Entrepreneurial Intentions on Higher Education Students

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ABSTRACT

Becoming an entrepreneur may be a key for young students even if the running of a business demands capital and investment difficult to get. This article seeks to research eventual relations between entrepreneurial intentions of university students and training areas, higher education institutions, gender, age and family influences. A sample of 275 college students in Portugal was collected and the results seems to point out that entrepreneurial education is crucial for the raising basis of the entrepreneurial spirit in college students.

KEYWORDS

Entrepreneurship, Entrepreneurial Intention, Entrepreneurial Education, Higher Education students.

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1. INTRODUCTION

Society is getting more and more aware of the critical impact of entrepreneurship on economic growth and development (Dieguez, 2018). However, cultural details (e.g., Altinay & Basu, 2002), business environment reasons (Acs et al., 2005), psychological explanations (e.g., Koh, 1996) or a mix of these factors are determinants for run a own business.

Demographic, family and professional history, training and academic qualifications, attitudes, values and motivations are some of the most studied features on the economic literature (Dinis e Ussman, 2006). Some of these features are more descriptive in nature and some others more subjective. It is important to study both to better characterize the entrepreneur (Castro & Dieguez, 2014).

The present paper presents a review of the literature concerning the main factors related to entrepreneurial behaviour, competencies and its relationship with entrepreneurship education. After a description of the methodology developed, results are discussed, and conclusions are done. Some limitations and future researches are also indicated.

2. LITERATURE REVIEW

An entrepreneur is someone which generates economic development. Someone responsible for the introduction and implementation of innovative ideas that lead to innovations in product, process, marketing and organizational innovations (Vieira, 2014).

Economic growth and health may be promoted by entrepreneurial culture and Higher Education may have a relevant role on this process (Colombo et al, 2010; Etzkowitz, 2010; Uyarra, 2010; Garcia Estevez, 2013).

Several papers already centred their researches on motivational factors (Miziara and Carvalho, 2008) and many others on factors such as creativity, self-efficacy, confidence, assumption of risks and leadership, among others (G.N. & M.M., 2008). Also coming from families with entrepreneurs may help becoming entrepreneurship (Laspita et. al., 2012).

The next model addresses the issue of psychological, social and managerial competencies, as well as the entrepreneurial motivations that, when combined, empower a potential entrepreneur.

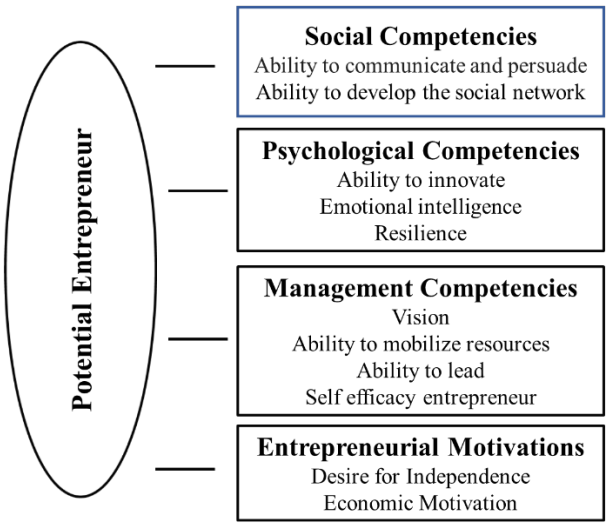

Figure 1. Conceptual model on competences that influence an entrepreneur

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Governments should seek to instil in student's skills such as creativity, innovation and active search problem solving (Imaginário et al., 2014). Education for entrepreneurship begins with education and "entrepreneurship is a lifelong learning where the best way to learn is to combine life experiences with formal education" (Timmons and Stevenson, 1984). In this sense, it is possible to defend that the concept of education for entrepreneurship may be perceived as following (figure 2):

