




THEORY OF PLANNED BEHAVIOUR ANALYSIS ON ENTREPRENEURIAL CREATIVITY

Mahir PRADANA ¹, Budi Rustandi KARTAWINATA², Syarifuddin SYARIFUDDIN³,
Tri Indra WIJAKSANA⁴, Fitriani Nur UTAMI⁵, Adrianza PUTRA⁶

^{1, 2, 3, 4, 5}*Department of Business Administration, School of Economics and Business, Telkom University, Jalan Terusan Buah Batu 1, 40257 Bandung Regency, West Java, Indonesia*

⁶*Department of Management, Faculty of Economics and Business, Universitas Andi Djemma Palopo, 91911 Palopo, Indonesia*

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Abstract. The importance of entrepreneurial education in Indonesian higher education has been argued. In this study, we examined how entrepreneurial creativity, a crucial aspect of entrepreneurship education, contributes significantly to the emergence of entrepreneurial qualities. The theory of planned behaviour serves as the theoretical underpinning for the questionnaire we developed for this quantitative investigation. For this study, we polled 400 college students from numerous private colleges in Indonesia. We ran a route analysis on the data using *SmartPLS* version 3 as our analysis tool. Our findings demonstrate that when theory of planned behaviour variables have an impact on creativity, which means that subjective norm, attitude toward entrepreneurship, and perceived behavioural control should be focused on because these factors eventually have crucial impact on entrepreneurial creativity.

Keywords: business administration, creativity, entrepreneurial creativity, entrepreneurship, higher education.

[✉]Corresponding author. E-mail: mahirpradana@telkomuniversity.ac.id

1. Introduction

The study of entrepreneurship has grown in importance in the sphere of education over time (Ando Fanaja et al., 2023). The concept that entrepreneurship has been considered a major role in social economic advancement (Ali et al., 2010; Kadir et al., 2012). According to Akpan and Etor (2013), entrepreneurs are people who can think beyond the box and spot opportunities that other people typically do not. The development and implementation of one's own company ideas is the focus of entrepreneurial innovativeness, or sometimes is known as entrepreneurial creativity (Gerba, 2012; Achyarsyah et al., 2020). Entrepreneurship present chances for someone to acquire financial freedom, decision-making power, and authority (Hendrayati et al., 2022). Additionally, it offers economic advantages, specifically by promoting employment possibilities, welfare, and economic equality (Ellya Kurniawan et al., 2019).

Similar to other emerging nations, Indonesia continues to struggle with a high unemployment rate (Awang et al., 2016). Students currently have access to entrepreneurial education, which is defined as courses and programs in entrepreneurship, at the majority of the world's top universities (Morris & Liguori, 2016). Economic downturns and research indicating that entrepreneurship is a major driver behind social and economic transformation have both

contributed to this broad interest (Kirchhoff & Greene, 1998). Many people struggle to get employment because the number of workforces anticipating employment is not always directly correlated with the number of job openings (Nikita, 2015). According to a number of studies, entrepreneurship education can improve students' perceptions of the viability of starting their own business and their sense of career self-efficacy (Miranda et al., 2017; Hasbi et al., 2022). The firm-creation process, motivations, and attitudes are all explicitly covered in entrepreneurship education (Ladd et al., 2019).

It is essential to stress on the entrepreneurship education since it encourages students to think differently and cultivates their entrepreneurial creativity, which helps them start their own business (Kolvereid, 2016; Miranda et al., 2017). Neck and Corbett (2018), and Lackeus et al. (2016), all point out that research on entrepreneurship courses and programs is still in early stages. What should be the focus of this kind of education is still up for debate among academics. According to several study findings (Lackeus & Williams Middleton, 2015), building entrepreneurial life skills and talents, ideas, and curricular methods that concentrate on "start-up" entrepreneurship and new venture formation are more important.

