

Perception of Engineering Students on Entrepreneurship Education

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Abstract- *Economic trends and changes in the workforce needs have driven many engineering universities to consider offering entrepreneurship education to their students. The objective of this study was to explore a broad range of perception toward of entrepreneurship education on engineering students and to evaluate how the teaching of entrepreneurship education can prepare engineering student to become an entrepreneur. The study was descriptive in nature and data were gathered through questionnaires and observation analysis. In order to achieve the objective of the study, simple sampling techniques were used. Survey data were collected from 230 engineering students enrolled in the senior - level capstone design courses in five engineering departments (Electromechanical Engineering, Software Engineering, Chemical Engineering, Food processing Engineering, Manufacturing Engineering, Mining Engineering and Civil Engineering) with established entrepreneurship programs in Addis Ababa Science and Technology University. Data collected by structured questionnaire was an analysis of descriptive and inferential statistics. The study found that more than 2/3 of the respondent did not have an intention to start a business within the next 5 years, more than 3/4 of the students were disagreed on the curriculum that did not encourage to have practical experience. Majority of Students were perceived that the university did not promote the entrepreneurship as per the expectation. Based on these findings, conclusions were drawn and some feasible recommendations were made.*

Keywords- Entrepreneurship, Engineering Education, Perception

I. INTRODUCTION

Entrepreneurship education was the domain of management and business economics teachers. Increasingly, other study domains like engineering, information technology (IT), and the health sector has acknowledged the added value of fostering entrepreneurial skills, knowledge and attitude among their students (Shane & Venkaraman, 2000). However, the aims of entrepreneurship education change rapidly depending on the demands that directly affect educational system.

Entrepreneurship has been seen as an important component within contemporary economic development of a nation. Its critical role to the economy of nations is now widely acknowledged as a major source of innovation, job creation and growth. The European Commission (2003) suggested that entrepreneurship is a major driver of innovation, competitiveness and economic strength of a modern nation. Students are the main workforce that able to change the world economy through participating in the labor market without losing one's independence. Thus, the idea of becoming an entrepreneur is increasingly attractive to students. They further emphasize the important role which education has in the development of entrepreneurial mindsets and talents.

Entrepreneurial education was identified by the number of entrepreneurship courses that each student had taken; for instance Business Planning, Creativity, Entrepreneurial Marketing, and others. Garba (2012) asserts that the term "entrepreneurship education" has been defined in several ways in entrepreneurship literature. Such as Douglas and Shepherd (1997) suggest that the principle of entrepreneurship education is based on the capability to foresee and plan a course for an innovative business scheme by relating information from the functional disciplines and from the external environment in the context of the extraordinary uncertainty and ambiguity which faces a new business venture.

Entrepreneurship is one of the main factors to improve the economic in a country as it able to create wealth for the entrepreneurs, reduced unemployment and create job. Thus, the researcher is inspired to conduct study to evaluate the perception of entrepreneurship education in AASTU engineering students.

II. STATEMENT OF THE PROBLEM

Entrepreneurship education is an increasingly popular disciplinary area at all education levels. The rationale for offering courses in Entrepreneurship has often been to raise awareness of entrepreneurship as a career option, to motivate students to consider a venturing career, and also to provide

students with the knowledge and skills to venture (Menziez 2011). Teachers are seen as the key promoters of entrepreneurship education. However, despite its growth and importance, there is a lack of relevant studies in this context. Moreover, it is observed that in AASTU, majority of engineering students did do business proposal in non-engineering field of studies. It implies that they are not enabled to change their engineering knowledge and skill into their own business.

The remarkable contribution of entrepreneurial undertakings to economies (Keilbach and Sanders, 2008). Moreover, in terms of growth, innovation, job creation, and poverty reduction (Lunati et al., 2010) that is makes entrepreneurship a main research area. However, the time allotted for the Entrepreneurship course in AASTU is not adequate, there is no created opportunities that students gets guides to become an entrepreneur and there is no entrepreneurship center that students would shows their innovative business idea and intention to create new firms. Therefore, after took the course they did not produced or shows any innovation idea or project in there courses.

III. RESEARCH QUESTIONS

- How do engineering student perceived entrepreneurship Education?
- How the teaching of entrepreneurship education can prepare engineering student to become entrepreneur?

