

Entrepreneurial Intentions among Students of Higher Institutions in Eritrea

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Abstract

This study focused on investigating the entrepreneurial intentions among Business and Engineering final year students in the Eritrean higher institutions. Specifically, it aimed to examine students' entrepreneurial intentions based on the theory of planned behavior. Moreover, the influence of demographic characteristics and parents' entrepreneurial background on the students' entrepreneurial intention was examined. To investigate the entrepreneurial intention, 100 students were selected randomly as a sample and a questionnaire was used as an instrument to collect data. SPSS 20 was used to analyze the data while t-test, correlation, and regression have been utilized for finding out the results. Results have revealed that students' entrepreneurial education background and parents' entrepreneurial experience have not shown any impact on the students' entrepreneurial intention. What is more, the personal attitude, perceived behavioral control and risk taking readiness have shown a positive and significant impact on Eritrean higher institutions students' entrepreneurial intention. However, the social norm has a negative but insignificant impact on the students' entrepreneurial intentions.

Keywords: Entrepreneurial intention, parents' entrepreneurial experience, risk taking, theory of planned behavior

1. Introduction

Entrepreneurship is a process by which individuals pursue opportunities to run their own business or to have creative ideas inside the organization they work. It plays a vital role for new business creation, expansion of existing business, social and economic development (Tahseen et al. 2012). Entrepreneurial activities create job opportunities, increase competitiveness and boost economic growth (Thurik and Wennekers, 2004; Linan et al. 2011)

In the context of Eritrea, entrepreneurship has long history and most importantly stretched back to the era of Italian colonization. In 1914, financial institutions were opened by the Italian colonizers as a branch of the bank of Italy. Later in 1917, they were expanded by opening sub-branches in cities like Keren, Adi-keih, Assab and Massawa (Mauri A, 2003). These contributed to the entrepreneurial intentions and engagements of many people. Many Eritreans had opened their own small manufacturing enterprises and retailing shops. Their entrepreneurial engagement was further encouraged by the constructions of infrastructure and the opportunities of exporting their products to Europe particularly to Italy. Eritrea had well developed and competitive enterprises in the late 1940s and early 1950s.

Many researches have been done in developed nations to investigate the entrepreneurial intentions of final year university students and their main influential factors. The studies made by Autio et.al. 2001 and Turker et.al. 2009, are some of the investigations of entrepreneurial intentions' made in developed countries. Since the context of Eritrean students' life is different compared to the developed countries, it is preferable to refer the studies made in less developed countries. In recent years, some studies were carried out in less developed countries in Asia and Africa. For example, the studies conducted by kabui, & Maalu, 2012 of Kenyan public secondary school, by Marvin, & Flora 2014 of Kigali Independent University, Mai & Nguyen 2015 of Vietnam and Fatoki, 2010 of South Africa are enough examples out of the many studies made.

This paper will examine the entrepreneurial intentions of Eritrean final year Engineering and Business students. It will screen out some of the basic elements of the theory of planned behavior which can contribute to the entrepreneurial intentions of the students after graduation. Moreover, it will clearly spell out the variables which have more influence in the entrepreneurial drive of the students.

2. Literature Review

Being an entrepreneur is not a one day dream and everyone cannot be an entrepreneur. Rather, individual's entrepreneurial intention is the result of a long time move and influenced by many different factors and actors. Intentions are the mind set to achieve a specific goal. Entrepreneurial intention is the state of mind toward opening your own business and being self- employed. Remeikiene and Startiene (2013), Obschonka et.al 2010 defined it as the growing conscious state of mind that a person desires to start a new enterprise or create a new core value in an existing organization. Likewise, Henley (2007) pointed out that entrepreneurship is an

intentional activity, in that for many those intentions are formed at least a year in advance of new venture creation suggesting a link between entrepreneurship and intention. On the same token, Choo and Wong (2009) defined entrepreneurial intention as the search for information that can be used to help fulfill the goal of venture creation.

There are some theories which have developed to explain why some people become entrepreneurs while others do not. The trait theory developed by McClelland (1961) highlighted that entrepreneurs are born with certain distinctive characteristics. These include; need for personal control, extreme self-confidence, restlessness, high independence and innovation.

However, the theory of planned behavior (TPB) explains not only why some people become entrepreneurs but also why they continue to engage in entrepreneurial venture (Kabui, & Maalu, (2012). The theory formulates that entrepreneurial behavior is the result of three factors; the personal attitudes, subjective values (Social Norm) and perceived behavioral control (Linan & Chen, 2006). The personal attitudes towards the behavior depend on the expectations and beliefs about the personal utilities resulting from the behavior and include outcomes such as personal wealth, autonomy, or community benefits (Krueger et al., 2000). Perceived social norms tap into the most important social influences such as family and friends (Krueger et al., 2000). Finally, the perceived behavioral control is related with Bandura's view of perceived self-efficacy or the perceived ability to execute the target behavior (Ajzen, 1987; Krueger et al., 2000) and with Shapero's concept of perceived feasibility (Shapero and Sokol, 1982).

