

Comparing Entrepreneurship Intention: A Multigroup Structural Equation Modeling Approach

Sabrina O. Sihombing

Universitas Pelita Harapan, Tangerang - Banten

ARTICLE INFO

Received: September 2, 2011
Final revision: February 20, 2012

Keywords:

theory of planned behavior,
intention,
entrepreneur

ABSTRACT

Unemployment is one of the main social and economic problems that many countries face nowadays. One strategic way to overcome this problem is by fostering entrepreneurship spirit especially for unemployment graduates. Entrepreneurship is becoming an alternative Job for students after they graduate. This is because entrepreneurship offers major benefits, such as setting up one's own business and the possibility of having significant financial rewards than working for others. Entrepreneurship is then offered by many universities. This research applies the theory of planned behavior (TPB) by incorporating attitude toward success as an antecedent variable of the attitude to examine students' intention to become an entrepreneur. The objective of this research is to compare entrepreneurship intention between business students and non-business students. A self-administered questionnaire was used to collect data for this study. Questionnaires were distributed to respondents by applying the drop-off/pick-up method. A number of 294 by questionnaires were used in the analysis. Data were analyzed by using structural equation modeling. Two out of four hypotheses were confirmed. These hypotheses are the relationship between the attitude toward becoming an entrepreneur and the intention to try becoming an entrepreneur, and the relationship perceived behavioral control and intention to try becoming an entrepreneur. This paper also provides a discussion and offers directions for future research.

Corresponding author:
sabrinasihombing@gmail.com

© 2012 IRJBS, All rights reserved.

Unemployment is one of the main social and economic problems that many countries face nowadays. Unemployment leads to financial crisis and reduces the overall purchasing capacity of a nation (Economywatch, 2010). One

strategic way to overcome that problem is to increase the entrepreneurship spirit especially for unemployment graduates (Othman and Ishak, 2009).

There are about two millions of unemployment graduates in Indonesia (Razali, 2010). These unemployment graduates have decreased the nation productivity. In the specific, about twenty-four trillion rupiah was predicted lost because of these unemployment graduates. This amount was calculated based on the minimum salary of one million that they will receive each month if employed.

Entrepreneurship has become one of the main options for students when they graduate (Ekpoh and Edet, 2011; Pihie, 2009; Galloway et al., 2006; Peterman and Kennedy, 2003). This is because entrepreneurship offers major benefits, such as setting up one's own business and the possibility of having significant financial rewards than working for others. Entrepreneurship is then offered in many universities. Not only that, entrepreneurship is now also offered as a subject at high school (Kompas, 2011).

Many entrepreneurship researches have focused on students' intention to become an entrepreneur. However, the majority of those studies applied business students as research sample (Table 1). This is because many business schools offer entrepreneurship subjects in their course. On the other hand, limited studies have been conducted to predict non-business students' intention to become an entrepreneur. In the specific, to the best of my knowledge, limited research has been conducted

in Indonesia in which business students and non-business students are put into comparison. In fact, entrepreneur spirit should not be limited to the business faculty. Furthermore, universities play important roles in encouraging students' entrepreneurship spirit. Through entrepreneurship development programs, universities can become a potential site for integrating scientific competence, technology and entrepreneurship. Therefore, this research applies the theory of planned behavior (TPB) by incorporating attitude toward success as the antecedent variable of the attitude to examine students' intention to become an entrepreneur. The goal of this research is to compare entrepreneurship intention between businesses students and non-business students.

Justification to the Research

This research can be justified on two grounds: (1) the importance of understanding students' intention to become an entrepreneur, and (2) the need to test the theory of planned behavior in different contexts.

The importance of understanding students' intention to become an entrepreneur. Understanding students' intention to become an entrepreneur, especially students from outside business schools, is one of the important paths to develop and create entrepreneurial subjects for all faculties in a university (Frazier and Niehm, 2006). It is important for universities to create

entrepreneurial subjects in non-business curricula, as education on entrepreneurship is one of the main drivers of sustained social development and economic recovery (Schwab, 2009).

The need to test the theory of planned behavior in different contexts. One way that an empirical article can make theoretical contributions is to test a theory (Colquitt and Zapata-Phelan, 2007, 1282). Meticulously, many consumer behavior theories were developed in the United States (Craig and Douglas, 2000; Lee and Green, 1991). Therefore, consumer behavior in developed countries may be different compared to consumer behavior in developing countries.

This research tested one of the consumer behavior models, that is, the theory of planned behavior, which was developed by Ajzen (1988). According to Durvasula et al. (1993), the testing of the applicability of consumer behavior theories to other culture is paramount. The replication of the model in different populations and different countries can achieve external validation of that theory (Cheron and Propeck, 1997). Replication is also always desirable and necessary (Morrison et al., 2010). This is because replication is a way to empirically test theory and broadly interpret theory in similar and dissimilar situations (Kerlinger and Lee, 2000). Furthermore, the principle of replicability plays a fundamental role in the research process (Hunter, 2001; Kerlinger and Lee, 2000; Hubbard, Vetter, and Little, 1998; Wells, 1993; Whetten, 1989). The principle of replicability is hailed as the central cornerstone in scientific work (Abo et al., 2006).

Entrepreneurship Programs in Higher Education

Entrepreneurship is a new subject that has been offered by many universities in Indonesia during this last decade. The importance of entrepreneurship being taught is based on the consideration that entrepreneurs are needed to solve the nation's problems (Ciputra, 2011). Unemployment is a critical problem for many nations including Indonesia.

There are five main reasons of the importance of entrepreneurship subject in higher education (Maskur, 2010). First, the fact that there are limited jobs offered in the marketplace. Entrepreneurship is then taught to encourage students to create jobs. Second, the need to change students' mindset from finding jobs to creating jobs after graduation. Third, the fact that there is tight competition among graduates to find jobs. In short, entrepreneurship education offers a mix of skill building and learning experiential, and also a mindset shift (Wilson and Sepulveda, 2010).