IV. OBJECTIVES OF THE STUDY

The objective of the study is to investigate the perception of engineering student to being an entrepreneur thorough entrepreneurship education.

Specific objectives

- To determine the engineering student perception on entrepreneurship Education
- To evaluate how the teaching of entrepreneurship education can prepare engineering student to become entrepreneur

V. HYPOTHESIS

From the above model, the followings were the hypothesis proposed for this study:

H1. There is no positive and significant relationship between Perception of Entrepreneurship Education (Desirability, Competency of Lecturers, Relevancy of Curriculum,

Behavioral Control and Role of the University) and Entrepreneurial intention

Sub-Hypothesis:

H1a: There is no significant relationship between Desirability and Entrepreneurial intention.

H1b: There is no significant relationship between Competency of Lecturers and Entrepreneurial intention.

H1c: There is no significant relationship between Relevancy of Curriculum and Entrepreneurial intention.

H1d: There is no significant relationship between Behavioral Control and Entrepreneurial intention.

H1e: There is no significant relationship between Role of the University and Entrepreneurial intention.

IV. LITERATURE REVIEW

Entrepreneurship Education (EE)

The entrepreneurship education is the type of education designed to change the orientation and attitude of the recipients. It also enable the person to start and manage a business enterprise by equip with the skills and knowledge. Moreover it encouraging practical learning, problem-solving type, project based, creative and allowing peer evaluation (Agu, 2006). It also argued that it is a learning process offers enterprising skill behavior that is required to create and manage ventures. Entrepreneurship courses and programs may be one of the fastest growing curricular areas within engineering schools.

6.1 Perceived the role of University to promote Entrepreneurship

Universities are seen as promoters of entrepreneurship by providing entrepreneurship education and complimentary supports that are necessary to boost the potential intentions of venture creation and subsequent growth; hence they are key players in the provision of training (OECD, 2010).

6.2 Perceived need for EE (Perceived Desirability)

The desirability of Entrepreneurship course is expected, among others, to make students appreciate the risks and rewards associated with business creation and ownership. Furthermore, it is hoped that will change students' mindsets

and attitudes towards entrepreneurship as well as helping in developing entrepreneurial traits and provide the necessary networking support.(Agbim et al., 2013).

6.3 Perceived relevance of curriculum and course contents

The appropriateness of the curriculum and course contents is a challenging issue in Entrepreneurship education, and the success of the programme lies on getting this aspect right. Zegeye (2013) argues that this problem arises owing to inability to harmonize the viewpoints of the major stakeholders in Entrepreneurship education: educators, students, programmers, and evaluators. The students, for example, come from diverse educational background and orientations. What and how to teach them are fundamental questions that need to be asked and pragmatically answered if students interests and skills acquisition in entrepreneurship are to be met.

6.4 Perceived competence of Entrepreneurship Educationlecturers

Competency is skill that is essential to perform a certain task. According to Jessup (1991) as "the ability to perform to recognized standards". It can be relate to the ability of an individual to perform a job or task properly base on the educational level, professional experience and the effort of the staffs for continuing professional development. Those who teach entrepreneurship in universities have significant role in influencing students' attitudes to and perceptions of Entrepreneurship education (Akinboye and Pihie, 2014).

6.5 Perceived behavioural control

Behavioral control beliefs give rise to perceived ease or difficulty of performing the behavior. According to Ajzen (1991) explained that perceived behavioral control reflects beliefs regarding the access to resources and opportunities needed to perform a behavior. They also divided perceive behavioral control into two components. The first component reflects the availability of resources needed to engage in the behavior. This includes access to financial resources, time and other resources. The second component reflects the focal person's self confidence in the ability to conduct the behavior.

6.6 Perceived Entrepreneurial Intentions

The goal of entrepreneurship education is to create entrepreneurial intentions among the recipients. Entrepreneurial intention refers to "an individual's personal desire to create a new firm or a new value driver within existing organizations" (Wu and Wu, 2008). It is seen as the

first step in new business creation. Deliberate entrepreneurial intention is the willingness of the individual to venture into business due to the feasibility of entrepreneurial behaviors. Students will be equipped with the skills to translate their interests into business formation at some stage after completion of their undergraduate programmes.

