertness refers to a formation of entrepreneurial intention, and it is considered as an important role because this is where an

individual is being alerted to find seek for opportunities and to boost their decision-making skills by motivating themselves to start a business so that they can have bright future (Baron, 2006; McMullen & Shepherd, 2016). This is confirmed by Hernández-Sánchez et al. (2020) that entrepreneurial alertness and intention have been studied well.

Since identifying opportunities is closely related to creativity and a proactive personality, experts had studied that these two traits are the primary determinants of both entrepreneurial alertness and intention because this allows students to be proactive in searching for opportunities and being creative when developing a business (Zampetakis, 2008). It is important to link all the variables because they enable experts to gain theoretical and practical observations (Hansen et al., 2011). Even though researchers have investigated the association between creativity, proactive personality, entrepreneurial alertness, and entrepreneurial intention (Hu et al., 2018). Since most studies are conducted outside of Indonesia, there has not been much study in Indonesian culture that has looked at the link between an individual's attributes of being creative and proactive that impact entrepreneurial intention through the mediating role of entrepreneurial alertness. This has been experimentally confirmed by Tantawy et al. (2021) that only a few research is conducted outside of Western Culture (i.e., Asia).

LITERATURE REVIEW

Creativity and Entrepreneurial Alertness

Creativity is the capacity to apply one's imagination to find novel solutions to complex problems (McPherson & Welch, 2012). Another definition of creativity is the combination of potential, technique, and surroundings through which a person or team generates a recognizable output that is both original and beneficial as defined in each cultural environment (Plucker et al., 2004). Creativity consists of four elements: (1) the capacity (to create), (2) the intentionality (to create), (3) the environment in which the creativity takes place, and (4) the development of innovative and beneficial products (Walia, 2019).

The propensity for someone to imagine positive outcomes in the future is known as entrepreneurial alertness (Uy et al., 2015). Another definition of entrepreneurial alertness is a mindset that is always open to examining opportunities, especially in ambiguous circumstances with little skills (Gozukara & Colakoglu, 2016). Entrepreneurial alertness is associated with prior experience, information analytical abilities, social activities, and potential awareness (Ho et al., 2018). Furthermore, the ability to learn and be motivated in entrepreneurial alertness is crucial for potential business owners to achieve the desired results from their ventures because it teaches people how to manage various tasks in uncertain circumstances.

Since it is essential for developing a new product, creativity has been at the heart of the entrepreneurial process. Especially in the "scanning and seeking" characteristics of entrepreneurial alertness. Campos (2016) used a moderated mediation model to study the correlation of creativity and entrepreneurial alertness. Using entrepreneurial alertness in decision-making improved employee's capacity to exercise innovation, which is recognized as a critical necessity for new product creation workers (Blauth et al., 2014). As a result, having an entrepreneurial mindset of being creative makes individuals feel confident to see opportunities (Short et al., 2010), This leads us to assume that there are solid theoretical foundations for the concept that creativity correlates to entrepreneurial alertness.

H₁: Creativity has a positive effect towards entrepreneurial alertness.

Proactive Personality and Entrepreneurial Alertness

According to Robbins and Judge (2013), a proactive personality refers to the ability to recognize opportunities to make changes at work and to follow through on an individual's passion. Another definition of proactive personality is a cognitive characteristic which concentrates on forcing or modifying individual's surroundings to reach a new vision by taking possibilities, displaying leadership, and being eager to create significant transformation (Wang et al., 2019). According to Elsaied (2019), people with proactive personalities, particularly those who approach work creatively and communicate new ideas, are prone to grab the opportunity to apply their abilities in business and influence over their surroundings. Hence, Hu et al. (2020) addresses that when confronted in an innovative and complex environment, proactive personality functions appear to be more effective at assisting people in achieving their goals.

Many individuals view this crisis (COVID-19 pandemic) as a threat because of unemployment, businesses might collapse, and face uncertainties. However, individuals (i.e., entrepreneurs and investors) will see crisis as an opportunity due to resilience where individuals are being proactive in searching for opportunities. This was confirmed by Grant and Ashford (2008) that proactive personality can be considered as an opportunity because this gives individuals a strength to initiate developing new ideas of business in a relevant way (i.e., selling products through e-commerce and promote them in social media). A proactive personality can minimize uncertainty because this allows an individual to be well-prepared for future crises (i.e., inflation, conflicts, etc.). Hence why a proactive personality is important for every individual.