There are several types of entrepreneurship spirits introduced in many universities in Indonesia nowadays. They are as follows. First, the development of entrepreneurship center on campuses, such as Community Business and Entrepreneurship Development, Community Entrepreneur Program, and Center for Entrepreneurship Development and Studies (CEDS). Many activities, such as seminars, talk shows, short courses, workshops, and Entrepreneurship Expos are conducted through entrepreneurship centers.

Second is the introduction of entrepreneurship subject in many faculties in numerous universities in Indonesia. In the specific, entrepreneurship is now an elective course in many departments and faculties. Third, the government program through the Directorate of Higher Education, the Ministry of National Education, known as *Program Mahasiswa Wirausaha* (PMW, Student Entrepreneurship Program). This program aims to promote the skills and the development of knowledge and also entrepreneurship spirit. Students who follow this program will be given loan (without interest) for one year to start-up a business.

Fourth is the introduction of Triple Helix Cooperation. This cooperation involves businesses (B), intellectual (I), and government (G), and it was known as BIG program. This program was initiated in 2008 in order to synergize between business, government, and universities. BIG

Table 1. Research on students' intention to become entrepreneur

Researchers (year)	Economics/ Business students	Non-business students
Ahmad et al. (2004)		X
Fitzsimmons and Douglas (2005)	X	
Van Gelderen et al. (2008)	X	
Eagle et al. (2008)	X	
Harris and Gibson (2008)	X	
Urban et al. (2008)	X	
Diaz-Garcia and Jimenez-Moreno (2008)	X	
Bouncken et al. (2009)		
Zain et al. (2010)	X	
Frazier (2011)	X	X

then became a facilitator to create and to trigger students becoming entrepreneurs (Majalah KAMPUS, 2010).

Entrepreneurial Intention

Becoming an entrepreneur is one of the aims of many students after completing their study (Ekpoh and Edet, 2011; Pihie, 2009; Galloway et al., 2006; Peterman and Kennedy, 2003). This is because becoming entrepreneurs offer several advantages, such as having greater financial rewards, self-fulfillment, independent, and other desirable outcomes (Gilad and Levine, 1983 cited by Segal et al., 2005). Intention then becomes a key word in understanding entrepreneurship spirit among students. Intention indicates the amount of effort a person is willing to perform a behavior (Ajzen, 1988). It captures the motivational factors that produce behaviors. It can be stated that the stronger the intention to perform a behavior, the greater the likelihood that individual will engage in the behavior (Blackwell et al., 2006).

Research shows that the theory of planned behavior is a theory that can explain well people’s intention to become an entrepreneur (e.g., Brannback, Krueger, Carsrud, Kickul, and Elfving, 2007; Linan and Chen, 2006; Krueger et al., 2000). According to this theory (Figure 1), people’s intention is derived from their attitude toward performing behavior (attitude), their perception of social pressure to perform their behavior (subjective norm), and their ability to execute the behavior (perceived behavioral control).

The Theory of Planned Behavior (TPB)

The theory of planned behavior is known as a general and parsimonious behavior-specific model that has been shown to predict a range of behavior (Conner & Abraham, 2001; Abraham and Sheeran, 2004). For example, the TPB has been successfully applied in a wide variety of behaviors, such as organizational behavior (Cordano & Frieze, 2000; Morris & Venkatesh, 2000; Maurer & Palmer, 1999), complain behavior (Cheng, Lam, &

Hsu, 2006; East, 2000), pro-environmental behavior (Oreg & Katz-Gerro, 2006; Cheung, Chan, & Wong, 1999; Stern, Dietz, Kalof, & Guagnano, 1995), health protection (Conner & Abraham, 2001), and purchase behavior (Tarkiainen & Sundqvist, 2005; George, 2002; Dharmmesta & Khasanah, 1999; Kalafatis, Pollard, East, & Tsogas, 1999; Kokkinaki, 1999; Kanler & Todd, 1998; Thompson & Thompson, 1996).

The theory of planned behavior is an extension of the theory of reasoned action (TRA; Azjen & Fishbein, 1980). In its original form, TRA proposes that behavior can be predicted from a behavioral intention which attitude and subjective norms influence the behavioral intention. Furthermore, TRA assumes that a person’s behavior is under volitional control (Ajzen, 1988). However, problems are encountered when the theory (i.e., TRA) is applied to behaviors that are not fully under volitional control. In other words, for some behaviors there may be personal deficiencies or external obstacles that may limit goal achievement. Therefore, the importance of volitional control has lead Ajzen (1988) to develop the theory of planned behavior (TPB).

The TPB is made necessary by the original model’s limitations in dealing with behaviors over which people have incomplete volitional control (Ajzen, 1991). Briefly, the theory postulates that an individual’s action is influenced by behavioral intention. Behavioral intention, in return, is a function of three factors: attitude toward the behavior, subjective norm, and perceived behavioral control. Attitude is defined as people’s overall definition of their performing behavior. Subjective norms refer to people’s perception of social pressure to perform the behavior. Perceived behavioral control measures how well a person can execute the behavior (Ajzen, 1991).