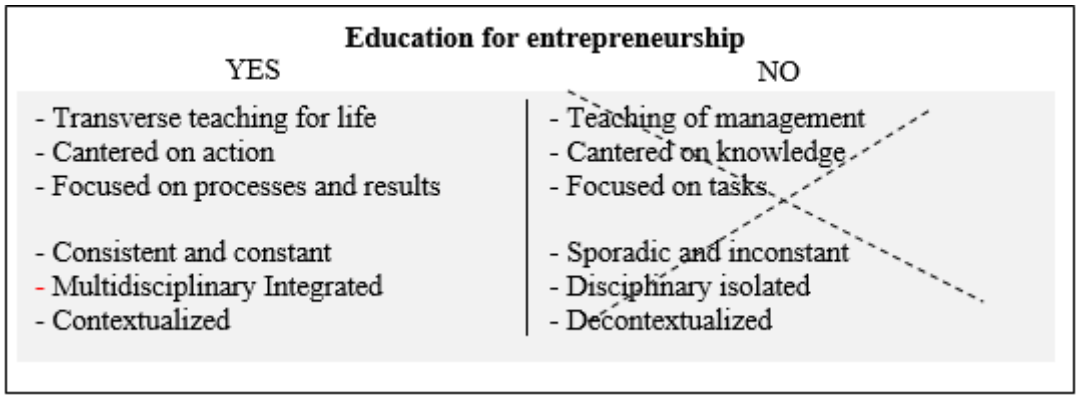

Figure 2. Education for Entrepreneurship
Font: adapted from Teixeira (2012)

3. METHODOLOGY AND RESULTS

It was developed a specific questionnaire, published in social networks (facebook, twitter) and it was shared among students from the Polytechnic Institute of Porto, Portugal. Within this study we intend to verify if: i) gender and age; ii) geographical location; iii) institution of higher education and iv) family interfere with the entrepreneurial intentions of university students.

The questionnaire was viewed by 2969 people, of which 26 interacted with the publication. We received 275 answers and we used SPSS for the treatment of data.

60% of the respondents are female (figure 3), 70% are under the age of 30, 47% and they are mainly (87%) from the North of Portugal. 28% of the respondents are in the engineering area, 24% in economical sciences and the remaining answers are cantered in the areas of social and technological sciences, education, literature and arts, among others.

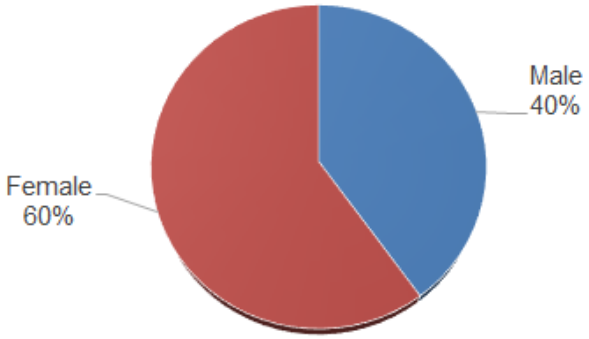

Figure 3. Gender of respondents

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71% of the respondents studied in a Polytechnic Institute and 29% in a University (figure 4). 80.36% have all the students have a bachelor's degree, 16% have master's degrees and the remaining doctoral and postgraduate degrees.

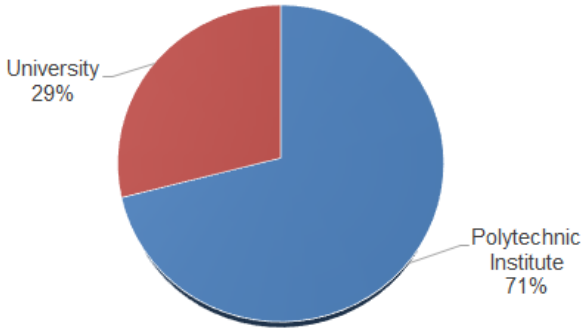

Figure 4. Higher Institutions attended by the respondents

40% of the respondent's desire to create business and 42% are not yet sure whether business creation is the way forward, most likely because of concerns about the risk associated with creating / opening a business of their own.

