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**ENTREPRENEURIAL INTENTION AMONG STUDENTS: A STUDY IN  
 BULUNGAN TARAKAN, INDONESIA**

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**ABSTRACT**

The purpose of this paper is to investigate the relationship between individual entrepreneurial characteristics (i.e. innovativeness, locus of control, self-confidence, and need for achievement) and entrepreneurial intention. A total of 196 students from Sekolah Tinggi Ilmu Ekonomi (STIE), Bulungan Tarakan, Indonesia have participated in the survey. The data were analysed using partial least square technique version 2.0. The results have shown that innovativeness, locus of control and need for achievement are positively related to entrepreneurial intention among students. However, self-confidence is not significantly related to entrepreneurial intention. Sample of this research were small and not cover other parts of Indonesia. Therefore, findings obtained are not generalized because the results do not include other educational institutions in Indonesia. On the implication aspect, this research might give some views among students in Tarakan, Indonesia who interested to open new venture after finishing their study. Thus, students should be encouraged and equipped with innovativeness, locus of control and need for achievement as a key ingredients for prospect entrepreneurs. The findings of the research may give some information to policy maker and related party in order to make some of improvement to curriculum of the institution. Lastly, the entrepreneurial activity is important to drive the country economics.

**Keywords:** innovativeness, locus of control, need for achievement, self-confidence, Entrepreneurial Intention

### **1.0 Introduction**

Entrepreneurship has captured the attention of both scholars and policy makers during the last decades. The main reason of this concern is the growing need for entrepreneurs who accelerate economic development through generating new ideas and converting them into profitable ventures. Entrepreneurial activities are not only the incubators of technological innovation; they provide employment opportunity and increase competitiveness also (Reynolds, 1987; Zahra, 1999). The previous studies in the literature provide some alternative explanations for this question. Some scholars primarily focus on the effect of personality characteristics on decision making process (Bonnett and Furnham, 1991; Brockhaus, 1980; Johnson, 1990). Although the results vary across the studies, they often indicate a link between entrepreneurial intention and entrepreneurial characteristics factors, such as self-confidence, risk-taking ability, need to achievement, and locus of control. However, a person is surrounded by an extended range of cultural, social, economic, political, demographical, and technological factors. Therefore, entrepreneurial characteristics cannot be isolated from these contextual factors. In the literature, there are some studies that take into account the role of these factors also. For instance, according to Hisrich

(1990), people can be pushed or pulled by the situational factors, which are related with their personal backgrounds and present lives.

Entrepreneurial characteristics of entrepreneurs have received particular attention as an antecedent in the study of entrepreneurship. Entrepreneur psychological has attempted to characterize important variables such as personality, attitudes, demography, and behavior as important measurement in the real entrepreneur practices McClelland, (1961). Personality traits have direct impact on many entrepreneurial activities including the intention to launch a new business, success in business, and enhance entrepreneurial set up Shaver & Scott, (1991). Thus, it is important to determine the entrepreneurial characteristics among students and which characteristics might influence them to be entrepreneurs. Therefore, the study contributes to the literature by theorizing and empirically testing how some factors affect entrepreneurial intention of university students. It is believed that the results of study may have some significant implications for the policy makers and educators

## **2.0 Theoretical background**

### **2.1 Entrepreneurial Intention**

Entrepreneurial intention is defined as the commitment to perform a behaviour that is necessary to physically start a business venture. Entrepreneurial intention can also be defined as “a state of mind that people wish to create a new firm or a new value driver inside existing organizations”. Bird, (1988). Krueger (1993) suggest that intention is the "single best predictor" of entrepreneurial behaviour. He further argues that potential individuals with initial intentions to start a business can progress through the entrepreneurial process much more readily than people without an initial intention. Therefore, using intention as a basis for studying would-be entrepreneurs appears to be a sensible approach.

Ajzen (1991) strongly suggested that behavioural intention is the best predictor of behaviour. Therefore, it is very important to understand the concept and the development process of entrepreneurial intention. Intentions reflect an individual's willingness or plans to engage in a particular behavior. Thus, the ultimate purpose of intentions research is the prediction of behaviors. A portion of individuals with a unique combination of psychological traits, previous relevant entrepreneurial experience and knowledge are probable candidates to engage in entrepreneurial behavior at some point of their life. The intention to be self-employed may be formed by a ‘trigger event’ (Shapiro and Sokol, 1982) that may influence an individual's future planning. Therefore, entrepreneurial intention explains the individuals' thoughts and actions as regard to their willingness or intention to create a new business. Furthermore, entrepreneurial intention can be triggered by an event during an individual's life path Solesvik et al., (2014). In the context of our research, entrepreneurial intention is defined as an individual entrepreneurial characteristic of venturing a self-owned enterprise or starting up a new business.