This research extends the theory of planned behavior by adding attitude toward success as antecedent of attitude toward becoming an

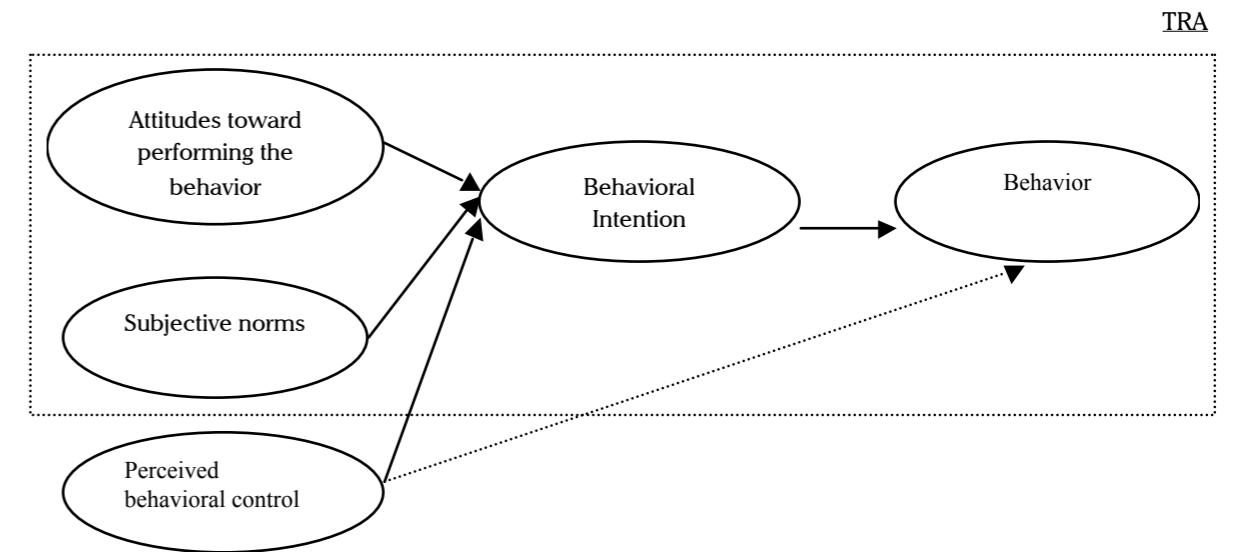


Figure 1. Theory of planned behavior
Source: Ajzen (1988, p.133)

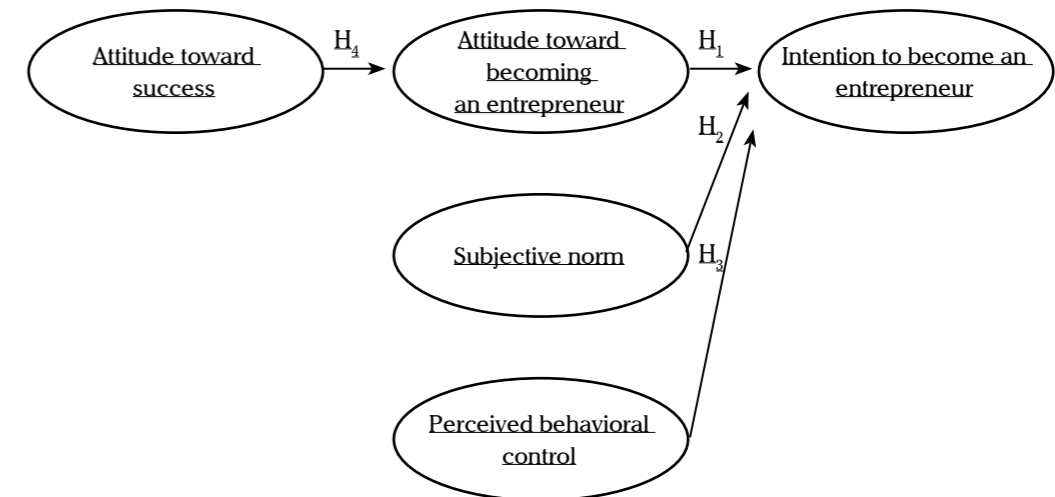


Figure 2. Research model
Source: developed for this research (2012)

entrepreneur. The adding of attitude toward success is based on the research conducted by Sihombing (2011) that showed only attitude toward success signifies a dimension of attitude toward becoming an entrepreneur. Based on the theory of planned behavior, the research model and research hypotheses can be described as shown in Figure 2.

Comparing Business and Non-business Students: Hypotheses Development

This research applies the theory of planned behavior. In this theory, there are three main variables to predict behavioral intention: attitude toward behavior, subjective norms, and perceived behavioral control. Attitude is a learned predisposition toward behaviors. In the specific, attitudes reflect reasons for doing something,

and focus to attain goals (Bagozzi et al., 2003). In relating with business and non-business students, attitude toward becoming an entrepreneur may differ among them. Business students have a more positive attitude and they have stronger intention since the beginning that they will become a part of business or industry. On the other hand, students from non-business majors, such as science or engineering students will have a less positive attitude and intention to becoming an entrepreneur than business students (Galloway et al., 2006). Therefore, it can be stated that

H1: The relationship between the attitude toward becoming an entrepreneur and the intention to becoming an entrepreneur will be stronger for business students than non-business students.

Subjective norms refer to the pressure of other people to perform behavior. In entrepreneurship context, it can be stated that subjective norms mean that the perception that the 'reference group' would approve the decision to become an entrepreneur, or not (Linan et al., 2011, p.36). Parents and other reference groups for business students would approve their decision to become an entrepreneur. On the other hand, parents and other reference group for non-business students will prefer them to work in line with their faculty. For instance, engineering students will work as engineers (Rachman et al., 2011). Therefore, it can be stated that

H2: The relationship between subjective norms toward becoming an entrepreneur and the intention to becoming an entrepreneur will be stronger for business students than non-business students.

