



# IMPACT OF ENTREPRENEURIAL EDUCATION IN UNIVERSITY TOWARDS THE ALUMNI'S ENTREPRENEURIAL INTENTION TO SUPPORT ACADEMIC ENDEAVOUR AND EXCELLENCE

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**Abstract:** *This research is to analyze whether the entrepreneurial education consists of entrepreneurship education, entrepreneurship support programs, industry ties which are supported by the university will influence the alumni's entrepreneurial intention to support academic endeavor and excellence. The analysis techniques used is Multiple Regression Linear. This research used 44 samples out from 80 populations that refer to first batch of alumni of a business department at a private university. This research found that the more subjects and credits of Entrepreneurship Education (X1) given will surprisingly reduce the Entrepreneurship Intention (Y) after graduate. But contrary to Entrepreneurship Support Programs (X2) and Industry Ties (X3), the more both of these supporting programs given, will increase the intention of doing entrepreneurial activities after graduation. Furthermore, based on secondary data, the number of credits for entrepreneurship education, entrepreneurship support program and availability of industry ties to facilitate the students will have indirect practical impact to the increasing number of new students in the following academic year to enroll in the department.*

**Keywords:** *Entrepreneurship Intention, Entrepreneurship Education, Entrepreneurship Support Program, Industry Ties*

## INTRODUCTION

The contribution of new graduate students whose activities are entrepreneurial based is needed to decrease the 13.13% unemployment in Indonesia in 2010 (Indonesia Statistic Bureau) by creating new jobs for others. Furthermore, the graduates of university level who jobless after graduating reach 11.92% (BPS, 2011:44). Generally, the choice of job is being staff at an office rather than being an entrepreneur. At least 3 of 4 graduates will choose to be a staff and get routine salary monthly.

While the students who chose to study in entrepreneurial based campuses had reason to enjoy the lecturing process and networks that might be built to support their community. That's the reason why the entrepreneurial-based campuses in Indonesia facilitate their students in their projects and train them to be ready as the real entrepreneurs during their study period.

This research is to analyze whether the entrepreneurial education, entrepreneurship support programs, industry ties which are supported by the universities will influence the alumni's entrepreneurial intention so that in the future, it can support academic endeavor and excellence.

## LITERATURE REVIEW

### Entrepreneurship Education

Entrepreneurial education refers to the scope of curricular lectures or courses aiming to sensitize and quality students for an entrepreneurial career. It also increases the potential payoff from exploiting a given opportunity. The students will learn how to bring business ideas better or faster to market than others (Walter, et al., 2011).

Walter, et al (2011) distinguished two modes of entrepreneurship education, such as (1) Active modes where the student acquires knowledge through active experimentation which uses business plan seminars or simulations, and (2) reflective modes such as theory lectures so that the students acquires knowledge through reflective observation.

Furthermore, Walter, et al (2011) stated that entrepreneurship support programs provide offers to



sensitize, qualify, and support students for an entrepreneurial career. The students will be encouraged to further develop opportunities by business plan competitions, contacts to mentors and access to experts to evaluate elemental business ideas.

Neck and Greene (2011) supported the idea that since entrepreneurship is not predictable, the teaching paradigm in entrepreneurship education is teaching entrepreneurship as a method. This way requires going beyond understanding, knowing, and talking. It also requires using applying and actions. Then, entrepreneurship requires practice.

Learning a method maybe more important than learning content. Kent (1990) in Neck and Greene (2011) even stated that "entrepreneurship education must be entrepreneurial". Furthermore, Neck and Greene (2011) found that the method is teachable, learnable but it's not predictable. Starting businesses helps students to feel what it's like to assume the role of an entrepreneur. Entrepreneurship requires practice. Learning a method in our opinion, is often more important than learning specific content.

### **Entrepreneurship Supporting Program**

Shane (2003) in Kuehn (2008) noted that social connections were found to be important predictors of entrepreneurial activity. It revealed that individuals with stronger social ties will have stronger performing ventures. Kats (2007) in Kuehn (2008) affirmed the importance of such networks in the discussion in the entrepreneurship education today.

It is in link with the statements in Walter et al. (2011) that entrepreneurship support program refer to the extent of activities to public to promote the entrepreneurial department such as opportunities to join the business plan competition or access information from successful entrepreneurs to broaden the social-network.

### **Industry Ties**

It was measured as the level of activities of industry partners at university or department (Walter, et al., 2011). It's different to social network since industry ties contain of deeper relationship with the kind of business itself.

Kuehn (2008) stressed in the fact that students will possess more experience in organization. It points us to the importance of direct experience scenarios to students, with those most related to self-employment being most potent.

The link in industry ties must be more specific than social network provided in entrepreneurship supporting program. Bank, related industries and even suppliers that close to the business types which have been already planned or done by students are more necessary in this case.