80% of the respondents agrees that training area empowering entrepreneurial ideas and 60% have direct contact with an entrepreneur. They have entrepreneurs in family. 53% of respondents see themselves as people with an entrepreneurial spirit.

Regarding the influence that the sources of information have on the entrepreneurial spirit we obtained the following results: Newspapers / magazines 10%; Television / Radio 14%; Social Networks 12%; Internet 19%, Training Area 19%; Success stories 17%; Examples in Family 9% (figure 5). This leads us to conclude that, in general, the sources of information have a positive influence on the entrepreneurial spirit, with the Internet showing a greater weight, and the familiar examples a smaller weight.

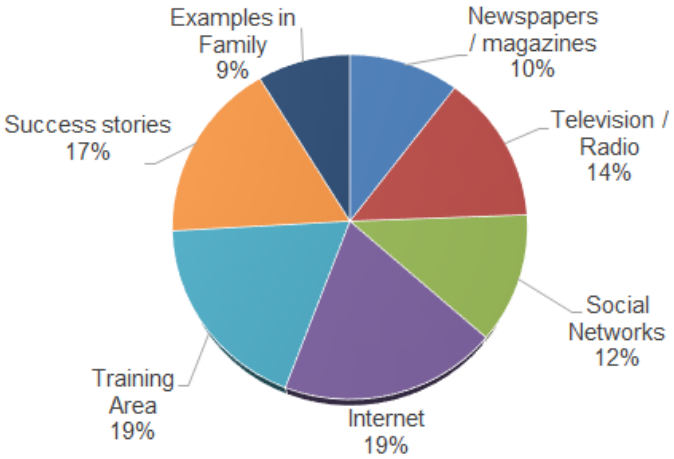

Figure 5. Sources of information influence on the entrepreneurial spirit

4. DISCUSSION

We used the SPSS and we run a multiple linear regression model (stepwise) in order to determine if the entrepreneurial spirit variable depends linearly on all other variables questioned in our survey. This test was tested for a level of significance of 95%, considered the ideal test

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level when there is no amplitude of the sample, and the results obtained are translated in tables 1, 2 and 3.

Table 1. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,266[a]	,071	,068	,90140	,071	20,946	1	274	,000	
2	,327[b]	,107	,100	,88553	,036	10,909	1	273	,001	
3	,356[c]	,127	,117	,87717	,020	6,231	1	272	,013	
4	,376[d]	,141	,128	,87148	,014	4,561	1	271	,034	2,152

a. Predictors: (Constant), criar_neg
b. Predictors: (Constant), criar_neg, confant
c. Predictors: (Constant), criar_neg, confant, potide
d. Predictors: (Constant), criar_neg, confant, potide, antecfami
e. Dependent Variable: espempree

Table 2. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17,019	1	17,019	20,946	,000[a]
	Residual	222,633	274	,813		
	Total	239,652	275			
2	Regression	25,574	2	12,787	16,306	,000[b]
	Residual	214,078	273	,784		
	Total	239,652	275			
3	Regression	30,369	3	10,123	13,156	,000[c]
	Residual	209,284	272	,769		
	Total	239,652	275			
4	Regression	33,833	4	8,458	11,137	,000[d]
	Residual	205,820	271	,759		
	Total	239,652	275			

a. Predictors: (Constant), criar_neg
b. Predictors: (Constant), criar_neg, confant
c. Predictors: (Constant), criar_neg, confant, potide
d. Predictors: (Constant), criar_neg, confant, potide, antecfami
e. Dependent Variable: espempree