Perceived behavioral control is one variable in explaining how people can perform their behavior. Perceived behavioral control is defined as people's appraisal of their ability to perform the behavior. According to several researchers (Triandis, 1979; Bandura, 1977, 1982 cited by Tan et al., 2000), there are two main factors that affect

perceived behavioral control: self-confidence and other facilitating factors, such as the context of opportunity and available resources. In relating with business and non-business students, it can be stated that business students have more confidence to become an entrepreneur, because they learn more about business. They have more knowledge about entrepreneurship and business (Ekpoh and Edet, 2011; Pihie, 2009; European Commission, 2008). It can be stated that when students choose business as their preference for higher education, this means that they have intention to become part of the business and industry. On the other hand, non-business students learn other things and not specifically business. Therefore, non-business students can be perceived to be less knowledgeable in business (European Commission, 2008).

Business students have more advantages in facilitating factors that affect their ability to become an entrepreneur. These facilitating factors include resources and opportunity. Business students have resources, such as business skills, which they can learn from the business faculty or their reference groups. Furthermore, their reference groups become a critical part of their skill in networking. Business students have more opportunities in exploring their ability to become an entrepreneur, as some business faculties in a number of universities provide students activities in entrepreneurship, such as Business Weeks and Entrepreneurship Expo. Therefore, it can be stated that

H3: The relationship between perceived behavioral control and the intention to becoming an entrepreneur will be stronger for business students than non-business students.

The attitude toward success is added in the theory of planned behavior as the antecedent variable of attitude toward behavior. Believing in success is a key point in becoming an entrepreneur. As an entrepreneur is a person with innovation who can explore one's self-potential, belief in success should become a star to guide them to become an

entrepreneur. In relating with business and non-business students, it can be stated that business students have a stronger attitude toward success compared to non-business students. Again, business students have more advantages, such as understanding and knowledge about business, while non-business students do not have extensive knowledge about business matters. Therefore it can be stated that:

H4: The relationship between the attitude toward success and the attitude toward becoming an entrepreneur will be stronger for business students than non-business students.

METHODS

Sampling and Data Collection

The survey sample for this research was obtained from a private university in Tangerang. Purposive sampling method was applied in this study. Two major criteria guided the selection of the respondents. First, respondents are students from the management department (for business students). The reason students from the management department were selected is because the subject of entrepreneurship is given to management students but not to accounting students. Second, respondents (from business or non-business students) should be at least in their sixth semester. This is because most students in their sixth semester are usually about to finish their course and think about their professional career.

There are two stages to collect data in this research. The first stage is a pilot research to examine the reliability and the validity of the instrument. In the specific, the questionnaire was pre-tested in order to uncover biased or ambiguous questions before they were administered at large (Sekaran and Bougie, 2010). The second stage is the actual research. The data for this research was obtained through self-administered questionnaire. A self-administered questionnaire was distributed to respondents by way of the drop-off / pick-up method, that is, a questionnaire was left to the respondents when they agreed to participate and

then the completed questionnaires were collected thereafter (Laroche et al., 2002). Furthermore, all questionnaires came with a gift from researchers in order to obtain a good response rate (Malhotra, 2010).

Measures

This study uses multi-item scales to measure the construct in this research model. Five-point Likert scale was applied to measure all items in the questionnaire. In developing this research questionnaire, the research followed suggestions from Beatson, Coote, and Rudd (2006) and Sekaran and Bougie (2010), that is, whenever possible and appropriate, the measures used in this questionnaire were adapted from existing scales drawn from marketing and management literature. Thus, all constructs' indicators were adapted from Bagozzi and Warshaw (1990), Linan and Chen (2000), and Ariff et al. (2010).

Data Analysis

To test research hypotheses, a multigroup approach was taken with structural equation modeling (SEM). This approach was applied because the research involves more than one sample (that is, business and non business samples). The central concern of a multigroup approach is whether or not the components of the measurement model and the structural model are invariant (i.e., equivalent across particular groups (Byrne, 2001, p.173).

This research applied the two-step approach to seek evidence of multigroup invariance (Byrne, 2001, pp.175-176): (1) the measurement model group invariant, and (2) invariance of the structural model. Testir-0g vwe91ng for multigroup invariance was conducted through two steps. First, a baseline model was estimated for each group separately. The χ^2 values derived from the model-fitting process for each group separately reflects the extent to which the underlying structure fits the data across groups when no cross-groups constraint are imposed. Second,

equality constraints are imposed on particular parameters and data for all groups were analyzed simultaneously. The key indexes that were applied were the χ^2 statistics and the CFI and RMSEA values (Bryne, 2001, p.182).

RESULTS AND DISCUSSION

Of the 400 questionnaires dropped to the respondents, 294 (146 business students and 148 non-business students) were returned and usable, thus signifying a 73.5 percent usable response rate. The first stage of the analysis is to assess the reliability and validity of the measures. The reliabilities (Cronbach's alpha) range from 0.677 to 0.903 (Table 2 and 3).

Reliability is an indicator of convergent validity (Hair et al., 2006). Convergent validity is also achieved by applying a confirmative factor analysis (CFA) for the measurement model. The results indicate that all factor loadings are significant and vary from 0.576 to 0.908. After examining convergent validity, discriminant validity was assessed by observing the correlations between constructs (Table 2 and 3). The result shows that no correlations between constructs achieved a higher value, which could indicate that the indicators for a variable also measure another variable (Hair et al., 2006).

This study also assesses a type of validity called nomological validity. According to Bagozzi et al. (2006), nomological validity can be assessed through a consistent pattern between criterion and predictors. In the specific, the research constructs are supposed to be theoretically related. In other words, within this research context, nomological validity could be demonstrated, for example, if the scores of the measure relationship between attitudes toward becoming an entrepreneur were positively and significantly correlated with the intention to try. The results (Table 2 and 3) show that all of the scores of the measure relationship between variables were significant. Therefore, nomological validity was evident in this study.

