

HOW DOES EDUCATION INFLUENCE ENTREPRENEURSHIP ORIENTATION? CASE STUDY OF CROATIA

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The main focus of this paper is the entrepreneurial orientation, i.e. the future career plans of undergraduate and graduate students at the Faculty of Economics, University of Split. The research is based on empirical data, collected by a student survey. We explore students' entrepreneurial orientation, i.e. their intention to establish their own businesses. The emphasis is placed on the impact of the educational system, in terms of its role of providing knowledge and tools, required for implementing an entrepreneurial idea in practice. Furthermore, we explore the difference in entrepreneurial capabilities between students, enrolled into courses, such as Entrepreneurship, Entrepreneurship Workshop, etc., versus those who were not enrolled into such courses. Empirical data on students' behaviors is also collected, in terms of their willingness to use additional opportunities, such as scholarships, grants and international work experience, which provides additional evidence of students' plans for entrepreneurship after finishing their studies. Based on those findings, relevant recommendations are being issued. The main research limitation is related to the fact that research is conducted at a single institution of higher education in Croatia.

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1. INTRODUCTION

Entrepreneurship can be read as a cultural and economic phenomenon (Grozđanić et al., 2008). It is a process of fundamental transformation: from an innovative idea to an enterprise, as well as from an enterprise to creation of value (Kauffman, 2007). There has been increasing research interest in the influence of entrepreneurship and education on the entrepreneurial behavior of students, especially in Eastern European countries during and after the transition period. Entrepreneurship is increasingly recognized as an important generator of growth, innovation and especially new job creations (Bakotić & Kružić, 2010). They also highlight the growing attention paid in many countries to fostering entrepreneurship through university education and training. Exponentially, the growth of entrepreneurship, as a field of research is evident in terms of the number of researchers, articles, conferences, journals and business education programs (Kružić & Pavić, 2010). The main focus of this paper is the analysis of activities and future plans of undergraduate and graduate students at the Faculty of Economics Split. This study also seeks to understand the influence of different entrepreneurial courses¹ on students' current and future entrepreneurial orientation.

2. LITERATURE AND RESEARCH REVIEW ON ENTREPRENEURSHIP AND EDUCATION

Entrepreneurship is a process of establishing a business organization, which provides goods and services, creates jobs, and contributes to the national income and the overall economic development (Sethi, 2008). Entrepreneurial education is frequently considered an effective strategy towards more innovation (Lin, 2004).

Entrepreneurship has been a part of the curricula in higher education institutions in North America for more than 50 years. The first graduate course in entrepreneurship was offered at Harvard University in 1948 by Professor Miles Mace (Katz, 2003). Soon after, Harvard Business School Professor Georges Doriot originated the concept of venture capital. Today, entrepreneurship courses are offered at most universities across the United States and worldwide. The demand has been driven by the students themselves, who are eager to take courses, ranging from business planning and start-up, to entrepreneurial finance and technology management. Universities in many

¹ These courses include: Entrepreneurship Workshop, Entrepreneurship, Family Business, Business Planning, Strategies for New Businesses, and Entrepreneurial Planning.

countries have followed the example of US institutions and have instituted a wide range of entrepreneurship education efforts (Fayolle, 2000; Lin, 2004).

In Europe, entrepreneurship only substantially began to enter the curriculum in the last 10 years, although a handful of institutions started earlier (Twaalfhoven & Wilson, 2004). This is in line with other trends, most notably with the growth of the venture capital industry, which finances innovative, growth-oriented companies².

Entrepreneurship education can help promote entrepreneurial and innovative culture in Europe by changing mindsets and providing the necessary skills. With the security of Europe's welfare system, people are less willing to take risks. This attitude is reinforced at the university, which traditionally has been focused on enabling students to find secure jobs. Meanwhile, globalization, rapid development of technology and the lower cost of travel have completely changed the nature of work. It is no longer enough to train students for a career. Universities must prepare students to work in a dynamic, rapidly changing entrepreneurial and global environment (Wilson, 2008).

