

Examining the Student Entrepreneurship Intention using TPB Approach with Gender as Moderation Variable

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The purpose of this study is to find factors that influence student entrepreneurial intention by examining variables in the Theory of Planned Behaviour (TPB) (Ajzen, 1991), that have been widely used in predicting behavioural intention namely: attitude toward behaviour; perceived behavioural control; and subjective norm; by placing gender as a moderating variable between subjective norm and behavioural intention. A total of 306 students from several departments within the Faculty of Economics-Jakarta State University were involved in filling out the questionnaire by performing convenient sampling techniques. The analysis was carried out using the Structural Equation Modelling (SEM) method with PLS v2.0 M3. The results indicate that attitude toward behaviour and perceived behavioural control significantly influence the entrepreneurial intention, while gender has a quasi-moderation role in a negative direction. It means that gender has the reducing effect of subjective norms on students' entrepreneurial intention.

Key words: *Attitude toward behaviour, perceived behavioural control, subjective norm, gender, student entrepreneurial intention.*

Introduction

Entrepreneurship is a creative process in creating value, finding potential opportunities and then utilising them by calculating the risks that might occur (Lambing & Kuehl, 2000). The nature of courage to face risk, observance to see opportunities, creativity and innovation in responding to the environment makes entrepreneurs able to shift economy and prosperity

from a poor condition to a better one with a high level of productivity (Schoorl, 2012). The central role of these entrepreneurs is the reason why some experts agreed that the ideal number of entrepreneurs in a country that wants to increase their economic power is at least 2% of the total population.

In Indonesia, from 2014 to 2016, the total number of entrepreneurs was only 1.6 to 1.8% of the total population or only around 4.6 million people. However, since 2017 the figure has increased by 3.1% of the population, but this number is still smaller than other countries in the ASEAN region, such as Singapore which has 7% entrepreneurs, followed by Malaysia with 5%, Thailand 4.5% and Vietnam 3.3% (Julianto, 2016).

As one of the critical success factors for stimulating the economy, the Indonesian government continues to increase the number of entrepreneurs. One such effort is to include entrepreneurship education as a part of course activities in schools and colleges with the hope that it will stimulate the interest of students to become entrepreneurs. The influence of entrepreneurship education has become one of the essential elements for generations in increasing entrepreneurial desires (Kourilsky & Walstad, 1998), so that it is appropriate for the universities to become the leading agent for the emergence of successful entrepreneurs.

However, related to the entrepreneurship approach that has been carried out in tertiary institutions, comprehensive evaluation and understanding are needed by considering what aspects encourage student entrepreneurial intention so that it can contribute to preparing effective learning plans. This study applies the variables in the Theory of Planned Behaviour (TPB) (Ajzen, 1991), to find out the driving factors of students to become an entrepreneur at the Faculty of Economics, State University of Jakarta, by assigning gender as a moderating variable. The involvement of a gender aspect may give some perspective due to the consideration that this factor was found to have a significant influence on student entrepreneurial personality in higher education (Rahmana, Kuttyb, Othmanc, 2019). Also, there is still a gender imbalance in entrepreneurial activities in Indonesia. For example, Menkokesra (2011) reported that female entrepreneurs in Indonesia are still inferior to males. Their numbers are only around 0.1 percent of the total population. In addition, in Indonesia, entrepreneurship has the potential to empower women and social-economy transformation (Tambunan, 2012). It is expected that the results of this study can be an input for universities and the related authorities directly so that efforts to encourage an entrepreneurial spirit among students can be achieved.

Literature Review and Hypotheses

Entrepreneurial Intentions

Entrepreneurial intention is the process of searching and being an indication that business formation efforts can be achieved (Katz and Gartner, 1988). The intention has long been identified as the best predictor of being an entrepreneur (Krueger & Carsrud, 1993). In essence, by conceiving the intentions and the driving factors, we can understand whether someone will be an entrepreneur or not (Choo & Wong, 2006). Intention also is a motivating factor for someone to have better readiness. Yanto (1996) defined entrepreneurial intention as a personal capability that encourages someone to meet their needs, solve problems and advance or create new businesses independently. Thus, the entrepreneurial intention is someone's desire to focus fully on doing something related to entrepreneurship with great joy because it will bring benefits to themselves (Santoso, 1993).