This research paper has developed a model from the above theories of Entrepreneurial Intentions to examine the entrepreneurial intentions among students of higher institutions in Eritrea. Even though, the three variables of TPB mentioned above are the subject of examination, other variables are also used for deeper analysis. Within each variable, there are certain elements which determine the variables themselves.

3. Research Methodology

The research implemented a survey design, using a questionnaire as a data collection instrument. The questionnaire was adapted from previously existing entrepreneurial intentions questionnaires (EIQ), those compiled by Duijin wouter 2004, Van Gelderen, et al. (2008) Ramayah and Harren (2005), and Autio et al. 2001 regarding entrepreneurial intentions in higher institutions.

The questionnaire was designed under three sections. The first questionnaire was constructed on the demographic characteristics of the students. The basic elements included in this section are: Gender, age, parent's entrepreneurial experience, and entrepreneurial education exposure etc. In the first section, respondents were required to give their responses by indicating "yes" or "no". In the second section, respondents had to give their responses on a 5 point likert-scale from "strongly agree" to "strongly disagree" on the following elements: readiness to take risk, subjective norm, personal attitude, and perceived behavioral control.

The questionnaire was pilot tested to ensure the inclusion of all the important elements in each of the variables and to safeguard internal consistency of each item in the variables. The alpha reliabilities of each variable and the reliability of overall items in the questionnaire were as follows: personal attitude = .80; perceived behavioral control = .78; subjective norm = .60; risk taking = .69; and entrepreneurial intentions = .71.

The respondents were selected randomly as a combination of convenience and purposeful sampling in the following way. They were taken from the final year students from the College of Engineering, and College of Business and Economics. To ensure an equitable participation on the responses, the research systematically handled the gender case of the respondents. Respondents were asked to fill the questionnaire and return it within one week. An approximately 100 questionnaires were distributed and 95 were returned.

The data was analyzed using Microsoft Excel and SPSS 20 as statistical packages. Frequency and t-test results were calculated to analyze the relationship of the determinant factors and entrepreneurial intentions for a significance of difference between groups on at least at $P < 0.05$. The relationships between each of the factors and the students' entrepreneurial intentions were tested using the Pearson's correlation. Furthermore, the combined effect of the factors and students' entrepreneurial intention was tested with regression model as indicated below.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 D_1 + \beta_6 D_2 + \beta_7 D_3 + \beta_8 D_4 + \varepsilon$$

Where: Y = Entrepreneurial intention

β_0 = constant

β_0 β_8 = Parameter estimates

X_1 = personal attitude

X_2 = perceived behavioral control

X_3 = subjective norm

X_4 = risk taking

ε = error term

Dummy Variables

D_1 = Field of Study = 0 if the student is studying engineering and 1 if studying business

D_2 = Gender = 0 male and 1 female

D_3 = Family's entrepreneurial background = 0 if family have entrepreneurial experience while 1 if not

D_4 = Entrepreneurial Education background = 0 if the students have taken entrepreneurial course, 1 if not.

4. Result and Discussions

4.1 Demographic Characteristics

All the students were studying at their undergraduate level. The gender representation of the respondents was: 58 (61.1%) males, and 37 (38.9%) females, and their ages were mostly between 18 and 24 years old, with 80% (n=76) while the remaining 20% (n=19) were older than 25 years. As regards to field of study, 49 (51.6%) were from engineering and 46 (48.4%) were business students. Those who have taken entrepreneurial education were 30% (n=38) and 60% (57) have not any exposure to entrepreneurial education. When comes to the respondents' place of residence 72.6% (n=69) were from urban places while the remaining 27.4% (n=26) were representing from the rural places. In terms of their parents' employment background of the students, 50.5% (n=48) of the respondents replied that their parents are self-employed while the remaining 49.5% (47) answered that they are not self-employed. This implies that the family entrepreneurial experience of the respondents' counted for half of the total respondents.

