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The Impact of Exposure to Entrepreneurship Education on Student Entrepreneurial Intentions

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Abstract

The purpose of this study was to examine the entrepreneurial intention of undergraduate and graduate students of Economics of Entrepreneurship and its predictors among students in different stages of their studies. The research is based on two sets of hypotheses. The first one sets out to confirm the basic assumptions of the theory of planned behavior in the context of the student population and the second one assumes a positive impact of the exposure to entrepreneurship education on students' entrepreneurial intentions. The regression model confirmed the first set of hypotheses. The attitudes towards entrepreneurship have the greatest impact on entrepreneurial intentions, followed by perceived behavioral control and the subjective norm whose impact is the smallest. Results indicate that there are significant differences in the attitudes towards entrepreneurship and familiarity with entrepreneurial infrastructure among students in different stages of their studies. However, research has shown that entrepreneurial intentions do not increase due to exposure to entrepreneurship education.

Key words: *attitudes towards entrepreneurship; entrepreneurship program; familiarity with entrepreneurial infrastructure; perceived behavioral control; subjective norm.*

Introduction

Entrepreneurship plays an important role in economic development because it represents an incubator of technological innovations and it also promotes economic efficacy and new job creation (Shane & Venkataraman, 2000). That is the reason why

researchers pay considerable attention to answering the question of *What makes people engage in entrepreneurship?* The research papers that deal with this question list several factors which determine entrepreneurial intentions: entrepreneur's characteristics; external factors (such as availability of and access to capital, private property security and institutions that promote the rule of law); and personal situations which influence entrepreneurial self-efficacy (such as education, previous experience, role-models, social networks, etc.) (Drost, 2010). Entrepreneurial intention is the best predictor of starting an entrepreneurial venture, while a career choice, according to social cognition theory, represents a cognitive process driven by beliefs, attitudes and experiences which is mainly influenced by such factors as an individual's personal background and experiential knowledge (Lent et al., 1994). Generally, education is considered to be a factor that greatly influences entrepreneurial intention and the cognitive process of career choice. There is a consensus around the thesis that education and entrepreneurship should be tied together from a very early school age in order to make entrepreneurial features more widespread in the population. In line with the European Competence Framework, developing entrepreneurial competences already during one's elementary education has been recognized as very important (Baranović et al., 2007). Numerous scientific papers increasingly promote the idea that the stimulation of entrepreneurial attitudes through formal education from an early age can encourage individuals to pursue a career in entrepreneurship (Kourilsky & Walstad, 1998; Paço et al., 2011). This is the reason why governments around the world increasingly promote entrepreneurship development policies that create various educational programs and curricula with special emphasis on developing entrepreneurial competences in order to unleash the entrepreneurial potential of young people (Fayolle & Gailly, 2009). Entrepreneurship programs are promoted at all educational levels, but predominantly in the system of higher education (Kuratko, 2005a). The emphasis put on entrepreneurship in the tertiary education system follows from the results of the studies which show greater rates of survival and employment in the ventures of those entrepreneurs who hold a degree as opposed to those who do not (Fretschner & Weber, 2013a). Moreover, the spinoffs of the so-called academic entrepreneurs generate critical spillover effects that impact regional economies (Harhoff, 1995; Shane, 2004).

Researchers show an increasing interest in studying students' entrepreneurial intentions. But despite this relatively great interest, they have predominately focused on the developed countries of Europe and the US, leaving all but a very small number of other countries outside of the scope of their research. This paper aims to contribute to the scientific efforts of those researchers who study the impact of exposure to entrepreneurship education on students' entrepreneurial intentions.

Firstly, our paper presents the theory of entrepreneurial event and the theory of planned behavior and then we establish the first set of hypotheses to confirm the basic principles of the theory of planned behavior in the context of student population. Next we offer a review of the impact that entrepreneurship education has on

entrepreneurial intentions and then we establish the second set of hypotheses, which assumes that the length of exposure to entrepreneurial education has a positive impact on students' entrepreneurial intentions. After that we present our methodological framework, analyze the data and test the established model of entrepreneurial intention. We conclude by interpreting the obtained results and drawing connections between them and the results of other studies. Finally, we identify the scientific contribution of this paper and define its practical implications and guidelines for future research.

Theoretical Background and Hypotheses

Two dominant theoretical models of entrepreneurial intention are the model of entrepreneurial event (Shapero & Sokol, 1982) and the theory of planned behavior (Ajzen, 1988).

The model of entrepreneurial event sees an initiation of entrepreneurial venture as a result of interaction between contextual factors (Liñán, 2004) which influences the perception of its desirability (referring to one's personal value system and the social value system one belongs to), and the perception of its feasibility (referring to potential partners and financial support). This model presumes that critical events in life induce changes in entrepreneurial intentions and subsequent behavior (McStay, 2008). Entrepreneurial intentions depend on an individual perception of venture's desirability and feasibility.

The theory of planned behavior (Ajzen, 1991) defines these three intention predictors: individual attitude towards a certain type of behavior, subjective norm and perceived behavioral control. Individual attitude towards a certain type of behavior and subjective norm are considered to be motivational behavioral factors, while perceived behavioral control is a non-motivational behavioral factor (McStay, 2008).

Attitude towards a behavior refers to an individual's estimate of the degree of desirability or undesirability of a certain behavior. One's estimate of desirability depends on what outcomes of a given behavior one considers probable and how one values those outcomes (Mueller, 2011). If one believes that the probable outcomes of a certain behavior are going to be positive, one's attitudes towards that behavior are also going to be positive. In the context of entrepreneurial intention, this attitude refers to a degree of individual value attached to entrepreneurship as a career choice (Ajzen, 1991). It is important to mention that the formation of one's attitudes is influenced by their culture, parents, different social groups and personality traits (Kretch & Crutcfield, 1964). Consequently, an individual will form attitudes about entrepreneurial intention on the basis of the experience gained in direct contact with the object of an attitude and through a learning process based on the information one is exposed to in the immediate and broader environment.

Subjective norm refers to personal perceptions of normative expectations of others and personal motivations to follow those expectations (Mueller, 2011). In the context

of entrepreneurial intention, subjective norm represents the social pressure put on an individual to start an entrepreneurial venture (Ajzen, 1991). Subjective norm proved to be a significant predictor of entrepreneurial intentions and behaviors among the Dutch, Indian and Russian students (Souitaris et al., 2007; Tkachev & Kolvereid, 1999). However, in the studies on entrepreneurial intentions of American, British, Finnish and Swedish students, subjective norm was shown to be a weaker predictor of entrepreneurial intention (Krueger et al., 2000; Autio et al., 2001).

Perceived behavioral control refers to an individual's perception about how easy or how hard it would be to carry out a certain behavior (Mueller, 2011). Bandura's measure of self-efficacy (Bandura, 1997) shows much similarity to perceived behavioral control because it reflects a personal judgment of one's capability to accomplish some future behavior. The difference between these two concepts lies in the fact that the perceived behavioral control includes both the current behavioral control and the perception of future control.