Testing Measurement Invariance

Following Byrne (2001) to test for multigroup invariance, the first step was to examine the factor structure intention to become an entrepreneur in terms of the two separate groups: business and non-business students. Table 4 shows that models 1 and 2 have good fits, respectively, for business students (CFI = 0.946, RMSEA = 0.068) and for non-business students (CFI = 0.990, RMSEA = 0.032). The model was then tested with a multigroup approach on business and non-business students. This model (Model 3 in Table 4) has a good fit (CFI = 0.970, RMSEA = 0.038). The results show that the fit of the measurement model to both business and non-business students indicates that the intention to become an entrepreneur has the same four dimensions for both samples. Byrne (2001, cited by Beaudoin and Thorson, 2006) suggested the subsequent analysis to make sure that the four-model is without flaw. To test for such flaws, Byrne (2001, cited by Beaudoin and Thorson, 2001) pointed out the step that each of the factor loading, variance, and co-variance in the model were constrained to equal. In other words, this step examines whether there were any significant differences between how the model fit the business and non-business samples.

Table 4 shows the goodness-of-fit statistics for the initial multigroup hypothesized model (Model 3). The table also shows Model 4, which was the model that had its factor loadings, variances constrained into equal (CFI = 0.965, RMSEA = 0.040). The statistic significance of the change in χ^2 values between Model 3 and 4 suggests that the hypothesized model does not fit each sample equivalently (Byrne, 2001 cited by Beaudoin and Thorson, 2006). The subsequent analysis was to examine the model that highlights attitude toward becoming an entrepreneur as the source of variance between the business and non-business models (Model 5, CFI = 0.971, RMSEA = 0.037). The results show that the significant change in the χ^2 between Model 5 and 3 indicates that there are differences in how the hypothesized four-factor

Table 2. Reliabilities and correlations (business students)

No	Variables	Alpha	CR	AVE	1	2	3	4	5
1	Attitude	0.818	0.83	0.78	1				
2	Attitude toward Success	0.877	0.88	0.84	0.494**	1			
3	Intention	0.843	0.85	0.80	0.591**	0.289**	1		
4	Subjective Norm	0.744	0.76	0.71	0.458**	0.375**	0.505**	1	
5	Perceived Behavioral Control	0.677	0.73	0.64	0.405**	0.277**	0.477**	0.497**	1

Table 3. Reliabilities, and correlations (non business students)

No	Variables	Alpha	CR	AVE	1	2	3	4	5
1	Attitude	0.843	0.84	0.80	1				
2	Attitude toward Success	0.903	0.89	0.87	0.615**	1			
3	Intention	0.845	0.85	0.81	0.603**	0.484**	1		
4	Subjective Norm	0.831	0.83	0.79	0.404**	0.330**	0.530**	1	
5	Perceived Behavioral Control	0.729	0.73	0.69	0.393**	0.420**	0.549**	0.590**	1

model fits the business and non-business samples when it comes to the attitude toward becoming an entrepreneur. The step-by-step approach was applied to determine where the source of non-equivalence lies (Byrne, 2001). Table 4 provides a summary of χ^2 values, and χ^2 difference values related to the series of analyses involved in testing for factor invariance.

Testing Structural Invariance of the Hypothesized Comprehensive Model

This section deals with the testing of the full model. The full model was tested separately on both business (Model 1, CFI = 0.928, RMSEA = 0.078) and non-business samples (Model 2, CFI = 0.985, RMSEA = 0.038). Then the hypothesized full model was tested by a multigroup approach (Model 3 in Table 5). The resulting model had a good fit (CFI = 0.959, RMSEA = 0.043). In other words, the results showed that the model fits both samples well.

The additional step of constraining various aspects of the model to be equal as a means to determine sources of invariance was conducted. Models 5-8 were tested. Model 5 determined whether the source of non-equivalence is related to the attitude toward becoming an entrepreneur aspect of the model. As shown in Table 5, there is a significant change in the χ^2 between Model 3 and 5. It can be stated then that the attitude toward becoming an entrepreneur of the full model is group invariant. Table 5 provides a summary of χ^2 values and χ^2 difference values related to the series of analyses involved in testing for structural invariance.

Findings Related to Hypotheses

Tests of hypotheses 1 to 4 were based on the specific paths of the multigroup hypothesized model (Model 3 in Table 5). Hypothesis 1 predicted that the relationship between the attitude toward becoming an entrepreneur and the intention to

Table 4. Fit Indexes for Tests of Factor Invariance

Model	χ^2	df	$\delta\chi^2$	δdf
1. Hypothesized model for business students	134.186	80		
2. Hypothesized model for non business students	91.679	80		
3. Multigroup hypothesized model	225.865	160		
4. Model 3 with factor loadings, variances, and covariances constrained equal	259.061	181		
Difference between Models 4 and 3			33.196*	21
5. Model 3 with only attitude factor loadings and variance constrained equal	227.263	163		
Difference between Models 5 and 3			1.398**	3
6. Model 3 with only attitude toward success factor loadings and variance constrained equal	232.748	163		
Difference between Models 6 and 3			6.88*	3
7. Model 3 with only subjective norm factor loadings and variance constrained equal	240.523	163		
Difference between Models 7 and 3			14.655*	3
8. Model 3 with only perceived behavioral control factor loadings and variance constrained equal	227.675	163		
Difference between Models 8 and 3			1.807**	3

* p = 0.00
 ** p = .001

Table 5. Fit indexes for structural invariance

Model	χ^2	df	$\delta\chi^2$	δdf
1. Hypothesized model for business students	100.505	83		
2. Hypothesized model for non business students	155.509	83		
3. Multigroup hypothesized model	256.016	166		
4. Model 3 with factor loadings, variances, and covariances constrained equal	256.552	170		
Difference between Models 4 and 3			0.536*	4
5. Model 3 with only attitude factor loadings and variance constrained equal	256.038	167		
Difference between Models 5 and 3			0.022**	1
6. Model 3 with only attitude toward success factor loadings and variance constrained equal	256.097	167		
Difference between Models 6 and 3			0.081*	1
7. Model 3 with only subjective norm factor loadings and variance constrained equal	256.067	167		
Difference between Models 7 and 3			0.051*	1
8. Model 3 with only perceived behavioral control factor loadings and variance constrained equal	258.631	168		
Difference between Models 8 and 3			2.615**	2