### **Entrepreneurial intention**

Krueger, Reilly and Carsrud (2000) as stated by Kuehn (2008) defined that intention to act in certain manner is the most consistent predictor of actual behavior, particularly planned behavior.

Hisrich, et al., (2005: 65) stated that the background differs entrepreneurs from the managers childhood family environment are: education, personal values, age and work history.

Education is important in the upbringing of the entrepreneur. It helps in encourage the entrepreneur from the basic subject which is related to the field of the venture.

Furthermore, one of the most important factors influencing entrepreneurs in their career path is the role models, such as parents, family members, relatives or other entrepreneurs (Hisrich, et al, 2005:65). Moral support can also be gotten from network to encourage them. The network also gives the assistance in doing the entrepreneurial activities.

Professional support network will give advice and counseling throughout the establishment of the venture. Professional support network can be trade association or personal affiliations.

### **Academic Excellence**

Globalization and rapid technological advancement are having dramatic effects on the ways we communicate and conduct business as well as in our personal lives (Daggett, 2005). Students understand and retain knowledge best when they have applied it in a practical, relevant setting. Relying in lecturing will not provide students with optimal learning opportunities. The lecture approach to instruction is still so prevalent in high schools, but based on the experience, it will not work well among college students.

Rigor/Relevance framework stated by Daggett (2005) applies to standards, curriculum, instruction



and assessment. There are 4 quadrants to differ each:

- Quadrant A: Acquisition, which needs knowledge of one discipline, comprehension and application this knowledge in one discipline.
- Quadrant B: Application, which needs cross-discipline knowledge application, real world predictable and unpredictable situation to apply the knowledge.
- Quadrant C: Assimilation, which needs not only knowledge, comprehension and application, but also analysis, synthesis and evaluation of one discipline.
- Quadrant D: Adaptation, the highest standard in the framework, which needs all requirements in Quadrant C, but the application must be cross-discipline.

### Hypothesis

This research has hypothesis to be analyzed, such as:

1.  $H_0$  : The entrepreneurship education, entrepreneurship support program and industry ties do not simultaneously influence entrepreneurial intention.  
 $H_1$  : The entrepreneurship education, entrepreneurship support program and industry ties simultaneously influence entrepreneurial intention.
2.  $H_0$  : The entrepreneurship education does not partially influence entrepreneurial intention  
 $H_1$  : The entrepreneurship education partially influences entrepreneurial intention
3.  $H_0$  : The entrepreneurship supporting programs does not partially influence entrepreneurial intention.  
 $H_1$  : The entrepreneurship supporting programs partially influences entrepreneurial intention.
4.  $H_0$  : Industry ties does not partially influence entrepreneurial intention  
 $H_1$  : Industry ties partially influences entrepreneurial intention

### RESEARCH METHODOLOGY

Using the quantitative data, this research needs 10% sample error out of the 80 first batch alumni of the management department in this university. The sampling method is purposive sampling and then measured by Slovin formula to produce 44 samples.

The analysis technique used in this research is multiple linear regressions measured by Likert Scale for items in questionnaires to indicate the three independent variables, which are Entrepreneurship education (X1), Entrepreneurship support programs (X2) and Industry ties (X3) and entrepreneurial intention as the dependent variables (Y).

The definition of operational variables in this research is based on Walter et al (2011) as the referenced research, which are:

#### 1. Entrepreneurship education

This variable refers to the total number of credit points for curricular courses with entrepreneurship-specific content. The indicators used in this research are:

- Total credit for entrepreneurship subject
- The subject of entrepreneurship gives inspiration
- The subject of entrepreneurship gives new knowledge about entrepreneurship
- The subject of entrepreneurship requires the students to be active in practices.

#### 2. Entrepreneurship support programs

Entrepreneurship support programs refer to the extent of activities through which extra-departmental units attempt to promote entrepreneurial behavior (Walter, et al., 2011). In this research, this variable will be built by some indicators such as:

- Opportunities for students to join a business plan competition
- The counseling about entrepreneurial activities are provided
- Promotion about students' entrepreneurial activities to public
- Funding and professional counselor are provided
- Opportunity to access information from successful entrepreneurs

#### 3. Industry ties

In the former research the industry ties was measured as the level of activities of industry partners at university departments (Walter, et al., 2011). In this research, this variable is supported by indicators:

- There is tied-program between entrepreneurial activities and industries



- Promoting entrepreneurial activities to industries
- Link to suppliers
- Company visit programs to make a business relationship

#### 4. Entrepreneurial intention

Based on Theory of Planned Behavior (TPB), *Entrepreneurial Intention* indicated the efforts to run the entrepreneurial activities (Linan, 2008). There are at least two activities of students after graduate. Either working on a business or establishing their own. In this research, the entrepreneurial intention will indicate the intention of the alumni either to work on a business or establish their own by asking them about their current situation.