Since the very beginning, different authors have been comparing (Krueger et al., 2000), combining (Krueger & Brazeal, 1994) and modifying (Davidsson, 1995) the two described models of entrepreneurial intention. These two models share many similarities (Nabi et al., 2010) because the concepts of attitude towards a certain behavior and subjective norm can be linked to the concept of perceived desirability. On the other hand, the concept of perceived behavioral control can be linked to the concept of perceived feasibility of starting an entrepreneurial venture (Liñán et al., 2011). In summary, we can conclude that the model of entrepreneurial event and the theory of planned behavior show high levels of mutual compatibility, which enables the creation of a single construct that can be implemented in the studies of entrepreneurial intentions among potential entrepreneurs.

Based on the described theoretical background and the currently established empirical grounds about the topic of predicting entrepreneurial intentions, we define the first set of hypotheses:

H1a: Attitude towards entrepreneurship has a positive impact on entrepreneurial intention.

H1b: Subjective norm has a positive impact on entrepreneurial intention.

H1c: Perceived behavioral control has a positive impact on entrepreneurial intention.

Examining the Impact of Exposure to Entrepreneurship Education on Entrepreneurial Behavior Intention

Despite the existing scientific consensus that entrepreneurs are not simply "born" but educated and sensitized to be able to start a successful entrepreneurial venture (Kuratko, 2005b), the effectiveness and specific impact of entrepreneurship education still remain controversial (OECD, 2009). The outcome of entrepreneurship education can be measured through the changes in the rates of entrepreneurial start-ups (OECD,

2009). The problem of this approach lies in the fact that most students do not start new entrepreneurial ventures right after finishing their academic entrepreneurship education (Souitaris et al., 2007), which makes it very difficult to directly observe and precisely measure any causal effects, especially when it comes to younger students. Actually, the so-called *academic entrepreneurs* realize their business ideas five years after finishing their studies, on the average (Golla et al., 2006). This considerable time lag calls for longitudinal studies, which are rarely done (Fretschner & Weber, 2013b). Therefore, changes in entrepreneurial intention rates are more often used to measure the outcomes of entrepreneurship education (Graevenitz et al., 2010).

Studies have established that the students who hold a degree in entrepreneurship show higher rates of entrepreneurial intention and self-efficacy in comparison with the students who hold a degree in some other discipline (Kolvereid & Moen, 1997; Noel, 2001). What is problematic about such studies is a higher probability that the persons with entrepreneurial intentions would naturally strive to graduate in entrepreneurship, which gives us no information about the impact that entrepreneurship education has had on their intentions by itself. However, there is a number of studies that establish entrepreneurship education as an important factor of predicting entrepreneurial intentions, both indirectly, through predictors (Gorman et al., 1997; Henderson & Robertson, 2000), as well as directly (Crant, 1996; Wu & Wu, 2008). Entrepreneurship programs influence the formation of positive attitudes about entrepreneurship (Souitaris et al., 2007; Mueller, 2011) and strengthen entrepreneurial self-efficacy (Drost, 2010). The mentioned studies examined the impact of entrepreneurship education on entrepreneurial intentions by looking at the same sample at two different points in time (before and after entrepreneurship education), and the entrepreneurship education in question was generally shorter.

Several studies examined entrepreneurial intentions in dependence on the level and duration of exposure to entrepreneurship education by following different groups of students at different stages of their entrepreneurship-oriented studies. With this approach, the researchers noticed no increase in the entrepreneurial intentions that would depend on the year of study (Nabi et al., 2010).

Discordant results of the aforementioned studies stem from the fact that different researchers have varying concepts of entrepreneurship education. It is important to distinguish four different levels of entrepreneurship education (Dreisler et al., 2003; Garavan & O'Cinneide, 1994; Jamieson, 1984; Liñán, 2004): entrepreneurial awareness education, education for start-up, entrepreneurial dynamism education and continuing education for entrepreneurs. Entrepreneurial awareness education aims at increasing the number of people with insights into small businesses, self-employment and entrepreneurship, so that people would consider entrepreneurship as their career choice (Liñán, 2004). This level of education enables individuals to acquire entrepreneurial skills and knowledge, while gradually developing their entrepreneurial attitudes and intentions. Education for start-up is intended for highly entrepreneurially

motivated individuals who have already formed entrepreneurial ideas for initiating a venture. Entrepreneurial dynamism education is an advanced level program for people who have previously initiated an entrepreneurial venture and it aims to ensure business growth and development. Continuing education for entrepreneurs is intended for those entrepreneurs who want to refresh or add to their existing knowledge and skills. At this level, short educational programs are usually provided.

Entrepreneurship education is meant to enhance students' capabilities in the components of *knowing what, knowing why, knowing who and knowing how*, with more or less emphasis placed on a particular component, depending on the level of entrepreneurship education that one desires. According to Johannisson (1991), exactly these aspects of learning lead students to understand the purpose of a particular activity, to achieve self-esteem, to be able to influence their personal environment and to develop support networks and relationships in that environment. Fiet (2001) emphasizes *knowing what* as the crucial part of an entrepreneurship program/course and the basic element that upholds other components, without which it would be very hard to teach entrepreneurship because it contains basic knowledge and theories. But Ronstadt (1985) and Gibb (1987) claim that this is not enough. It is also necessary to take into account the competencies derived from the domain of *knowing why*, because this is what influences one's attitudes about the importance of entrepreneurship for the economy, society and individuals. Trying to find answers to this *why* question motivates students and it also stimulates their entrepreneurial spirit and an entrepreneurial way of operating in all life and business situations. The component of *knowing how* is important because of the impact it has on perceived behavioral control. The component of *knowing who* is essential because of the importance of social interactions and the sharing of knowledge and information which support entrepreneurial activities. It involves inviting guest lecturers who can serve as role-models, like successful entrepreneurs and those entrepreneurs that students can identify with, such as entrepreneurship degree-holders, young entrepreneurs or other similar entrepreneurship experts.

The goal of this research is to examine entrepreneurial intentions of the students of Economics of Entrepreneurship and their predictors on the sample of students in different years of study. Our research aims to answer the question of whether this particular entrepreneurship program (the study of Economics of Entrepreneurship) is successful in its content and methods at developing student competencies in the components of *knowing what, knowing why, knowing who* and *knowing how*.

As indicators of the efficiency of this program, in this paper we use entrepreneurial intentions of students (*knowing what*), attitudes towards entrepreneurship (*knowing why*), perceived behavioral control (*knowing how*) and the familiarity with entrepreneurial infrastructure (*knowing who*) – all under the influence of the length of exposure to entrepreneurship education. Consequently, we are going to test the following hypotheses:

H2a: There is a statistically significant difference in the entrepreneurial intentions among the students in different years of study.

H2b: There is a statistically significant difference in the attitudes towards entrepreneurship among the students in different years of study.

H2c: There is a statistically significant difference in the perceived behavioral control among the students in different years of study.

H2d: There is a statistically significant difference in the familiarity with entrepreneurial infrastructure among the students in different years of study.

Methods

Next the methods that were used in gathering and analyzing the data are described.

