



## DEVELOPING ENTREPRENEURIAL INTENTION MODEL OF UNIVERSITY STUDENTS (AN EMPIRICAL STUDY ON UNIVERSITY STUDENTS IN SEMARANG, INDONESIA)

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### ABSTRACT

The rise in unemployment due to imbalance between population growth and job vacancies is a serious problem for developing countries such as Indonesia. University graduates tended to contribute highest rate of unemployment in Indonesia. This is due to their preferences to work at formal sectors than to become an entrepreneur or self-employed person. Therefore, entrepreneurship development may be one solution to decrease unemployment in Indonesia. The objectives of this research are threefolds. First, the research was designed to investigate the effects of entrepreneurial learning (such as entrepreneurial knowledge and entrepreneurial experience), instrumental readiness, risk propensity on entrepreneurial self-efficacy. Second, it was to investigate the effect of personality traits on entrepreneurial attitudes. Finally, it was to analyze the antecedences of entrepreneurial intention through self-efficacy and entrepreneurial attitudes. The sample size was 200 students taking entrepreneurial classes and courses from various universities in Semarang, Indonesia. The analysis employed a Structural Equation Modeling (SEM) using AMOS v 5. The results demonstrated that the need for achievement and locus of control significantly and positively influenced entrepreneurial attitude, while the variables of entrepreneurial knowledge, entrepreneurial experiences, risk taking propensity showed significant and positive influences on self-efficacy. The results also showed that the effects of locus of control and risk taking propensity on entrepreneurial intention were significant and positive. Further, subjective norms showed direct effects on entrepreneurial intention. However, despite their positive influences, the effects of the need for achievement and instrument for readiness on entrepreneurial intention were insignificant. The findings conclude that the entrepreneurial courses in universities may enlighten university students to pursue entrepreneur careers.

**KEYWORDS:** Entrepreneurial learning, personality traits, entrepreneurial attitude, self efficacy, entrepreneurial intention,.

### INTRODUCTION

Every year, about 3,355 universities in Indonesia produce more than 339,000 graduates who will then securely compete in obtaining a place in the job occupancy whose capacity is getting smaller these days ([www.evaluasi.dikti.or.id](http://www.evaluasi.dikti.or.id) and [www.kemdikmas.go.id](http://www.kemdikmas.go.id)). Of these unemployed, approximately 1,14 million people are educated employment, graduating from universities. The Central Board of Statistics of Indonesia (CBS) reported that in August 2007, the unemployment reached 10,011,142 persons (9.75%), while unemployed university graduates amounted to 963,779 persons or 9.63 percent. Similar survey in February 2008 revealed that the total employment reached 9,427,610 persons (decreased by 1.2 percent) compared to the figure in the previous year. However, the number of unemployed university graduates showed in the contradictory, amounting to 1,146,069 persons (12.2 percent) or rose by 2.57 percent from the year 2007.

One of the reasons of such an increase is the reluctance of university graduates to become entrepreneurs. Being an entrepreneur is often viewed as unfavourable career choice since one usually has to face day to day uncertain situations with lots of challenges and deal with frustration due to the process of establishing new business (Wijaya, 2007). In addition, the lack of entrepreneurship teaching at

school may also cause the university students to obtain limited beneficials and low attractiveness in being an entrepreneur (Wijaya, 2009). This is ultimately the reasons that being an entrepreneur is to be treated as a second or even third alternative of person's career. In line with the effect of such entrepreneurship education, there is a requirement to build an understanding on how to develop and support the emergence of young entrepreneurs who are potential enough whilst they are still learning at schools (Indarti and Rostiani, 2008).

Two main theories used as the basis for many researchers to carry out studies on the intention of entrepreneurs as a predictor of entrepreneurial behavior include The Entrepreneurial Event Theory (Shapero and Sokol, 1982) and the Theory of Planned Behavior (Ajzen, 1991). The Shapero and Sokol model is developed based on three basic elements; namely, perceived desirability (value system of individual and social that influence one's judgment), perceived feasibility - that is, one's perception who perceives him/her self as having the ability to gather resources (human, social, finansial) to build new business, and propensity to act (drive inside someone to act). This model acquires empirical supports, for example, from Kruger *et al.* (2000) as well as Peterman and Kennedy (2003).

On the other hand, Ajzen model explains and predicts how culture and social environment affect human behavior. The focus is on one's intention, which, in fact, the result of three determinants; namely, the attitude toward behavior (individual evaluation), subjective norms (social pressure) and perceived behavior control (ability to control behavior) (Ajzen, 2001). This theory has obtained supports from many researchers on entrepreneurship, among others, Kolvereid (1996), Tkachev and Kolvereid (1999), Krueger et al. (2000), Linan (2004), Fayolle and Gaily (2005), as well as Veciana et al. (2005).

Krueger *et al.* (2000) carried out a research by comparing Theory of Entrepreneurial Event and Theory of Planned Behavior. The result was that both models were interrelated when applied on entrepreneurship research. Perceived desirability is equivalent to or similar with attitude toward behavior and subjective norms, while Perceived feasibility is in line with perceived behavior control or perceived self-efficacy from Bandura (1997). According to Shook, (2003), Fayolle et al. (2006), Theory of Planned Behavior has been widely used for research in various fields including entrepreneurship as it is more detail and its result is consistent. Ajzen (2005) developed Theory of Planned Behavior by adding an individual background factors. This background factors cover personal, social, environment and information which affect both intention and individual behavior.