According to Fayolle & Klandt (2006), in contemporary entrepreneurship education, entrepreneurship can be viewed from three different angles, namely as a matter of culture or state of mind, as a matter of behavior, or as a matter of creating specific situations. Education focused on entrepreneurship as a matter of culture/state of mind encompasses those aspects that focus on values, beliefs and attitudes associated with entrepreneurship (i.e. entrepreneurial mindset, spirit or identity). Entrepreneurship education focused on behavior deals mostly with specific skills in relation to entrepreneurial behavior, like seizing opportunities, making decisions and developing social skills. Finally, entrepreneurship education focused on creating specific situations, concerns the creation of new firms and entrepreneurial situations (e.g. new ventures, corporate venturing). Whereas the focus of entrepreneurship education in the past was on the last dimension (venture creation, e.g. writing business plans), many current scholars argue that the real challenge for entrepreneurship education lies within the development of the first two dimensions, i.e. learning *for* entrepreneurship, rather than learning *about* entrepreneurship (e.g. Gibb, 2002; Honig, 2004).

² In the United States, the venture capital industry was started more than 40 years ago and began to take off in the 1980s. In Europe, a significant growth in venture capital began only about a decade ago, in the mid-1990s.

Croatia, as a post-communist country, has had a free market economy for about 20 years now. The Faculty of Economics at the University of Split has a short history of formal education, with the major in entrepreneurship, which started five years ago, when the Bologna process was implemented. The first students who graduated the entrepreneurship course, finished their study in 2010.

A significant number of scientists analyze the relationship between education and its results, in terms of changing students' attitudes and knowledge gained at the courses. Kružić et al. (2008) provide evidence that the educational process enhances students' knowledge in the main aspects of family business, with the students' attitudes being closer to the ideal model, after they finish the course. Among the first who identified entrepreneurship as a phenomenon worthy of study was Schumpeter (1934). Kružić & Pavić (2010) conducted their research on entrepreneurship courses with two main objectives: 1) drawing up an inventory of entrepreneurial characteristics of Croatian business students, in order to define their entrepreneurial profile; 2) evaluating to what extent entrepreneurship education develops the entrepreneurial capacities and mindset. This study revealed that the university-based entrepreneurship education develops entrepreneurial capacity and mindset. Furthermore, it showed that determination and communication skills are among less developed characteristics of future entrepreneurs.

In their research into students' perceptions of and intentions towards entrepreneurship, Bakotić & Kružić (2010) concluded that more than 67% of Croatian students have strong entrepreneurial intentions. Hell et al. (2009) conducted a survey on entrepreneurial aspirations and sources of motivation for entrepreneurship on a sample of the first and final year of graduate students at the Faculty of Economics, University of Split. A small number of observed students who already had previous entrepreneurial experience, showed a positive (2.68%), or a very positive (1.88%) attitude toward entrepreneurship. The results also revealed that 29.8% of the observed population had entrepreneurial intentions.

Fostering entrepreneurship through education and training has also received increasing attention from universities in many countries (Bakotić & Kružić, 2010). Furthermore, it has been found that the entrepreneurs often have a formal university education which makes them ready for the tough market game (Robinson & Sexton, 1994).

3. METHODOLOGICAL BACKGROUND: RESEARCH DESIGN AND RESEARCH OBJECTIVES

In spite of many studies, conducted on students' population at the Faculty of Economics, University of Split, our research went a step *further*, with the aim of revealing current entrepreneurial characteristics of the observed students. The sample included 253 students, out of which 70 were male and 183 were female. The survey consisted of 18 questions, from the demographic characteristics (such as gender and year of study), to the items more closely related to entrepreneurship (business ideas, plans to start a private business, etc).

Students of three different study programs were included, namely the undergraduate professional program of Business School students (B), undergraduate (U) and graduate students (G) in Business Studies. The majority of students (146) in the sample attend the undergraduate professional program of the Business School. There were also 66 undergraduate and 41 graduate students. The undergraduate professional program of the Business School is a three-year study program that puts an emphasis on business practice, making it slightly different from the other two observed programs. The Undergraduate degree program in Business Studies is also a three-year program, which should develop basic economics skills. Upon the completion of this program, the students are awarded the academic title of Bachelor of Economics (BSc) and can enroll into a graduate degree program. There are five fields of specialization at the graduate program: Financial Management, Management, Marketing, IT Management, and Accounting & Auditing. Upon graduation from any of the two-year graduate programs, a student is awarded the academic title of Master of Economics (MSc).