VII. RESEARCH FRAME WORK ON THE PERCEPTION OF ENTREPRENEURIAL INTENTION

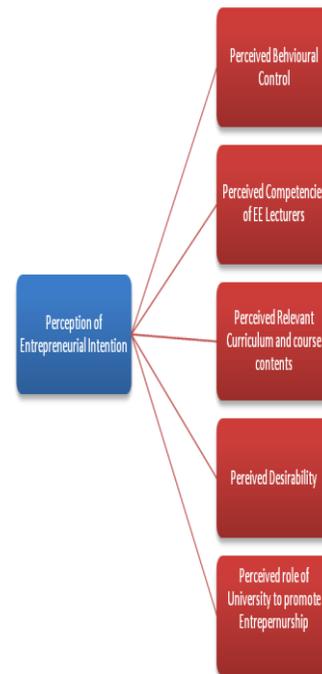


Figure 1: Conceptual model of the research

VIII. RESEARCH METHODOLOGY

The descriptive research design was employed through survey approach. Both secondary and primary sources of data used in this study. The sample size concerned for the collection of primary data, the researcher used AASTU's Engineering students in Ethiopia. The number of respondent was assigned with proportional sampling techniques from the engineering department in undergraduate program. So, 230 questionnaires were distributed by using simple random sampling techniques in the selected engineering department and 218 questionnaires were completed and used for the analysis. Primary data were entered in to the SPSS and analysed by using descriptive and inferential statistics. Data was collected through the use of self-administered questionnaire in a survey.

IX. ANALYSIS OF THE STUDY

The researcher has analyzed and presented the actual gathered data from AASTU students through questionnaires and researcher observation.

Analysis for personal Information

Table -1 Characteristics of individual information

No.	Items	Respondents	
		Frequency	Percentage
1	Sex:		
	a) Male	133	61%
	b) Female	85	39%
	Total	218	100%
2	Age:		
	a) Below 20	0	0%
	b) 21-23	121	56%
	c) 24-26	86	39%
	d) 27-29	11	5%
	e) Above 29	0	0%
Total	218	100%	
3	Marital status:		
	a) Single	198	91 %
	b) Married	20	9 %
	c) Divorced	0	0 %
	d) Widowed	0	0 %
Total	218	100%	
4	Department:		
	a) Electromechanical Engineering	41	19 %
	b) Software Engineering	16	7 %
	c) Chemical Engineering	32	15 %
	d) Food processing Engineering	7	3 %
	e) Manufacturing Engineering	16	7 %
	f) Mining Engineering	9	4 %
	g) Civil Engineering	98	45%
Total	218	100%	
5	Prior Business Experience		
	a) Have owned a business of my own	12	6 %
	b) Never been involved in business of my own	206	94 %
Total	218	100%	
6	Business Background of parent/guardian		
	a) In Business	96	44 %
	b) Not in business	122	56 %
Total	218	100%	

Source: From survey data

As shown in table 1, 61% of the respondents were male, while female respondents accounted for 39%. Compared to male respondents, females were fewer in number. However, according to Narendra and Bhandari (2012) that these students' intention to become entrepreneurs is gender-neutral. A look at the age distribution indicates that most of the respondents are in the age groups of 21-23 (56%) while the next large numbers of age groups (39% of respondents) were of ages 25-30.

Students were asked to indicate whether they have owned a business of their own or not, the vast majority of

respondents said that they have never been involved in business of their own (94%). This implies that student's entrepreneurial concept is becoming new for majority of the students. Most of students were found single (91%) and majority of students were joined in Civil Engineering department (45%) than the other departments.

Regarding with the entrepreneurial behavior of their parents/guardian were shown in the above Table 1, 56% of respondents disclose that their parents were never entrepreneurs against 44% who reported that parents have or have had a business. As studied indicated that students' intention to starting a business once they have completed their undergraduate studies depending on their parents/guardian occupation. Belcourt (1990) highlighted, among others, the importance of paternal occupation and psychodynamic interactions with both the mother and father. Likewise, Olomi and Sinyamule (2009) that depicted the perceived chances of getting a job and background of entrepreneurial family are positively associated with interest in entrepreneurial intention. Therefore, this study may shows that the respondent students may have less intention to being an entrepreneur because of the families' background.