Several previous studies were conducted with different kinds of perspectives. Researches performed by, for example Krueger *et al.* (2000), Wijaya (2009), Engle et al. (2010) underlied Theory of Planned Behavior by using entrepreneurial attitudes, subjective norms and self-efficacy as the antecedent of entrepreneurship intention and as entrepreneurship behavior predictors. Further, research carried out by Lutje and Franke (2003) and

Nishanta (2009) employed personality traits as entrepreneurial trait antecedent which has an indirect effect on entrepreneurial intention but does not develop the construct effect of self efficacy. Other research conducted by Kristiansen and Indarti (2004), and Ramayah and Harun (2005) made a person's background factor such as locus of control, need for achievement, instrumental readiness as an antecedent which has a direct influence on entrepreneurial intention. In addition, research performed by Zhao et al (2005), focused on the role of self efficacy as a mediator for several background factors, such as entrepreneurial learning and risk propensity in predicting entrepreneurial intention, by not developing entrepreneurial attitudes construct.

This study is designed to analyze how background factors such as risk propensity, need for achievement, locus of control, intrumental of readiness, and entrepreneurial learning affect entrepreneurial intention and behavior. These effects will not only be investigated in a direct way but also be studied in a mediating way through entrepreneurial traits and self-efficacy (indirect) according to the development concept of theory of planned behavior.

A number of research showed the crucial roles of risk propensity, need for achievement, entrepreneurial traits, self efficacy, locus of control, instrumental readiness, entrepreneurial learning, subjective norms and intention as well as entrepreneurial behavior (Kristiansen & Indarti, 2004; Taormina & Lao, 2006; Ramayah & Harun, 2005; Segal et al, 2005; Zhao *et al.*, 2006; Shook & Bratianu, 2008; Li, 2007; Linan & Santos, 2007; Urban, 2006; Zhao et al.,2005; Barbosa et al, 2007; Hmieleski & Corbett, 2006; Rajjman, 2001; Fini et al, 2007). Some research findings are presented in Table 1 which show several previous researches results.

**Tabel 1. Previous Researches Results**

<b>Research Gap</b>	<b>Researchers</b>	<b>Research Findings</b>
The differences of research findings about the influence of self efficacy toward entrepreneurial intention (GAP 1)	Kristiansen & Indarti (2004), Ramayah & Harun (2005), Sequeira <i>et al</i> (2007), Segal <i>et al</i> (2005), Taormina & Lao (2006), Zhao <i>et al</i> (2006), Shook & Bratianu (2008), , Linan & Santos (2008), Fini <i>et al</i> (2007), Basu & Virick (2009) Taormina & Lao (2006), Fitzsimmons & Douglas (2006), Urban (2006)	Self efficacy has positive influence toward entrepreneurial intention  Self efficacy does not have positive influence toward entrepreneurial intention
The differences of research findings about the influence of need for achievement toward entrepreneurial intention (GAP 2)	Kristiansen & Indarti (2004), Ramayah & Harun (2005), Taormina & Lao (2006) Koh, HC. (1996), Kristiansen & Indarti (2004), Hmieleski & Corbett (2006)	Need for achievement has positive influence toward entrepreneurial intention  Need for achievement does not have significant positive influence toward entrepreneurial intention
The differences of research findings about the influence of subjective norms toward entrepreneurial intention (GAP 3)	Sequeira <i>et al</i> (2007), Li (2007), Linan (2008), Basu & Virick (2009) Fini <i>et al</i> (2007), Li (2006)	Subjective norm has positive influence toward entrepreneurial intention  Subjective norm does not have significant positive influence toward entrepreneurial intention

The differences of research findings about the influence of <i>locus of control</i> toward entrepreneurial intention (GAP 4)	Kristiansen & Indarti (2004), Ramayah & Harun (2005)	Locus of control has significant influence toward entrepreneurial intention
	Koh,HC. (1996), Kristiansen & Indarti (2004)	Locus of control does not have significant influence toward entrepreneurial intention
The differences of research findings about the influence of instrumental readiness toward entrepreneurial intention (GAP 5)	Kristiansen & Indarti (2004), Taormina & Lao (2006), Ramayah & Harun (2005)	Instrumental readiness has influence toward entrepreneurial intention
	Taormina & Lao (2006), Sequeira <i>et al</i> (2007)	Instrumental readiness (social networking) does not have significant influence toward entrepreneurial intention
The differences of research findings about the influence of risk propensity toward entrepreneurial intention (GAP 6)	Segal <i>et al</i> (2005), Zhao <i>et al.</i> , (2005)	Risk propensity has positive influence toward entrepreneurial intention
	Fitzsimmons & Douglas (2006), Luca & Cazan (2010)	Risk propensity does not have significant positive influence toward entrepreneurial intention
The differences of research findings about the influence of risk propensity toward <i>self efficacy</i> (GAP 7)	Zhao <i>et al.</i> , (2005), Hmieleski & Corbett (2006)	Risk propensity has positive influence toward self efficacy
	Barbosa <i>et al.</i> , (2007)	Risk propensity (high preference for risk) does not have significant positive influence toward self efficacy

Source: Summary of Previous Studies

Tabel 1 clearly demonstrate the different results of antecedent variables on entrepreneurial intention. This controversy becomes the initial causes of this study. The objectives of this research are threefolds. First, the research is designed to investigate the effects of entrepreneurial learning (such as entrepreneurial knowledge and entrepreneurial experiences) on entrepreneurial self efficacy. Entrepreneurial knowledge is a business course delivered in a class room. The purpose of this course is to give students some knowledge about business and entrepreneurship. Entrepreneurial experiences is an activity that encourages students to have business practices by providing students some business events to implement their business knowledge. The purpose of practicing business to the students is to enrich students' experiences and horizons in developing and crafting business activities. The second objective is to analyze the effect of personality traits on entrepreneurial attitudes. Finally, is to analyze the antecedents of entrepreneurial intention through self efficacy and entrepreneurial attitudes as mediators