Higher education is anticipated to produce qualified graduates who can fill jobs (Pradana et al., 2020). Choosing to become an entrepreneur makes sense because there are more prospects for success (Hasbi et al., 2022; Ando Fanaja et al., 2023). The government supports research and technology while accelerating successful small and medium-sized businesses (Kassean et al., 2015). According to Ando Fanaja et al. (2023), a number of variables play role on the rising interest in entrepreneurship. Numerous internal, external, and environmental factors are involved in this. The younger generation's innovation, entrepreneurial enthusiasm, spirit, and behaviour have all been credited to the influence of entrepreneurship education (Awang et al., 2016).

In addition, education in entrepreneurship is crucial to the development of young entrepreneurs (Shafa Nabila et al., 2023). The aim of entrepreneurship is the desire or determination of individuals to launch a new company in order to take advantage of the business' prospects and dangers through learning about entrepreneurship. The intentions of the persons themselves have a big impact on the activity of starting an enterprise. Self-efficacy, often known as self-motivation, is required to establish the entrepreneurial creativity (Achyarsyah et al., 2020). The word *self-efficacy* was coined by psychologist Bandura (1997), who also popularized the concept. Self-efficacy, according to Bandura (1997), is the conviction that one's talents enable them to carry out particular activities in order to achieve something. The belief in one's own ability to believe in achieving anything is another way to define self-efficacy (Zaelani Adnan et al., 2021). High self-confidence in one's capacity to act goes hand in hand with high self-efficacy. Effectiveness in a variety of areas, including entrepreneurial interest, can impact a person's success (Luthans, 2008).

In light of these past studies on the subject, we examine entrepreneurial creativity among Indonesian university students in this research. Using Ajzen's (2020) core theory of planned behaviour (TPB) in combination with entrepreneurial creativity and entrepreneurial creativity, we seek to address the research topics that primarily concern the elements influencing entrepreneurial creativity.

2. Literature review

At the university level, entrepreneurship education is required (Hasbi et al., 2022). A distinctive factor that significantly influences college students' entrepreneurialism is their parents' work histories and entrepreneurial experiences. Compared to university or college students with non-entrepreneurial parents, students with entrepreneurial parents are more inventive when coming up with company concepts. Students with prior entrepreneurial experience also frequently have loftier objectives (Pradana et al., 2020).

Some authors (Pradana et al., 2020) define entrepreneurship education as any type of instruction or training, whether or not it is a component of a formal educational system that aims to meet the objectives of students. Some recent studies have used the TPB in an effort to better explain entrepreneurship behaviour (Hasbi et al., 2022; Pradana & Kartawinata, 2020). Participants intend to engage in entrepreneurial conduct, or some circumstances, such as feasibility or entrepreneurial knowledge, can influence intention. The intention or desire to do action is related to a person's behaviour (Zaman et al., 2021). The psychological process that led to this conduct will have an impact on the person's decision-making process before starting a certain plan.

According to Ajzen (2020), the main predictors of TPB are perceived behavioural control, subjective norm, and attitude. Since we are discussing the relationship between these variables and entrepreneurial factors, "attitude" here will be discussed as "attitude toward entrepreneurship", as mentioned previously by some authors (Pradana et al., 2020).

2.1. Perceived behavioural control

Perceived behavioural control refers to the perception of one's own efficacy or capacity to carry out a conduct. According to Ajzen (2020), one's conduct is influenced by both internal and external factors, such as the availability of resources, opportunities, or particular abilities. Perceived behavioural control is a viewpoint on whether or not certain circumstances can help or hinder someone from carrying out a behaviour. Zhao et al. (2021) present preliminary evidence for the relationship between entrepreneurial perceived behavioural control and intentions. Perceived behavioural control plays a crucial role in the planned behaviour theory.