Theory of Planned Behaviour

In the literature, there are several views related to intention. For instance, Corsini (2002) defined intention as the decision stage before taking specific actions, whether intentionally or not. While Sudarsono (1993) stated that intention is only limited to someone willing to carry out a goal. Fishbein & Ajzen (1975) argued that intention is a component found in individuals to carry out certain behaviours. Furthermore, Bandura (1986) viewed intention as a determination to carry out a certain activity to achieve a particular situation in the future. Then, it can be concluded that intention is a personal subjective possibility related to oneself and certain behaviours.

Researchers in the field of psychology initially developed the theories used to predict intention and later they were also applied in other fields, including economics and management, as we have encountered today. The most common theory is TPB (Ajzen, 1991), which explains planned behaviour intentionally and can, therefore, be predicted with intention. According to TPB, intentions can be well predicted through variables such as attitude towards behaviour, subjective norms and perceived behavioural control. Previous studies have widely confirmed that TPB predictions through these three variables on entrepreneurial intentions are strong enough (Kolvereid, 1996; Krueger et al., 2000; Luthje & Franke, 2003).

Hypotheses

In this research, all the independent variables in TPB are hypothesised to affect student entrepreneurship intention. The first variable is the attitude toward behaviour. As is known,

the decision to become an entrepreneur requires enough involvement and is directly related to attitudes towards entrepreneurs themselves. Assael (2001) defines attitude as a tendency that can be learned by someone in responding toward something consistently, whether they like it or not. So, the real attitude is personal affection or feeling towards a stimulus (Mowen & Minor, 2002). Thus, it can be said that attitudes are symptoms that are learned in responding to a stimulus, including personal affection to the risks to be faced in entrepreneurship. From this description, it can be hypothesised that:

H1: Attitude toward behaviour has a significant and positive effect on student entrepreneurial intention.

The next independent variable is perceived behavioural control, which is a personal perception of the control that you have over certain behaviours (Ajzen, 1991). In other words, perceived behavioural control reflects the ability felt by someone to be able to become an entrepreneur (Kolvereid, 1996), which will affect the perception of ability to take control when performing certain behaviours. This perception can include past experiences where every challenge that has been experienced will be considered for entrepreneurship (Dharmmesta, 1998). In other words, perceived behaviour control is a condition where someone believes action will be very easy or complex enough to be carried out because it is related to various risks that will be faced. From this explanation, it can be hypothesised that:

H2: Perceived behavioural control has a significant and positive effect on student entrepreneurial intention.

Next the subjective norms variable. It is related to individual perceptions about whether the environment and the people around them will be supportive or not to the realisation of certain actions (Baron & Byrne, 1987). Subjective norms reflect individual perceptions of beliefs held by the people around them (Hogg & Vaughan, 2005). In line with Feldman (1995), who mentioned that subjective norms are personal perceptions of social pressure that may be experienced if they want to perform specific actions. So this variable is closely related to the individual beliefs or perceptions to perform or not perform the entrepreneurial activities. Based on this explanation the next hypothesis is:

H3: Subjective norms have a significant and positive effect on student entrepreneurial intention.

In previous research, some interesting results were found due to gender differences. Women, for example, are often identified as people who are more sensitive to various opinions than men. Therefore, social influence could be more prominent in shaping their intentions (Miller, 1976; Venkatesh et al., 2000). The influence of gender on the intention to be an entrepreneur

has also been the object of prior research such as Kolvereid (1996); Matthews & Moser (1996); Schiller & Crewson (1997), who found that men had higher intentions than women. As we know at this time, the entrepreneurial profession is still held by a majority of men. Mazzarol et al., (1999) found that women are less fond of opening new businesses compared to men. In Indonesia, the number of female entrepreneurs is still inferior to male entrepreneurs. It is only around 0.1 percent of the total population (Menkokesra, 2011). This fact is in line with Kolvereid (1996), who found that the entrepreneurial intentions of men were higher than women. In their research, Venkatesh & Morris (2000) put gender as one of the variables that has a moderating effect on the social influence in which a person is located. This study also indicates that the gender variable has an interactive effect with subjective norms, and the following hypothesis is proposed:

H4: The influence of subjective norms on entrepreneurial intention is moderated by gender.