### **THEORITICAL FRAMEWORK AND HYPOTHESIS**

#### **Theory of Planned Behavior**

Efforts to predict behavior in a more accurate way has continuously been conducted by experts in a various kinds

of research. Ajzen refined this basic model by expanding or adding new variables so as to give attention on self-efficacy concept. According to Ajzen (1985) in Theory of Planned Behavior, behavior intention is not only influenced by traits and subjective norm variables but also by perceived behavior control. This construct was added in order to understand limitation that an individual has performing particular behavior. In other words, whether or not an intention and behavior are conducted will not only be determined by traits and subjective norms but also individual perception toward control on what is being performed, which is based on one's belief toward such control (control beliefs) (Ajzen, 2008). The central attention of Theory of Planned Behavior is on the one's intention to conduct a behavior, for an intention is considered to be a variable causing a behavior, whether it comes from a trait or other variables. Furthermore, Linan, et al (2005) stated that Theory of Planned Behavior was able to be applied in nearly all of planned behaviors and gave good results when applied in several research fields, including entrepreneurship. Ajzen (2005) further added a factor of individual background into the Theory of Planned Behavior. The background factors, which cover, among others,; age, gender, tribes, economic-social status, personal characteristics, personal traits, and knowledge are indeed able to influence individual intention and behavior

toward one particular thing. Within such a category, Ajzen (2005) included three background factors; namely, Personal, Demography, and Environment. Personal factor is one's general attitude toward something, personality traits, living values, emotion, and intelligence that he/she has, while demography factor includes age, gender, tribes, education, income, and religion. Finally, environment factor covers those as experiences, knowledge, and exposure to media.

#### **Social Cognitive Theory**

Social cognitive theory, forwarded by Bandura (1977), was based on the proposition that both social and cognitive processes are the centre for to understand motivation, emotion, and human actions. Social cognitive theory was based on a triadic reciprocity model, which means that there are three factors influencing reciprocally; namely, behavior, cognitive, personal factors, and environmental influence. The main constructs claimed by this theory were social learning and self-efficacy. Social learning means that each individual is able to learn not only from their own experience but also the one surrounding them (Bandura, 1986). It is the ability of human to learn from what have been experienced by others that becomes the basic concept of social cognitive theory. Furthermore, it was forwarded that there are two ways of conducting this kind of learning; that is : learning through observation (observational learning) and learning through actions (enactive learning) (Boyd and Vozikis, 1994). The former is further controlled by four sub-functions; namely, pros attention process, retention process, production process, and motivation process (Bandura, 2001). Bandura (1986) defined self efficacy as a judgement of one's capability to accomplish a certain level of performance. Self-efficacy is viewed to be essential as it has a powerful influence toward the aspects of motivation, behavior, and one's affection in undertaking an assignment (Pervin, 1996). The belief in self efficacy gave contribution in determining how big efforts are required and how long one can survive in facing problems and failure (Jung, et al, 2001). In the struggle that needs endurance, such as entrepreneurs, belief of self efficacy plays a crucial role in strengthening one's endurance in ability being an entrepreneur and therefore he can do entrepreneur rules and tasks successfully (Mubaroki & Zare, 2012)

#### **ENTREPRENEURIAL ATTITUDE, SUBJECTIVE NORMS AND ENTREPRENEURIAL SELF EFFICACY**

The research results of Krueger *et al.* (2000) indicated that entrepreneurship is a result of planned intention and behavior, therefore, the use of Theory of Planned Behavior to conduct research on entrepreneurial intention and behavior is justified to be correct. According to Eagle *et al.* (2010), studies on entrepreneurial intention in 12 countries using the Theory of Planned Behavior model gave positive results. In an entrepreneurial research, behavioral attitudes were realized in entrepreneurial attitude construct, which can be referred to as general feeling or evaluation on being entrepreneurs based on entrepreneurs' belief and evaluation or a particular business (Gadam, 2008)., while Control Behavior was realized in the construct of entrepreneurial self efficacy.

Entrepreneurial Self Efficacy explained by Ajzen (2005) was viewed to have the closest inter-relation with the Perceived Behavior Control. In several entrepreneurship, control behavior was operated in the form of Self Efficacy (Pihie & Bagheri, 2011 ; Koe *et al.*,2012). Researchers applied self-efficacy in entrepreneurial fields and labelled it as entrepreneurial self efficacy (Pihie and Bagheri, 2011) which is defined as the perception of one's capability in realizing his/her success in accomplishing his/her role as an entrepreneur (Chen *et al.*, 1998). Subjective Norms, moreover, is referred to as an individual belief on the norm of the surrounding people as well as individual motivation to obey the norms. Krueger *et al* (2000) pointed out that Intention was the best predictor for most of planned behavior, including the one in entrepreneurial behavior. Furthermore, intention is viewed as a determinant variable for the real behavior, which means that the stronger the intention for behavior, the bigger the success of behavior prediction or behavior aims to occur. In entrepreneurship research, entrepreneurial intention is viewed as an individual intention tendency to conduct entrepreneurial actions by creating new products through business opportunities and risk propensity (Ramayah & Harun, 2005; Kristiansen & Indarti, 2004). Entrepreneurial behavior is an individual action shown with entrepreneurial decision (Zampetakis & Moustakis, 2006 ; Ajzen, 2008). Entrepreneurial intention is a direct antecedent of entrepreneurial behavior; and the bigger size of the entrepreneurial intention will show the bigger size of entrepreneurial behavior. The roles of entrepreneurial attitudes, subjective norms and self efficacy toward entrepreneurial intention is supported by research performed by Segal *et al* (2005), Shook & Bratianu (2008), Li (2007), Linan (2008), Linan & Santos (2008), Fini *et al* (2007), Sequeira *et al* (2007), Li (2007), Basu & Virick (2009), Kristiansen & Indarti (2004), Ramayah & Harun (2005), Taormina & Lao (2006), Zhao *et al* (2006), Shook & Bratianu (2008), and Urban (2006), Pihie & Bagheri (2011)

#### **PERSONALITY TRAITS (NEED FOR ACHIEVEMENT, LOCUS OF CONTROL) AND ENTREPRENEURIAL INTENTION**

In Theory of Planned Behavior, Ajzen (2005) carried out an extension by adding individual background factors. Such background factors in this model consist of personal, social, and informational factors that might influence traits, subjective norms, control behavior, intention and individual behavior.