Given that entrepreneurial alertness and proactivity personality are considered to play an important role in entrepreneurial alertness to possibilities (Tang et al., 2012). Proactive personality improves entrepreneurship tremendously since proactive personality is a distinctive attribute that allows a person to discriminate between persons when performing such an activity (Mustafa et al., 2016). According to Hu et al. (2018), entrepreneurial alertness and proactive personality have a positive relationship. Tang et al. (2012) also confirmed that proactive personality has a positive effect towards entrepreneurial alertness because proactive alertness is a key component of identifying an opportunity. Furthermore, using longitudinal data from European university students, Obschonka et al. (2017) tested this research and found that proactive personality has a favorable impact on entrepreneurial alertness.

H₂: Proactive personality has a positive effect towards entrepreneurial alertness.

Entrepreneurial Alertness and Entrepreneurial Intention

Entrepreneurial intention is an individual's ambition to start a new business and seek a job that is not well known (Yi, 2021). According to several experts, a crucial mental and emotional aspect for detecting potentials and vital essential factor in the business world by having an entrepreneurial intention (Baron, 2006). Entrepreneurial intentions are formed when leading situational demands and potential motivate entrepreneurs to pursue opportunities that are essential to preserving the environment and achieving desired results (Valliere, 2013).

Entrepreneurial intention involves difficult situational constraints that call for education and knowledge to successfully implement a variety of plans for entrepreneurship success under various significant environmental restrictions (Agustina & Fauzia, 2021). According to Kolvereid and Isaksen (2006), entrepreneurial intention is the key component of entrepreneurial behavior because it requires consideration and decision-making, which is correlated with an individual's behavior or personality when deciding what kind of career, they want to pursue in the future.

According to Thompson (2009), there is a significant connection between entrepreneurial intention and alertness. "A person with entrepreneurial intentions is one who is self-admittedly convinced that individuals desire to start up a new enterprise and thoughtfully organize to accomplish this in the near future". Entrepreneurial intention plays a crucial part in business by identifying a suitable occupation and making use of business possibilities (Short et al., 2010). There is a likelihood that a person will engage in a specific conduct determined by how strongly an individual promises to do so when starting a business (Tang et al., 2012).

McMullen and Shepherd (2006) claimed that entrepreneurial alertness enhances the relationship towards entrepreneurial intention has been experimentally confirmed since both entrepreneurial alertness and intention improve an individual's findings of decision-making for future career. Also, it is claimed that entrepreneurial alertness increases the link to entrepreneurial intention, which has been empirically proven since both entrepreneurial alertness and intention improve an individual's decision-making for future career. Therefore, studies have revealed that people with greater degrees of awareness are able to identify appropriate possibilities and launch their own businesses. Entrepreneurial alertness was identified as a critical predictor for determining entrepreneurial intention (Hu et al., 2018). Hence, according to earlier studies, both entrepreneurial alertness and intention are correlated with each other.

H₃: Entrepreneurial alertness has a positive effect on entrepreneurial intention.

The Mediating Role of Entrepreneurial Alertness

According to Short et al. (2010), creativity leads to entrepreneurial intention, while entrepreneurial alertness allows business leaders to widen their decision-making processes, which might involve brainstorming and creativity (Gaglio & Katz, 2001; Tang et al., 2012). Hu et al. (2018) used Social Cognitive Theory (SCT) to determine if entrepreneurial alertness has a significant impact on entrepreneurial intention, a claim stated by McMullen and Shepherd (2006). As a result, individuals with a greater level of entrepreneurial alertness can pursue a career because they are able to identify an appropriate opportunity that others (i.e., students) rarely have these abilities (i.e., being careful and well anticipated) (Hu et al., 2018).

Since the term "entrepreneurship" refers to creative activities, entrepreneurial intention has benefited greatly from the function of entrepreneurial alertness as a mediator. Based on experts, entrepreneurial alertness mediates the correlation between creativity and entrepreneurial intention (Tang et al., 2012; Yasir et al., 2020).

H_{4a}: Creativity has a positive effect on entrepreneurial intention through a mediating role of entrepreneurial alertness.