* p = 0.00
 ** p = .001

Table 6. Parameter Estimates for Structural Paths

Hypotheses	Path	Standardized Regression Weight		CR		Absolute fit
		Business	Non-Business	Business	Non-Business	
H1	INT <-- ATT	0.504	0.454	5.186	5.118	CMIN/DF = 1.542
H2	INT <-- SN	0.079	0.176	0.574	1.276	CFI = 0.959
H3	INT <-- PBC	0.366	0.343	2.208	2.356	RMSEA = 0.043
H4	ATT <-- ATS	0.710	0.564	8.052	5.871	

Legend
 INT : intention to try
 ATT : attitude toward trying
 SN : subjective norms
 PBC : perceived behavioral control
 ATS : attitude toward success

becoming an entrepreneur will be stronger for business students than non-business students. Support for this hypothesis was indicated in Table 6 in which the standardized coefficient for business students is stronger in business students ($\beta = 0.504$, CR = 5.186) than in non-business students ($\beta = 0.454$, CR = 5.118). The path structure from the attitude to the intention differs significantly between business and non-business samples ($\chi^2 = 256.016$, df = 166, $p = 0.00$).

Hypothesis 2 predicted that the relationship between subjective norms toward becoming an entrepreneur and the intention to becoming an entrepreneur will be stronger for business students than non-business students. This hypothesis was not supported, as the standardized regression weight for both business ($\beta = 0.079$, CR = 0.574) and non-business ($\beta = 0.176$, CR = 1.276) samples were not significant. Hypothesis 3 predicted that the relationship between perceived behavioral control and the intention to becoming an entrepreneur will be stronger for business students than non-business students. Support for this hypothesis was indicated in the results that show that the standardized coefficient for business students is stronger in business students ($\beta = 0.366$, CR = 2.356) than in non-business students ($\beta = 0.344$, CR = 2.208). The path structure from the attitude to the intention differs

significantly between business and non-business samples ($\chi^2 = 256.016$, df = 166, $p = 0.00$). Finally, hypothesis 4 predicted that the relationship between the attitude toward success and the attitude toward becoming an entrepreneur will be stronger for business students than non-business students. This hypothesis was not supported, as the standardized coefficient for business students is weaker in business students ($\beta = 0.564$, CR = 5.871) than in non-business students ($\beta = 0.710$, CR = 8.052). The path structure from the attitude to the intention differs significantly between business and non-business samples ($\chi^2 = 256.016$, df = 166, $p = 0.00$).

This research attempted to test the theory of planned behavior to predict students' intention to become entrepreneurs. The results show that two hypotheses were not substantiated: (1) the relationship between subjective norms toward becoming an entrepreneur and intention to becoming an entrepreneur will be stronger for business students than non-business students, and (2) the relationship between the attitude toward success and the attitude toward becoming an entrepreneur will be stronger for business students than non-business students.

This research shows attitude as the most important predictor of the intention to try to become an

entrepreneur for both business and non-business students. In the specific, the relationship between the attitude towards becoming an entrepreneur and the intention to becoming an entrepreneur will be stronger for business students than non-business students. The research also shows that the relationship between perceived behavioral control and the intention to becoming an entrepreneur will be stronger for business students than non-business students.

Two hypotheses were not supported. First, this research shows non-significant results regarding the relationship between subjective norms toward becoming an entrepreneur and the intention to becoming an entrepreneur for both samples. In other words, it can be stated that reference groups (such as parents, friends, and others) are not significant predictors in predicting students' intention to become entrepreneurs. Social pressures can encourage students to do or to become something. However, in relating with entrepreneurship context, it can be stated that social pressures are used as "approval" only towards becoming an entrepreneur, but it is not a significant factor in predicting the intention to become an entrepreneur. Becoming an entrepreneur requires more from internal students, such as attitude, motivation, and behavioral control. The results of this research also show that only attitude and perceived behavioral control are significant predictors of students' intention to become entrepreneurs.

The second hypothesis that was not substantiated is related to the relationship between the attitude toward success and the attitude toward becoming an entrepreneur. It was predicted that the relationship will be stronger for business students than non-business students. However, different results were obtained. In the specific, the results showed that the relationship is stronger for non-business than business students. Non-business students may have less knowledge about business matters compared to business students. However, it can be stated that less knowledge does not

mean less belief in the success of becoming an entrepreneur. Business students learn about business more than non-business students. On the other hand, their understanding does not always lead them to believe that they can successfully become an entrepreneur after they complete their degree.

MANAGERIAL IMPLICATIONS

This study contributes to the research streams of the theory of planned behavior and entrepreneurship. The findings of this research suggest attitude as the most important predictor of intention to become an entrepreneur. Furthermore, attitude toward success is also a significant predictor of attitude.

In addition to the theoretical contributions described, this study has provided insights to universities about students' intention to become entrepreneurs. Students' intention to become an entrepreneur is not limited only to business students. The results show attitude as the most important predictor of students' intention to become an entrepreneur. Understanding students' intention to become an entrepreneur could increase the likelihood of success for universities and lecturers to offer and develop entrepreneurship subjects in non-business faculties. Not only that, universities and lecturers should raise and maintain awareness of the importance of entrepreneurship subjects to all students.

