

## FACTORS AFFECTING ENTREPRENEURIAL INTENTIONS AMONG INDONESIAN STUDENTS

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### ABSTRAK

*Penelitian ini bertujuan untuk mengidentifikasi factor-faktor penentu intensi kewirausahaan (entrepreneurial intention) mahasiswa Indonesia. Empat variabel independen digunakan untuk memprediksi intensi kewirausahaan. Keempat variabel tersebut adalah kebutuhan akan pencapaian (need for achievement), lokus kendali (locus of control), efikasi diri (self-efficacy), dan kesiapan instrumen (instrumental readiness). Menggunakan 130 sampel, penelitian menemukan bahwa dari variabel-variabel tersebut, efikasi diri dan kesiapan instrumen mempengaruhi intensi kewirausahaan secara signifikan, sedangkan lokus kendali dan kebutuhan akan pencapaian tidak mempunyai pengaruh terhadap intensi secara signifikan. Secara keseluruhan, semua variabel bersama-sama hanya dapat menjelaskan 23.6% dari variansi total. Selanjutnya, variabel demografis (umur, jender, pendidikan, dan pengalaman kerja) tidak mempunyai pengaruh yang signifikan terhadap intensi kewirausahaan. Secara umum, penelitian menemukan bahwa intensi kewirausahaan mahasiswa Indonesia tidak terlalu tinggi (rata-rata= 4.46 dari 7; dan simpangan baku=1.39). Hal ini dapat diinterpretasikan bahwa mahasiswa Indonesia sedikit lebih menyukai menjadi entrepreneur daripada bekerja di perusahaan.*

**Kata-kunci:** *entrepreneurial intention (intensi kewirausahaan), need for achievement, locus of control, self-efficacy, instrumental readiness, Indonesia.*

### INTRODUCTION

Many studies have been done to investigate entrepreneurial intentions and behavior (Bird, 1988; Kolvereid, 1996; Tkachev and Kolvereid, 1999; Mazzarol et al., 1999; Misra and Kumar, 2000; Liao et al., 2000). They proposed different entrepreneurial intentions and behavior predictors. For example, Mazzarol et al. (1999), based on earlier studies, proposed two entrepreneurial intention predictors, namely environment and personality.

Another study by Misra and Kumar (2000) proposed a model to explain entrepreneurial behavior that incorporated several factors, such as entrepreneurial intention, entrepreneurial

environment, and demographic, psychological and situational factors.

Still, other studies tried to investigate relationship between psychological factor to entrepreneurial behavior and success. Moreover, Green et al. (1996) studied psychological characteristics that influenced entrepreneurship. Sengupta and Debnath (1994) found that psychological factor and need for achievement was a significant predictor for entrepreneurial success, while Panda (2000) found that there were social factors relating to entrepreneurial success, such as migration, direct supervision, and previous contact with business world. Similarly, Morrison (2000) pointed out that there was

relationship between entrepreneurship and culture specificity.

The aim of this study is to participate to the debate, especially with respect to entrepreneurial intentions predictors. The main objective of this study is to examine what factors that influenced to the entrepreneurial intentions.

## RESEARCH QUESTION

The entrepreneurial intentions have been predicted with many different approaches. This research focuses on four factors that are predicted to influence the entrepreneurial intentions, which can be divided into personality and environment factor (Mazzarol et al., 1999). Personality factors include need for achievement (McClelland, 1961; Sengupta and Debnath, 1994; Lee, 1997; Mazzarol et al., 1999), locus of control (Mazzarol et al., 1999), self-efficacy (Gilles and Rea, 1999), and environment factor is represented by instrumental readiness (Mazzarol et al., 1999).

Hence, the main research question that is going to be answered in this research is: *what factors affecting entrepreneurial intentions among Indonesian students?*

Beneficiaries (e.g. academia and government) may take advantage of the results of this study to develop programs to promote entrepreneurship among students. Then, it is expected that fresh graduates will not only be ready to work at companies but they are prepared to be self-employed.