Table 1. Frequency of the demographic characteristics of the students

Variables	Categories	Frequency	Percent
Field of Study	Engineering	49	51.6
	Business	46	48.4
	Total	95	100.0
Gender	Male	58	61.1
	Female	37	38.9
	Total	95	100.0
Age	18-24	76	80
	25-30	12	12.6
	>30	7	7.4
	Total	95	100.0
Origin	Urban	69	72.6
	Rural	26	27.4
	Total	95	100.0
Parents' employment background	Self-employed	48	50.5
	Others	47	49.5
	Total	95	100.0
Entrepreneurial education background	Yes	38	40.0
	No	57	60.0
	Total	95	100.0

4.2 Gender and Entrepreneurial intention

Table 2 explains the descriptive statistics of gender i.e. male and female. Here, male (M = 4.0, SD = 0.74) has shown marginally higher entrepreneurial intentions than female (M = 3.6, SD = 0.94). Moreover, table 3 shows t-test of the effects of gender on students' entrepreneurial intention. The results show that the difference is significant, $t(93) = 2.2$, $p = 0.03$. This indicated that the students' gender characteristic is directly related to their entrepreneurial intention.

Table 2 Group statistics: Gender

	Gender categories	N	Mean	Std. Deviation	Std. Error Mean
Entrepreneurial intentions	Male	58	3.9828	.73726	.09681
	Female	37	3.6036	.93900	.15437

Table 3 Results of T-test of gender and entrepreneurial intention

		Levene's Test for Equality of Variance		t-test for equality of means		
		F	Sig.	t	df	Sig. (2-tailed)
EI	Equal variance assumed	3.530	.063	2.194	93	.031
	Equal variances not assumed			2.081	63.66	.04

4.3 Parent's entrepreneurial experiences and entrepreneurial intention

Students with self-employed parents ($M=3.92$, $SD = 0.75$) have shown relatively higher entrepreneurial intention than students with parents not self-employed ($M = 3.74$, $SD = 0.92$). However, this difference was non-significant, $t(93) = 1.04$, $p = 0.30$. That is parents' entrepreneurial experience is unrelated to the students' entrepreneurial intention.

Table 4 Group statistics of parent's entrepreneurial experience

Are your parents currently self-employed?		N	Mean	Std. Deviation	Std. Error Mean
ET	Yes	48	3.9236	.74453	.10746
	No	47	3.7447	.92264	.13458

Table 5 T-test for parent's entrepreneurial experience and entrepreneurial intentions

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
ET	Equal variances assumed	2.954	.089	1.041	93	.300
	Equal variances not assumed			1.039	88.248	.302

4.4 Entrepreneurial education and entrepreneurial intention

Students with entrepreneurial education experience ($M= 4.0$, $SD = 0.77$) have slightly higher entrepreneurial intentions than students' without any entrepreneurial education background ($M = 3.71$, $SD = 0.87$). However, this difference is not significant, $t(93) = 1.67$, $p = 0.10$. That is students' entrepreneurial education is unrelated to the students' entrepreneurial intention.

Table 5 Group statistics Entrepreneurial Education

Have you ever participated in any form of Entrepreneurship Course?		N	Mean	Std. Deviation	Std. Error Mean
Entrepreneurial intention	Yes	38	4.0088	.77299	.12540
	No	57	3.7193	.86554	.11464

Table 6 T-test for Entrepreneurial education and entrepreneurial intention

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
ET	Equal variances assumed	1.189	.278	1.665	93	.099
	Equal variances not assumed			1.704	85.319	.092

4.5 Pearson's Correlation Results

This section presents results about the relationship between the influencing factors: personal attitude, perceived behavioral control, subjective norm and risk taking; and entrepreneurial intention. To examine the effect of determining factors and entrepreneurial intentions, Pearson's product-moment correlation is used. The results of the analysis are presented in Table 7.

Table 7 Pearson's product- moment Correlation result (n = 95)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Entrepreneurial Intentions	1								
Field of Study	.099	1							
Gender	-.222*	-.083	1						
Parent's Entrepreneurial Background	-.107	.010	-.100	1					
Entrepreneurial Education	-.170*	-.155	.256*	-.009	1				
Personal Attitude	.604**	.050	-.199	.042	-.083	1			
Personal Behavioral Control	.576**	-.089	-.102	-.211*	-.097	.394**	1		
Subjective Norm	.240**	.100	-.056	-.084	-.130	.368**	.169	1	
Risk Taking	.394**	-.069	.012	.046	-.106	.243*	.300**	.094	1

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

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

c. List wise N=95

The result reveals that field of study has very weak positive but insignificant correlation while being from family who have entrepreneurial background has shown negative and insignificant correlation with entrepreneurial intentions. The gender and prior entrepreneurial education background of the students showed a negative (-0.222 & -0.17 respectively) and significant correlation with entrepreneurial intentions at ($p < 0.05$). The result of the entrepreneurial family background is contrary to the research findings of (Douglas & Fitzsimmons, 2013, and Uygun & Kasimoglu, 2013) which revealed a positive and significant relation with entrepreneurial intentions. However, the personal attitude, perceived behavioral control, subjective norm and risk taking have indicated a strong positive and significant correlation with entrepreneurial intentions. This is consistent with the theoretical backgrounds and previous research results (Angriawan et al., 2012 and Gebra, 2012). The results have shown that the more positively students feel about their ability and readiness to take risk the more they are likely to be entrepreneurs.