Methodology

Research approach

This study applies a quantitative approach where data is obtained from survey results to verify theory so that the researchers can determine the cause or predict certain behaviours (Gage, 1989; Bogdan & Biklen, 1998; Castellan, 2010). To examine the correlation among variables, a SEM approach was employed; this method allows multivariate analysis techniques that combine factor analysis and path analysis. The relationship between independent and dependent variables can be tested, as well as their indicators simultaneously (Ghozali, 2014). The SEM method also allows for evaluation and estimation of the form of linear relations of observed groups of latent variables that are generally smaller than unobserved variables (Evangelos & Siskos, 2010). The SEM technique in this study utilised Partial Least Squares (PLS) version 2.0 M3.

Research Sample

Data analysis with a quantitative approach is carried out using numerical values so that statistical analysis can be interpreted (Gelo, Braakmann, & Benetka, 2008). Data collection was carried out using a questionnaire, and the research samples are students from the Economic Faculty, Jakarta State University. Related to practical considerations, the researcher used a convenient sampling technique, which is a type of non-probability sampling technique. This method allows sampling that is relatively easy, inexpensive and fast because the researchers can use their judgment to determine the respondents (Ethics and Bala, 2017). Data is collected by visiting the target respondent directly, including distributing

questionnaires in the classroom, library and around the university area. A total of 306 samples were collected and analysed.

Measurements

To respond to the research questions and explain the links among variables, this study employs indicators that were adapted from previous research conducted by Kolvereid (1996). Namely, there are 18 question items for the variable attitude towards entrepreneurial behaviour, six items for each subjective norm and perceived behavioural control, and three items for the intention. All questions were measured using the seven Likert-scales from 1 = strongly disagree to 7 = strongly agree, while one gender item was measured using a nominal scale.

Analysis and Results

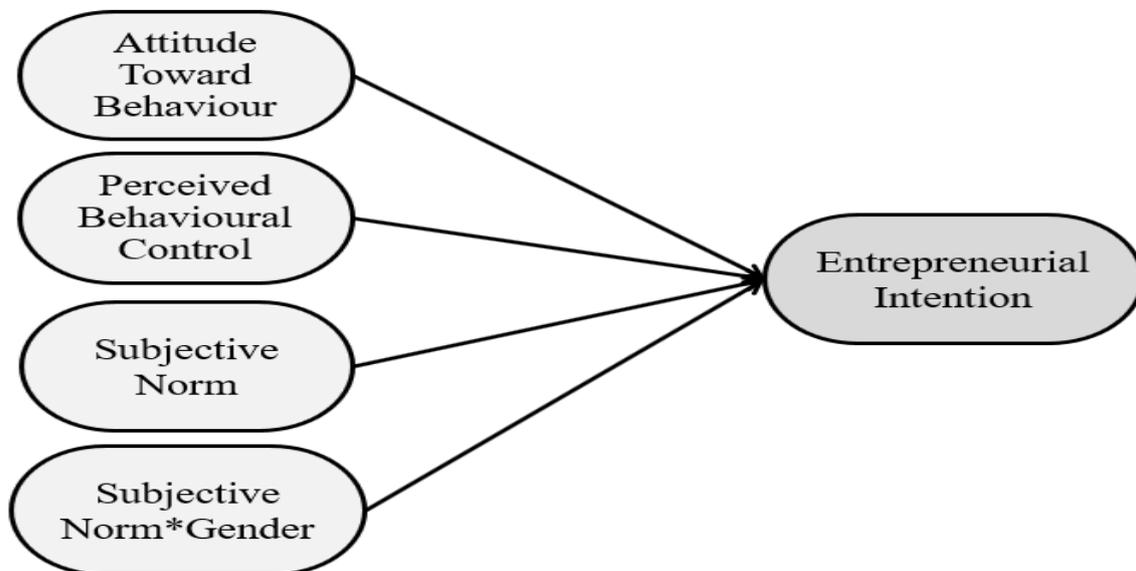
Sample Demographics

After the checking and filtering process, there were 306 respondents whose data can be processed. Namely: 23 (8%) in the age range <18 years; 224 (73%) in the age range 18-20 years; and 59 (19%) in the range of 21-23 years. It appeared that the majority of respondents were in the age group between 18-20 years. While the gender comparison showed there were 228 (75%) men and 78 (25%) women. The group of respondents came from nine study programs with the top three being respectively economic education 24%, accounting 18% and business education 13%. A total of 188 (61%) of respondents answered that they had or were undergoing entrepreneurship courses, 112 (37%) students answered "no" and the remaining six (2%) did not give any answer.