## A THEORETICAL BASIS

The academic study of motivation for entrepreneurial endeavour started some 50 years ago and has been dominated by social sciences other than economics. McClelland for instance (1961, 1971), introduced the theory on need for achievement, based on empirical studies from West Africa and the U.S. The term 'n-ach', still going strong in the development literature (Lewis, 1991), brought into the debate on economic growth a

terminology and a scientific tradition from the disciplines of psychology and sociology. The need for achievement is a personality trait, while also a result of demographic characteristics and environmental factors. Hagen (1962, 1971) used the theoretical basis as McClelland, in his study in Burma. In 'traditional societies', he said, the social structure was hierarchical and authoritarian in all of its aspects - economic, political and religious. Individuals' status in the society was inherited, social mobility was limited, and the entrepreneurial motivation was therefore low (Hagen, 1971, p. 126). Therefore, Hagen has been regarded as an environmental determinist.

More recent studies have been more specific on demographic factors and personal history, as well as on environmental factors influencing entrepreneurial intentions. Still, studies of entrepreneurial intentions are dominated by contributions from psychology and sociology and focusing on specific personality characteristics of entrepreneurs. In the following, distinctions in the theoretical discussion between demographical factors and individual background, personality traits, and contextual elements are explained briefly.

## Demography and individual background

Several studies support the argument that demographic characteristics such as age and gender and individual background such as education and previous employment have an impact on entrepreneurial intentions. Mazzarol et al., (1999) found that females were generally less likely to be founders of new businesses than males, and similarly Kolvereid (1996) concluded that males had significantly higher entrepreneurial intentions than females. Some ten years ago, women only accounted for approximately 20% of new firm formations in the Scandinavian countries. Although age is normally not regarded a significant determinant of business start-ups, Reynolds et al., (2000) found that individuals aged 25-44

years are the most active in entrepreneurial endeavour in Western countries.

Findings from a study in India also indicate that successful entrepreneurs are relatively young (Sinha, 1996). The same study from India revealed that educational background is of importance for entrepreneurial intentions as well as for business success. Lee (1997) studied women entrepreneurs in Singapore and found that university education had a great impact on the need for achievement of women entrepreneurs. Mazzarol et al., (1999) found that respondents with previous government employment experience were less likely to be business starters compared with employees from private businesses. Kolvareid (1996) found that individuals with prior entrepreneurial experience had significantly higher entrepreneurial intentions when compared with those without such experience.

Based on the above-mentioned studies and theoretical discussion, the gender, age, educational background and employment experiences can be considered as factors that might have an influence on entrepreneurial intentions.

Based on these research findings, following hypothesis is generated:

H1: Students who (a) are male, (b) have employment experience, (c) have business education background, have higher entrepreneurial intentions than their counterpart.

### **Personality traits**

As already mentioned, McClelland (1961, 1971) emphasized that a personality characteristic such as the *need for achievement* influences individuals in the direction of entrepreneurial intentions. He characterized individuals with a high need for achievement as having a strong desire to be successful. People who score high on the need for achievement usually appreciate personal responsibility and like taking risks, and they

have a strong interest in seeing the results of decisions they make. A person with high need for achievement 'is more self confident, enjoys taking carefully calculated risks, researches his environment actively, and is very much interested in concrete measures of how well he is doing' (McClelland, 1965, p. 7).

Terpstra, Rozell and Robinson (1993) more recently stated that the concept of need for achievement includes such characteristics as the desire to be personally successful, the tendency to take moderate or calculated risks, and the desire for immediate and concrete feedback. Lee (1997, p. 103) argued that the need for achievement is conceptualised as a 'unitary disposition that motivates a person to face challenges in the interest of attaining success and excellence'. Scapinello (1989), in a study of differences in the attributions of groups that had high or low motivation, concluded that those with a high need for achievement were less accepting of failure, suggesting that need for achievement affected attributions for success and failure. Nathawat, Singh and Singh (1997) found that low need for achievement is associated with low competence, low expectations, an orientation toward failure, and a tendency toward self-blame and low inspirations.