## RESULT AND DISCUSSION

The institution discussed in this research is a private university which was established in 2006 by an utmost businessman in Indonesia. This university has a tagline "creating world class entrepreneurs" and the vision is to be a university which world class entrepreneurs who have characters and can change the world. The missions of this university are to form the entrepreneurial mindset, creating the great character, encourage the entrepreneurial spirits, build the professional entrepreneurial abilities, academic research and increase the university social responsibility.

The teaching system is conducted in either problem or project based learning which are important to use in the live-lab projects such as entrepreneurial projects. The entrepreneurial sense is built since the students sit in the first semester of their studies. They have full-day entrepreneurship class once a week, so that they can learn to collaborate with other students out of their departments.

Management department, which is the biggest department in this university, has the largest students. This department offers total credits for entrepreneurial projects 24 credits and for non-entrepreneurial projects 15 credits, included the subjects that support entrepreneurial activities. The total credit for undergraduates in this department is 140 credits. The rest credits are for the general subjects such as financial management, marketing management, human resources management and so on, including final project in the last semester.

From the marketing office data, the number of students enrolled to this university is increasing each year. One of the offers to attract the new students is the practical subjects along from first semester to the last one. The number of students enrolled since 2006 to current year of academic is shown by Table 1.

TABLE 1: NUMBER OF STUDENTS

Year	Total	Man. Dept	Ratio	Increase
2006	259	81	31.3%	0
2007	351	160	45.6%	49.4%
2008	323	250	77.4%	36.0%
2009	512	300	58.6%	16.7%
2010	596	320	53.7%	6.3%
2011	720	350	48.6%	8.6%

Source: Internal data, 2011

The table shows the increasing numbers every academic year. The ratio column shows the ratio of Management Department to the total students enrolled in the year.

Word of mouth and marketing visitation to prospectus high schools are the most effective way to attract new enrollers. Usually the student candidates for this department are interested to enroll because of the practical or out of class activities in entrepreneurial practices.

The decreasing ratio of total students and the students in management department is caused by the newly opened departments in this university. So, the concentration of new students is not highly focus in management department but parted to others.



**TABLE 2: VALIDITY AND RELIABILITY**

<b>Case Processing Summary</b>			
		N	%
Cases	Valid	30	100.0
	Excluded(a)	0	.0
Total		30	100.0

a Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.936	15

Table 2 shows the result of the questionnaires validity and reliability analysis used in this research. The result is all item in the questionnaires used are valid and reliable for all items responded. Before this result, there are two items of variable X1 and X2 which are not reliable, so both items must be deleted before further analysis.

The result of total reliability is shown by the Table 3.

**TABLE 3: RELIABILITY ANALYSIS**

<b>Item-Total Statistics</b>				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X1.2	45.70	135.459	.333	.940
X1.3	45.83	127.523	.727	.931
X1.4	45.40	120.593	.736	.930
X1.5	45.03	127.206	.667	.932
X1.6	45.23	119.702	.779	.929
X2.1	45.57	131.495	.519	.936
X2.2	45.10	125.128	.779	.929
X2.3	45.53	129.361	.733	.931
X2.5	45.90	126.369	.573	.935
X2.6	45.40	123.490	.678	.932
X3.1	45.43	125.426	.917	.927
X3.2	45.70	123.734	.815	.928
X3.3	46.00	124.759	.783	.929
X3.4	45.83	121.937	.901	.926
Y	44.60	130.662	.430	.939

The table above only shows the reliable items only. There are two indicators of independent variables which were not reliable and must be eliminated from the analysis.



## REGRESSION ANALYSIS

The regression analysis is done to test the hypothesis. Below is the model summary of regression analysis which shows the R Square value.

**TABLE 4: THE MODEL SUMMARY**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.902(a)	.813	.799	.382

a Predictors: (Constant), IND.TIES, ENT.PROG, ENT.EDU

R Square value in this model is 0.813, means that 81.3% of the dependent variable is influenced by the independent variables used in this model. In other words, it can be concluded that entrepreneurship intention of the alumni is 81.3% influenced by the three variables, namely entrepreneurship education, entrepreneurship supporting program, and industry ties. The rest, 18.7% is influenced by the other variables out of the model.

To answer the first hypothesis whether there is a simultaneous influence from the three independent variables to the dependent variable, the data will be measured in F analysis as shown in Table 5 below.