Data Analysis

This study employed the SEM approach with PLS version 2.0 M3 as an analysis tool. The chosen algorithm analysis is path weighting because it is simple and more effective (Wold, 1985; Wold, 1982). While resampling was chosen as a bootstrapping method because it can produce path coefficient values stably for either large or small sample sizes (Kock, 2011; Nevitt & Hancock, 2001). The path diagram consists of exogenous variables, namely attitude toward behaviour (attitude), perceived behavioural control (control), and subjective norm (subjective), while the endogenous variable was entrepreneurial intention. Gender is placed as a moderating variable between subjective norm and intention, as shown in Figure 1.

Figure 1: Research path



Validity and Reliability

The validity and reliability of the model can be seen through the values of the outer model or measurement model. The evaluation was done by directly assessing the factor loading of each indicator. The factor loading value has high validity if the value is > 0.70 (Ghozali, 2014). In the initial stage, 11 items had a loading factor below 0.7, so they must be eliminated. After the second iteration, the factor loading value for all indicators was > 0.70 , so that they can proceed to the next process. The final results after two iterations are presented in Table 1.

Table 1: Final results of outer loading.

Items	Attitude	Control	Subjective	Intention
x4	0.773			
x5	0.818			
x6	0.825			
x7	0.816			
x9	0.737			
x10	0.721			
x11	0.725			
x12	0.737			
x13	0.803			
x14	0.794			
x15	0.788			
x16	0.799			
x17	0.790			
x19		0.762		
x20		0.837		
x21		0.781		
x23		0.823		
x25			0.752	
x26			0.764	
x27			0.776	
y1				0.853
y3				0.858

Latan & Ghozali (2012) state that the outer model for reflexive indicators, as applied in this study, can be evaluated through the values of convergent validity and discriminant validity of the indicators that form the construct. Discriminant validity serves to determine that the concept of each latent variable is completely different from the concept of the other variables. It can be seen directly from the discriminant validity values or by directly looking at the square root values of the average variance extracted (AVE) for each latent variable. A good AVE has a value > 0.50 (Ghozali, 2014). Table 2 shows the value of the square root AVE has fit the requirements.

Table 2: AVE and AVE square roots.

	AVE	AVE Square Roots
Attitude	0.626	0.791
Intention	0.746	0.864
Control	0.618	0.786
Subjective	0.760	0.872

Next, by comparing the AVE square root with correlation constructs in the model, it shows that the AVE square root value on each variable is higher than the correlation value, so the construct of the research model shows good discriminant validity, as shown in Table 3.

Table 3: Correlation between construct and AVE square roots value.

	Attitude	Intention	Control	Subjective
Attitude	0.791			
Intention	0.665	0.864		
Control	0.706	0.668	0.786	
Subjective	-0.224	-0.224	-0.250	0.872

Note: The AVE square roots are bold.

Hypotheses Testing

To ensure the research hypotheses are accepted or rejected the path coefficient values must be evaluated. According to Hass & Lehner (2009), the values of original samples in the range of -0.1 to 0.1 means not significant, >0.1 is significant and directly proportional, while <-0.1 is significant inversely proportional. Meanwhile, Hair et al., (2011) suggested that the evaluation of significance can also use the t-value, which is >1.64 at the 0.1 level, >1.96 at the 0.05 level, and >2.58 at the 0.01 level. Table 4 shows the path coefficient values in the original sample (O) in the range of -0.265 to 0.406. So, it can be concluded that the value of 0.361 (attitude→intention) is significant and directly proportional; 0.406 (control→intention) is significant and directly proportional; -0.265 (subjective*gender→intention) is significant inversely proportional; 0.296 (gender→intention) is significant and directly proportional; while subjective on intention is not significant.

Table 4: Summary of hypotheses testing results.