*Locus of control* is another personality characteristic indicating a feeling of control. According to Hisrich and Peters (1998, p. 68), locus of control should be understood as 'an attribute indicating the sense of control that a person has over life'. A typical question in a checklist for feelings about control for potential entrepreneur is the following: 'Do you know that if you decide to do something, you'll do it and nothing can stop you?' Hisrich and Brush (1985, p. 6). When considering forming a new venture, people will be concerned whether they will be able to sustain the drive and energy required handling the challenges of establishing, managing and making the business prosper.

Locus of control refers to the degree to which an individual perceives success and failure as being contingent on his or her personal initiatives (Green et al., 1996). The belief that things happen only because of destiny or accidentally is a reflection of limited internal control with the individual, which is the same as a low score on the locus of control parameter. The level of internal control has been identified as one of the most dominant entrepreneurial characteristics (Venkanthapathy, 1984). Individuals with a high score on feeling of control are also more likely to have a clear vision of the future and long-term business development plans (Entrialgo, Fernández and Vázquez, 2000). There seem to be a general acceptance in the literature that the stronger the internal locus of control of the individuals, the greater the degree of entrepreneurial intentions (Mazzarol et al., 1999).

Thirdly, the term *self-efficacy*, derived from Bandura's (1977) social learning theory, refers to a person's belief in his or her capability to perform a given task. According to Ryan (1970), self-perception plays a role in the development of intentions. Likewise, Cromie (2000) stated that self-efficacy affects a person's beliefs regarding whether or not certain goals may be attained. Moreover, self-efficacy provides the foundation for human motivation and personal accomplishment: unless people believe that their actions can produce the outcomes they desire, they have little incentive to act or to persevere in the face of adversities (Pajares, 2002).

Bandura (1997, 2) pointed to the fact that 'people's level of motivation, affective status and actions are based more on what they believe than on what is objectively true'. An individual's perception of self-efficacy has a strong influence on how he or she will act and how the available knowledge and skills will be utilised. Consequently, people behave according to beliefs about their capabilities

rather than based on real facts on competence and capabilities.

Cromie (2000) emphasizes the need to make a clear distinction between the concepts of locus of control and self-efficacy. The first is a generalized construct that covers a variety of situations, while self-efficacy is task and situation specific. Thus, individuals may exhibit a strong feeling of control in general, but may have a low self-efficacy with regard to specific tasks. Conclusively, these three personality factors might be of importance for a person's entrepreneurial intentions: need for achievement, feeling of control, and self-efficacy.

Based on these research findings, following hypotheses are presented:

H2: Need for achievement is a significant predictor of entrepreneurial intentions.

H3: Locus of control is a significant predictor of entrepreneurial intentions.

H4: Self-efficacy is a significant predictor of entrepreneurial intentions.

### Contextual elements

Environment factors that affect entrepreneurial intentions include cultural characteristics, social relations, economic and political conditions and physical and institutional infrastructure (Kristiansen 2001, 2002a). Not only the objective contextual characteristics are important when discussing entrepreneurial intention and behaviour, but also the way potential entrepreneurs perceive their environments. Anderson (2000, p. 102) studied entrepreneurs in the periphery of the Scottish Highlands and found that one could not understand entrepreneurship as if it was a discrete objective reality. Objectification of the environment is not reality; '... the environment is actually enacted and consequently becomes a subject'. In the following, this paper will focus on three contextual elements: access to capital, availability of information, and social networks.

*Access to capital.* Access to capital is obviously one of the typical obstacles to the start-up of new businesses, not least in a developing economy with weak credit and venture capital institutions. Sources of capital may be personal savings, an extended family network, community saving and credit systems, or financial institutions and banks.