Each person engages in perception as a cognitive process to grasp their environment, whether through sight, hearing, appreciation, feeling, or scent (Fakhri et al., 2020). Perception is influenced by one's psychological hearing and vision abilities (Winarno & Hermana, 2019). This perspective also encompasses how these people understand objects, symbols, and everything else they deem essential (Dewi et al., 2020). Interactive and extremely complicated is perception. This perception's subprocesses are connected to one another. The stimulus or situation is one of the many significant subprocesses.

When someone is exposed to a stimulus, perception starts (Luthans et al., 2010). The pursuit of entrepreneurial education by individuals serves as one of the cues acquired in this perceptual process in order to grow. Individuals' education and entrepreneurship serve as a stimulant, which the person will then interpret. The folks who were concerned about this would then respond to this understanding. The stimuli that someone experiences during the perception process will mold their attitudes and actions. The motivation for the development

of entrepreneurial creativity comes from outside sources, which is entrepreneurship education (Hasbi et al., 2022):

Hypothesis 1 (H1): There is a positive and significant effect between perceived behavioural control and entrepreneurial creativity.

2.2. Subjective norm

The subjective norm is the opinion of a person who has impacted others. Aditya Wedayanti and Ketut Giantari (2016) define subjective norms as the opinions that other people hold in high regard and who encourage a person to engage in or refrain from engaging in particular behaviours, as well as the motivation to engage in or refrain from such activity. Subjective social norms, also known as views about how and what to believe about important people, are what urge a person to act in a certain way (Maulana et al., 2009). A norm that deviates from the inner self or the human conscience is said to be subjective (Ajzen, 1991; Liñán & Chen, 2009). The degree to which a pertinent person or individual supports or does not support the conduct of a given activity is referred to as a subjectivity norm. In studies, subjective norms can be quantified by asking participants how much they anticipate that friends, family, and/or coworkers will support and participate in their entrepreneurial endeavors (Liñán & Chen, 2009; Ajzen, 2001). When translated as indicators, subjective norms can be people's subjective perceptions of one another (Ajzen & Fishbein, 2000). Nikita (2015) used the influence from peers, family, and colleagues as indicators of subjective norm. We then combined the three existing indicators with the ones by Pradana and Kartawinata (2020), which are the readiness to engage in a behaviour or normative views regarding one's own expectations of what is appropriate as well as those of others (the reference group).

Subjective norms are the degree to which a person is motivated to adhere to other people's perceptions of the behaviour they will engage in (Ajzen, 2020). One of the key elements, along with all of the circumstances within it, is the family environment. The history of the family, family customs, and parenting style are a few examples of these factors. Someone, especially students, will then receive support, direction, and encouragement for the way they conduct their lives. According to Winarno and Hermana (2019), parents' actions can influence their kids' interest in the kind of work those kids want to pursue in the future. Therefore, we build hypothesis 2:

Hypothesis 2 (H2): There is a positive and significant effect between subjective norm and entrepreneurial creativity.

2.3. Attitude towards entrepreneurship

Society may respond favorably or unfavorably to the attitude's object (Ajzen, 2020). Hasbi et al. (2022) contend that persons who have favorable attitudes regarding entrepreneurship education will be more likely to respond favorably to the education they get. Therefore, only when beneficiaries have a positive attitude on education can the full and ultimate benefits of education be realized (Ando Fanaja et al., 2023). The benefits of such training and knowledge on business start-ups may be lost or compromised by negative attitudes, therefore entrepreneurship education in and of itself may not have much of an impact on the establishment of

new ventures (Pradana & Kartawinata, 2020). Therefore, the way one feels about entrepreneurship education has a big impact on how one decides to launch a firm:

Hypothesis 3 (H3): There is a positive and significant effect between attitude towards entrepreneurship and entrepreneurial creativity.