Analysis the Perception of Entrepreneurship

The researcher used five parameters based on reviews literature to measure the perception of entrepreneurship education, namely; Desirability of entrepreneurship course, Competency of entrepreneurship course Lecturers, Relevance of Curriculum and course content, Behavioral Control and Role of the University. This study had two extreme ends for the perception of entrepreneurship education as respondents' perception which are '1'-is strongly disagree and '5' is -strongly agree. Strongly Disagree=SDA, Disagree=DA, Neutral=N, Agree=A, Strongly Agree=SA

Table 2: Desirability of Entrepreneurship Education (Needs of EE)

No	Items	SDA	DA	N	A	SA
1	It is a discipline that can promote self-reliance	6 (3)	79 (36)	74 (34)	41 (19)	18 (8)
2	It promote self-employment among people	17 (8)	64 (29)	34 (16)	92 (42)	11 (5)
3	It decreases unemployment among the youths	23 (11)	97 (44)	75 (34)	21 (10)	2 (1)
4	It enhances creative and innovative ideas	14 (6)	53 (24)	23 (11)	104 (48)	24 (11)
5	It reducing numbers of failed businesses	2 (1)	62 (28)	39 (18)	112 (51)	3 (1)
6	It equip graduates with business creation skills	15 (7)	96 (44)	42 (19)	45 (21)	20 (9)

Source: Primary data, Figures in brackets show percentages

As it is clearly indicated in table 2 above, the response of respondent towards desirability (needs) of entrepreneurship course is found to be average. This indicates that the desirability of entrepreneurship course was noticed by the respondents as neither agree or disagree. Almost half of the respondents were perceived enhances creative and

innovative ideas. Whereas, more than half of the respondents were disagree and strongly disagree with the statements of entrepreneurship education needs to equip graduates with business creation skills and decreases unemployment among the youths.

Table 3: Competency of Entrepreneurship course Lecturers

No	Items	SDA	DA	N	A	SA
1	The lecturer shows much interests in teaching the course	3 (1)	85 (39)	74 (34)	38 (17)	18 (8)
2	The lecturer encourages students to participate in entrepreneurship related activities	12 (6)	62 (28)	34 (16)	94 (43)	16 (7)
3	The course lecturer had stimulated my interest in becoming an entrepreneur	0 (0)	121 (56)	32 (15)	47 (22)	18 (8)
4	The lecturer addressed the questions I had concerning entrepreneurship course	17 (8)	134 (61)	43 (20)	15 (7)	9 (4)
5	Students are encouraged to consider starting their own business	2 (1)	98 (45)	70 (32)	42 (19)	6 (3)

Source: Primary data, Figures in brackets show percentages

From the table 3 clearly seen that majority of respondents approaches to disagreement with Entrepreneurship course lecturers' competency. More than half of the respondents were disagree with the course lecturer stimulated there interest in becoming an entrepreneur. Similarly, 2/3 of the respondents disagree that the lecturer did not address the questions that concerning with entrepreneurship course. It may infer that the teaching methods are dominated chalk and talk rather than inspired students to participate in entrepreneurship related activities.

Table 4: Relevance of Curriculum and Course Content

No	Items	SDA	DA	N	A	SA
1	The course covers basic skills required for entrepreneurship	0 (0)	65 (30)	107 (49)	46 (21)	0 (0)
2	I have learnt how to prepare a business plan.	0 (0)	23 (11)	52 (24)	134 (61)	9 (4)
3	I have learnt to approach banks and financial institutions for financial support.	7 (3)	71 (33)	43 (20)	94 (43)	3 (1)
4	I have learnt how to register a patent and register a business.	2 (1)	98 (45)	70 (32)	42 (19)	6 (3)
5	The time allocated for the course in the time table is adequate	21 (10)	134 (61)	50 (23)	13 (6)	0 (0)
6	Students are encouraged to have practical experience in entrepreneurship through filed work and interaction with practicing entrepreneurs	9 (4)	164 (75)	24 (11)	21 (10)	0 (0)

Source: Primary data, Figures in brackets show percentages

According to Adejmolola and Olufumilayo (2009) identified curriculum and course contents as critical to achieving the course outcomes. However, as can be seen from the table 4, respondents show their low level of agreement about the relevance of curriculum and course content in Entrepreneurship course. Which is more than ¾ of the respondents were disagreed with encouraged to have practical experience in entrepreneurship through filed work and interaction with practicing entrepreneurs. Moreover, they were disagreed with the statements of the respondent that learnt about patent registered, allocated time for the course, financial

institution support. But, the only question that they were agreed on they have learnt how to prepare a business plan. But, the students' business plan was depicted that they are focused on on-engineering fields. It implies that there is a gap on the course content and curriculum.