Entrepreneurship courses analyzed in this study are:

- Entrepreneurship Workshop,
- Entrepreneurship,
- Family Business,
- Business Planning,
- Strategies for New Businesses,
- Entrepreneurial Planning.

According to study programs, some courses, such as *Entrepreneurship Workshop*, *Entrepreneurship*, and *Business Planning*, are obligatory for Business School students. *Family Business* is an optional course, so a student

choosing it can be assumed as demonstrating a somewhat more significant interest in entrepreneurship.

Undergraduate study programs do not include obligatory entrepreneurship courses. However, undergraduate students can choose between *Entrepreneurship*, *Family Business*, *Business Planning* and *Entrepreneurial Planning* as optional courses. Therefore, it can be supposed that undergraduate and graduate students with the highest grade in those courses show a stronger interest in entrepreneurship. *Strategies for New Businesses* is an obligatory course for specialization in Entrepreneurship in the undergraduate program. According to the number of entrepreneurship-related courses, a special indicator for each group of students is created.

The curricula of the above-mentioned courses are designed to enhance entrepreneurial skills and students' entrepreneurial orientation. The topics covered usually include generating a new business idea, creation of a business idea, market and financial analysis of the business idea, phases of its implementation, measuring success, sensitivity analysis, etc. In order to conduct the analysis of the obtained data, the Statistical Package for Social Sciences (SPSS) 13.0 was used.

3.1. Research results

As a starting point, we first made some observations about students' behavior during the educational process. We used six questionnaire items to analyze our sample, as these six items reflected how active students were during their education. The activities we referred to are: (a) membership in student organizations, (b) applying for scholarship, (c) getting scholarships, (d) applying for the position of a teaching assistant at undergraduate classes, (e) working as a teaching assistant at undergraduate classes and (e) participating at student competitions.

We also created a composite variable, which can reflect the students' level of entrepreneurial orientation, called *Students' Entrepreneurial Orientation in Business (SEOB)*. The *SEOB* variable is composed of six items, reflecting students' attitudes towards future plans for employment, or starting a business (i.e. becoming an entrepreneur). These items are:

- plans after study (employment or entrepreneurship),
- participating at Career Days (i.e. job fairs),
- work preferences (public sector or private sector),

- thinking about one's own business idea, if unable to find a job,
- having a business idea,
- already working on a business idea during the studies.

3.2. Research findings

The results of descriptive statistics are summarized in Table 1, which demonstrates the distribution of students according to their activities (measured by the six previously mentioned items) and the SEOB index.

Table 1. Student activities in the education system and the SEOB index at Faculty of Economics, Split

Student activities	Frequency	%	Cumulative %	SEOB index	Frequency	%	Cumulative %
0	129	51.0%	51.0%	0	25	9.9%	9.9%
1	58	22.9%	73.9%	1	42	16.6%	26.5%
2	43	17.0%	90.9%	2	62	24.5%	51.0%
3	9	3.6%	94.5%	3	51	20.2%	71.1%
4	8	3.2%	97.6%	4	42	16.6%	87.7%
5	5	2.0%	99.6%	5	22	8.7%	96.4%
6	1	0.4%	100.0%	6	9	3.6%	100.0%
TOTAL	253	100.0%		TOTAL	253	100.0%	

As Table 1 shows, 51% of students are marked as highly passive during their studies, while only one student has the value of 6 and is marked as a highly active one. A total of 90.9% of the students in the sample are classified as being "passive" as their activities valued at 2 or less. Furthermore, only a small number of students have actually used the full potential of the educational process and showed a minimum of activities during their studies. Less than 1% percent of students have taken full advantage of educational possibilities available to them. Our main conclusion is that most of students included into the sample are passive, rather than active. It is supposed that such student behavior can influence their attitudes toward the future entrepreneurial orientation.

There is a significantly different distribution of the *SEOB* index in comparison to the distribution of *student activities* that is also shown in Table 1. For example, there are 24.5% of students with an index value of 2, which is low, but not extremely low; there are nine students that are entrepreneurial “experts” (index valued at 6) outside their regular study obligations. In comparison with *student activities*, our students show a greater entrepreneurship orientation in business than in their activities in the education system in general.