### **2.2 Entrepreneurial Characteristics**

#### **2.2.1 Innovativeness**

Innovativeness relates to perceiving and acting on business activities in new and unique ways Robinson, P.B., Stimpson, D.V., Huefner, (1991). It is one of the recurring themes in defining entrepreneurship Cunningham, J.B. and Lischeron, J.,(1991). As suggested by Schumpeter (1934) and Mitton (1989), innovativeness is the focal point of entrepreneurship and an essential entrepreneurial characteristic. Evidence reported in the entrepreneurship literature shows that entrepreneurs are significantly more innovative than non-entrepreneurs Ho, T.S. and Koh, H.C., (1992). The close relationship between

innovativeness and entrepreneurship has also been discussed in the professional literature, with examples of innovators-entrepreneurs, such as Edwin Land (founder of Polaroid Corporation) and An Wang (founder of Wang Laboratories). Given the above, the last null hypothesis tested in this study is:

*H1: Innovativeness is positively associated with entrepreneurial intention.*

### 2.2.2 Locus of Control

Locus of control represents an individual's perceptions about the rewards and punishments in his/her life Pervin, L.A., (1980). While individuals with an internal locus of control believe that they are able to control life's events, individuals with an external locus of control believe that life's events are the result of external factors, such as chance, luck or fate. Rotter (1966) hypothesized that those with an internal locus of control would more likely strive for achievement compared with those with an external locus of control. Brockhaus and Horwitz (1981) suggested further that locus of control could distinguish entrepreneurs who are successful from those who are unsuccessful. Generally, it is believed that entrepreneurs prefer to take and hold unmistakable command instead of leaving things to external factors Mitton, D.G., (1989). Empirical findings that internal locus of control is an entrepreneurial characteristic has been reported in the literature Robinson, P.B., Stimpson, D.V., Huefner, J.C. and Hunt, H.K., (1991). Given the above, another null hypothesis tested in this study is as follows:

*H2: Internal Locus of Control is positively associated with entrepreneurial Intention.*

### 2.2.3 Need for achievement

McClelland's (1961) theory that need for achievement is a strong psychological driving force behind human action has been long proposed as a factor influencing entrepreneurial behaviour. It is believed that individuals with a high need for achievement have a strong desire to be successful and are consequently more likely to behave entrepreneurially. Of all the psychological characteristics presumed to be associated with entrepreneurship, need for achievement has the longest history. Further, evidence indicating significant association between need for achievement and entrepreneurship has been widely documented in the literature. For example, Johnson (1990) reported that, despite variability among studies regarding samples and the operationalization of the need for achievement, a fairly consistent relationship between need for achievement and entrepreneurship can be found in 20 out of 23 major studies in the entrepreneurship literature. Recent studies have also reported that entrepreneurs have higher need for achievement as compared to non-entrepreneurs Robinson, P.B., Huefner, J.C. and Hunt, H.K., (1991). Based on the need for achievement theory and the previous research findings that entrepreneurs are high achievers, this study postulates the following null hypothesis:

*H3: Need for achievement is positively associated with entrepreneurial intention.*

### 2.2.4 Self Confidence

The level of self-confidence that is generally defined as "believing in oneself" may influence one's perception as well. Self-confidence is widely accepted as a valuable individual asset and a key to personal success. In their study, Benabou and Tirole (2002) explained why an optimistic self-view is seen as a good thing. According to them, self-confidence is valuable because "it makes people happier", "it makes it easier to convince others (rightly or wrongly)" and improves "the individual's motivation to undertake projects and persevere in the pursuit of his goals" (p.877). Based on this conceptualization, it might be expected that more self-confident people may perceive their environment more favorably than others and have more optimistic perspective about their future. Therefore, if a person

has a high level of self-confidence, the strength of the proposed link between entrepreneurial characteristics and entrepreneurial intention may also increase. Based on this proposition, it is hypothesized that:

*H4: Self Confidence is positively associated with entrepreneurial intention.*

### **3.0 Research Methodology**

#### **3.1 Participants and procedure**

The population of this study was the students of Sekolah Tinggi Ilmu Ekonomi, Bulungan, Tarakan. The respondents who come from various demographic backgrounds were selected to provide better insight to the present study. Using this sampling technique was to ensure every unit in the population had an equal chance to be selected as the sample of this study. This method was also used in order to obtain a large number of completed questionnaires quickly and economically, due to time and budget constraints.