Table 3. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1,271	,133		9,564	,000		
	criar_neg	,275	,060	,266	4,577	,000	1,000	1,000
2	(Constant)	,595	,243		2,452	,015		
	criar_neg	,238	,060	,230	3,958	,000	,965	1,036
	confant	,319	,097	,192	3,303	,001	,965	1,036
3	(Constant)	,279	,272		1,025	,306		
	criar_neg	,231	,060	,224	3,875	,000	,963	1,039
	confant	,290	,096	,175	3,012	,003	,951	1,051
	potide	,331	,133	,143	2,496	,013	,981	1,019
4	(Constant)	-,054	,312		-,175	,862		
	criar_neg	,223	,059	,216	3,759	,000	,959	1,043
	confant	,291	,096	,176	3,045	,003	,951	1,051
	potide	,355	,132	,153	2,685	,008	,974	1,027
	antecfami	,226	,106	,121	2,136	,034	,989	1,011

a. Dependent Variable: espempree

As a conclusion, it seems that the variables that depend linearly for the development of the entrepreneurial spirit are the ambition to create a business of its own, previous fantastic ideas, to consider that the training area promotes entrepreneurial ideas and the fact that they have a family history that has or had a business of their own¨(with a level of significance of 95%). The linear regression equation that shows the mentioned premises is the following:

Y = -0.054 + (0.223 * run a business + 0.291 * realizing a fantastic idea +
0.355 * Training area empowering entrepreneurial ideas +
0.226 * family background with business)

Where, Y represents the Entrepreneurial Intention

It seems to indicate that an entrepreneurial education (from higher education institutions and student´s family) empowers an entrepreneurial culture of the students.

Concerning the possibility of the training area influences the entrepreneurial culture of the students, it was performed the Normality Tests, as it was necessary to verify the existence of normal data (table 4).

Table 4. Normality tests

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	espempree	N	Percent	N	Percent	N	Percent
Forma	sim	148	100,0%	0	,0%	148	100,0%
	nao	28	100,0%	0	,0%	28	100,0%
	talvez	100	100,0%	0	,0%	100	100,0%

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	espempree	Statistic	df	Sig.	Statistic	df	Sig.
Forma	sim	,229	148	,000	,811	148	,000
	nao	,218	28	,001	,884	28	,005
	talvez	,204	100	,000	,833	100	,000

a. Lilliefors Significance Correction

For a 95% level of significance, observing the Kolmogorov-Smirnov test (for samples greater than 50 elements), it was verified that there is no normality of the data, so a non-parametric test (table 5) was chosen.

Analyzing the test results it was possible to conclude that there are no significant differences between the entrepreneurial spirit and the training area. However, in all areas the entrepreneurial spirit can be awakened, and the entrepreneurial culture depends very much on the way in which it is educated. Sudents wish to have more subjects related to entrepreneurship (23%), as well as seminars and lectures (11%) and contact with successful cases (11%). Everything seems to point out that students would like to invest on a culture of education for the development of the entrepreneurial character.

Table 5. Kruskal-Wallis

Ranks

	Educational Background - (EB)	N	Mean Rank
espempree	Engineering	74	138,63
	Law	4	150,25
	Languages	8	199,13
	Health	25	150,16
	Education	12	132,33
	Science/Technology	2	74,50
	cs	35	132,17
	ce	45	138,69
	Sports	64	132,08
		6	114,42
		275	

Test Statistics[a,b]

	espempree
Chi-Square	9,818
df	9
Asymp. Sig.	,365

a. Kruskal Wallis Test

b. Grouping Variable: EB

test

We used the Kruskal Wallis test to better understand the influence among the data, as there is no normal distribution of the data and, simultaneously, there are 3 or more independent samples and the different populations assume an equal form.

5. Conclusion

In conclusion the present study seems to point out that what most influences students to have an entrepreneurial spirit is the ambition to create their own business, the fact that they already had some fantastic idea (s) that they wish to developed, to consider that their area of formation has influence in the development of an entrepreneurial culture, and finally the fact of having a family history with a strong incidence in the entrepreneurial character. It is still relevant to conclude that the entrepreneurial culture depends very much on a good entrepreneurial education.

It is crucial to create conditions that allow Higher Institutions to foment an entrepreneurial culture environment, able to facilitate students to move from intentions to actions. The insertion of curricular units related to entrepreneurship *per s*i is not enough to create an entrepreneurial culture in Higher Education Institutions. Students must have real support from Schools and Schools must work altogether, at a national and an international level.

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