Hypotheses	Original Sample (O)	Sample Mean (M)	Stand. Deviation	T Statistics	Sig.
H1: Attitude → Intention	0.361	0.366	0.066	5.591	Sig***
H2: Control → Intention	0.406	0.418	0.066	6.189	Sig***
H3: Subjective → Intention	0.026	0.002	0.174	0.146	-
H4: Subjective*Gender→Intention	-0.265	-0.237	0.149	1.727	Sig*
Gender → Intention	0.296	0.276	0.148	1.983	Sig**

Note: * = 0.1 level; ** = 0.05 level; *** = 0.01 level.

From the four hypotheses proposed in this research, three of them indicated significant results, which are two showed a direct relationship to the intention, namely attitude, and control. Gender also significantly acts as a quasi-moderation between subjective and intention. A regression equation model can be written based on the calculation of the value of path coefficients above:

$$\text{Intention} = 0.361\text{attitude} + 0.406\text{ control} + 0.296\text{ gender} - 0.265\text{ subjective} * \text{gender} + \epsilon.$$

The equation shows that attitude toward behavioural, perceived behavioural control, gender and the interaction between subjective norm and gender, have a significant influence on entrepreneurial intention. The differences in the magnitude value of the path coefficient can be utilised to arrange variables based on the power of influence where the perceived behavioural control has a more substantial effect than other variables. The ϵ symbol represents factors not taken into account in this study. The analysis also shows that the value of R^2 is 0.53, so it can be interpreted that as much as 53% of data variation in entrepreneurial intention was significantly influenced by all the independent variables, while the remaining 47% of factors are not considered in this study. The coefficient value R^2 of 0.53 is quite strong because it is close enough to the 0.67 (Ghozali, 2014).

Discussion and Conclusion

This study was conducted to investigate any variables that affect students' intentions at the Faculty of Economics, Jakarta State University, by applying the Theory of Planned Behaviour as a theoretical basis and considering gender as a moderating variable. From the results of data analysis, it can be concluded that of the four hypotheses that will be proven, three of them have significant effects on student entrepreneurial intention, namely: attitude toward behaviour; perceived behavioural control; and the interaction between subjective norm and gender. The perceived behavioural control variable has the most substantial

influence on intention to become an entrepreneur, followed by attitude toward behaviour and the interaction between subjective norm and gender.

From the demographic sample, 75% of respondents were female and 73% were in the range of 18-20 years. This indicates that they belong to the millennial generation born after 1980, which has different expectations and priorities compared to previous generations (Ng, Schweitzer & Lyons, 2010). As many as 61% of respondents had taken or were taking entrepreneurship courses, so it can be said that this group has sufficient knowledge and consideration to determine their choices. The indication could be proven where the variables of perceived behavioural control and attitude toward behaviour become dominant variables in predicting student intention in entrepreneurship.

Furthermore, the subjective norm has no significant effect on intention. However, its effect will be significant if it is moderated by gender, where the relationship is quasi-moderation in a negative direction. It means that gender can act as an independent variable as well as a moderator variable. The interaction of the two also indicates that the moderation effect provided by gender will reduce the influence of subjective norms on intention. These findings are relevant to Ng, Schweitzer & Lyons (2010) study, which found that the millennial generation is not too concerned with social conditions around them, even though they have better career expectations but they are also very realistic about job choices after graduating. These characteristics reinforce the findings in the Faculty of Economic-Jakarta State University students that are represented by the absence of a direct relationship between subjective norms on intentions. In contrast, the construct of attitude towards behaviour that is internal has a direct effect on entrepreneurial intention.

Future Research

For further studies, some issues can be taken into consideration. Firstly, similar studies can be carried out using a broader sample technique, for example, by applying a quota sampling technique given the characteristics of the student population which has diverse backgrounds. Secondly by exploring exogenous variables, which in theory and reality influence endogenous variables. For example, by comparing business and non-business departments or including the possible influence of mediation and moderation of other factors, as well as further investigating why subjective norm in this study do not influence intentions. Another meaningful variable such as UTAUT, that had been compiled by Venkatesh et al., (2003), could be adapted to measure intention. Researchers may also combine qualitative and quantitative data analysis to get a broader perspective of student entrepreneurial intention.

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