When information and expertise are combined and matched, creativity can produce fresh, useful ideas. It is a crucial part of individual cognitive functioning (Xiu'e & Kun, 2018). Due to its contribution to both individual and organizational success, the study of individual creativity within organizations is a tremendously fruitful area of study (Carmeli et al., 2014). As a result, this may also have an impact on someone's decision to start a business or embark on a new endeavor. Given that entrepreneurship is a creative endeavor (Sarasvathy, 2001), it is essential to take the entrepreneur's psychological skills into account in order to comprehend their behaviour. Creativity has only lately been taken into account in intention-based models (Yar Hamidi et al., 2008), and entrepreneurial process research has made it a key topic (Hu et al., 2018). According to some authors (Lerch et al., 2015), creativity has significant effects on entrepreneurship, including a rise in entrepreneurial creativity, the ability to see opportunities and start businesses, and an improvement in performance at the individual, corporate, and regional levels. It is important to investigate if creativity can accurately predict entrepreneurial purpose.

Numerous studies look into the issue of various forms of creativity. Lowercase *c* or banal creativity indicates its difference from capital *C* or genius creativity (Sternberg & Lubart, 1995, ix, p. 326). In addition to being heavily affected and legitimized by businesspeople, social groupings, and other institutional and contextual variables, what is seen as originality in entrepreneurship (Hjorth & Steyaert, 2004). The need for different stages of innovative processes is another creative tension (Csikszentmihalyi, 2013). Early stages of innovative processes typically call for more holistic and intuitive thinking (Hasbi et al., 2022). However, both components working together are thought to be essential to the whole process of creative entrepreneurship (Pradana et al., 2020). In the beginning, entrepreneurs' creative aims may be very private, but as an organization is founded and expanded, they eventually may become more focused on organizational advantages (Augustrianto et al., 2019).

2.4. Entrepreneurial creativity

Entrepreneurial creativity improves a person's capacity to learn about entrepreneurship by increasing awareness and understanding as well as by giving a general mental image of entrepreneurship (Ikpesu, 2016). An individual's capacity, skill, willingness, or drive to start a business is known as their individual entrepreneurial creativity (Taatila & Down, 2012).

It is believed that the desire to start business acts as a motivating force. The likelihood that an individual will succeed increases with the strength of the intention driving the behaviour. People who have the purpose of starting their own business from the outset will be better equipped than people who have no such goals. Hasbi et al. (2022) believe that by tying together relevant factors and requests from others, the intention is crucial in guiding one's actions. Silvianita and Tan (2017) define intention as a component in an individual that refers to the desire to undertake a particular behaviour. Additionally, entrepreneurial creativity is becoming more and more crucial for enhancing corporate performance.

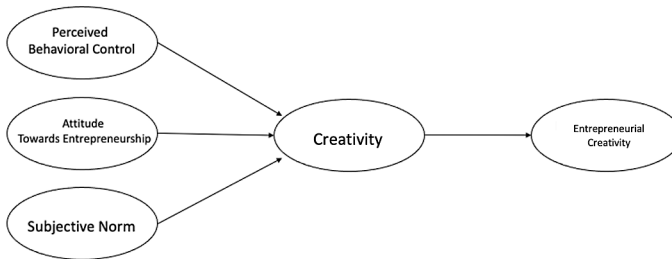


Figure 1. Research model (source: created by authors)

It is possible to think about entrepreneurial skills that can be acquired through quality entrepreneurship education. Numerous scholars have used TPB variables as dimensions that affects entrepreneurial creativity. For instance, Hasbi et al. (2022) conducted research on Indonesian students to ascertain the relationship between entrepreneurship education and entrepreneurial ambition, and they discovered that individual entrepreneurial creativity as a single construct was associated with students' entrepreneurial creativity. Robinson and Stubberud (2014) found that after completing the entrepreneurship course, students reported feeling more inventive and creative than before, as well as showing more entrepreneurial ambition.