Data for this study was collected using a self-administered. The questionnaire which contains 24 questions was divided into five sections. The first section had 4 questions. It contains five questions; respondents' age, gender, marital status and courses. The next section contains questions which included items of the independent variables which are the factors leading to entrepreneurial characteristics among students; innovativeness, locus of control, need for achievement and self confidence. The final section includes questions from the dependent variable which is entrepreneurial intention among students. A total number of 200 questioners was distributed to the respondents and managed to obtain 196 questionnaires that were distributed which presented 99% response rate. The questionnaires were distributed personally to the respondents under the supervision of STIE administration staff. The relatively high rate of responds was due to the situation where the respondents answered the questions there and then or on-the-spot answering method. The questions were about the general intention of the respondents to become an entrepreneur.

##### **3.1.1 Profile of the Respondents**

From the 196 respondents received in this sample, a wide range of demographical characteristics was examined. On the issue of gender, the sample was predominantly males with 51% compared to female 49.%. This ratio could be due to the random distribution of the questionnaire and did not directly portray the true nature of the population at large. In terms of age range, it showed that the majority of the respondents were between 18-25 years of age, which is 80.%, 26 -35 years of age 14.0% and leaving only 6% for the respondents aged 36 – 45 years old. This was again due to random distribution of the questionnaire, which might not indicate the whole population.

The respondents' marital status showed that a large number 75% were single, while only 25% were married respondents. In term of course taken by the respondents, it showed almost equally distributed among Management students 49% and Economic Management 51% among the respondents. In term of semester of respondents results vary in all categories. It showed that most of the respondents were from semester 4 (42%), followed by semester 2 (38%), semester 6, (19.7%), semester 5 (9.1%), and semester 3 (1.5%).

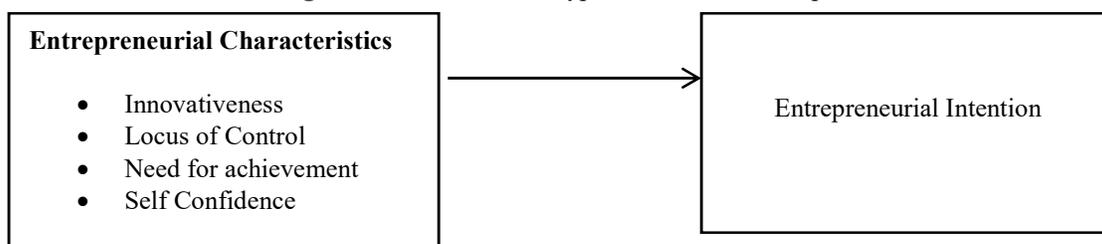
**Table 1. Profile of Respondents**

Demographic Variables	Categories	Frequency	Percentage
Age:	18 – 25	155	80
	26 – 35	28	14
	36 – 45	13	6
Gender:	Male	100	51
	Female	96	49
Marital Status:	Single	146	75
	Married	32	25
Course:	Management	96	49
	Economic Management	100	51
Semester:	2	74	38
	3	3	1.5
	4	82	42
	5	18	9.1
	6	19	9.7

### 3.2 Measure

Focus of this research is to examine the relationship between the constructs of entrepreneurial characteristics (innovativeness, locus of control, need for achievement and self confidence) towards the entrepreneurial intention (See Figure 1). Students answer 24 items of the entrepreneurial characteristics and entrepreneurial intention also part of the demographic section. The measurement of entrepreneurial characteristics was adapted which included the exogenous variables such as innovativeness 5 items, locus of control 7 items and need for achievement, 6 items (Koh, 1996). The entrepreneurial intention is the endogenous variable was measured with 6 item (Liñán and Chin, 2009). For the data entry, researchers are using SPSS 20.0 and statistically analyzed using Partial Least Squares (PLS) technique through the SmartPLS program version 2.0 software (Ringle, *et al.* 2005).