*Availability of information.* Singh and Krishna (1994), in their studies of entrepreneurship in India, pointed out that eagerness in information seeking is one of the entrepreneurial characteristics. Information seeking refers to the frequency of contact an individual makes with various sources of information. The result of this activity is most often dependent on information accessibility, either through individual efforts and human capital or as a part of a social capital and networking. In a study of agribusiness entrepreneurs in Java, Kristiansen (2002b) found that access to new information is indispensable for the survival and growth of firms. The availability of new information is found to be dependent on personal characteristics, such as the level of education, and on infrastructure qualities, such as media coverage and telecommunication systems.

*Social networks.* The study of entrepreneurship has increasingly reflected the general agreement that entrepreneurs and new companies must engage in networks to survive (Huggins, 2000). Networks represent a means for entrepreneurs to reduce risks and transaction costs and improve access to business ideas, knowledge and capital (Aldrich and Zimmer, 1986). A social network consists of a series of formal and informal ties between the central actor and other actors in a circle of acquaintances and represents channels through which entrepreneurs get access to the necessary resources for business start-up, growth and success (Kristiansen and Ryen, 2002).

In conclusion of this brief sub-section on contextual elements of importance to

entrepreneurial intentions, the individuals' perception of their access to capital and information and the quality of their social networks are considered as one factor with a combined measurable effect on entrepreneurial intentions. Furthermore, these factors are named as *instrumental readiness*. Then the following hypothesis to be tested is formulated as:

H5: Instrumental readiness is a significant predictor of entrepreneurial intentions.

In addition to those five hypotheses, an additional hypothesis is tested in this study formulated as follows:

H6: Need for achievement, locus of control, self-efficacy and instrumental readiness altogether explain entrepreneurial intentions significantly.

Based on the above sub-sections on theoretical and empirical contributions to explaining business start-ups, the model in Figure 1 is presented.

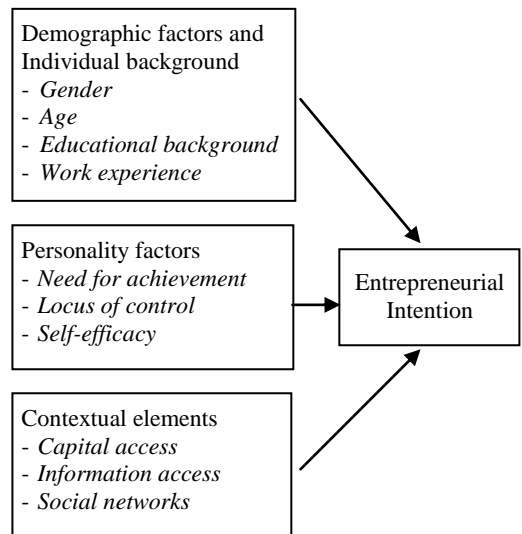


Figure 1. The model used in the research.

## METHOD

### 1. Data Collection

Each of the four independent variables was operationalized with several items. One dependent variable is used to measure entrepreneurial intentions. All items were measured by 7-point Likert scales. In addition, demographic data (gender, age, past work experience, major of study) of respondents were collected. The questionnaire was in Indonesian language and was developed by Indarti (2002) based on several previous researches.

Sample of this research was students taking bachelor degree at Gadjah Mada University in Yogyakarta at various faculties. Then, responses were collected in Yogyakarta from the middle until the end of June 2002. They were selected by purposive sampling method. In purposive sampling or judgment sampling, samples are selected with a specific purpose in mind (Remenyi, 2000).

Data collection was conducted in person-to-person way. The respondents were asked about their willingness to participate in this study before having and filling in the questionnaire. This was not personal interview

questionnaire because the respondents fill in the questionnaire by themselves. This method was chosen to get the highest response rate.