**TABLE 5: F-TEST MEASUREMENT**

### ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.939	3	8.646	59.357	.000(a)
	Residual	5.972	41	.146		
	Total	31.911	44			

a Predictors: (Constant), IND.TIES, ENT.PROG, ENT.EDU

b Dependent Variable: ENT.INT

F Test shows that all independent variables are simultaneously will influence the dependent variables. It means that either Entrepreneurship Education, Entrepreneurship supporting program, or Industry Ties will give the impact towards entrepreneurship intention of the alumni altogether.

To test the partial influence of each independent variables, this research uses t-test analysis as shown below (Table 6).

**TABLE 6: T-TEST ANALYSIS**

### Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	.078	.247		.315	.755
	ENT.EDU	-.236	.113	-.284	-2.089	.043
	ENT.PROG	.404	.093	.487	4.345	.000
	IND.TIES	.726	.074	.916	9.804	.000

a Dependent Variable: ENT.INT

The model of regression analysis here is:  $Y = 0.078 - 0.236 X_1 + 0.404 X_2 + 0.726 X_3$ , where without the independent variables included in the model, the dependent variables will be positively 0.078.



X1 is negative means that the impact of this independent variable toward the models is contrary. If the value of X1 increases one point, Y will decrease one point. The opposite impacts applied to X2 and X3 which are positively significant to dependent variables.

It means that the more subjects and credits of Entrepreneurship Education given will surprisingly reduce the intention of Entrepreneurship Intention after graduate. But contrary to Entrepreneurship Supporting Programs (X2) and Industrial Ties (X3), the more both of these supporting programs given, will increase the intention of doing entrepreneurial activities after graduation.

The biggest contribution towards the model is Industrial Ties (X3), means that Industrial Ties is considered important to stimulate the entrepreneurship intention.

The first null hypothesis states that entrepreneurship education, entrepreneurship supporting programs and industry ties do not simultaneously influence the entrepreneurial intention is rejected. Thus, those three independent variables influence the dependent variable altogether.

The second null hypothesis where entrepreneurship education has partially significant influence to the entrepreneurial intention is rejected. Statistically the influence is negative. It means that the more subjects in entrepreneurship education provided, it will reduce the eagerness or intention to do entrepreneurial activities after graduation.

Since the entrepreneurship education indicated in this research refers to number of subjects offers during study period, it such a very theoretical to the students though. Neck and Greene (2011) also supported the idea that entrepreneurship is more to be a method which requires practical not only concept.

The third null hypothesis that entrepreneurship supporting program does not partially influence entrepreneurial intention is also rejected. It means that this independent variables significantly influences the entrepreneurial intention.

The alumni as respondents have experienced the importance of the social network they have been building since they were at campus. It can be either they know or to be known by other people.

The facts, they currently run business together with their people they have known in many occasion in the past during studying. Friends, relatives of friends, previous facilitators or mentors in their projects are the most available connections that every alumni has.

The network is important to market the products, to ask for partnership or to offer the products. It is in link with the statement of Shane (2003) as cited in Kuehn (2008) that individuals with stronger social ties or network will have stronger performing ventures.

Last null hypothesis states that industry ties does not partially influence entrepreneurial intention, is also rejected. It means that alumni considered the importance of industry ties which have closest relevance to their business they have since built they were in study period.

How ever, this university is blessed with the utmost founder, who is very famous in the country, Indonesia. He also has so many business units throughout the country in some fields such as, hotels, malls, housings and parks.

The students in this university have the special access to this business, such as internship, funding and trainings. The fame of the founder has also contributed the ease to access other institution's interests, such as banks to give funding, other industries to support materials and also to recruit the alumni. Sometimes, the opportunity to do company visit during the study period is useful to add some knowledge in real business to the alumni.

Based on the Rigor/Relevance Framework by Daggett (2005), the result also proves that in the era of globalization and rapid changes in business and social environments, the main purpose of higher education should be adapted to the need of its local community or country.

As the entrepreneurship-based university, the main purpose of this university is to enable alumni to create their own business. Providing more theory in lecturing the entrepreneurship, in this research, is proven ineffective for alumni's entrepreneurial intention. More action, more application in real world, linked with the Quadrant D of Rigor/Relevance Framework by Daggett (2005), in entrepreneurship supporting programs and industry ties are considered highly stimulating alumni's entrepreneurial intention.

## CONCLUSION

Based on the problem statement whether The entrepreneurship education, entrepreneurship supporting programs and industrial ties have influences to the entrepreneurial intention. The result shows that simultaneously, the three of the independent variables influence the entrepreneurial intention.



Then partially, the result of the analysis shows that entrepreneurship education has negative influence to the entrepreneurial intention while the others have positively influences.

### **Limitation of the study**

1. This study ignored the other issues that may influence the entrepreneurial intention such as gender issues, self efficacy and so on.
2. This study is limited in location and samples to measure so it needs further and more samples to generalize the findings.

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