**Figure 1.** A model of the hypothesized relationships



### 4.0 Results

In order to fit with the requirements of convergent and discriminant validity several items were removed from each exogenous variables (i.e. IN1R,IN5R = item negative statement, LC1,LC2,LC3,LC4,LC6, NAR 3,NAR4 (item negative statement) NA6,SCR3,SCR4 and SCR6 (item negative statement) were deleted due to low loadings. Based on Table 1, the results of the measurement model showed that all the estimated indices were above the threshold (Bagozzi and Yi, 1988) of 0.7 for Composite Reliability (CR) and 0.5 for Average Variance Extracted (AVE). More specifically, the results indicate that the AVE for each of the constructs was in the ranged of 0.588 to 0.667 and the composite reliability for all of the constructs were ranged between 0.772 to 0.923.

**Table 1.** Result of the measurement model

Model Constructs	Items	Loadings	AVE <sup>a</sup>	CR <sup>b</sup>
Innovativeness (IN)	IN2	0.794	0.621	0.831
	IN3	0.780		
	IN4	0.790		
Locus Control (I)	LC5	0.760	0.629	0.772
	LC7	0.825		
Need For Achievement (NA)	NA1	0.665	0.588	0.809
	NA2	0.796		
	NA5	0.829		
Self Confidence (SC)	SC1	0.844	0.643	0.843
	SC2	0.811		
	SC5	0.747		
Entrepreneurial Intention (EI)	EI1	0.828	0.667	0.923
	EI2	0.810		
	EI3	0.861		
	EI4	0.868		
	EI5	0.702		
	EI6	0.819		

Note: <sup>a</sup>Average Variance Extracted (AVE) = (summation of the square of the factor loadings)/{(summation of the square of the factor loadings) + (summation of the error variances)}, <sup>b</sup>Composite Reliability (CR) = (square of the summation of the factor loadings)/ {(square of the summation of the factor loadings) + (square of the summation of the error variances)}, items IN1R,IN5R = item negative statement, LC1,LC2,LC3,LC4,LC6, NAR 3,NAR4 (item negative statement)NA6,SCR3,SCR4 and SCR6 (item negative statement) were deleted due to low loadings.

Table 2 indicates that all of the constructs in this study have met the criterion as suggested by Gefen and Straub (2005). To be exact, all of the studied constructs have showed acceptable discriminant validity. Table 2 represents the square root of AVE and the correlations between constructs. The results showed that the square root of AVE is larger (in bold) than the correlation with other constructs. In Table 3 depicts the loadings and cross-loadings for all of variable construct were included. The loadings on each respective construct were bold across the rows reveals that each item, loads higher on its respective construct than on any other construct. Going down a column also shows that a particular constructs loads highest with its own item. Taken together, this implies of adequate discriminant validity (Chin *et al.*, 2010).

**Table 2.** Discriminant validity of constructs

Constructs	EI	IN	LC	NA	SC
EI	<b>0.817</b>				
IN	0.483	<b>0.788</b>			
LC	0.332	0.148	<b>0.793</b>		
NA	0.608	0.644	0.415	<b>0.767</b>	
SC	0.496	0.559	0.371	0.738	<b>0.802</b>

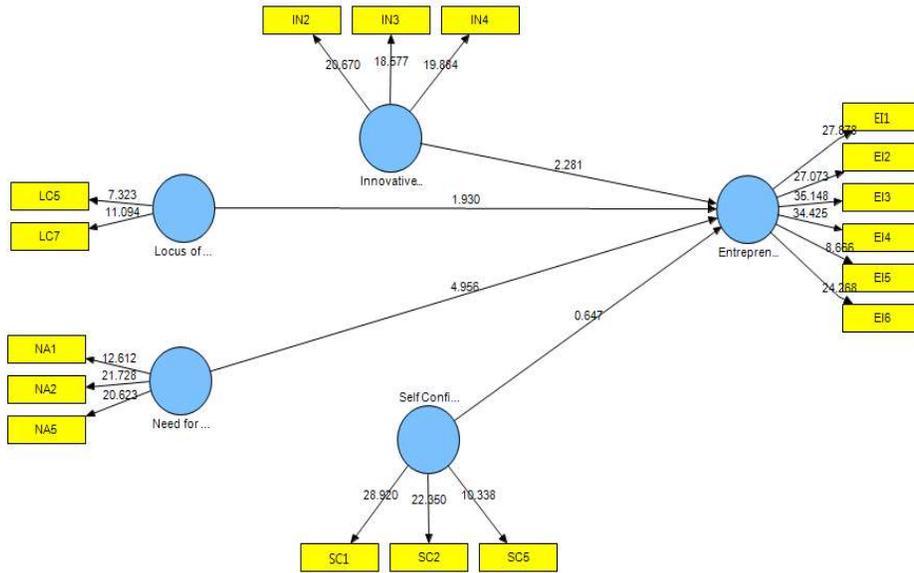
Note: Diagonals (in bold) represent the average variance extracted while the other entries represent the squared correlations