In order to get a clear overview of the student sample based on the difference between courses, we observed some general characteristics of our students such as: gender, study program, year of study, and their plans for continuing their studies.

Table 2 demonstrates a comparison between the *SEOB* index and the average number of courses in which students enrolled according to gender, study program, year of study, and their plans for continuing their studies. Research results show that male students (with the average *SEOB* value of 2.27) have a higher entrepreneurial orientation than the female students, who have the average *SEOB* value of 1.83.

Furthermore, graduate students have a higher level of entrepreneurial orientation (with the average *SEOB* value of 2.098) than the students of the undergraduate professional program (with the average *SEOB* value of 1.93) and undergraduate students (with the average *SEOB* value of 1.89). According to the year of study, students in the 2nd year of study, as well as those who plan to continue their studies have a higher *SEOB* index than other students in the sample.

Table 2. Comparison between the *SEOB* index and gender, study program, year of study and plans for continuing studies

	Gender		Study program			Year of study			Plans for continuing studies	
	Male	Female	B	U	G	1st	2nd	3rd	Yes	No
Courses	2	2	3	1	2	2	3	3	2	2
<i>SEOB</i> (Mean)	2.271	1.831	1.938	1.894	2.098	1.869	2.008	1.928	1.967	1.881

According to the independent samples t-test between the *SEOB* and gender, there is a statistically significant difference in the *SEOB* between male and female students (Table 3). The empirical significance at the 5% level confirms the hypothesis.

Table 3. Independent samples t-test between the *SEOB* and gender

		Levene's Test for Equality of Variances		t-test for equality of means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. error diff.
SEOB	Equal variances assumed	.048	.827	2.293	251	.023	.441	.192
	Equal variances not assumed			2.278	123.337	.024	.441	.193

In this study, we tried to identify the existence of a statistically significant difference in the *SEOB* for students taking different courses. The independent samples t-test has shown there is no statistically significant difference between the *SEOB* for each of the courses.

The independent samples t-test between the *SEOB* and *Entrepreneurship Workshop* reveals that there is no statistically significant difference between students that enrolled in that course (144 of them) in comparison with other courses (the average *SEOB* was 1.92). The independent samples t-test between the *SEOB* and *Entrepreneurship* shows that there is no statistically significant difference between students who enrolled in this course, in comparison with other courses. Results for other analyzed courses are presented in Table 4.

Our results reveal that there are no statistically significant differences between students enrolled in the analyzed courses, regarding the result of their *SEOB* index. Furthermore, the *SEOB* index has the highest value for the group of students enrolled into the course *Strategies for New Businesses* course, which is obligatory for the Entrepreneurship specialization of the undergraduate program. In addition, students enrolled into the *Family Business* course, which is an elective for the Business School and undergraduate programs, have a

higher *SEOB* value, which can be interpreted in terms of students' interest in entrepreneurship.

Table 4. Independent samples *t*-test between the *SEOB* and Entrepreneurship courses

COURSES	NUMBER OF STUDENTS	<i>SEOB</i>
Entrepreneurship Workshop	144	1.92
Entrepreneurship	139	1.99
Family Business	79	2.06
Business Planning	186	1.91
Strategies for New Businesses	25	2.20
Entrepreneurial Planning	51	1.98

Table 5 presents the Pearson coefficients of linear correlation, demonstrating the relationship between the number of students enrolled into entrepreneurship courses at the Faculty of Economics, University of Split and the *SEOB* index value. The value of correlation coefficients is mostly between -0.2 and 0.065, which can be interpreted in terms of a relatively weak relationship.

Table 5. Correlations between enrollment into entrepreneurship courses and the *SEOB*

Entrepreneurship courses	Pearson Coefficients of correlation with the <i>SEOB</i>
Entrepreneurship Workshop	-0.028
Entrepreneurship	0.032
Family Business	0.042
Business Planning	-0.032
Strategies for New Businesses	-0.008
Entrepreneurial Planning	0.065

The Pearson coefficient of linear correlation between the enrollment into observed courses and the *SEOB* index equals 0.016 and it is not statistically significant at the 5% level. However, there is a positive correlation (with the value of 0.130) between student activities and the *SEOB* index (Table 6), with the Pearson coefficient of linear correlation being statistically significant at the 5% level.