#### **Personality Traits**

Personality traits, is a construct to explain regularity in community behavior, and assist to explain why one has different reaction in the same situation (Cooper, 1998). Furthermore, Personality trait cover five dimensions; they are: extroversion, neuroticism, agreeableness, conscientiousness, and openness to experience (Nga and Shamuganathan, 2010). According to Llewlyan & Wilson (2003), Each of these personality dimensions gather to form smaller number or narrow traits that play an important role in predicting behavior. The interrelation between personality traits and entrepreneurship is centralized in the use of narrow traits including: need for

achievement, Locus of control, and risk propensity. Krueger *et al* (2000) claimed that personality traits as a background factor can give indirect influence toward entrepreneurial behavior through elevating entrepreneurial traits as one of the antecedents of entrepreneurial intention. In a number of entrepreneurial studies, personality traits were realized in a variety of constructs (Boyd and Vozikis, 1994; Norasmah and Salmah, 2009; Nishanta, 2009). According to Shaver and Scott (1991), Koh (1996), Hansemark (1998), Need for Achievement and Locus of Control was the main dimension of personalities and characters which obtain the biggest attention in entrepreneurial references. Meanwhile, Zhao, *et al* (2005), pointed out that Risk Propensity has bigger influence through Self Efficacy.

### **THE ROLES OF ENTREPRENEURIAL SELF EFFICACY AS A MEDIATOR FOR ENTREPRENEURIAL INTENTION DEVELOPMENT**

Pihie and Bagheri (2011) stated that Entrepreneurial Self Efficacy was viewed as a particular character which was able to differentiate student entrepreneurs from any other disciplines, and the main individual character affecting intention and entrepreneurial behavior (Segal, *et al.*, 2005; Barbosa, *et al.*, 2007). In other words, whether or not one decides to become an entrepreneur is determined by the size of influence of entrepreneurial self efficacy toward entrepreneurial intention (Boyd and Vozikis, 2004; Zhao, *et al* 2005). According to Cognitive Social Theory (Bandura, 1986), self efficacy is determined by four sources; namely, enactive attainment, vicarious experience / observational learning, verbal persuasion, and physiological states. In addition, in entrepreneurial research, self efficacy antecedent is expressed in both entrepreneurial formal education and entrepreneurial experience (Zhao *et al*, 2005; Linan *et al*, 2005, Lindsay, 2006), environmental support and influence (Fini *et al*, 2007; Kristiansen and Indarti, 2004; Ramayah and Harun, 2005), as well as Risk Propensity (Zhao, *et al*, 2005).

#### **Risk Propensity**

According to Zhao *et al*. (2005) physiological condition which has influence on physiology affecting not only self efficacy but also entrepreneurial decision making is realized in risk propensity construct which, in background factor, is related to value factor and personality characters. Any individual who has risk propensity tends to become an entrepreneur since they have both confidence and ability in running and developing business, and are able to face business failure (Zhao *et al*, 2005). Moreover, individual with risk propensity tendency have self confidence in handling any business constraint so that they have intention to initiate and develop business. Furthermore, Bandura (1986), Krueger and Dickson (1994) pointed out that risk propensity was related to self efficacy. Such risk propensity will relatively increase self efficacy and desire to become entrepreneurs. Thus, self efficacy and the willingness to take the risk are required in forming entrepreneurial behavior. Individual possessing risk propensity, deep self efficacy and optimism were able to handle the situation. (Zhao *et al.*, 2005; Hmieleski & Corbett, 2006; Barbosa *et al*, 2007). A number of

studies showed that there was a positive relationship between risk propensity and entrepreneurial intention (Zhao *et al.*, 2005; Segal *et al.*, 2005; Fitzsimmons & Douglas, 2006, and Hmieleski & Corbett, 2006). Meanwhile, entrepreneurial behavior was shown by creative and innovative attitudes and risk propensity (Hisrich *et al*, 2008).

#### **Environmental Factors**

Krueger and Brazeal (1994) stated that entrepreneurial intention could also be influenced by background factors, such as, personalities, values, confidence and environment (contextual element or contextual factor). Such contextual factor can have stronger effect in making entrepreneurial decision rather than personality factor (Brockhaus & Horwitz, 1985; Gartner, 1989). However, Krueger *et al.* (2000) pointed out that the effect of both personal factor and contextual element was indirect, that is, it had an influence on entrepreneurial intention through entrepreneurial attitudes (desirability) or self efficacy (feasibility). Fini *et al* (2007, 2009, 2012) realized external factor in the form of perceived environmental support which play its role to increase entrepreneurial intention through perceived behavior control and entrepreneurial self efficacy. Contextual factor, for instance environmental factor, furthermore, was realized by Franke and Lautje (2003), Schwarz *et al*, 2009 in the construct of entrepreneurship related supports and entrepreneurship related barriers. Nevertheless, Indarti and Kristiansen (2003), Kristiansen and Indarti (2004); and Ramayah and Harun (2005) gave more focus on three contextual elements as external environmental factors which were viewed as the most prominent elements for potential entrepreneurs; namely, access to capital, information availability, and social networking. The combination of these three contextual elements refers to instrumental readiness and is viewed to play an important role in driving entrepreneurial intention. (Indarti and Kristiansen, 2003; Ramayah and Harun (2005). In this research, nevertheless, the external environmental factor is expressed in instrumental readiness that can directly or indirectly give influence (through self efficacy) toward entrepreneurial intention.