According to Yurtkoru et al. (2014), who also supported the idea that entrepreneurship is a deliberate activity, a person's entrepreneurial creativity was favorably influenced by their love of risk and readiness to take it. Langkamp Bolton and Lane (2012) created, validated, and put to the test an individual entrepreneurial creativity measurement (risk-taking, innovativeness, and proactiveness). They also discovered that there were statistically significant associations between each individual entrepreneurial creativity component and university students' intentions to start their own business. Entrepreneurial orientation as a multi-dimensional construct and discovered that among female undergraduate students at Nigerian institutions, self-efficacy, and education had a strong positive influence on entrepreneurial creativity (Ekpe & Mat, 2012).

Using working individuals as their sample, Kropp et al. (2008) discovered that two characteristics of entrepreneurial creativity – proactiveness and risk-taking – had an effect on start-up decisions. The aforementioned studies clearly gave light on how individuals perceive entrepreneurial inclinations, but they did not offer much insight into how each component correlated with the others' results. Figure 1 depicts the research model in graphic form.

3. Research methodology

For this study, we issued an online questionnaire to 400 private university students in Indonesia. We limited the respondents to the students who have taken entrepreneurship courses and conducted several indoor and outdoor activities related to entrepreneurial subjects, for example design thinking and new venture creation. We had some difficulties since not all private universities have specific entrepreneurial activities. Eventually, we gathered 400 respondents after more than four years of collecting online responses.

After that, the analysis was carried out utilizing the partial least squares regression technique (Hasbi et al., 2022). The questionnaire that was completed by our participants provided the primary data for this investigation. Purposive sampling is the method utilized to gather the sample for this study. Purposive sampling is a sample technique with some considerations, according to Riache and Pradana (2023).

An online survey with 25 questions addressing five study constructs was used to collect the data. We modified Ajzen’s (2020) TPB indicators to measure subjective norm and perceived behavioural control. A Likert scale with five indicators is utilized in the questionnaire. The number 5 denotes “strongly agree”, the number 4 – “agree”, the number 3 – “somewhat agree”, the number 2 – “disagree”, and the number 1 – “strongly disagree”.

Every item already has factor loadings that are greater than 0.5. Table 1 presents the findings. The construct’s factor loadings, composite reliability, and average variance extracted are also displayed in the Table 1.

Table 1. Values of validity and reliability (source: created by authors)

Indicators	Loading values	Composite reliability	Average variance extracted ²
Subjective norm 1	0.803	0.654	0.722
Subjective norm 2	0.734		
Subjective norm 3	0.674		
Subjective norm 4	0.611		
Subjective norm 5	0.740		
Attitude 1	0.719	0.866	0.795
Attitude 2	0.589		
Attitude 3	0.675		
Attitude 4	0.771		
Attitude 5	0.748		
Perceived behavioural control 1	0.641	0.811	0.708
Perceived behavioural control 2	0.854		
Perceived behavioural control 3	0.810		
Perceived behavioural control 4	0.765		
Perceived behavioural control 5	0.871		
Entrepreneurial creativity 1	0.615		
Entrepreneurial creativity 2	0.717		
Entrepreneurial creativity 3	0.640		
Entrepreneurial creativity 4	0.573		

4. Results

Next, we measured the influences and major impacts on the dependent variable, in this case entrepreneurial creativity. To determine this, we look at the coefficient and *p*-values. According to Henseler et al. (2016), the *p*-values below 0.005 (*p*-value > 0.005) are regarded as significant. More analysis is provided in Table 2.

Table 2. Path coefficients (source: created by authors)

Hypotheses	Relationships	Coefficient	p-values	Verdict
H1	Perceived behavioural control: entrepreneurial creativity	0.622	0.000	Accepted
H2	Subjective norm: entrepreneurial creativity	0.551	0.000	Accepted
H3	Attitude: entrepreneurial creativity	0.641	0.000	Accepted

From the study of perceived behavioural control, we can observe that H1 could be approved as there was a favourable influence, as shown by a favourable coefficient (0.622) and *p*-value below 0.005 (Henseler et al., 2016). For H2, our results showed a positive coefficient (0.551) and a *p*-value less than 0.005, suggesting a positive relationship between subjective norm and entrepreneurial innovation. Regarding H3, we also discovered a favourable association between an entrepreneurial mindset and entrepreneurial innovation. The *p*-value is also less than 0.005, and the coefficient was positive (0.641).