Table 5: Perception of Behavioral Control (Change)

No	Items	SDA	DA	N	A	SA
1	I consider entrepreneurship as a desirable career option.	4 (2)	65 (30)	43 (20)	106 (49)	0 (0)
2	Students are encouraged to pursue entrepreneurship ventures in the university.	0 (0)	27 (12)	56 (26)	124 (57)	11 (5)
3	I prepared business plan when I take the course in the area of my field of study	10 (5)	145 (67)	23 (11)	40 (18)	0 (0)
4	My university and my lecturers helped me to meet people with good ideas for new ventures.	2 (1)	112 (51)	70 (32)	42 (19)	2 (1)

Source: Primary data, Figures in brackets show percentages

Pertaining to the perception of behavioral control, the table 5 shows that the responses approach to neutral (2.95). i.e. more than half (57%) of the respondents feeling that encouraged to pursue entrepreneurship ventures in the university. Similarly, almost half of the respondents were considered entrepreneurship as a desirable career option. However, respondents were disagree with the statement that prepared business plan on their field of study and feeling on the university and lecturers that helps the engineering students to meet people with good ideas for new ventures. It suggests that Entrepreneurship education did not change their beliefs on either perceived ease or difficulty to perform entrepreneurship activities.

Table 6: The role of the University to promote entrepreneurship

No	Items	SDA	DA	N	A	SA
1	My university's entrepreneurship course prepares students very well for entrepreneurial careers.	42 (19)	85 (39)	43 (20)	48 (22)	0 (0)
2	There is financial assistance to students to set up their own businesses.	23 (11)	134 (61)	52 (24)	9 (4)	0 (0)
3	A creative environment in the university stimulates me to develop ideas for new ventures.	53 (24)	106 (49)	51 (23)	8 (4)	0 (0)
4	The university provides vital infrastructural facilities	24 (11)	150 (69)	38 (17)	6 (3)	0 (0)
5	I am aware that there is a well-functioning support program for start-ups at my university.	41 (19)	83 (38)	68 (31)	22 (10)	3 (1)

Source: Primary data, Figures in brackets show percentages

Concerning with perceived the role of university to promote entrepreneurship education, the table 6 shows that students' responses were approaches to disagreement. More than 2/3 of the respondents did not get financial assistance from the university. Similarly, almost 75% of the respondents responded as the university did not create an environment in the university that stimulates students to develop ideas for new ventures. It implies that students are perceived that the university did not do adequately to promote entrepreneurship education in the university.

Table 7: Entrepreneurial Intention

No	Items	SDA	DA	N	A	SA
1	I'll start a full- or part-time business at some point in the future.	0 (0)	52 (24)	128 (59)	38 (17)	0 (0)
2	I'm going to start a business within the next 5 years.	16 (7)	124 (57)	52 (24)	21 (10)	5 (2)
3	I'll do everything in my power to start a business in the future.	3 (1)	108 (49)	67 (30)	42 (19)	0 (0)

Source: Primary data, Figures in brackets show percentages

As far as Entrepreneurial intention concerning, table 7 depicted that students responded were approached to disagreement. The majority of respondents (49%) were disagreed on the power of usage to start a business in the future. Similarly, 2/3 of the respondent did not have an intention to start a business within the next 5 years. The 60% of the respondents did not have an intention to start a full- or part-time business at some point in the future. It indicated that students will not perceive much equip with the skills to transform their interests into business formation at some stage after completion of their undergraduate programs.

X. CORRELATION ANALYSIS

In order to define the direction of the relationship between the variables and evaluate the magnitude (between -1 and +1), Correlation analysis was employed. This particular type of analysis is useful when a researcher wants to establish if there are possible connections between variables (Entrepreneurship Intention, Desirability, Competency of Lecturers, Relevance of Curriculum and course content, Behavioral Control and Role of the University).