CONCLUSION

In this paper, theory planned behavior is examined to predict students' intention to become entrepreneurs. The results show that the attitude toward trying is a main predictor of intention to try becoming an entrepreneur for both business and non-business student samples. Furthermore, perceived behavioral control is also a significant predictor of intention to become an entrepreneur. In the specific, the relationship between perceived behavioral control and the intention to becoming an entrepreneur is stronger for business students than non-business students.

This research is not without limitations. First, it applied non-probability design sampling (i.e., purposive sampling). Therefore, the results of the study limit the generalisability of the findings. Second, this study applied all variables in the

theory of planned behavior except behavior in order to fit with students' conditions. However, this research still contributes to give a snapshot in examining the theory of trying in entrepreneurship context. ■

Acknowledgement:

This research is funded by Universitas Pelita Harapan, Tangerang - Banten

REFERENCES

- Abraham, C. and Sheeran, P. 2004. Implications of goal theories for the theories of reasoned action and planned behavior in planned behavior: the relationship between human thought and action. *Current Psychology*, 22, 218-233.
- Anonymous. 2011. Kesadaran baru di SMAN 79, Kompas, Sabtu, 7 Mei, hal.12
- Anonymous. 2010. BIG ACTION: Men-trigger mahasiswa menjadi wirausaha sejati melalui aliansi Business, Intellect, dan Government (BIG). *Majalah KAMPUS*, 6, 1, p.10-12.
- Ajzen, I. and Fishbein, M. 1980. Understanding attitudes and predicting social behavior. NJ: Prentice-Hall, Inc.
- Ajzen, I. 1988. *Attitudes, Personality, and Behavior*, Britain: Open University Press.
- Ajzen, I. 2002. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32, 665-683.
- Ariff, A.H.M., Bidin, Z., Sharif, Z. and Ahmad, A. 2010. Predicting entrepreneurship intention among Malay University Accounting students in Malaysia. *UNIFAR e-journal*, 6, 1. Available at: http://ejournal.unirazak.edu.my/articles/Predicting_Entrepreneur_p16n1Jan10.pdf.
- Bagozzi, R.P., Dholakia, U.M. and Basuroy, S. 2003. How effortful decisions get enacted: the motivating role of decision processes, desires, and anticipated emotions. *Journal of Behavioral Decision Making*, 10, 273-295.
- Bagozzi, R.P., Gurhan-Cali, Z. and Priester, J.R. 2009. *The social psychology of consumer behaviour*. UK: Open University Press.
- Bagozzi, R.P. and Warshaw, P.R. 1990. Trying to consume. *Journal of Consumer Research*, 17, 2, 127-140.
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 2, 122-147.
- Beaudoin, C.E. and Thorson, E. (2006). The social capital of blacks and whites: differing effects of the mass media in the United States. *Human Communication Research*, 32, 157-177.
- Beatson, A., Coote, L.V. and Rudd, J.M. 2006. Determining consumer satisfaction and commitment through self-service technology and personal service usage. *Journal of Marketing Management*, 22, 853-882.
- Bouncken, R.B., Zagvozdina, J., Golze, A. and Mrozeska, A. 2009. A comparative study of cultural influences on intentions to found a new venture in Germany and Poland. *International Journal of Business and Globalisation*, 3, 1, 47-65.
- Brannback, M., Krueger, N., Carrsrud, A., Kickul, J. and Elfying, J. 2007. "trying" to be an entrepreneur? A "goal-specific" challenge to the intentions model. Available at: <http://ssrn.com/abstract=1135224>. Downloaded on 15 March 2011.
- Byrne, B.M. (2001). *Structural equation modeling with AMOS: basic concepts, applications, and programming*. Mahwah, NJ : Erlbaum
- Campbell-Sills, L. and Brown, T.A. (2006). Research consideration: latent variable approaches to studying the classification and psychopathology mental disorders. *Comprehensive Handbook of Personality and Psychopathology*, Vol. 2, Frank Andrasik (editor). NJ: John Wiley & Sons, Inc.
- Carsrud, A. and Brannback, M. 2011. Entrepreneurial motivations: what do we still need to know? *Journal of Small Business Management*, 49, 1, 9-26.
- Chen, C.C., Greene, P.G. and Crick, A. 1998. Does entrepreneurial self-efficacy distinguish entrepreneurs from managers. *Journal of Business Venturing*, 13, 4, 295-316.
- Ciputra (2011). Pendidikan entrepreneurship pendidikan manusia abad 21. Available at: [http://www.ciputra.org/files/DR\(HC\)IrCiputra_NationalConference.pdf](http://www.ciputra.org/files/DR(HC)IrCiputra_NationalConference.pdf). Downloaded 5 November 2011.
- Colquitt, J.A. and Zapata-Phelan, C.P. 2007. Trends in theory- building and theory testing: a five-decade study of the academy of management journal. *Academy of Management Journal*, 50, 6, 1281-1303.
- Craig, C.S. and Douglas, S. P. 2000. Conducting international marketing research in the twenty-first century. *International Marketing Review*, 18, 1, 80-90.