5. Discussion

Entrepreneurial creativity is a crucial component of students' entrepreneurial innovation in the context of private educational institutions. Behavioural control was once thought to be a crucial component of these two frameworks. Other research findings demonstrated that the attitude variable significantly influenced the intention to launch a business. The conclusion drawn from these findings is that "attitudes affect creativity in entrepreneurship". The findings of this analysis support those of the 2022 investigations by Hasbi et al. (2022), and Pradana and Kartawinata (2020) assert that a person's attitude significantly affects their level of business interest. Whether something is perceived as positive or negative has an impact on someone's attitude toward it. One of the cornerstones of the development of self-generated entrepreneurial enthusiasm is attitude. The impact of subjective norms on entrepreneurial inventiveness demonstrates that entrepreneurial intention was significantly impacted by the variable subjective norm.

6. Conclusions

Our research aims to gain a greater understanding of the relationship between entrepreneurial creativity and other TPB characteristics in business school students. The analysis' findings indicate that an individual's qualities are better the stronger the influence of the environment as an external element. As a result, there we have tested that these factors, namely subjective norm, attitude towards entrepreneurship, and perceived behavioural control, eventually develop a person into an entrepreneur with powerful entrepreneurial creativity.

Considering there have been a number of research focusing on finding quality characters of entrepreneurs, there have not been many using TPB. However, as discussed in several previous studies (Ajzen, 2020; Pradana & Kartawinata, 2020; Ando Fanaja et al., 2023), it is important to test the relationship between theories to measure them as factors in enhancing entrepreneurial creativity.

The findings also indicate that TPB variables have a favourable impact and are important for entrepreneurship interest. These outcomes are consistent with the original hypotheses. Students' thinking patterns can be altered by external motivation, especially when it comes to making decisions and creating enterprises. People who comprehend and apply fundamental economic principles in practical settings, as opposed to only engaging in class-based activities and knowledge, are those who profit from economic literacy, particularly the ability to be imaginative and the willingness to take chances.

Every learner needs to possess the life skill of entrepreneurial endurance. If students can apply economic literacy, particularly in entrepreneurial endeavours, they can reap benefits that are comparable. On the related topic, this research is anticipated to provide knowledge and insights. It is also anticipated that it will be relevant information for policymakers to take into account when developing policies for higher education institutions that offer entrepreneurial studies.

6.1. Research recommendations

The research allows for the following recommendations: 1) in order for students' entrepreneurial behaviour to increase, it is desired that parents and instructors would help children gain more self-confidence; 2) in order to improve students' entrepreneurial behaviour, it is hoped that universities and schools will improve teaching strategies, instructional materials, and other aspects of the delivery of entrepreneurship and other financial-related subjects. In order to expose the students to the real industry, there is ultimately a tremendous demand for entrepreneurial learning that is practice-oriented and case study-based.

6.2. Limitations, suggestions, and future research directions

As we suggested our limitations before, we had difficulties in gathering final year students who matched our respondents' profiles. Future studies should adapt the study approach to a different or larger sample size, allowing for more thorough results starting with younger samples, such as high school students or early-year university students. The procedures can be focusing on modifications to teaching methods, course materials, and other facets of the delivery of entrepreneurship and other financial-related courses is also advantageous. Additional traits that can affect a person's level of entrepreneurial behaviour need to be found. Last, we also suggest including additional variables such as the adversity quotient, industrial trips, and related activities. Researching respondents who have taken at least three semesters of entrepreneurship education, or 75% of all entrepreneurship and creative goods courses offered in schools, might be another idea.

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