Population and Sample

The research sample was made up of the students of Economics of Entrepreneurship at the Faculty of Organization and Informatics in Varaždin, the University of Zagreb. We distributed the questionnaire to the students of all years of study after the lecture and they filled it out on voluntary basis. The total of 360 out of 560 students filled out the questionnaire. After discarding incomplete questionnaires, the final sample consisted of 347 respondents and 71.6% of those were female. The average age of the respondents was 20.7 years, which is appropriate in view of the fact that these individuals will soon become a part of the population that exhibits the highest level of entrepreneurial intention – a highly educated population aged 25 to 34 (Reynolds et al., 2002).

Data Gathering and Analysis

The data on entrepreneurial intention, its predictors and the familiarity with entrepreneurial infrastructure was gathered by using the Entrepreneurial Intention Questionnaire, which is based on the integrated insights from the fields of psychology and entrepreneurship research (Liñán et al., 2011) and contains 28 items. The questionnaire was obtained by courtesy of the author.

Entrepreneurial intention, its predictors and the familiarity with entrepreneurial infrastructure were measured using a series of statements that the respondents rated on a seven-point Likert scale (ranging from 1 – strong disagreement with the statement to 7 – strong agreement with the statement). Also, Entrepreneurial Intention Questionnaire contained a number of inverse statements (Ray, 1979) to reduce the problem of acquiescence bias. In order to develop the constructs for entrepreneurial intention and its predictors, two factor analyses were carried out– one for the entrepreneurial intention and the other for its predictors and the familiarity with entrepreneurial infrastructure. Factor analysis has an advantage of eliminating correlated variables allowing us to carry out further analyses on uncorrelated factors (Fulgosi, 1988), which solves the problem of multicollinearity in later regression

analysis. In both factor analyses, the Kaiser-Meyer-Olkin measure of sampling adequacy confirmed the appropriateness of our factor analysis data.

In the factor analysis, varimax rotation was used in the principal component analysis to make the factors independent and therefore easier to interpret. Using the Kaiser criterion, the factors with eigenvalues higher than 1 were retained (Kurnoga Živadinović, 2002). Factor reliability was measured with Cronbach's alpha (Nunnally, 1978), which has to be at least 0.7 to confirm the factors' internal consistency. After eliminating the items which did not load on the expected factor, the following factors and their respective Cronbach's alpha coefficients (shown in brackets) were obtained: entrepreneurial intention, consisting of 5 items (0.885); attitudes toward entrepreneurship, consisting of 5 items (0.803); subjective norm, consisting of 3 items (0.844); perceived behavioral control, consisting of 6 items (0.712) and the familiarity with entrepreneurial infrastructure, consisting of 8 items (0.916).

To test the first set of hypotheses, a regression analysis was carried out with entrepreneurial intention as a dependent variable and attitudes toward entrepreneurship, subjective norm and perceived behavioral control as explanatory variables.

The following control variables were used: sex (0=female, 1=male); work experience (0=no work experience, 1=has work experience); and self-employment experience (0=no self-employment experience, 1=has self-employment experience). Sex has been found to be an important variable in the entrepreneurial intention research (de la Cruz Sánchez-Escobedo et al., 2011; Díaz-Casero et al., 2012). Work experience and self-employment experience are often used as control variables in studies on entrepreneurial intention (Liñán et al., 2011).

For the second set of hypotheses, the Levene test, one-way ANOVA, the Welch test and also the Tukey post hoc and Games-Howell tests were used to determine whether the variables show statistically significant differences among the students of different years of study and to identify the groups which differ by using post hoc analyses.

Results

Multiple regression was used to explain entrepreneurial intentions through the variables of attitudes towards entrepreneurship, subjective norm, perceived behavioral control, sex, work experience and self-employment experience. The conditions of linearity, error independence, homoscedasticity and residual normality were met. The explanatory variables turned out to be statistically significant predictors of entrepreneurial intention: $F(6.\ 297)=103.203$, $p=0.000$, adj. $R^2=0.669$. When it comes to the control variables, sex turned out to be a statistically significant variable, while the variables of work and self-employment experience had no significant impact. This result is probably due to the fact that only 2.3% of the sample students had some self-employment experience. The regression coefficients and standard errors are shown in Table 1.

Table 1

Summary of Multiple Regression Analysis

Variable	B	SE_B	β
Intercept	-.067	.046	
Attitudes towards entrepreneurship	.561	.034	.551*
Subjective norm	.322	.032	.330*
Perceived behavioral control	.447	.033	.454*
Sex	.220	.074	.100*
Work experience	.024	.069	.012
Self-employment experience	.118	.222	.018

Note. * $p < 0.05$; B = unstandardized regression coefficient; SE_B = standard error of the coefficient; β = standardized coefficient

Our regression model confirmed the hypotheses H1a, H1b and H1c. Attitudes towards entrepreneurship have the greatest impact on entrepreneurial intention, followed by the perceived behavioral control, while subjective norm has the least impact.

Table 2 shows the means of the tested variables for each of the 5 years of study. Their values range from 1 to 7. On average, students seem to be neutral about initiating an entrepreneurial venture. Attitudes towards entrepreneurship are averagely positive, although not strongly expressed. On average, students' environments would support their decision to become entrepreneurs. When it comes to perceived behavioral control, on average, the students feel neutral about their entrepreneurial abilities. Also, they are rather unfamiliar with the entrepreneurial infrastructure.

Table 2

Arithmetic means of tested variables by years of study

	First year	Second year	Third year	Fourth year	Fifth year
Entrepreneurial intention	4.544	4.293	4.571	4.589	4.855
Attitudes towards entrepreneurship	5.269	5.029	5.273	5.451	5.727
Subjective norm	5.727	5.670	5.721	5.818	6.242
Perceived behavioral control	4.128	4.083	4.260	4.139	4.409
Familiarity with entrepreneurial infrastructure	3.497	3.373	3.345	3.695	4.830

Next the second set of hypotheses was tested. The Levene test results (Table 3) showed the appropriateness of using the one-way ANOVA for the variables of the entrepreneurial intention, attitudes towards entrepreneurship and perceived behavioral control, and also of using the Welch test for the variable of familiarity with entrepreneurial infrastructure.

The ANOVA results for the entrepreneurial intention are shown in Table 4. There is no statistically significant difference in the entrepreneurial intentions among the students of different years of study, which means that we cannot accept the hypothesis H2a.

Table 3
Levene test results

	Levene statistics	p (significance level)
Entrepreneurial intention	1.003	.406
Attitudes towards entrepreneurship	.910	.458
Perceived behavioral control	.439	.780
Familiarity with entrepreneurial infrastructure	3.120	.015

Table 4
ANOVA results for students' entrepreneurial intentions by years of study

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between groups	3.912	4	.978	.978	.420
Within groups	332.088	332	1.000		
Total	336.000	336			

The ANOVA results for the attitudes towards entrepreneurship are shown in Table 5. There is a statistically significant difference in the attitudes towards entrepreneurship between the students of the second and fourth year of study, which leads us to accept the hypothesis H2b.

Table 5
ANOVA results for students' attitudes towards entrepreneurship by years of study

Source of Variance	Sum of Squares	df	Mean Square	F	p	Significant difference (according to Tukey test)
Between groups	11.419	4	2.855	2.921	.021	Second and fourth year of study
Within groups	320.581	328	.977			
Total	332.000	332				

Table 6 shows the ANOVA results for the perceived behavioral control, which confirm that there is no statistically significant difference in the perceived behavioral control among the students of different years of study. Therefore, the hypothesis H2c cannot be accepted.