Table 6. Correlations between student activities, enrollment into entrepreneurship courses and the SEOB

		COURSES	ACTIVITIES	SEOB
COURSES	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	253		
ACTIVITIES	Pearson Correlation	-.033	1	
	Sig. (2-tailed)	.603		
	N	253	253	
SEOB	Pearson Correlation	.016	.130(*)	1
	Sig. (2-tailed)	.805	.040	
	N	253	253	253

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

4. CONCLUSION

The survey results provide an interesting picture of the students from the Faculty of Economics, University of Split, as they reflect the lack of their entrepreneurial orientation. The mean values of the SEOB composite value of 1.83 and 2.27, on a scale from 0 to 6, prove such a statement.

Several significant differences in the index among different groups of students were identified. Male students have a statistically significant higher average value of the SEOB index, while graduate students are more entrepreneurially oriented with the SEOB index of 2.098, the students of the professional studies program and the undergraduate students, who have the SEOB index of 1.93 and 1.89, respectively. There is also a low correlation, which is statistically significant, between enrollment into entrepreneurship courses and the SEOB index (with the coefficient values between -0.2 and 0.065).

It is interesting that both variable sets (related to student characteristics and the entrepreneurial orientation, measured by the SEOB value) have the highest value for graduate students and lowest for undergraduate students. Since graduate studies represent the continuity of the undergraduate study programs, we can conclude that students become more entrepreneurially oriented at the final stage of their education, but still insufficiently.

Although the Faculty of Economics, University of Split has a short history of offering entrepreneurial courses, results of this study, especially as regards low correlation between student enrollment in entrepreneurial courses and their entrepreneurial orientation can be an important stimulus for improving and rethinking the entrepreneurial curricula. In addition, one of the main reasons for a low correlation between enrollment in entrepreneurship courses and student entrepreneurial orientation could be the fact that students are less willing to take risks and feel insecure about risk-taking, which could be interpreted in terms of cultural heritage of the post-communist system. Furthermore, global recession and a generally complex state policy with lots of bureaucracy and a short supply of credit could also be the factors of demotivation for students' future plans to become entrepreneurs.

5. RESEARCH LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The main research limitations of this research are the facts that the research was conducted only on one institution and that there are no possibilities of comparing our results with previous studies. It would be interesting to analyze the *SEOB* index on the same group of students after a few years of work experience. The current recession may also be a strong negative factor for entrepreneurial orientation; the same research may produce opposite results after the recession.

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**KAKO OBRAZOVANJE UJEČE NA PODUZETNIČKU ORIJENTACIJU?
STUDIJA SLUČAJA U HRVATSKOJ**

Sažetak

Ovaj se rad usmjerava na poduzetničku orijentaciju, odnosno planove za karijeru studenata preddiplomskog i diplomskog studija na Ekonomskom fakultetu Sveučilišta u Splitu. Istraživanje je zasnovano na empirijskim podacima, prikupljenim na temelju anketiranja studenata. U radu se istražuje poduzetnička orijentacija studenata, tj. njihova namjera osnivanja vlastitog poduzeća. Naglasak se stavlja na utjecaj obrazovanog sustava, i to na njegovu ulogu u osiguranju znanja i alata, potrebnih za praktičnu provedbu poduzetničke ideje. Nadalje, analizira se razlika između poduzetničkih sposobnosti između grupa studenata koji (ni)su slušali kolegije, poput "Poduzetništva", "Poduzetničke radionice", itd. Prikupljeni su i podaci o ponašanju studenata, povezani s njihovom željom za korištenjem dodatnih mogućnosti, kao što su stipendije, donacije i međunarodne poslovne prakse, kako bi se dobile dodatne informacije o studentskim planovima za uključivanje u poduzetništvo nakon završetka studija. Na temelju dobivenih rezultata, formuliraju se i odgovarajuće preporuke. Temeljno ograničenje ovog istraživanja je činjenica da je provedeno na samo jednoj instituciji visokog obrazovanja u Hrvatskoj.