4.6 Regression results

The results of the regression analysis are presented in table 8. The analysis was used to test the combined impact of the determinant factors on students of higher institutions entrepreneurial inclination. The R^2 value indicates how much of the dependent variable, "entrepreneurial intention", was explained by the independent variables. Here, the R^2 is 0.56 which indicates that 56% of the variation in entrepreneurial intention is explained by the independent variables. The remaining 44% of the variation is attributed to other factors which are not included in the study. Multicollinearity among the independent variables is not a problem in this regression analysis which can be seen from the results of the VIF indicator (most of them are closer to 1) that is much lower than five and Values of tolerance (higher than the cut-off value $1-R^2$, 0.44) is very close to 1.

Table 8 Regression Result (n = 95)

	B	SEB	β	Collinearity statistics	
				Tolerance	VIF
Constant	.074	.49			
Field of Study	.184	.122	.111	.946	1.057
Gender	-.168	.130	-.098	.882	1.134
Family Entrepreneurial Background	-.124	.125	-.074	.906	1.103
Entrepreneurial Education Background	-.072	.129	-.042	.890	1.123
PA	.512	.109	.400**	.698	1.432
PBC	.343	.084	.339**	.730	1.370
SN	-.014	.093	-.012	.839	1.193
RT	.197	.074	.204**	.864	1.157

$R^2 = .56$, $F(8,86) = 13.823$, $p < .001$

* $p < .05$; ** $p < .01$

From this regression result, the following equation was developed:

$$Y = .074 + 0.40X_1 + 0.34X_2 - 0.012X_3 + 0.204 + 0.11D_1 - 0.10D_2 - 0.07D_3 - 0.04D_4$$

The regression results of the dummy variables; gender and entrepreneurial education background have a negative sign and insignificant which is the contrary to the correlation result which showed significant at $p < 0.05$ as indicated in table 7. However, the fields of study and parents' entrepreneurial background have shown a positive and negative sign respectively but insignificant contribution towards the entrepreneurial intentions of the students which is similar to the correlation results.

In consonance to the theory of planned behavior, the regression results of the personal attitude and perceived behavioral control contributed higher towards the entrepreneurial intentions of Eritrean higher

institutions final year students at $p < 0.01$. The personal attitude has backed by nearly half (0.40, $p < 0.01$) to their entrepreneurial inclination while the perceived behavioral control has also contributed moderately high (0.34, $p < 0.01$). Whereas, the subjective norm which is the influence of others like family, friends and colleagues has a negative sign and insignificant even at $p < .05$ which is contrary to the theory of planned behavior. The risk taking readiness of the students has a positive and significant contribution to their entrepreneurial inclination (0.204 $p < 0.01$).

5. Conclusion

In this paper, Eritrea's higher institutions students' entrepreneurial intention was examined together with several related variables. The t-test was used to analyze the significance of group difference of the demographic characteristics of the students towards entrepreneurial intention. Moreover, correlation and regression analysis were used to investigate the relationship of the variables and to examine their combined effect on the students' entrepreneurial intention. The result of the t-test has shown that the group difference for gender towards the students' entrepreneurial intention is significant at $p < 0.05$. However, the group difference for the entrepreneurial education and family's entrepreneurial experience is not significant at $p < 0.05$. The correlation results of gender and exposure to entrepreneurial education have shown a negative and significant relation with the students' entrepreneurial intention at $p < 0.05$. However, the correlation results for the field of study and parent's entrepreneurial experience have not shown any significant relation to the students' entrepreneurial intention. Furthermore, the results of the regression analyses indicated that three of the determinant factors; personal attitude, perceived behavioral control and risk taking readiness (0.44, 0.34 and 0.204 respectively) have shown a positive and significant relation with the students' entrepreneurial intentions at $p < 0.01$. These finding is similar to the correlation results of these variables which have shown a strong positive relationship with entrepreneurial intention.

These findings could create awareness on policy makers to build conducive environment and setup support facilities to encourage the students of Eritrea's higher institutions to start their own businesses. The findings of the results could also hope to shed some new insights to the current entrepreneurship literature particularly in Eritrean settings.

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