Table 6
ANOVA results for students' perceived behavioral control by years of study

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between groups	1.263	4	.316	.313	.869
Within groups	330.737	328	1.008		
Total	332.000	332			

Table 7 shows the results of testing hypothesis H2d which suggest that this hypothesis should be accepted. Namely, there exists a statistically significant difference in the familiarity with entrepreneurial infrastructure between the students of the first and fifth; second and fifth; and third and fifth year of study.

Table 7

Welch test results for familiarity with entrepreneurial infrastructure by years of study

	Statistic, Asymptotically F distributed	df1	df2	Sig.	Significant difference (according to Games-Howell's test)
Welch	3.429	4	61.637	.014	First and fifth year; second and fifth year; third and fifth year

Discussion and Conclusion

In our search to answer the question of whether entrepreneurial intention predictors (i.e., attitudes, subjective norms and perceived behavioral control) positively impact students' entrepreneurial intentions, we have come to an affirmative conclusion. Our results are in accordance with previous studies of entrepreneurial intention that were done on student population. Firstly, we contribute to this body of research by studying the student population of one of the less developed EU countries, as opposed to most similar studies to date, which come from economically more developed parts of Europe and the US.

Secondly, we concern ourselves with the question of what impact exposure to entrepreneurship education has on students' entrepreneurial intentions, which may carry implications for several scientific fields. This might prove useful in the field of pedagogy – to entrepreneurship educators, creators of educational programs and also to entrepreneurship support policy makers. The program Economics of Entrepreneurship belongs to the level of entrepreneurship education called entrepreneurial awareness education, which is the level taught at universities, according to Liñán (2004). It is the crucial level for attitude formation, as can also be said about the program from our study, which proved its effectiveness by making students have more positive attitudes towards entrepreneurship with every passing year of study.

Besides the courses that are necessary for acquiring business skills and knowledge (in the areas of accounting, finances, marketing, business communications, business ethics, organization, management, business decision-making, tax system and informatics), this study offers several specifically entrepreneurship-orientated courses: undergraduate courses on entrepreneurship basics, business plans and projects, business practicum; and also graduate courses on small and medium-sized enterprises in the EU and entrepreneurial strategies. If we look at the strictly entrepreneurship-oriented courses in consideration of the four components of learning (*knowing what, knowing why, knowing how* and *knowing who*), then an effective educational program should, through its content and methods, achieve several specific goals. Therefore, the component of *knowing what* should result in an increase of entrepreneurial intentions at the end of the five-year education, the component of *knowing why* should result in more positive attitudes towards entrepreneurship, the component of *knowing how* should enhance students' perceived behavioral control and the component of *knowing who* should intensify students' contacts with the entrepreneurship environment, consequently increasing their familiarity with entrepreneurial infrastructure.

When it comes to Economics of Entrepreneurship, this program enhances the students' attitudes because it has an appropriate content: the courses on entrepreneurship, small and middle-sized businesses in the EU, and other relevant courses that implicitly stress the importance of entrepreneurship. It also has adequate teaching methods, meaning that the traditional approach is supplemented with guest lectures by successful entrepreneurs, including female entrepreneurs, which is especially important for stimulating female students' future entrepreneurial activity. There are also guest lectures by young entrepreneurs, whom the students can identify with easier, and various events, such as organized visits to business firms. Therefore, the components of *knowing why* and *knowing who* are functioning successfully. Further evidence that the component of *knowing who* is satisfactory lies in the fact that there is a statistically significant difference between the students of earlier and later years of study when it comes to familiarity with entrepreneurial infrastructure. This bears important implications for the creators of entrepreneurship policies because it shows the importance of being informed, having access to information and contacts in the process of planning and realizing entrepreneurial activities. In the component of *knowing how*, this program does not function well, since we can see that the perceived behavioral control of the sample students is not enhanced in the later years of study. Although the study program includes some courses with elements which aim at enhancing the perception of entrepreneurial venture feasibility (such as business planning and projects, practicum and entrepreneurial strategies), there exists a need for new courses that would focus on recognizing and evaluating entrepreneurial opportunities in the profit and non-profit sector. Also, the existing courses could be renewed by implementing more suitable teaching and learning methods, such as task projects on creating entrepreneurial ventures in the areas of traditional and social entrepreneurship, or developing a comprehensive business plan. In conclusion, our research shows that exposure to an entrepreneurship education program does not increase entrepreneurial intentions. Nevertheless, we have to note that the Economics of Entrepreneurship program belongs to the class of entrepreneurial awareness education programs, which makes it a successful program *per se*. But, for the educators and creators of this program, there still remains the open question of poor results in the area of enhancing perceived behavioral control (i.e., the student perception of entrepreneurial activity feasibility). Even though we would need standardized instruments to examine the effectiveness of university entrepreneurship education and the possibilities of making international comparisons, this research implies that the model of testing entrepreneurial intention shown here is a suitable tool for examining program effectiveness and for the self-evaluation of entrepreneurship education programs. But we also have to consider here the question of learning outcomes and the goals of studying, as well as the question of whether the current level of entrepreneurship education is satisfactory in view of the conditions set before highly educated young people regarding their employment and self-employment. Today, the

business environment demands a shift towards a higher level of entrepreneurship education – the education for start-up.

If we analyze the effects of this entrepreneurship program using Ruohotie and Koiranen's tripartite construct of affective, conative and cognitive mode of mental functioning (Ruohotie & Koiranen, 2000), we can conclude that it is more successful on the affective level (emotions and temperament, including attitudes) and the cognitive level (declarative and procedural knowledge, including skills), while it is less successful on the conative level (will and motivation, including self-efficacy/ perceived behavioral control).

Although this study has certain shortcomings and limitations due to the fact that it is not longitudinal, it can still serve as a good introduction to a larger longitudinal study that would track students from their junior year of study to employment age and follow their entrepreneurial intentions and how they relate to their actual entrepreneurial activity after the student years. Also, it would be useful to broaden the research to include students of other studies besides entrepreneurship. In this way we could observe the impact of entrepreneurship education on engineers, informatics students and others, who would equally benefit from having their entrepreneurial spirit stimulated and being able to think entrepreneurially in all life and business situations. Finally, this research could also be directed towards students at lower levels of education (such as high schools) to see the importance of comprehensive entrepreneurship education from an early age.

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Utjecaj izloženosti poduzetničkom obrazovanju na poduzetničku namjeru studenata

Sažetak

Svrha ovog istraživanja jest ispitati poduzetničku namjeru studenata preddiplomskog i diplomskog studija Ekonomika poduzetništva i njezine prediktore kod studenata na različitim godinama studija. Istraživanje polazi od dva skupa hipoteza: prvog, koji je postavljen kako bi se potvrdile osnovne pretpostavke teorije planiranog ponašanja u kontekstu studentske populacije, i drugog, koji pretpostavlja postojanje pozitivnog utjecaja trajanja izloženosti poduzetničkome obrazovanju na poduzetničku namjeru studenata. Regresijskim modelom potvrđen je prvi skup hipoteza i utvrđeno je da najveći utjecaj na poduzetničku namjeru imaju stavovi prema poduzetništvu, slijedi percipirana kontrola ponašanja, a najmanji utjecaj ima subjektivna norma. Rezultati istraživanja ukazuju na postojanje statistički značajne razlike u stavovima prema poduzetništvu i poznavanju poduzetničke infrastrukture između studenata različitih godina studija. Međutim, istraživanje je pokazalo da se poduzetnička namjera uslijed izloženosti programu poduzetničkog obrazovanja ne povećava.