- Durvasula, S. Andrews, J.C., Lysonski, S. and Netemeyer, R.G. 1993. Assessing the cross-national applicability of consumer behavior models: a model of attitude toward advertising in general. *Journal of Consumer Research*, 19, 626-636.
- European Commission (2008). *Entrepreneurship in higher education, especially in non-business studies*. Enterprise and Industry Directorate-General. Available at: http://europ.eu.int/comm/enterprise/entrepreneurship/support_measures/index.htm
- Fitzsimmons, J.R. and Douglas, E.J. (2005). Entrepreneurial attitudes and entrepreneurial intentions: a cross-cultural study of potential entrepreneurs in India, China, Thailand, and Australia. *Babson-Kauffman Entrepreneurial Research Conference*, Wellesley, MA, June.
- Frazier, B.J. and Niehm, L.S. (2006). Predicting the entrepreneurial intentions of non-business majors: a preliminary investigation. <http://www.usasbe.org/.../USABE2006proceedings-Frazi>.
- Gabler, J. and Jones, M.Y. 2000. Behavior and behavioral intentions in a retail setting. ANZMAC 2000 Visionary Marketing for the 21st century: facing the challenge. Available at: <http://www.wmib.vuw.ac.nz:8081/www/ANZMAC2000?CDsite/.../g/Gabler1.PDF>.
- Galloway, L., Anderson, M. and Brown, W. (2006) 'Are engineers becoming more enterprising? A study of the potentials of entrepreneurship education', *International Journal of Continuing Engineering Education and Lifelong Learning*, 16, 5, 355-365.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R. and Tatham, R.L. 2006. *Multivariate Data Analysis*. 6th edition. NJ: Pearson Education.
- Harris, M.L. and Gibson, S.G. (2008). Examining the entrepreneurial attitudes of US business students. *Education + Training*, 50, 7, 568-581.
- Hubbard, R., Vetter, D.E. and Little, E.L. 1998. Replication in strategic management: scientific testing for validity generalizability, and usefulness. *Strategic Management Journal*, 19, 243-254.
- Hunter, J.E. 2001. The desperate need for replications. *Journal of Consumer Research*, 28, 6, 149-158.
- Kerlinger, F.N. and Lee, H.B. 2000. *Foundations of behavioral research*. Fort Worth: Harcourt College Publishers.
- Krueger, N.F., Reilly, M.D. and Carsrud, A.L. 2000. Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15, 411-432.
- Laroche, M., Papadopoulos, N., Heslop, L., & Bergeron, J. 2002. Effects of Subcultural Differences on Country and Product Evaluations. *Journal of Consumer Behavior*, 2, 3, 232-247.
- Lee, C. and Green, R.T. 1991. Cross-cultural examination of the Fishbein behavioral intentions model. *Journal of International Business Studies*, 22, 289-305.
- Linan, F. and Chen, Y. 2006. Testing the entrepreneurial intention model on a two-country sample. Document de Travail num.06/7. Department d'Economia de l'Empresa. Available at: <http://selene.uab.es/dep-economi-empresa/>.
- Malhotra, N. K. 2010. *Marketing Research: an applied orientation*. 6th ed. NJ: Pearson.
- Maskur, M. F. (2010). Ciptakan Jiwa Entreprenur, Sekarang. *Majalah KAMPUS*, 6, 1, p.58-59.
- Morrison, R., Matuszek, T. and Self, D. (2010). Preparing a replication or update study in the business disciplines. *European Journal of Scientific Research*, 47, 2, 278-287.
- Myers, M. 2000. Qualitative research and the generalizability question: standing firm with proteus. *The Qualitative Report*, 4, 3/4. Available at: <http://www.nova.edu/ssss/QR/QR4-3/myers.html>.
- Othman, N.H. and Ishak, S. 2009. Attitude towards choosing a career in entrepreneurship amongst graduates. *European Journal of Social Sciences*, 10, 3, 419-434.
- Ouellette, J.A. and Wood, W. 1998. Habit and intention in everyday life: the multiple processes by which past behavior predicts future behavior. *Psychological Bulletin*, 124,1, 54-74.
- Peterman, N. E. and Kennedy, J. 2003. Enterprise education: influencing students' perceptions of entrepreneurship. *Entrepreneurship Theory and Practice*, 28, 129-144.
- Pihie, Z.A.L. 2009. Entrepreneurship as a career choice: an analysis of entrepreneurial self-efficacy and intention of university students. *European Journal of Social Sciences*, 9, 2, 338-349.
- Rachman, M.N.A., Ghani, J.A., Ismail, A.R. and Zain, R.M. (2011). Engineering students toward entrepreneurship awareness. *Research Journal of International Studies*, 18, January, 48-58.
- Robinson, J.P., Shaver, P.R. and Wrightsman, L.S. 1991. Criteria for scale selection and evaluation. In *Measures of Personality and Social Psychological Attitudes*. San Diego: Academic Press.
- Schwab, K. (2009). *Introduction*. Educating in the next wave of entrepreneurs: Unlocking entrepreneurial capabilities to meet the global challenges of the 21st Century. World Economic Forum: Switzerland.
- Sekaran, U. and Bougie, R. 2010. *Research Methods for Business: A Skill Building Approach*. 4th ed., New York: John Wiley & Sons.
- Sihombing, S.O. (2011). What is Really Matter to be an Entrepreneur? An Examination of the Theory of Trying. *Proceedings of International Seminar "Becoming the Key Player in New Globalism"*, Makassar: University of Hasanuddin.
- Triandis, H.C. 1979. Values, attitudes, and interpersonal behavior, pp. 195-259 in *Beliefs, attitudes, and values. Nebraska Symposium on Motivation*. Edited by H.E.Howe and M.M. Page. Lincoln University of Nebraska Press.
- Urban, B., Van Vuuren, J. and Owen, R.H. 2008. Antecedents to entrepreneurial intentions: testing for measurement invariance for cultural values, attitudes and self-efficacy beliefs across ethnic groups. *SA Journal of Human Resource Management*, 6, 1, 1-9.
- Whetten, D.A. (189). What constitutes theoretical contributions? *Academy of Management Review*, 14, 4, 490-495.
- Wilson, K.E. and Sepulveda, A. (2010). Introduction. *World Economic Forum: Educating the Next Wave of Entrepreneurs: Unlocking Entrepreneurial Capabilities to Meet the Global Challenges of the 21st Century*. Switzerland.
- Zain, Z.M., Akram, A.M. and Ghani, E.K. 2010. Entrepreneurship intention among Malaysian Business Students. *Canadian Social Science*, 6, 3, 34-44.