#### **Entrepreneurial Learning**

According to Rae and Carswell (2000), the ability to learn is definitely essential in developing entrepreneurial ability, with the success of learning, skills, knowledge and ability required, business development can be carried out. Minniti and Bygrave (2001) even claimed that basically entrepreneurship is a learning process; thus, to be able to understand such an entrepreneurship, we have to initially understand entrepreneurial learning. Conceptually, entrepreneurial process can be identified as an internal dynamic process of a research and learning (Cope, 2005). In order to reach this self efficacy, one has to undergo through development throughout cognitive and social processes as well as skills obtained from experiences (Bandura, 1982). This kind of learning is undertaken through either observation learning, formal learning or vicarious experience and through enactive learning (mastery experience) with a series of practices or training in order to improve the skills (Wood and Bandura, 1989). Experience, is, indeed, one way to interpret knowledge to

become skills because with experience, people will realize both positive and negative consequences upon the act they have performed (Boyd and Vozikis, 1994). Lent and Hawlet (1987) stated that carrier intention can be formed by direct experience or impressive experience that provide opportunities to put into practice, obtain feedback, and develop skills leading to self-efficacy. In this research, entrepreneurial learning is realized in entrepreneurial knowledge / formal learning (Zhao et al, 2005 ; Linan, 2005) and entrepreneurial experiences (Boyd and Vovikis, 1994 ; Zhao et al , 2005).

**THE HYPOTHESIS DEVELOPMENT AND THE EMPIRICAL MODEL**

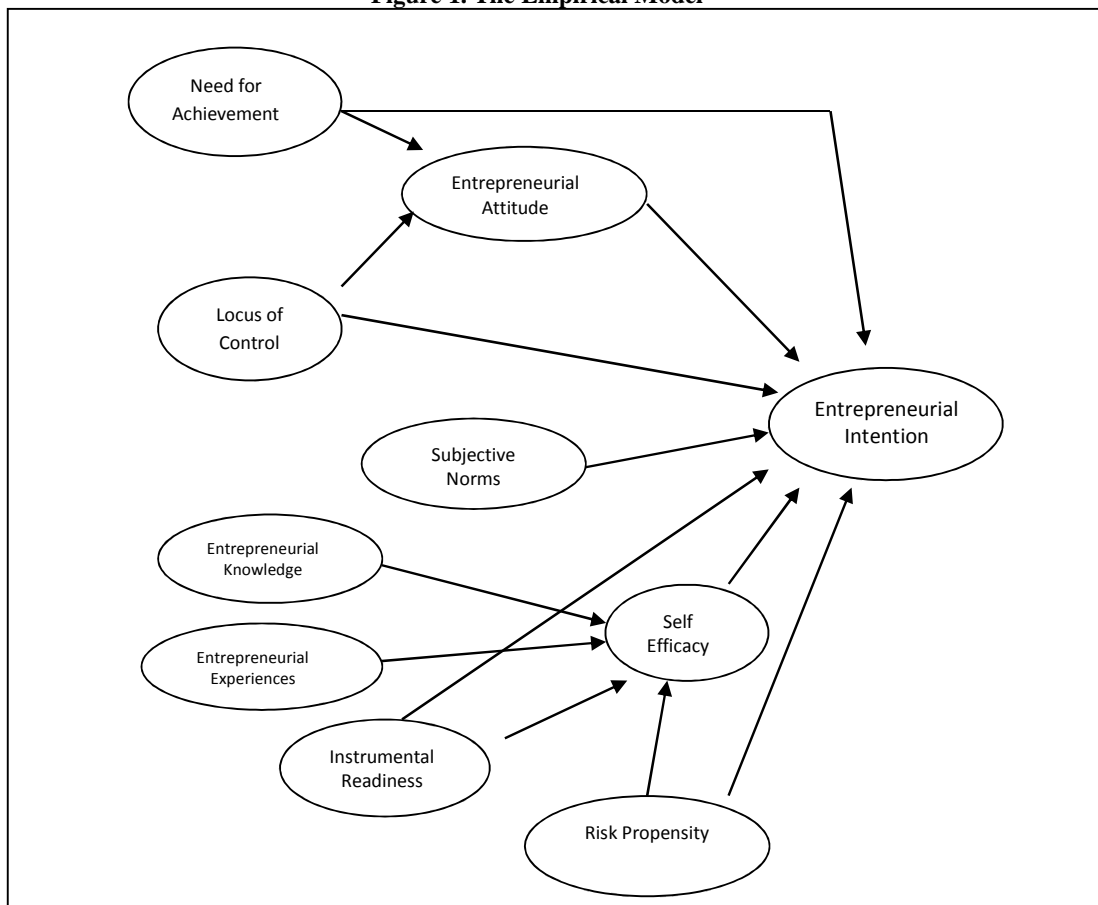
The model of Theory of Planned Behavior stated that intention is influenced by attitude, subjective norms and behavior control. Empirically, those factors are indicated on some entrepreneurship researches as entrepreneurial attitude, subjective norm, need for achievement, locus of control, self-efficacy, instrumental readiness and risk propensity (Kristiansen & Indarti, 2004; Taormina & Lao, 2006; Ramayah & Harun, 2005; Segal et al, 2005; Zhao et al, 2006; Shook & Bratianu, 2008; Li, 2007; Linan & Santos, 2008; Urban, 2006; Zhao et al.,2005; Barbosa et al, 2007; Hmieleski & Corbett, 2006; Raijman, 2001; Fini et al, 2007).