Ključne riječi: *percipirana kontrola ponašanja; poznavanje poduzetničke infrastrukture; program poduzetničkog obrazovanja; stavovi prema poduzetništvu; subjektivna norma.*

Uvod

Poduzetništvo ima važnu ulogu u ekonomskom razvoju jer predstavlja inkubator tehnoloških inovacija, utječe na porast ekonomske djelotvornosti i stvaranje novih radnih mjesta (Shane i Venkataraman, 2000). Upravo je stoga velika pažnja istraživača usmjerena na traženje odgovora na pitanje: *Što pokreće osobe da se bave poduzetništvom?* Istraživanja koja se u svojoj osnovi bave tim pitanjem ustanovila su da su karakteristike poduzetnika, vanjski faktori (dostupnost i pristup kapitalu, zaštita privatnog vlasništva, institucije koje promiču vladavinu prava itd.) i osobne situacije koje utječu na poduzetničku samodjelotvornost (obrazovanje, prijašnja iskustva, uzori, socijalne mreže itd.) čimbenici koji određuju poduzetničku namjeru (Drost, 2010). Poduzetnička je namjera pritom najbolji prediktor pokretanja poduzetničkog pothvata.

Karijerni izbor, prema teoriji socijalne kognicije, predstavlja kognitivni proces koji pokreću vjerovanja, stavovi i iskustva, a usredotočuje se na osobnu pozadinu pojedinca i iskustvena znanja kao faktore koji utječu na izbor karijere (Lent i sur., 1994). Obrazovanje se općenito smatra značajnim čimbenikom utjecaja na poduzetničku namjeru i karijerni izbor kao kognitivni proces. Postoji suglasnost o tezi da se, u cilju razvoja poduzetničkih obilježja šire populacije, obrazovanje i poduzetništvo ne bi trebali odvajati ni u vrlo ranoj školskoj dobi. Razvijanje kompetencija za poduzetništvo već u osnovnom školstvu, u skladu s Europskim kompetencijskim okvirom, prepoznato je kao vrlo važno (Baranović i sur., 2007). Brojni radovi sve više promiču ideju da poticanje poduzetničkih stavova putem formalnog obrazovanja u ranoj dobi može ohrabriti osobe na poduzetničku karijeru (Kourilsky i Walstad, 1998; Paço i sur., 2011). Upravo stoga vlade širom svijeta sve više ulažu u politike razvoja poduzetništva putem razvoja nastavnih planova i programa koji naglašeno uključuju razvoj poduzetničkih kompetencija, ne bi li tako oslobodile poduzetnički potencijal mladih ljudi (Fayolle i Gailly, 2009). Poduzetnički programi promiču se na svim razinama obrazovnog sustava, no najviše u sustavu visokog obrazovanja (Kuratko, 2005a). Naglašavanje poduzetništva u sustavu tercijarnog obrazovanja odgovara rezultatima studija, koji govore u prilog tezi da poduzetnici s fakultetskom diplomom bilježe veće stope preživljavanja i zapošljavaju više osoba u usporedbi s poduzetnicima bez fakultetske diplome (Fretschner i Weber, 2013a). Štoviše, *spin-off* projekti takozvanih akademskih poduzetnika proizvode prijelomne efekte prelijevanja utječući na taj način na regionalnu ekonomiju (Harhoff, 1995; Shane, 2004).

Istraživanje poduzetničke namjere studenata sve više okupira istraživače. Međutim, unatoč razmjerno velikom interesu, istraživanja su pretežito usredotočena na razvijene zemlje Europe i SAD-a, dok je populacija studenata u vrlo malom broju zemalja izvan ovog kruga bila predmetom istraživanja. Ovaj se članak priklanja struji istraživača koji ispituju utjecaj izloženosti poduzetničkom obrazovanju na poduzetničku namjeru studenata, u čemu se očituje i njegov znanstveni doprinos.

Na početku su u radu predstavljene teorija poduzetničkog događaja i teorija planiranog ponašanja te je postavljen prvi skup hipoteza kako bi se potvrdile osnovne pretpostavke teorije planiranog ponašanja u kontekstu studentske populacije. Nakon toga je dan osvrt na utjecaj poduzetničkog obrazovanja na poduzetničku namjeru i postavljen drugi skup hipoteza, koji pretpostavlja postojanje pozitivnog utjecaja trajanja izloženosti poduzetničkome obrazovanju na poduzetničku namjeru studenata. U nastavku se iznosi metodološki okvir, analiziraju podaci i testira postavljeni model poduzetničke namjere. Naposljetku se u zaključku dobiveni rezultati interpretiraju i povezuju s rezultatima drugih istraživanja, identificira se doprinos rada te se definiraju njegove praktične implikacije i smjernice za buduća istraživanja.

Teorijska polazišta i hipoteze

Dva su dominantna teorijska modela poduzetničke namjere model poduzetničkog događaja (Shapero i Sokol, 1982) i teorija planiranog ponašanja (Ajzen, 1988).

Model poduzetničkog događaja promatra pokretanje poduzetničkog pothvata kao rezultat međudjelovanja kontekstualnih čimbenika (Liñán, 2004), koji utječu na percepciju poželjnosti (osobni sustav vrijednosti i sustav društvenih vrijednosti kojemu pojedinac pripada) i percepcije izvodljivosti poduzetničkog pothvata (financijska podrška i potencijalni partneri). Ovaj model pretpostavlja da prijelomni životni događaji potiču promjene u poduzetničkoj namjeri, odnosno kasnijem ponašanju (McStay, 2008). Poduzetnička namjera ovisi o individualnoj percepciji poželjnosti i izvodljivosti poduzetničkog pothvata.

Teorija planiranog ponašanja (Ajzen, 1991) definira tri prediktora namjere: individualni stav prema ponašanju, subjektivnu normu i percipiranu kontrolu ponašanja. Individualni stav prema ponašanju i subjektivna norma smatraju se motivacijskim, a percipirana kontrola ponašanja nemotivacijskim faktorom utjecaja na ponašanje (McStay, 2008).

Stav prema ponašanju odnosi se na procjenu pojedinca o stupnju poželjnosti, odnosno nepoželjnosti, određenog ponašanja. Procjena poželjnosti ovisi o tome koje ishode tog ponašanja pojedinac smatra vjerojatnim i kako te ishode vrednuje (Mueller, 2011). Vjeruje li pojedinac da će vjerojatni ishodi određenog ponašanja biti pozitivni, stav prema tom određenom ponašanju bit će također pozitivan. U kontekstu poduzetničke namjere stav je stupanj individualnog vrednovanja poduzetništva kao karijernog izbora (Ajzen, 1991). Važno je napomenuti da na oblikovanje stava neke osobe utječu kultura, roditelji, različite grupe i osobine ličnosti pojedinca (Kretch i Crutcfield, 1964). Upravo stoga stavovi o poduzetničkoj namjeri formirat će se na temelju iskustva stečenog u neposrednom kontaktu s objektom stava i posredstvom učenja, odnosno dobivenih informacija kojima je osoba izložena iz uže i šire okoline.