According to Uy et al. (2015), proactive personality strengthens the correlation between entrepreneurial alertness and proactive personality, and this, in turn, mediates the relationship between entrepreneurial alertness and a range of career mindsets. Entrepreneurship greatly benefits from proactive personalities since proactive personality is a unique quality that allows a person to distinguish between individuals when carrying out an action (Mustafa et al., 2016). According to Tang et al. (2012), entrepreneurial alertness correlates with entrepreneurial intention, while entrepreneurial intention is important in shaping an entrepreneur's behavior when starting a business (Shinnar et al., 2018). The strength of a person's entrepreneurial desire is reflected in their conduct or character towards one another. Entrepreneurial alertness is then linked to entrepreneurial intention because it encourages people to see opportunities and perceive themselves as entrepreneurs (Campos, 2017; Li et al., 2015). According to experts, entrepreneurial alertness acts as a bridge between proactive personality and entrepreneurial intention (Neneh, 2019).

H_{4b}: Proactive personality has a positive effect on entrepreneurial intention through a mediating role of entrepreneurial alertness.

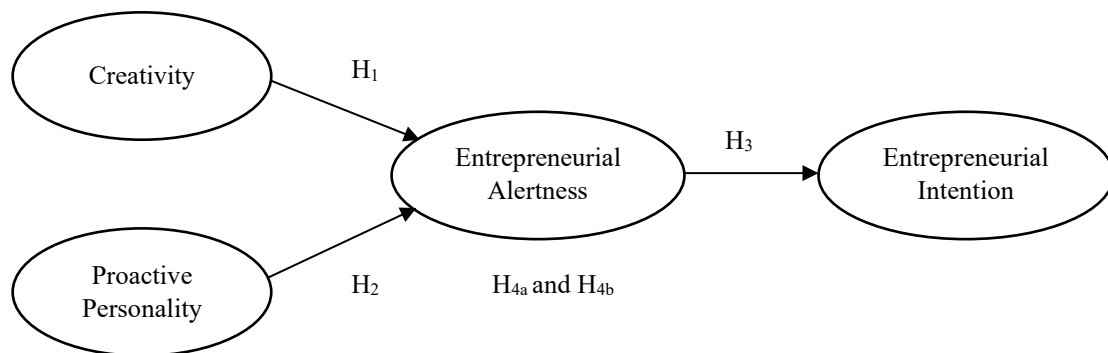


Figure 1. Research Model

RESEARCH METHOD

This study uses primary data that was collected by distributing online questionnaires to 370 university students in Indonesia from various study programs such as Economics and Business, Medicine, Communication Science, Law, Psychology, Design, Engineering, and Hospitality. Indicators from variables in this research are measured using 5 points Likert scale from strongly disagree to strongly agree. There are four variables in this study with creativity and proactive personality as independent variables, entrepreneurial intention as the dependent variable, and entrepreneurial alertness as the mediating variable. Data analysis techniques are carried out to test hypotheses and answer the formulation of problems in a study. Generally, research with quantitative methods uses statistical methods as data analysis techniques (Sugiyono, 2013). Statistical methods are divided into two, which are descriptive statistics and inferential statistics. Descriptive statistics are used to measure the value of indicators according to predetermined criteria while inferential statistics analyze the results obtained from a research sample that can be generalized to the population to draw general conclusions (Bougie & Sekaran, 2019). There are eleven indicators each for creativity and entrepreneurial alertness. As for proactive personality, there are seven indicators, and entrepreneurial intention has six indicators (Appendix 1).

Researchers conducted a multivariate analysis using Partial Least Square – Structural Equation Model (PLS-SEM). PLS-SEM can confirm the theory by explaining whether or not there is a relationship between latent variables (Hair et al., 2019). The research instrument is also ensured to be valid and reliable. Validity test was performed using convergent validity (Average Variance Extracted and outer loading) and discriminant validity (Heterotrait-Monotrait ratio). Convergent validity is met when the Average Variance Extracted (AVE) is above 0.5 and the outer loading of each indicator is above 0.7 (Hair et al., 2017). The discriminant validity test can be fulfilled if the correlation value of the variable to the variable itself is greater when compared to the correlation value of all other variables (Ghozali, 2012). The reliability test was carried out with Cronbach's Alpha and composite reliability. The variable is said to be reliable if the value of Cronbach's Alpha and composite reliability is ≥ 0.7 (Bougie & Sekaran, 2019).

RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistics are defined as the combination of statistics that consist of mean, median, and standard deviation that gives descriptive information regarding the respondent's answer. The lowest scale in this research is 1 and 5 is the highest scale. The descriptive statistics table is as follows:

Table 1. Descriptive Statistics

Variables	Indicators	Mean	Median	Min	Max	Standard Deviation
Creativity	C1	4.519	5.000	2.000	5.000	0.589
	C2	3.738	4.000	1.000	5.000	0.770
	C3	4.235	4.000	2.000	5.000	0.823
	C4	3.932	4.000	1.000	5.000	0.777
	C5	3.978	4.000	1.000	5.000	0.876
	C6	3.924	4.000	1.000	5.000	0.909
	C7	4.005	4.000	2.000	5.000	0.815
	C8	3.959	4.000	2.000	5.000	0.871
	C9	3.946	4.000	2.000	5.000	0.905
	C10	3.895	4.000	2.000	5.000	0.793
	C11	3.946	4.000	2.000	5.000	0.790
Proactive Personality	PP1	4.532	5.000	2.000	5.000	0.650
	PP2	3.762	4.000	1.000	5.000	0.787
	PP3	4.076	4.000	2.000	5.000	0.851
	PP4	3.951	4.000	2.000	5.000	0.824
	PP5	4.011	4.000	2.000	5.000	0.812
	PP6	3.924	4.000	1.000	5.000	0.860
	PP7	3.965	4.000	1.000	5.000	0.871
Entrepreneurial Alertness	EA1	4.386	4.000	2.000	5.000	0.677
	EA2	3.705	4.000	2.000	5.000	0.751
	EA3	3.886	4.000	1.000	5.000	1.109
	EA4	4.116	4.000	2.000	5.000	0.795
	EA5	3.981	4.000	1.000	5.000	0.843
	EA6	3.854	4.000	2.000	5.000	0.812
	EA7	3.851	4.000	1.000	5.000	0.908
	EA8	3.759	4.000	1.000	5.000	1.013
	EA9	3.843	4.000	1.000	5.000	0.893
	EA10	3.857	4.000	2.000	5.000	0.850
	EA11	3.862	4.000	2.000	5.000	0.848
Entrepreneurial Intention	EI1	4.378	5.000	1.000	5.000	0.755
	EI2	3.651	4.000	1.000	5.000	0.799
	EI3	4.124	4.000	1.000	5.000	0.889
	EI4	3.843	4.000	2.000	5.000	0.874
	EI5	3.922	4.000	1.000	5.000	0.886
	EI6	3.905	4.000	1.000	5.000	0.802

From Table 1, all four variables have a total of 35 indicators. The average mean of the 35 indicators is 3.977, which means that the respondent's answer is relatively close to scale 4 (agree). Of the 35 indicators, the standard deviation has a range from 0.589 to 1.109, showing that the average dispersion of data is relatively broad.

Inferential Statistics

Convergent validity can be tested using factor loading and Average Variance Extracted (AVE). As seen in Table 2, some indicators have been removed because the factor loading didn't meet the criteria above 0.7. All the AVE value is more than 0.5 and thus declared as valid.

Table 2. Convergent Validity Test Result

Variables	Indicators	Factor Loading	AVE	Result
Creativity	C2	0.744	0.569	Valid
	C4	0.799		Valid
	C8	0.718		Valid
Proactive Personality	PP3	0.723	0.579	Valid
	PP5	0.804		Valid
	PP7	0.754		Valid
Entrepreneurial Alertness	EA2	0.768	0.574	Valid
	EA8	0.741		Valid
	EA10	0.764		Valid
Entrepreneurial Intention	EI2	0.823	0.643	Valid
	EI4	0.806		Valid
	EI6	0.775		Valid

Besides convergent validity, discriminant validity is also tested using the Heterotrait-Monotrait ratio. If the HTMT is less than 0.90, it is regarded to have a strong discriminant validity. Table 3 reveals that all the results are below 0.90, indicating that each of the variables has strong discriminant validity.