Based on the above empirical studies, the hypothesis are proposed as follows:

- H: Need for achievement has positive influence toward entrepreneurial attitude
- H<sub>2</sub>: Locus of Control has positive influence toward entrepreneurial attitude
- H<sub>3</sub>: Need for achievement has positive influence toward entrepreneurial intention
- H<sub>4</sub>: Locus of Control has positive influence toward entrepreneurial intention
- H<sub>5</sub>: Subjective norms has positive influence toward entrepreneurial intention
- H<sub>6</sub>: Entrepreneurial attitude has positive influence toward entrepreneurial intention
- H<sub>7</sub>: Entrepreneurial knowledge has positive influence toward self-efficacy
- H<sub>8</sub>: Entrepreneurial experiences have positive influence toward self-efficacy
- H<sub>9</sub>: Risk propensity has positive influence toward self-efficacy
- H<sub>10</sub>: Risk propensity has positive influence toward entrepreneurial intention
- H<sub>11</sub>: Instrumental Readiness has positive influence toward self-efficacy
- H<sub>12</sub>: Instrumental Readiness has positive influence toward entrepreneurial intention
- H<sub>13</sub>: Self-efficacy has positive influence toward entrepreneurial intention

Based on the above hypothesis, the empirical model of entrepreneurial intention and behavior in this research is proposed as follows :

**Figure 1. The Empirical Model**



## RESEARCH METHOD

### Sampling Technique

The population in this research is university students in Semarang who have completed the practical entrepreneurship courses through entrepreneurship program sponsored by government or private companies, with the amount of 912 students. Using a propotional random sampling, questionanaires then were distributed to 200 sample targets from various universities in Semarang, Indonesia. The questionnaires method employed "people assisted administration", henceforth, the response rate was 100%. Measurement of variable in this research used a Likert Scale modified for interval scale with bipolar extreme, namely Scale 1 as strongly disagree to 7 as strongly agree. Data analysis method in this research uses structural equation model, further called SEM using AMOS v 5.0.

### Operational Definition of Research Variable

The data level of research variable gathered in the form of interval, and operational definition related to the meaning of all latent variable used in this field research is defined and explained as follow:

#### Entrepreneuril Attitude

entrepreneurial attitude can be referred to as general feeling or evaluation on being entrepreneurs based on entrepreneurs' belief and evaluation or a particular business (Gaddam, 2008). The indicators adapted from Kolvereid (1996), Fitzsimmons and Douglass (2006), Gaddam (2008), with four statement items : Starting business is interesting, comfortable with new business development, seriously way of view about business development, positive view of business development

#### Subjective Norms

Subjective Norms, is referred to as an individual belief on the norm of the surrounding people as well as individual motivation to obey the norms (Krueger, *et al.*, 2000). Subjective norms was measured with three statement items: believing of family role in business start-up, believing of business supporting from important person, believing of business supporting from friends (Ramayah and Harun, 2005; Gaddam, 2008)

#### Self Efficacy

Self Efficacy was defined as the perception of one's capability in realizing his/her success in accomplishing his/her role as an entrepreneur (Chen *et al.*, 1998). The indicators adapted from Chen, *et al.* (1998), Kristiansen and Indarti (2004), Ramayah & Harun (2005), Gaddam (2008), with four statement items : Believing of business start-up capability, believing of resources leadership, capability of using business opportunity, believing of mental maturity

#### Risk Propensity

Risk propensity is defined as an individual tendency to take or to avoid risks (Sitkin and Pablo, 1992; Sitkin and Weingart, 1995). The measurement of risk propensity in this entrepreneurial research is using indicator adapted from Lutje dan Franke (2003); Fini, *et al.*, 2007; Gaddam (2008) with four statement items:

Taking risk propensity bravely, willing to try new things, willing to use new method, managing loan as investment

### Internal Locus of Control

Internal Locus of Control is the level of individual belief on success and failure through self initiative on environment (Ramayah & Harun, 2005). Variable of Internal Locus of Control is measured by using indicator of Internal Locus of Control adopted from Ramayah and Harun (2005), Kristiansen and Indarti (2004), Gaddam (2008), with three statement items : hard work will determine success ,never surrender from failure, trust more on capability than luck factors

### Need for Achievement

Need for achievement is defined as a person desire either for excellence or to succeed in competitive situation (Ramayah & Haron, 2005). The indicators for this research were adopted from Kristiansen and Indarti (2004), Ramayah & Haron (2005), Gaddam (2008), with four statement items : Orientation of increasing past achievement, willing to increase responsibility, overcome difficult tasks as good as possible, Show better performance than others

### Entrepreneurial knowledge

The definition of knowledge is mostly related to the terminology of data, information, intelligence, skill, idea, intuition or insight, where all of them depend on the context of the knowledge word used (Ackoff, 1989). The indicator of entrepreneurial knowledge is related to how many students can absorb entrepreneurial knowledge based on data, information, intelligence, skill, idea, intuition or insight, either sourced from inside or outside campus (Ackoff, 1989; Zhao, *et al.*, 2005; Linan, 2005; Lindsay, *et al.*, 2006).

### Entrepreneurial Practice Experience

Entrepreneurial experience is a way to interpret it to skills, by which one realizes negative or positive consequences of his action (Boyd and Vozikis, 1994). The entrepreneurial knowledge is gained from acquiring training on entrepreneurship, helping a friend's business, until managing his own business, or according to Novak, *et al.* (2000) is known as flow experience.