Data collection took places around Gadjah Mada University campus, especially in public areas such as student cantinas, libraries, and computer laboratories. This technique is used to get respondents from various demographic backgrounds. Then, the number of sample was 130 students and the response rate was 65% (out of 200 students). The demographic characteristic of respondents is depicted in Table 1.

Among the respondents, 64 (49.2%) are females and 66 (50.8%) are males (see Table 4). Most respondents age below 25 years.

The respondents with economics and business educational background are 55.4% and the rest (44.6%) with other educational backgrounds. Among the respondents, 73 (56.2%) have no previous employment experience, whereas 43.8% of them have either in public or in private sector or in both sectors.

Table 2 summarizes the characteristics of the values of each variable (independent and dependent) used in the study.

**Table 1.** Demographic characteristic of respondents.

	N	%
Gender		
▪ Male	66	50.8
▪ Female	64	49.2
Age (years)		
▪ < 25	110	84.6
▪ ≥ 25	20	15.4
Educational background		
▪ Economics and Business	72	55.4
▪ Non-Economics and Business	58	44.6
Employment experience		
▪ Never	73	56.2
▪ Public or government sector	8	6.2
▪ Private sector	47	36.2
▪ Both sectors	2	1.5

**Table 2.** The characteristics of the values of each variable

Variables	Mean	Standard Deviation
<b>Need for achievement</b>		
I will do very well in fairly difficult tasks relating to my study and my work.	5.78	1.06
I will try hard to improve on past work performance.	6.20	0.98
I will seek added responsibilities in job assigned to me.	4.69	1.42
I will try to perform better than my friends.	5.92	1.03
<b>Locus of Control</b>		
Diligence and hard work usually lead to success.	6.43	0.95
If I do not succeed on a task, I tend to give up.	2.86	1.72
I do not really believe in luck.	4.78	1.30
<b>Self Efficacy</b>		
I have leadership skills that are needed to be an entrepreneur.	4.82	1.39
I have mental maturity to start to be an entrepreneur.	4.52	1.31
<b>Instrumental Readiness</b>		
I have access to capital to start to be an entrepreneur.	3.66	1.50
I have good social networks that can be utilized when I decide to be an entrepreneur.	4.46	1.54
I have access to supporting information to start to be an entrepreneur.	4.59	1.43
<b>Entrepreneurial Intentions</b>		
I will choose a career as an entrepreneur.	4.75	1.54
I will choose a career as an employee in a company/an organization.	4.40	1.73
I prefer to be an entrepreneur rather than to be an employee in a company/organization.	5.03	1.55

## 2. Data Analysis

Prior to multiple regression analysis, an assessment for possible violations of assumptions is conducted. This assessment is made after re-coding scores for several items. Reverse scaling is used for item 2 in the locus of control and item 2 in the entrepreneurial intentions.

The values of each variable are obtained by averaging the item scores. Item 2 of the locus of control is dropped since this improves the reliability (Cronbach's  $\alpha$ ). Table 3 shows the reliability coefficients of the variables that vary from 0.33 to 0.83. With exception on locus of control, the values of Cronbach's  $\alpha$  are within the minimum accepted for exploratory studies. According to Nunally (1978) suggested that

values up to 0.60 and even 0.50 can be considered acceptable. No remedial work was done, albeit the reliability of items to operationalize locus of control is low.

Table 4 shows Pearson's correlation coefficients among variables. Instrumental readiness and self-efficacy have the highest significant correlation coefficient (0.594). But according to Gujarati (1995), that is not considered to be a strong correlation. He suggested those correlation coefficients that are lower than 0.7 is not considered as a strong correlation. In that case, the model does not have *multicollinearity* problem.

In addition to internal reliability and multicollinearity assessments, other assumptions of regression analysis are not violated.

There is no *heteroscedasticity* problem and dependents variable approximates normal distribution (skewness statistic = -0.094, standard error of skewness = 0.212, kurtosis statistic = -0.186, standard error of kurtosis =

0.422). Also, ratio of subjects to independent variables is substantial (130 subject and 4 independent variables) and no outliers in original or predicted values of dependent variable.