Table 3. Heterotrait-Monotrait Ratio (HTMT) Test Result

	Creativity	Entrepreneurial Alertness	Entrepreneurial Intention	Proactive Personality
Creativity				
Entrepreneurial Alertness	0.818			
Entrepreneurial Intention	0.664	0.817		
Proactive Personality	0.444	0.630	0.565	

The reliability test is measured using Cronbach's Alpha and Composite Reliability. When Cronbach's Alpha exceeds 0.6 and the value of Composite Reliability is above 0.7, they're considered reliable and can be used for the next test. The result of the reliability test is shown in Table 4 below:

Table 4. Reliability Test

Variable	Cronbach's Alpha	Composite Reliability	Result
Creativity	0.621	0.798	Reliable
Proactive Personality	0.635	0.805	Reliable
Entrepreneurial Alertness	0.632	0.802	Reliable
Entrepreneurial Intention	0.723	0.844	Reliable

Structural Model

The multicollinearity test was carried out by looking at the value of the Variance Inflation Factor (VIF) of less than 10 (Bougie & Sekaran, 2019). The result of the multicollinearity test on each indicator and variable in this study met the criteria. Therefore, there's statistically no high correlation among the variables. The result of R-Square showed that creativity and proactive personality can explain entrepreneurship alertness by 34.1% and the remaining 65.9% can be explained by other variables outside the models. The variable entrepreneurial alertness itself can explain entrepreneurial intention by 37.7% and the remaining 62.3% can be explained by other variables outside the model. This leads to the conclusion that entrepreneurial alertness and entrepreneurial intention have a moderate impact on the dependent variables.

The hypothesis is *supported* when the t-statistic value exceeds 1.65 (one-tailed) and the p-value is below 0.05. Table 5 demonstrates that all five hypotheses are supported since the t-statistic value exceeds 1.65 and the p-value is below 0.05. The hypothesis testing results are as follows:

Table 5. Hypothesis Testing

Hypothesis	Original sample	t-statistic	P-value	Result
H ₁ : Creativity has a positive effect on entrepreneurial alertness	0.440	10.304	0.000	Supported
H ₂ : Proactive personality has a positive effect on entrepreneurial alertness	0.281	5.965	0.000	Supported
H ₃ : Entrepreneurial alertness has a positive effect on entrepreneurial intention	0.389	7.453	0.000	Supported
H _{4a} : Creativity has a positive effect on entrepreneurial intention through a mediating role of entrepreneurial alertness.	0.171	6.087	0.000	Supported
H _{4b} : Proactive personality has a positive effect on entrepreneurial intention through a mediating role of entrepreneurial alertness.	0.109	4.591	0.000	Supported

Hypothesis 1 was formulated that creativity has a positive effect on entrepreneurial alertness. Throughout the research, this is confirmed in accordance with Kirzner (2009) stating that creativity requires entrepreneurial alertness since this allows individuals to be aware of finding new opportunities in entrepreneurship, hence why entrepreneurial alertness and creativity are significantly related (Campos, 2016; Obschonka et al., 2017). As a result, having an entrepreneurial mindset of being creative makes entrepreneurs confident to see opportunities, hence why this is confirmed by Short et al. (2010) that believe that creativity does have a positive impact on entrepreneurial alertness.

Hypothesis 2 stated that proactive personality has a positive effect on entrepreneurial alertness. Throughout the research, this is confirmed in accordance with Tang et al. (2012) stating that proactive personality has a positive effect on entrepreneurial alertness because proactive alertness is a key component of identifying an opportunity. When confronted in an innovative and complex environment, proactive personality's functions appear to be more effective at assisting people in achieving their goals, whereas proactive personality has a correlation with entrepreneurship (Hu et al., 2020). Individuals with proactive personalities, specifically those who approach work in clever ways and express fresh concepts, are more

likely to take the initiative to use their skills in business and exert influence over their surroundings (Elsaied, 2019).

Hypothesis 3 mentioned that entrepreneurial alertness has a positive effect towards entrepreneurial intention. Throughout the research, this is confirmed in accordance with McMullen and Shepherd (2006) stating that entrepreneurial alertness enhances the relationship towards entrepreneurial intention since both entrepreneurial alertness and intention improve an individual's findings of decision-making for the future career. Entrepreneurial alertness was acknowledged as a key predictor for assessing entrepreneurial intention because when an individual has a higher level of alertness, they can spot appropriate opportunities and start their own business (Hu et al., 2018).