Table 8: Summary of Correlation Coefficients

	EI	DS	CL	RC	BC	RU
EI	Pearson Correlation Sig. (2-tailed)	1				
DS	Pearson Correlation Sig. (2-tailed)	.395**	1			
CL	Pearson Correlation Sig. (2-tailed)	.454**	-.195**	1		
RC	Pearson Correlation Sig. (2-tailed)	.668**	.400**	.120	1	
BC	Pearson Correlation Sig. (2-tailed)	.376**	.099	-.028	.332**	1
RU	Pearson Correlation Sig. (2-tailed)	.757**	.529**	.262**	.873**	.343**
		.000	.000	.000	.000	.000

** Correlation is significant at the 0.01 level (2-tailed).
 Note: EI – Entrepreneurship Intention, DS – Desirability, CL – Competency of Lecturers, RC – Relevance of curriculum, BC – Behavioural Control, RU – Role of the University.

Note: EI – Entrepreneurship Intention, DS – Desirability, CL – Competency of Lecturers, RC – Relevance of curriculum, BC – Behavioural Control, RU – Role of the University.

Source: Survey data

The above table 8 shows that the simple bi-variant correlations between various variables under study. It was explained that the dependent variable (Entrepreneurial

Intention) was found to be significantly ($p < 0.01$) associated positively with the independent variables (Desirability, Competency of Lecturers, Relevance of Curriculum and content of the course, Behavioral Control and Role of the University). The significant association between the dependent variables and the independent variables was reported from higher to lower as follows: *Role of the University (0.757)*, *Relevance of Curriculum (0.668)*, *Competency of Lecturers(0.454)*, *Behavioural Control (0.376)* and *Desirability (0.359)* correlate with significant at the 0.01. It can be seen that all variables were significantly correlated to the Entrepreneurial intention of students in entrepreneurial education. That is, the intention of the students to join the entrepreneurial activities is related to the above independent variables.

It means that with the increase in the Entrepreneurial Intention provided it will result in increase in the level of determinant variables among the students. These results are also consistent with the one studied on the Perception of students towards Entrepreneurship Courses in Nigerian Polytechnics Students by Lame and Yosoff (2013) and Abbas (2013) likewise studied with a public technical university in Malaysia. Hence, the above attributes have strong relationships with the perception of students' in an entrepreneurial intention.

XI. REGRESSION ANALYSIS

Multiple Regressions are used to calculate that whether there is positive or negative relationship between the dependent and independent variables.

The following tables present the results from the multiple regressions carried out using the five variables: Behavioral Control, Competency of Lecturers, Role of the University to promote entrepreneurship, Relevance of Curriculum and Desirability of entrepreneurship education as the independent variables and Entrepreneurial Intention as the dependent variable. This was done to determine the best linear combination of the variables for predicting Entrepreneurial Intention.

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.838*	.702	.695	.258

a. Predictors: (Constant), Behavioral Control, Competency of Lecturers, Role of the University to promote entrepreneurship, Relevance of Curriculum and Desirability

Source: Survey data

Model summary (table 9) of output is very important in describing overall relationships between dependent and independent variables (R), goodness of fit (R square) and the standard error of estimate.

In order to determine the strength of relationship between those variables, a value of R which is assumed to be 0.838 was established to show that the relationship between dependent and independent variable is very strong. Results have shown that 83.8% variations are caused by independent variable.

Similarly, R² value shows us how close the data are to the fitted regression line. Thus, the overall predictability of the model is shown in the above table. The R² value of 0.702 indicates that model explains 70.2% of the attributes are responsible for overall student’s Entrepreneurial Intention. It means that there exist a positive relationship between all independent variables and a dependent variable. Moreover, this model shows a figure of standard error of estimate i.e. 0.258, meaning that actual data is 25.8% dispersed from the regression line.

Table 10: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	33.201	5	6.640	99.828	.000 ^a
Residual	14.102	212	.067		
Total	47.303	217			

Source: Survey data

Above ANOVA, table 10 has shown that P-value is much less than 0.01, meaning that there is a significant effect between the variables. Hence, the model is accepted. So, it tells us that there is strong effect of Behavioral Control, Competency of Lecturers, Role of the University to promote entrepreneurship, Relevance of Curriculum and Desirability of entrepreneurship education on the students’ Entrepreneurial Intention.