### Instrumental Readiness

It is access capability of entrepreneurial supporting factors (Kristiansen and Indarti, 2004). The variable of Instrumental readiness is measured by using simplicity indicator in accessing capital, network, and information (Kristiansen and Indarti, 2004; Ramayah and Harun, 2005)

### Entrepreneurial Intention

Entrepreneurial intention is a tendency of individual desire to do entrepreneurship activity by creating new products through business opportunity and propensity taking (Ramayah & Harun, 2005, Kristiansen & Indarti, 2004, Taormina & Lao, 2007). The indicator on masuring variable of entrepreneurial intention includes the aspect of : preference, recommendation, will realize business in next years

## RESULT

### The Statistical Results

Based on exogenous construct confirmatory factor analysis (attachement 1), factor loading indicator ek2, ek1, lc4 are less than 0.5 so that they are excluded from the model. Based on endogenous construct confirmatory factor analysis (attachment 3), it is recognized that loading

factor of all indicators are above 0.5 so that no indicators are excluded from the model. Further, using AMOS v. 5, after some prevailing tests (data and model check such as

reliability, multicollinearity and normality tests), the Full Model of *Structural Equation Model (SEM)* is presented in Figure 3 below.

Figure 2. The results of *Structural Equation Model*

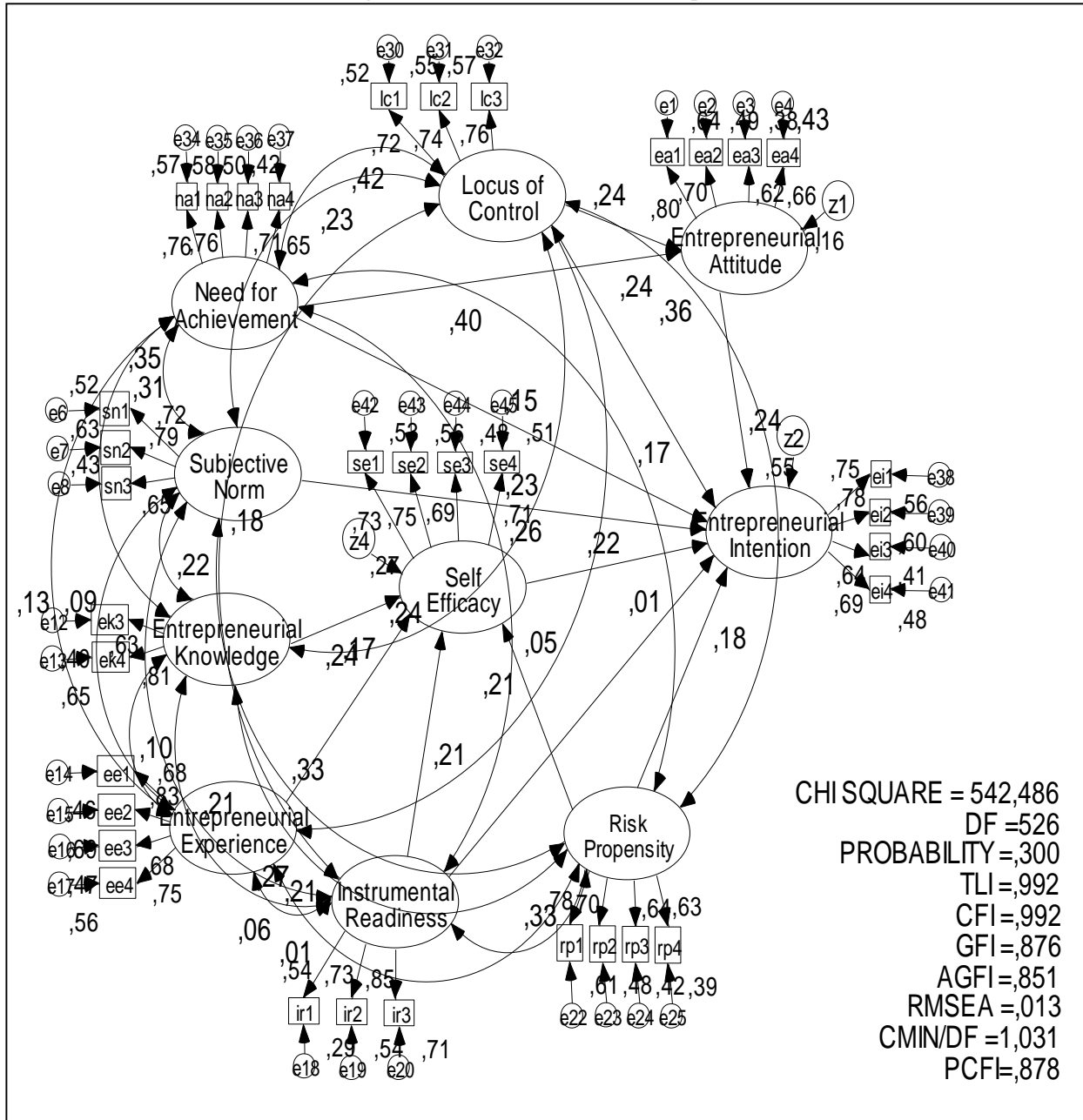


Table 2. Goodness of Fit Indices of Figure 2

No	Goodness of fit index	Cut of Value	Results	Evaluation
1	X <sup>2</sup> - Chi-Square	<580,46	542.486	Good
2	Significance Probability	≥ 0,05	0.300	Good
3	CMIN/DF	≤ 2,00	1.031	Good
4	GFI	≥ 0,90	0.876	Good
5	AGFI	≥ 0,90	0.851	Good
6	TLI	≥ 0,95	0.992	Good
7	CFI	≥ 0,95	0.992	Good
8	RMSEA	≤ 0,08	0.013	Good

Source: Research result ( 2013)



The model basically demonstrates good results since the goodness of fit indices meet all statistical requirements. Most of hypothesis are statistically accepted. Twelve

hypotheses were accepted while two hypotheses were rejected. Table 3 presented the results of research hypothesis.