Subjektivne norme odnose se na osobnu percepciju normativnih očekivanja drugih i osobne motivacije da se navedena očekivanja slijede (Mueller, 2011). U kontekstu poduzetničke namjere subjektivna norma predstavlja društveni pritisak da osoba pokrene poduzetnički pothvat (Ajzen, 1991). Subjektivna norma pokazala se značajnim prediktorom poduzetničke namjere i ponašanja kod nizozemskih, indijskih i ruskih studenata (Souitaris i sur., 2007; Tkachev i Kolvereid, 1999). Ipak, u istraživanjima poduzetničke namjere američkih, britanskih, finskih i švedskih studenata socijalna se norma pokazala slabijim prediktorom poduzetničke namjere (Krueger i sur., 2000; Autio i sur., 2001).

Percipirana kontrola ponašanja odnosi se na pojedinčevu percepciju toga koliko je lako ili teško provedivo određeno ponašanje (Mueller, 2011). Bandurina mjera samodjelotvornosti (1997) vrlo je slična percipiranoj kontroli ponašanja jer odražava osobni sud pojedinca o vlastitoj sposobnosti ostvarenja budućeg ponašanja. U odnosu na konstrukt samodjelotvornosti razlika se očituje u činjenici da percipirana kontrola ponašanja uključuje aktualnu kontrolu ponašanja i percepciju kontrole u budućnosti.

Od samog početka autori su uspoređivali (N. Krueger i sur., 2000), kombinirali (Krueger i Brazeal, 1994) i modificirali (Davidsson, 1995) dva objašnjena modela

poduzetničke namjere. Spomenuti su modeli umnogome veoma slični (Nabi i sur., 2010) jer se stav prema određenom ponašanju i subjektivne norme mogu dovesti u vezu s percipiranom poželjnošću, a percipirana kontrola ponašanja u odnos s percipiranom izvodljivošću poduzimanja poduzetničkog pothvata (Liñán i sur., 2011). Zbrojivši navedeno, može se zaključiti da model poduzetničkog događaja i teorija planiranog ponašanja pokazuju visoku razinu uzajamne kompatibilnosti, što rezultira stvaranjem konstrukta koji je prihvatljiv za ispitivanje poduzetničke namjere među potencijalnim poduzetnicima.

Na osnovi teorijskih polazišta i dosad uspostavljene empirijske baze na temu predviđanja poduzetničke namjere definirana je prva skupina hipoteza:

H1a: Stav prema poduzetništvu ima pozitivan utjecaj na poduzetničku namjeru;
H1b: Subjektivna norma ima pozitivan utjecaj na poduzetničku namjeru;
H1c: Percipirana kontrola ponašanja ima pozitivan utjecaj na poduzetničku namjeru.

Ispitivanje utjecaja izloženosti poduzetničkom obrazovanju na namjeru poduzetničkog ponašanja

Premda danas postoji znanstveni konsenzus o tome da se poduzetnici ne „rađaju", već ih se senzibilizira i educira kako bi pokrenuli uspješan poduzetnički pothvat (Kuratko, 2005b), efektivnost i specifičan utjecaj poduzetničkog obrazovanja još su uvijek sporni (OECD, 2009). Ishod poduzetničkog obrazovanja može se mjeriti kao promjena stope pokretanja poduzetničkih pothvata (OECD, 2009). Problem je takvog pristupa u tome što većina studenata ne pokreće novi poduzetnički pothvat odmah po završetku akademskog poduzetničkog obrazovanja (Souitaris i sur., 2007). Zbog toga je vrlo teško direktno promatrati i jasno mjeriti kauzalne efekte, osobito kod mlađih studenata. Naime, takozvani *akademski poduzetnici* realiziraju svoje poslovne ideje u prosjeku pet godina nakon završetka studija (Golla i sur., 2006). Taj značajni vremenski odmak zahtijeva provođenje longitudinalnih istraživanja, koja su rijetka (Fretschner i Weber, 2013b). Stoga se ishod poduzetničkog obrazovanja češće mjeri promjenom u poduzetničkoj namjeri (Graevenitz i sur., 2010).

Potvrđeno je da studenti s diplomom iz poduzetništva, u usporedbi sa studentima koji su diplomirali neke druge discipline, pokazuju viši stupanj poduzetničke namjere i poduzetničke samodjelotvornosti (Kolvereid i Moen, 1997; Noel, 2001). Problem takvih istraživanja jest u tome što je vjerojatno da će osobe koje imaju poduzetničku namjeru htjeti diplomirati poduzetništvo, tako da nam one ne daju informaciju o utjecaju poduzetničkog obrazovanja na namjeru. Ipak, postoji niz istraživanja koja su utvrdila da je poduzetničko obrazovanje značajan čimbenik predikcije poduzetničke namjere, kako indirektno, preko njezinih prediktora (Gorman i sur., 1997; Henderson i Robertson, 2000), tako i direktno (Crant, 1996; Wu i Wu, 2008). Programi poduzetničkog obrazovanja utječu na oblikovanje pozitivnog stava o poduzetništvu (Souitaris i sur., 2007; Mueller, 2011) te jačaju poduzetničku samodjelotvornost (Drost, 2010). Navedena istraživanja ispitivala su utjecaj poduzetničkog obrazovanja

na poduzetničku namjeru istog uzorka u dva različita vremenska odsječka (prije i poslije poduzetničkog obrazovanja), pri čemu je obično bila riječ o poduzetničkom obrazovanju kraćeg trajanja.

Nekolicina provedenih istraživanja bavila se proučavanjem poduzetničke namjere u ovisnosti o stupnju, odnosno trajanju izloženosti poduzetničkom obrazovanju, pa su se tako pratile različite grupe studenata na različitim godinama studija usmjerenih prema poduzetništvu. Kod takvog pristupa nije uočen porast poduzetničke namjere u ovisnosti o godini studija (Nabi i sur., 2010).

Razlike u rezultatima navedenih istraživanja proizlaze iz činjenice da za različite istraživače poduzetničko obrazovanje podrazumijeva različite koncepte. Naime, potrebno je razumjeti četiri različite razine poduzetničkog obrazovanja (Dreisler i sur., 2003; Garavan i O'Cinneide, 1994; Jamieson, 1984; Liñán, 2004): obrazovanje za osvještavanje važnosti poduzetništva, obrazovanje za pokretanje poduzetničkog pothvata, obrazovanje za poduzetničku dinamičnost i kontinuirano obrazovanje za poduzetnike. Obrazovanje za osvještavanje značaja poduzetništva služi povećanju broja ljudi koji imaju znanja o malim poduzećima, samozapošljavanju i poduzetništvu kako bi pojedinac uzeo u obzir poduzetništvo kao karijerni izbor (Liñán, 2004). Ta razina obrazovanja omogućuje polaznicima stjecanje poduzetničkih znanja, a postupno razvija poduzetničke stavove i namjere. Obrazovanje za pokretanje poduzetničkog pothvata pretpostavlja polaznike koji su visoko motivirani za poduzetništvo i imaju pripremljene poduzetničke ideje za pokretanje poduzetničkog pothvata. Obrazovanje za poduzetničku dinamičnost predstavlja naprednu razinu i namijenjeno je osobama koje su već pokrenule poduzetnički pothvat, a cilj je poduzetničkog obrazovanja na ovoj razini osigurati rast i razvoj poduzeća. Kontinuirano obrazovanje za poduzetnike namijenjeno je poduzetnicima koji žele obnoviti i dopuniti postojeća znanja i vještine, a za ovu razinu obrazovanja predviđene su kratke edukacije.