**Table 3.** Mean, standard deviation, and Cronbach's alpha of each variable

Variables	Mean	Standard Deviation	$\alpha$
Need for achievement	5.56	0.82	0.58
Locus of control	5.60	0.88	0.33
Self-efficacy	4.67	1.25	0.83
Instrumental readiness	4.24	1.22	0.76
Entrepreneurial intentions	4.46	1.39	0.83

**Table 4.** Pearson's correlations coefficients.

Variables	NACH	LOC	SELFEFF	INSREAD
LOC	0.335**			
SELFEFF	0.305**	0.212*		
INSREAD	0.172	0.139	0.594**	
INTENT	0.075	0.207*	0.457**	0.406**

Notes:

NACH: need for achievement, LOC: locus of control, SELFEFF: self-efficacy, INSREAD: instrumental readiness, INTENT: entrepreneurial intentions.

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

### 3. Hypotheses Testing

In this section, each research hypothesis is examined. Using SPSS version 10.0, a standard multiple regression is performed with entrepreneurial intentions as the dependent variable and need for achievement, locus of control, self-efficacy, and instrumental readiness as the independent variables. The independent variables are entered into the regression equation simultaneously. The correlations among these variables are presented in Table 5.

**Table 5.** Regression coefficients

Variables	$\beta$	$t$
NACH	-0.112	-1.328
LOC	0.145	1.758
SELFEFF	0.340*	3.420
INSREAD	0.203**	2.120
$R^2$	0.259	
<i>Adjusted-R</i> <sup>2</sup>	0.236	
$F(4, 125)$	10.935**	

Notes:

\*\* Significant at the 0.01 level;

\* Significant at the 0.05 level.



### **Hypothesis 1**

Hypothesis 1 states that the need for achievement is a significant predictor of entrepreneurial intentions. Table 5 shows the need for achievement does not have significant contribution to determine entrepreneurial intentions among Indonesian students. Moreover, the value of  $\beta$  (standardized regression coefficient) is negative ( $\beta = -0.112$ ,  $p > 0.05$ ). This findings is inconsistent with those of previous researches (e.g. McClelland, 1976; Sengupta and Debnath, 1994; Cromie, 2000) that generally found that the need for achievement influence entrepreneurial intentions in a positive direction.

### **Hypothesis 2**

The result also shows that locus of control does not influence entrepreneurial intentions significantly, albeit the direction is as expected ( $\beta = 0.145$ ,  $p > 0.05$ ). Hence, hypothesis 2 is not supported.

Despite of its insignificance, this substantiates findings of previous researches (e.g. Venkanthapathy, 1984; Mazzarol et al., 1999; Entrialgo et al., 2000). Previous findings concluded that the greater of the locus of control of the individuals, the greater the degree of entrepreneurial intentions.

### **Hypothesis 3**

Self-efficacy has a positive significant contribution ( $p < 0.05$ ,  $\beta = 0.340$ ) in determining entrepreneurial intentions among Indonesian students. This finding supports hypothesis 3 states that self-efficacy is a positive significant predictor of entrepreneurial intentions.

This result consistent with the several previous results (Ryan, 1970; Gilles and Rea, 1999) that mainly stated that the self-efficacy contributed significantly to the prediction of intentions.

### **Hypothesis 4**

Regression analysis shows that instrumental readiness is a positive significant ( $p < 0.01$ ) predictor of entrepreneurial intentions. This finding substantiates the previous research. Sabbarwal (1994) and Kristiansen (2001) stated that capital availability affects entrepreneurial start-up. Mazzarol et al., (1999) stated that social network has influences to entrepreneurial intentions. Singh and Krishna (1994) found that information accessibility is a determinant of entrepreneurial intentions. Similarly, Kristiansen (2001) found that information accessibility affect entrepreneurial start-up.