Table 11: Regression Model (Coefficients)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
1 (Constant)	-.782	.269		-2.905	.004
Behavioral Control	.159	.036	.227	4.439	.000
Competency of Lecturers	.250	.028	.410	8.957	.000
Role of the University	.171	.056	.250	3.046	.003
Relevance of Curriculum	.226	.047	.198	4.855	.000
Desirability	.483	.196	.243	2.466	.014

Source: Survey data

Entrepreneurial Intention= f(Behavioral Control, Competency of Lecturers, Role of the University, Relevance of Curriculum, and Desirability) mathematically it can be written as:

Where,

Y = Entrepreneurial Intention

X1 = Behavioral Control

X2 = Competency of Lecturers

X3 = Role of the University

X4 = Relevance of Curriculum and course content,

X5 = Desirability

There α is constant while β_i are coefficients of estimates and e is the error term.

$$Y = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + e$$

Using the regression output from the above tables, estimated the following relationship model:

$$Y = -0.782 + 0.159X_1 + 0.250X_2 + 0.171X_3 + 0.226X_4 + 0.483X_5$$

Testing the Hypotheses

As depicted on the above model on table 11, all independent variables are useful to predict the Entrepreneurial Intention in the case of AASTU’s engineering students. Behavioral Control (β = 0.159, P<0.005) was found to have a significant effect on the Entrepreneurial Intention. Based on the result of this, Hypothesis (H1a) is **rejected**. It implies that there is a significant contribution of Behavioral Control to the Entrepreneurial Intention.

Regarding with the Competency of Lecturers variable shows (β = 0.250, p < 0.05) was as significant relations to the Entrepreneurial Intention. Therefore, Hypothesis (H1b) is **rejected**. There is significant relationship between Competency of Lecturers and Entrepreneurial intention. The significant contribution of Competency of Lecturers model has already been earmarked by various scholars like (Ramlan and Ngah, 2012). However, majority the AASTU’s respondents were not comfortable with the competency of the course instructors.

The result of the regression analysis in the above table 11, shows Role of the University had the major effect on the Entrepreneurial intention of the students in AASTU with (β = 0.171, p < 0.05). As a result of this, Hypothesis (H1c) is **rejected**. It implies that there is a significant relationship between the Role of the University to promote

Entrepreneurship education and Entrepreneurial intention in AASTU's engineering students.

As per the above model indicates, Relevance of Curriculum and course content ($\beta = 0.226$, $p < 0.05$) was found that significant relationships to the effect on Entrepreneurial intention in AASTU's engineering students. As a result of this Hypothesis (H1d) is **rejected**. Therefore, it implies that there is significant relationship between Relevance of Curriculum and course content and Entrepreneurial intention of AASTU engineering students. Comparing with the other four variables it has less prediction effect on Entrepreneurial intention in AASTU's engineering students.

The last variables in this model, Desirability ($\beta = 0.483$, $p < 0.05$) was found that significant relationships to the effect on the Entrepreneurial intention in AASTU's engineering students. The Beta value of the desirability of entrepreneurship education is 0.483 which indicates that 100% change in the perception of Entrepreneurship education leads to 48% change in overall Entrepreneurial intention at P-value 0.000 which indicates there is significant relation between the two variables. As a result of this, Hypothesis (H1e) is **rejected** that "there is a significant relationships between the desirability of entrepreneurship education and Entrepreneurial intention in AASTU's engineering students".

XII. CONCLUSION AND SUGGESTIONS

Entrepreneurship brings economic growth, innovations and creates new jobs. The course aims at equipping engineering students with an entrepreneurial mindset and skillset, both of which are much needed in the marketplace today. However, the entrepreneurship education (course) in this study is not well implemented and students also did not receive sufficient attention from the university management.

The result shows the entrepreneurship education in the AASTU did not performing well and there did not have positive perception from the students toward the Entrepreneurial Intention. Thus, the entrepreneurship education in this university is still not adequate to enable thinking critical and creation of new jobs, yet the curriculum and the competency of lecturers' are not to be able to reach students' expectation. In designing any future curriculum for entrepreneurship courses, greater attention should be paid to the labor market prospect.

These findings provide valuable insight for educators and policy makers in modifying syllabuses and amend policies

to enhance the entrepreneurial intention. Moreover, this paper proposes that students should be encouraged to obtain entrepreneurship exposure as early as possible to develop their entrepreneurial characteristics, behavior, and intention. Furthermore, the university management as a matter of priority should fully understand the entrepreneurship program objectives and give full support to ensure they are attained.

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