Poduzetničko obrazovanje trebalo bi kod polaznika ojačati sposobnosti u komponentama *znati što, znati zašto, znati tko i znati kako*, s većim ili manjim naglaskom na pojedinu komponentu, ovisno o željenoj razini poduzetničkog obrazovanja. Prema Johannissonu (1991), upravo te dimenzije učenja ukazuju na razumijevanje svrhe djelovanja kod studenata i dovode do samopouzdanja i sposobnosti utjecaja na osobnu okolinu te do razvoja podržavajućih veza i odnosa s okolinom. Fiet (2001) ističe da je *znati što* ključan dio poduzetničkog programa / studija budući da je vrlo teško poučavati poduzetništvo bez temeljnih znanja i teorija, pa je stoga to temeljni element koji podržava druge komponente. No Ronstadt (1985) i Gibb (1987) ukazuju na to da to nije dovoljno. Potrebno je uzeti u obzir i kompetencije iz domene *znati zašto* jer se time utječe na stavove o važnosti poduzetništva za ekonomiju, društvo i pojedinca. Odgovorom na to pitanje moguće je motivirati studente, potaknuti poduzetnički duh i poduzetnički način djelovanja u svim poslovnim i životnim situacijama. Komponenta *znati kako* važna je zbog utjecaja na percipiranu kontrolu ponašanja. Komponenta *znati tko* neophodna je zbog značenja socijalne interakcije te dijeljenja znanja i

informacija kao potpore poduzetničkim aktivnostima. Ta komponenta podrazumijeva i uključivanje gostujućih predavača kao uzora: uspješnih poduzetnika, poduzetnika s kojima se studenti mogu poistovjetiti (poput poduzetnika koji su završili studij poduzetništva), mladih poduzetnika i drugih eksperata iz područja poduzetništva.

Cilj je ovog istraživanja ispitati poduzetničku namjeru studenata studija Ekonomika poduzetništva i njezine prediktore kod studenata na različitim godinama studija. Istraživačko pitanje koje postavljamo glasi: Je li program poduzetničkog obrazovanja u našem slučaju (studij Ekonomika poduzetništva) sadržajem i metodama učenja uspješan u razvijanju sposobnosti studenata u komponentama *znati što, znati zašto, znati tko* i *znati kako?*

U ovom članku kao pokazatelje učinkovitosti programa uzimamo poduzetničku namjeru studenata (*znati što*), stavove o poduzetništvu (*znati zašto*), percipiranu kontrolu ponašanja (*znati kako*) i poznavanje poduzetničke infrastrukture (*znati tko*) pod utjecajem trajanja izloženosti poduzetničkom obrazovanju. Stoga ćemo testirati sljedeće hipoteze:

H2a: Postoji statistički značajna razlika u poduzetničkoj namjeri između studenata na različitim godinama studija;

H2b: Postoji statistički značajna razlika u stavovima prema poduzetništvu između studenata na različitim godinama studija;

H2c: Postoji statistički značajna razlika u percipiranoj kontroli ponašanja između studenata na različitim godinama studija;

H2d: Postoji statistički značajna razlika u poznavanju poduzetničke infrastrukture između studenata na različitim godinama studija.

Metode

U nastavku su objašnjeni prikupljanje podataka i metode koje su se koristile za analizu podataka.

Populacija i uzorak

Uzorak istraživanja činili su studenti studija Ekonomika poduzetništva Fakulteta organizacije i informatike u Varaždinu, Sveučilišta u Zagrebu. Upitnik je podijeljen studentima na svim godinama studija nakon predavanja, a ispunjavanje upitnika bilo je dobrovoljno. Od ukupno 560 studenata upitnik je popunilo 360 studenata. Nakon izbacivanja nepotpuno ispunjenih upitnika uzorak je uključivao 347 ispitanika, od kojih 71,6 % žena. Prosječna dob ispitanika iznosila je 20,7 godina, što je prikladno uzme li se u obzir činjenica da je riječ o osobama koje će uskoro postati dio populacije koja pokazuje najviše poduzetničke namjere, a to je visokoobrazovana skupina u dobi od 25. do 34. godine (Reynolds i sur., 2002).

Prikupljanje i analiza podataka

Podaci o poduzetničkoj namjeri studenata, njezinim prediktorima i poznavanju poduzetničke infrastrukture prikupljeni su Upitnikom poduzetničke namjere, koji je

utemeljen na integraciji literature iz područja psihologije s literaturom iz istraživanja poduzetništva (Liñán i sur., 2011), a sadrži 28 čestica. Upitnik nam je za istraživanje ustupio autor.

Poduzetnička namjera, njezini prediktori i poznavanje poduzetničke infrastrukture mjereni su izjavama koje su ispitanici vrednovali na Likertovoj skali sa 7 stupnjeva (od 1 – potpuno neslaganje s izjavom, do 7 – potpuno slaganje s izjavom). Upitnik poduzetničke namjere sadrži i inverzne izjave (Ray, 1979) kako bi se umanjila pristranost pri vrednovanju tvrdnji koja se javlja zbog tendencije slaganja s navedenim izjavama. Kako bismo razvili konstrukte za poduzetničku namjeru i njezine prediktore, provedene su dvije faktorske analize: jedna za poduzetničku namjeru, druga za njezine prediktore i poznavanje poduzetničke infrastrukture. Prednost je faktorske analize u eliminaciji koreliranih varijabli kako bismo daljnju analizu mogli provesti na nekoreliranim faktorima (Fulgosi, 1988), što nam rješava problem multikolinearnosti u kasnijoj regresijskoj analizi. Kod obje faktorske analize Kaiser-Meyer-Olkinova mjera adekvatnosti uzorka ukazala je na primjerenost podataka za faktorsku analizu.

U faktorskoj analizi provedena je analiza glavnih komponenata *varimax* rotacijom, nakon koje su faktori neovisni, što olakšava njihovu interpretaciju. Prema Kaiserovu kriteriju izabrali smo faktore čija je svojstvena vrijednost veća od 1 (Kurnoga Živadinović, 2002). Pouzdanost faktora mjerena je Cronbachovim alfa-koeficijentima (Nunnally, 1978), koji trebaju iznositi najmanje 0,7 da bi potvrdili internu konzistentnost faktora. Nakon eliminacije čestica koje nisu opteretile očekivani faktor dobiveni su sljedeći faktori s pripadajućim Cronbachovim alpha-koeficijentima, navedenim u zagradama: poduzetnička namjera, koja je uključila 5 čestica (0,885); stavovi prema poduzetništvu, koji su uključili 5 čestica (0,803); subjektivna norma, koja je uključila 3 čestice (0,844); percipirana kontrola ponašanja, koja je uključila 6 čestica (0,712), i poznavanje poduzetničke infrastrukture, koje je uključilo 8 čestica (0,916).