### **Hypothesis 5**

From Table 5, the  $F$ -statistic at the degree of freedom 4 and 125 ( $F(4, 125)$ ) is 10.935 ( $p < 0.05$ ). Based on these values, the independent variables (need for achievement, locus of control, self-efficacy and instrumental readiness) altogether explain entrepreneurial intentions significantly. This finding supports hypothesis 5.

The proportion of variance in the dependent variable that can be predicted by the dependent variables ( $R^2$ ) is 22.5%.

## **4. Demographic Variables Analysis**

Demographic variables that are analyzed in the model are gender, age, educational background, and previous employment experience.

### **Age**

Using the  $t$ -test, significant differences are not found in the degree of self-efficacy of various age groups of Indonesian students. Entrepreneurial intention is not significantly influenced by age.

### Gender

Male students' self-efficacy was significantly higher than females'. Also, the degree of instrumental readiness of male students was significantly higher than for female students. The degree of need for achievement, locus of control and entrepreneurial intention of female students did not significantly differ from that of male students in *t*-tests.

### Former work experience

The degree of self-efficacy of Indonesian students who had employment experience differed significantly ( $p < 0.05$ ) from those of Indonesian students who had no employment experience. In this case, the degree of self-efficacy of Indonesian students with employment experience ( $n=56$ , mean=4.94, SD=1.18) was higher than the degree of self-efficacy of those without employment experience ( $n=74$ , mean=4.47, SD=1.27). Likewise, at a significance level of  $p < 0.05$ , Indonesian students who had employment experience had a higher degree of instrumental readiness ( $n=56$ , mean=4.54, SD=1.13) than those without employment experience ( $n=74$ , mean=4.01, SD=1.25). There are no significant differences of entrepreneurial intention between students with and without employment experience.

### Educational background

Surprisingly, among Indonesian students, the degree of instrumental readiness ( $n=72$ , mean=4.01, SD=1.12), and the degree of entrepreneurial intention ( $n=72$ , mean=4.16, SD=1.26) of economics and business administration students were significantly lower than those of non-economics students (instrumental readiness:  $n=58$ , mean=4.52, SD=1.30,  $p < 0.05$ ; entrepreneurial intention:  $n=58$ , mean=4.84, SD=1.45,  $p < 0.05$ ).

These findings give no general support for the statements in Hypothesis 6 that demographic factors and individual

background, such as age, gender, education and work experience have an influence on entrepreneurial intention. One peculiar exception is the negative impact of the major discipline of economics and business administration on entrepreneurial intention among the Indonesian students. However, as can be seen, adding demographic and individual background variables in the regression model increases the percentage of explained variance substantially.

### CONCLUDING REMARKS

Based on statistical analyses above, several conclusions can be drawn.

- Locus of control, self-efficacy, and instrumental readiness influence the entrepreneurial intentions in expected direction. Of these three independent variables, only self-efficacy and instrumental readiness that do it significantly. Referring to correlation matrix on Tabel 4, this can be interpreted that locus of control does not affect the intention directly. It affects the self-efficacy and then the self-efficacy determines the intention.
- The result of regression analysis shows that four independent variables altogether significantly determine the entrepreneurial intentions. However, they only can explain 23.6% ( $R^2$ ) of total variance of the entrepreneurial intentions. This indicates that there are other factors that determine the entrepreneurial intention in addition to the variables in the research model.
- Generally, the degree of entrepreneurial intentions among Indonesian students is not so high (mean = 4.46, sd = 1.39), however it is slightly above the mid-value (4.00). This can be interpreted that they slightly prefer to be an entrepreneur than to work in a company.
- All demographic variables (age, gender, educational background, and previous

employment experience) have no significant effect to the entrepreneurial intentions.

## IMPLICATIONS

Based on the results of this study, generally, the degree of entrepreneurial intentions among Indonesian students is not high. If these findings were confirmed by future research, the university (and or the Indonesian government) would be well advised to seek educational programs, which will enhance the entrepreneurial intentions of the students.