**Table 3.** Loading and Cross Loadings

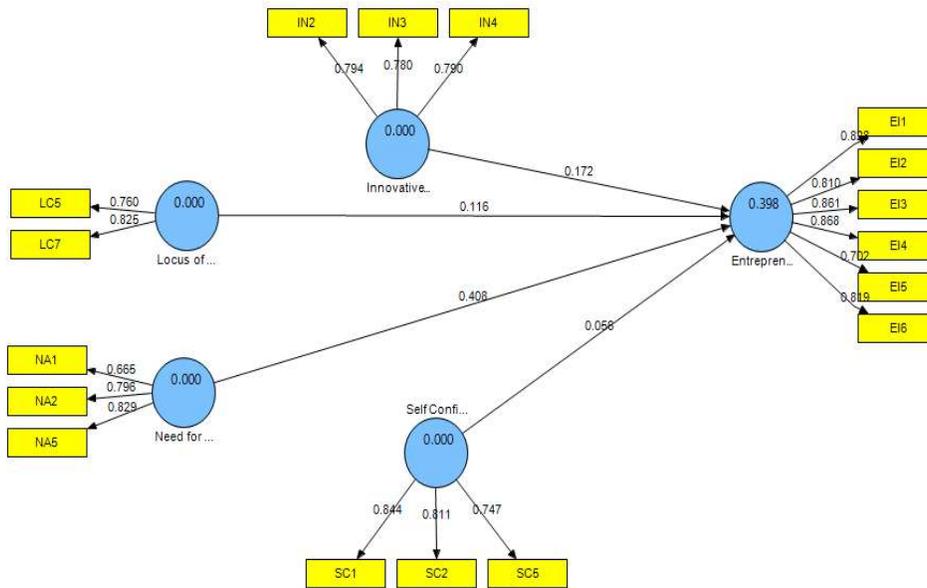
Items	EI	IN	LC	NA	SC
EI1	<b>0.828</b>	0.466	0.247	0.512	0.408
EI2	<b>0.810</b>	0.453	0.279	0.457	0.487
EI3	<b>0.861</b>	0.381	0.348	0.479	0.479
EI4	<b>0.868</b>	0.389	0.328	0.574	0.442
EI5	<b>0.702</b>	0.287	0.198	0.464	0.243
EI6	<b>0.819</b>	0.378	0.210	0.487	0.346
IN2	0.404	<b>0.794</b>	0.100	0.432	0.260
IN3	0.373	<b>0.780</b>	0.239	0.583	0.585
IN4	0.364	<b>0.790</b>	0.010	0.514	0.491
LC5	0.244	0.131	<b>0.760</b>	0.378	0.396
LC7	0.281	0.107	<b>0.825</b>	0.288	0.207
NA1	0.329	0.540	0.044	<b>0.665</b>	0.511
NA2	0.553	0.514	0.403	<b>0.796</b>	0.580
NA5	0.477	0.454	0.420	<b>0.829</b>	0.606
SC1	0.421	0.464	0.376	0.630	<b>0.844</b>
SC2	0.416	0.546	0.287	0.670	<b>0.811</b>
SC5	0.352	0.316	0.218	0.458	<b>0.747</b>

Note: Bold values are loadings for items which are above the recommended value of 0.5

**Figure 2. Entrepreneurial Intention model**



**Figure 3. The PLS algorithm results**



**Table 4.** PLS path model results

Hypothesis	Relationship	Beta ( $\beta$ )	Standard Error(SE)	T-Value <sup>a</sup>	Decision
H1	Innovativeness -> Entrepreneurial Intention	0.172	0.075	<b>2.281**</b>	Supported
H2	Locus Control -> Entrepreneurial Intention	0.116	0.060	<b>1.930*</b>	Supported
H3	Need For Achievement -> Entrepreneurial Intention	0.408	0.082	<b>4.956**</b>	Supported
H4	Self-Confidence->Entrepreneurial Intention	0.056	0.086	<b>0.648</b>	Not supported