Hypothesis 4a was formulated that creativity has a positive effect towards entrepreneurial intention through a mediating role of entrepreneurial alertness. Throughout the research, this is confirmed in accordance with Tang et al. (2012) stating that creativity is correlated towards entrepreneurial intention through a mediating role of entrepreneurial alertness because, with the mediating role of entrepreneurial alertness, creativity has played a major role towards entrepreneurial intention since the term 'entrepreneurship' refers to creative activities. As a result, individuals (i.e., entrepreneurs) with greater levels of entrepreneurial alertness can pursue a career because they are able to identify an appropriate opportunity that others (i.e., employees, students) rarely have these abilities (i.e., being careful and well anticipated) (Hu et al., 2018).

Hypothesis 4b stated that proactive personality has a positive effect on entrepreneurial intention through a mediating role of entrepreneurial alertness. Throughout the research, this is confirmed in accordance with Neneh (2019) stating that a proactive personality has a positive impact on entrepreneurial intention through a mediating role of entrepreneurial alertness. Entrepreneurship greatly benefits from proactive personalities since proactive personality is a unique quality that allows a person to distinguish between individuals when carrying out an action (Mustafa et al., 2016). When an individual's entrepreneurial intention is stronger, their behavior/personality will be reflected toward other individuals. In addition, entrepreneurial alertness is correlated to entrepreneurial intention because entrepreneurial alertness leads an individual to create opportunities and perceptions in entrepreneurship (Campos, 2017; Li et al., 2015).

CONCLUSION

Based on the result of the study, both creativity and proactive personality have positive effects on entrepreneurial alertness. Creativity inspires, challenges, and helps people to find innovative solutions and create opportunities out of problems. Being creative and having a proactive personality can lead to confidence and curiosity that bring more awareness to solve problems, identify new opportunities, and take initiative until a meaningful change takes place. Entrepreneurial alertness also positively affects the entrepreneurial intention of Indonesian university students. Easy access to technology and information has made the young generation of university students develop critical thinking and always keep an eye out for new business ideas. Entrepreneurial alertness also mediates creativity and proactive personality positively towards entrepreneurial intention. A student's entrepreneurial alertness can be developed by not only focusing on personality traits (i.e., creativity and proactive personality) but also technical aspects (i.e., creativity in developing new products and presenting a business plan).

This research limits the respondent only to university students in Indonesia and most of them are coming from big cities with access to the internet to gather information. Different results may be obtained if the respondents are students from remote areas in Indonesia or other

countries. Future research can add more variables such as technological advancement, collaborative environment, government support, and entrepreneurial family backgrounds to the research model. Another thing that will be interesting is to compare the entrepreneurial intention of male and female students.

APPENDIX

Appendix 1. Indicators Used

Variables	Indicators	Source
Creativity	1. I suggest new ways to achieve goals/objectives.	Zhou & George (2001)
	2. I search for new technology.	
	3. I search for new techniques.	
	4. I search for new product ideas.	
	5. I am a good source of creative ideas.	
	6. I am not afraid to take risks.	
	7. I exhibit creativity on the job when given an opportunity.	
	8. I often have new ideas.	
	9. I often have innovative ideas.	
	10. I come up with creative solutions to problems.	
	11. I suggest new ways of performing work tasks.	
Proactive Personality	1. I am constantly looking for new ways to improve my life.	Hu et al. (2018)
	2. I enjoy facing obstacles to my ideas.	
	3. I enjoy overcoming obstacles to my ideas.	
	4. Nothing is more exciting than seeing my ideas turn into reality.	
	5. If I see something I do not like, I fix it.	
	6. No matter what the odds are, if I believe in something, I will make it happen.	
	7. I am always looking for better ways to do things.	
Entrepreneurial Alertness	1. I have frequent interactions with others to acquire new information.	Tang et al. (2012)
	2. I always keep an eye out for new business ideas when looking for information.	
	3. I read news, magazines, or publications regularly to acquire new information.	
	4. I browse the internet every day.	
	5. I am a vivid information seeker.	
	6. I am always actively looking for new information.	
	7. I see links between seemingly unrelated pieces of information.	
	8. I am good at connecting dots.	
	9. I often see connections between previously unconnected domains of information.	
	10. I have a gut feeling about potential opportunities.	
	11. When facing multiple opportunities, I am able to select the good ones.	
Entrepreneurial Intention	1. I am ready to do anything to be an entrepreneur.	Liñán & Chen (2006)
	2. My professional goal is to become an entrepreneur.	
	3. I will make every effort to start and run my own firm.	

4. I am determined to create a firm in the future.
 5. I have very seriously thought about starting a firm.
 6. I have got the firm intention to start a firm someday.
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