**Table 3. Hypotheses Test Result**

INDEPENDENT VARIABLE	DEPENDENT VARIABLE	HYPHOTHESES	ESTIMATE	CR	P	DESCRIPTION
Need for achievement	Entrepreneurial attitude	H <sub>1</sub>	.276	2.470	.013	Accepted
Locus of control	Entrepreneurial attitude	H <sub>2</sub>	.240	2.359	.018	Accepted
Need for achievement	Entrepreneurial intention	H <sub>3</sub>	.201	1.663	.096	Unaccepted
<i>Locus of control</i>	Entrepreneurial intention	H <sub>4</sub>	.207	1.977	.048	Accepted
Subjective norms	Entrepreneurial intention	H <sub>5</sub>	.370	2.763	.006	Accepted
Entrepreneurial attitude	Entrepreneurial intention	H <sub>6</sub>	.288	2.943	.003	Accepted
Entrepreneurial knowledge	Self-efficacy	H <sub>7</sub>	.263	2.529	.011	Accepted
Entrepreneurial experiences	Self-efficacy	H <sub>8</sub>	.166	2.073	.038	Accepted
Risk propensity	Self-efficacy	H <sub>9</sub>	.191	2.323	.020	Accepted
Risk propensity	Entrepreneurial intention	H <sub>10</sub>	.218	2.016	.044	Accepted
Instrumental readiness	Self-efficacy	H <sub>11</sub>	.200	2.302	.021	Accepted
Instrumental readiness	Entrepreneurial intention	H <sub>12</sub>	.011	.107	.915	Unaccepted
Self-efficacy	Entrepreneurial intention	H <sub>13</sub>	.292	2.729	.006	Accepted

Source : Research Result (2013)

The results demonstrated that the need for achievement and locus control (treated as personal traits) significantly and positively influenced entrepreneurial attitude. The variables of entrepreneurial learning (such as entrepreneurial knowledge and entrepreneurial experiences) and risk propensity showed significant and positive influences on self efficacy. Table 4 also showed that the effects of locus control and risk taking propensity on entrepreneurial intention were significant and positive. Further, subjective norms showed direct effects on entrepreneurial intention. On the other hand, locus of control may also give direct and indirect effects via entrepreneurial attitude on entrepreneurial intention. However, despite their positive influences, the effects of the need for achievement and instrument for readiness on entrepreneurial intention were insignificant.

#### DISCUSSION AND IMPLICATION

Linan *et al* (2005) stated that Theory of Planned Behavior was able to be applied in nearly all of planned behaviors and gave good results when applied in several research fields, including entrepreneurship. The research results of Krueger *et al.* (2000) indicated that entrepreneurship is a result of planned intention and behavior, therefore, the use of Theory of Planned Behavior to conduct research on entrepreneurial intention and behavior is correct. The result of this research also pointed that entrepreneurial attitude, subjective norms and self efficacy had significant influence on entrepreneurial intention. According to Eagle *et al.* (2010), studies on entrepreneurial intention in 12 countries using the Theory of Planned Behavior model gave positive results.

Locus of control and Risk propensity were the background factor which had direct significant influence on entrepreneurial intention and indirect significant through entrepreneurial attitude and self efficacy. This simply means that that students' locus of control and risk had strong effects in increasing the willingness or students

entrepreneurial intention, which will ultimately increase the students' entrepreneurial behaviour. The students' belief of entrepreneurial success, which is proven by working hard, unyielding, trust in self-capability, high initiative, taking risk propensity bravely, willing to try new things, willing to use new method, managing loan as investment have positive contribution toward students' entrepreneurial intention.

Students completed with entrepreneurial learning by following some of the practical entrepreneurship courses through entrepreneurship program sponsored by government or private institutions proven had significant influence on self efficacy. In order to reach self efficacy, one has to undergo through development throughout cognitive and social processes as well as skills obtained from experiences (Bandura, 1982). This kind of learning is undertaken through either observation learning, formal learning or vicarious experience and through enactive learning (mastery experience) with a series of practices or training in order to improve the skills (Wood and Bandura, 1989)

Despite their positive influences, the effects of the need for achievement and instrument for readiness on entrepreneurial intention were insignificant. Krueger *et al.* (2000) pointed out that the effect of both personal factor and contextual element was indirect, that is, it had an influence on entrepreneurial intention through entrepreneurial attitudes (desirability) or self efficacy (feasibility). Fini *et al* (2007, 2009, 2012) realized external factor in the form of perceived environmental support which play its role to increase entrepreneurial intention through perceived behavior control and entrepreneurial self efficacy. Some previous research conducted by Koh, HC. (1996), Kristiansen & Indarti (2004), Hmieleski & Corbett (2006) showed that need for achievement did not significant on entrepreneurial intention, and also Taormina & Lao (2006), Sequeira *et al* (2007) showed that social

networking (instrumental readiness) did not significant on entrepreneurial intention.

The findings conclude that today's entrepreneurial learning in universities may enlighten university students to pursue entrepreneur careers. The courses are likely to increase self efficacy of students in understanding entrepreneurship and then may increase students' intention to be entrepreneurs. Personal traits (such as need for achievement and locus of control) are likely to influence students' attitudes toward entrepreneurship and ultimately their intention and decision to be entrepreneurs.

The study recommends for any institutions to deliver entrepreneurship education program in an inculcative learning. This program is expected to persuade changes of individual characters and traits rather than introduction to business system an sict!. The entrepreneurial learning conducted in this research combines entrepreneurial training in the classroom and simultaneously and business apprenticeship program. The most attention will be emphasized on increasing personality traits, instrumental readiness, and entrepreneurial lessons, because those background factors are proven to take important roles in supporting increased intention. Further recommendation is that entrepreneurial programs are supposed to evenly distributed to any universities, either government and private universities, not only to government universities.

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