Notes: t-values are computed through bootstrapping procedure with 196 cases and 5000 re-samples, \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

Figure 2, shows the entrepreneurial intention model and the bootstrap results of the study. More specifically, the results indicated that innovativeness ( $\beta = 0.172$ ,  $t = 2.281$ ), locus of control ( $\beta = 0.116$ ,  $t = 1.930$ ) and need for achievement ( $\beta = 0.408$ ,  $t = 4.956$ ) has significant influence on entrepreneurial intention but only self confidence ( $\beta = -0.086$ ,  $t = 0.648$ ) were rejected. Therefore, H1, H2 and H3 were supported whereas H4 were not supported. Cohen (1988) recommended that  $R^2$  values for endogenous latent variables could be assessed as 0.26 (substantial), 0.13 (moderate) and 0.02 (weak). Based on figure 3, our study applies the condition from Cohen (1988) where the  $R^2$  result is substantial = 0.398 or 40% of the variances in entrepreneurial intention can be explained by the exogenous variables (i.e. IN, LC and NA). The t-value of the entire exogenous constructs in Table 4 shows that, the need for achievement is the most important influence factor on entrepreneurial intention.

## 5.0 Discussion and Conclusions

The objective of this study is to examine the relationship of entrepreneurial characteristics towards entrepreneurial intention among students in STIE Tarakan, Indonesia. In particular, the study investigates if entrepreneurial intention is significantly associated with the entrepreneurial characteristics of innovativeness, locus of control, need for achievement, and self-confidence. T-Value results based on PLS path model analysis at a 0.05 level of significance, indicate that those who are entrepreneurially inclined have greater innovativeness, locus of control, and need for achievement, as compared to those who are not entrepreneurially inclined. The PLS model  $R^2$  result is substantial = 0.398 or 40% which explained the exogenous variables.

As anticipated, the findings indicate that the need of achievement has a substantial effect on entrepreneurial intention. This research finding supported previous research on the relationship between need of achievement and entrepreneurial intention (Soraya et al., 2017; Ramayah and Harun, 2005; Ferreira et al., 2012; Tong et al., 2011; Koh, 1996). Within the context of this research, the significant findings suggest that the higher a person's desire for excellence or to succeed, the more likely it is for the person to become an entrepreneur.

Furthermore, the result of this study has confirmed that innovativeness has a significant influence on entrepreneurial intention. This finding is consistent with the past studies (Tong et al., 2011; Hamidi et al., 2008; Koh, 1996), which have found that the more creative the individuals are, the more likely they are to engage in entrepreneurship. Hence, future entrepreneurs are reasonable to have innovativeness. Venturing into new business, the future entrepreneurs are generally geared up with ideas and creative solution to bring up something brand new to the marketplace. This is an important key to motivating an individual to start up new business.

This study also confirmed that locus of control has significant relationship on entrepreneurial intention. In other words, every entrepreneur with an internal locus of control believe that they are able to control

life's events, individuals with an external locus of control believe that life's events are the result of external factors, such as chance, luck or fate. Therefore, our research finding is in line with Uddin and Bose (2012) and Gurel et al. (2010). The result aligns with the research of Dinis et al. (2013), who found that locus of control has significant influence on entrepreneurial intention. This result leads us to accept H2.

As shown in Table 4, Self-confidence has no significance relationship with entrepreneurial intention. This finding is contradict with the research of Ferreira et al. (2012) indicates that self-confidence has negative relationship with entrepreneurial intention. Most of the previous studies agreed that self-confidence is the key entrepreneurial skill for success Despite other variables are supported as above, Self-Confidence has no significant influence on entrepreneurial intention among Bulungan , Tarakan students. This might be due to differences of the culture and environment of the respondents which more to the need of achievement and innovation.

As a conclusion, through entrepreneurship, matters of unemployment and economics issues can be solved by the joint efforts of policy makers who encourage the undergraduates to engage in entrepreneurship, and also by parents who play a role by encouraging their kids in this discipline. In spite of that, students should be encouraged and equipped with innovativeness, self-confidence, propensity to take risk, need for achievement and tolerance for ambiguity to interpret successful entrepreneurial role models and identification of business prospects for their future career.

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