Alternatively, changing the curricula in college or university emphasizing more on the entrepreneurship aspect may be a good way to increase the degree of entrepreneurial intentions among Indonesian students or to prepare Indonesian students to be tough entrepreneurs.

Another possible way is by involving students with some activities like entrepreneurship workshop, training and internship. In order to facilitate these, developing an entrepreneurship incubator for students is recommended. Collaboration between several stakeholders (e.g. academia, government) may be advantageous in order to realize this program. All in all, promoting entrepreneurship among students will make them not only be prepared to be good employees but also qualified entrepreneurs.

## LIMITATIONS OF THE STUDY AND SUGGESTION FOR FURTHER STUDY

This study is not without its limitations. First, this study using multiple-item scale to operationalize the variables, but the number of items for each variable is limited. Adding more items, especially to variable locus of control that have a little Cronbach's  $\alpha$ , may increase internal consistency of the measurement. A representative pilot research can be done to ensure the reliability and validity of the research instrument. Feedbacks from

respondents of the pilot research are useful to refine the research instruments, in term of wording of items and removing or adding the items.

Second, although the entrepreneurial intentions are affected by variables used in this research, they may also be affected by other variables. Adding other potential factors that affect the entrepreneurial intentions may increase the total percentage of explained variance. Four factors in this research only explain 23.6% of the total variance.

Third, using more representative number of respondent or involving students from different education institution from whole country will give more complete picture of the degree of entrepreneurial intentions among Indonesian students and the factors that affect them.

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## APPENDIX:

**Factors Affecting Entrepreneurial Intentions  
among Indonesian Students**

*In this study, I define an **entrepreneur** as one who sees an opportunity, and then creates and runs his/her own company.*

**I. PERSONAL DATA**

*Fill in the blanks with your data or select appropriate alternatives given.*

- D1. Date of birth:                    \_\_\_ / \_\_\_ / \_\_\_ (mm/dd/yy)  
 D2. Gender:                         1. Female             2. Male  
 D3. Faculty/Major:                1. Economics or Business Administration  
    2. Non-economics or Business Administration  
 D4. Have you been working?:    1. Yes                 2. No  
 D5. If you have been working, in which company sector?  
    1. Public or government sectors  
    2. Private sector

**II. QUESTIONS**

*Please choose one of 7-point scale for each statement that represents your opinion.*

*(1=strongly disagree, 7= strongly agree).*

		<i>strongly disagree</i>					<i>strongly agree</i>	
N1	I will do very well in fairly difficult tasks relating to my study and my work.	1	2	3	4	5	6	7
N2	I will try hard to improve on past work performance.	1	2	3	4	5	6	7
N3	I will seek added responsibilities in job assigned to me.	1	2	3	4	5	6	7
N4	I will try to perform better than my friends.	1	2	3	4	5	6	7
L1	Diligence and hard work usually lead to success.	1	2	3	4	5	6	7
L2	If I do not succeed on a task, I tend to give up.	1	2	3	4	5	6	7
L3	I do not really believe in luck.	1	2	3	4	5	6	7
S1	I have leadership skills that are needed to be an entrepreneur.	1	2	3	4	5	6	7
S2	I have mental maturity to start to be an entrepreneur.	1	2	3	4	5	6	7
I1	I have access to capital to start to be an entrepreneur.	1	2	3	4	5	6	7
I2	I have good social networks that can be utilized when I decide to be an entrepreneur.	1	2	3	4	5	6	7
I3	I have access to supporting information to start to be an entrepreneur.	1	2	3	4	5	6	7
E1	I will choose a career as an entrepreneur.	1	2	3	4	5	6	7
E2	I will choose a career as an employee in a company/an organization.	1	2	3	4	5	6	7
E3	I prefer to be an entrepreneur rather than to be an employee in a company/organization.	1	2	3	4	5	6	7

*Thank you for your cooperation!*