Kako bismo testirali prvi skup hipoteza, provedena je regresijska analiza s poduzetničkom namjerom kao zavisnom varijablom i stavovima prema poduzetništvu, subjektivnom normom i percipiranom kontrolom ponašanja kao eksplanatornim varijablama.

Kao kontrolne varijable koristili smo spol (0 = žene, 1 = muškarci), radno iskustvo (0 = nema radnog iskustva, 1 = ima radnog iskustva) i iskustvo samozapošljavanja (0 = nema iskustvo samozapošljavanja, 1 = ima iskustvo samozapošljavanja). Spol se u istraživanjima poduzetničke namjere pokazao važnom varijablom (de la Cruz Sánchez-Escobedo i sur., 2011; Díaz-Casero i sur., 2012). Radno iskustvo i iskustvo samozapošljavanja često se koriste kao kontrolna varijabla u istraživanjima poduzetničke namjere (Liñán i sur., 2011).

Za testiranje druge skupine hipoteza korišteni su Leveneov test, jednosmjerna ANOVA i Welchev test, *post hoc* Tukey i Games-Howellov test kako bi se utvrdilo postoje li statistički značajne razlike u promatranim varijablama između studenata

na različitim godinama studija i *post hoc* analizom identificiralo između kojih grupa postoji razlika.

Rezultati

Provedena je multipla regresija kako bismo objasnili poduzetničku namjeru s pomoću stavova prema poduzetništvu, subjektivne norme, percipirane kontrole ponašanja, spola, radnog iskustva i iskustva samozapošljavanja. Pretpostavke linearnosti, nezavisnosti grešaka relacije, homoskedastičnosti i normalnosti reziduala bile su ispunjene. Eksplanatorne varijable statistički su značajno predvidjele poduzetničku namjeru: $F(6, 297) = 103{,}203$, $p = 0{,}000$, adj. $R^2 = 0{,}669$. Od kontrolnih varijabli statistički značajna varijabla je spol, a radno iskustvo i iskustvo samozapošljavanja nisu imali značajan utjecaj. Razlog je tome vjerojatno to što samo 2,3 % studenata u uzorku ima iskustvo samozapošljavanja. Regresijski koeficijenti i standardne pogreške nalaze se u tablici 1.

Tablica 1.

Regresijskim modelom potvrđene su hipoteze H1a, H1b i H1c. Najveći utjecaj na poduzetničku namjeru imaju stavovi prema poduzetništvu, slijedi percipirana kontrola ponašanja, a najmanji utjecaj ima subjektivna norma.

Tablica 2 prikazuje srednje vrijednosti promatranih varijabli za svih 5 godina studijskog programa. Vrijednosti su se kretale od 1 do 7. Vidljivo je da studenti u prosjeku niti imaju, niti nemaju namjeru pokretanja poduzetničkog pothvata. Stavovi prema poduzetništvu u prosjeku su pozitivni, iako ne i snažno izraženi. Okolina bi u prosjeku podržala odluku studenata da se bave poduzetništvom. Percipirana kontrola ponašanja ukazuje na to da se studenti u prosjeku ne osjećaju ni sposobnima, ni nesposobnima za poduzetništvo, a s poduzetničkom okolinom studenti su slabo upoznati.

Tablica 2.

U sljedećem koraku testirali smo drugu skupinu hipoteza. Rezultati Leveneova testa (tablica 3) ukazali su na primjerenost upotrebe jednosmjerne ANOVA-e za varijable poduzetničke namjere, stavova prema poduzetništvu, percipirane kontrole ponašanja i Welcheva testa za varijablu poznavanja poduzetničke infrastrukture.

Tablica 3.

Rezultati ANOVA-e za poduzetničku namjeru prikazani su u tablici 4. Ne postoji statistički značajna razlika u poduzetničkoj namjeri između studenata na različitim godinama studija, zbog čega ne možemo prihvatiti hipotezu H2a.

Tablica 4.

Rezultati ANOVA-e za stavove prema poduzetništvu prikazani su u tablici 5. Postoji statistički značajna razlika u stavovima prema poduzetništvu između studenata druge i četvrte godine studija, zbog čega prihvaćamo hipotezu H2b.

Tablica 5.

Tablica 6 prikazuje rezultate ANOVA-e za percipiranu kontrolu ponašanja, koji ukazuju na to da nema statistički značajne razlike u percipiranoj kontroli ponašanja između studenata različitih godina studija. Hipoteza H2c ne može se prihvatiti.

Tablica 6.

Tablica 7 prikazuje rezultate testiranja hipoteze H2d, koji ukazuju na to da hipotezu možemo prihvatiti. Naime, postoji statistički značajna razlika u poznavanju poduzetničke infrastrukture između studenata različitih godina studija, i to između prve i pete, druge i pete, treće i pete godine studija.

Tablica 7.

Rasprava i zaključak

U traganju za odgovorom na istraživačko pitanje postoji li pozitivan utjecaj prediktora poduzetničke namjere (stavovi, subjektivna norma, percipirana kontrola ponašanja) na poduzetničku namjeru studenata, dobivamo potvrdan odgovor. Rezultati su u skladu s dosadašnjim istraživanjima poduzetničke namjere provedenima među studentskom populacijom. Budući da većina dosadašnjih istraživanja dolazi iz ekonomski razvijenijeg dijela Europe i SAD-a, ovim dijelom našeg istraživanja doprinosimo obogaćivanju dotičnog istraživačkog područja donoseći podatke o populaciji jedne od slabije razvijenih zemalja Europske unije.

Drugi dio, vezan uz istraživačko pitanje o utjecaju poduzetničkog obrazovanja na poduzetničku namjeru studenata, može imati implikacije za nekoliko područja. Može poslužiti u pedagoške svrhe – edukatorima u poduzetništvu i kreatorima nastavnih programa, ali i kreatorima politike podrške poduzetništvu. Studij Ekonomika poduzetništva na razini je poduzetničkog obrazovanja koju možemo okarakterizirati kao razinu osvještavanja značaja poduzetništva, što je prema Liñánu (2004) razina koja se izvodi na sveučilištima. Ta je razina presudna za oblikovanje stavova, u čemu se program iz našeg istraživanja pokazao učinkovitim jer se stavovi o poduzetništvu na višim godinama studija poboljšavaju.

Osim predmeta koji su potrebni za stjecanje poslovnih znanja i vještina (računovodstvo, financije, marketing, poslovno komuniciranje, poslovna etika, organizacija, menadžment, poslovno odlučivanje, porezni sustavi, informatička znanja i vještine) studij ima više kolegija specifičnih za poduzetničko obrazovanje: osnove poduzetništva, poslovno planiranje i projekti, praktikum (na preddiplomskom studiju), mala i srednja poduzeća u Europskoj uniji, poduzetničke strategije (na diplomskom studiju). Ako sagledavamo predmete koji su izravno vezani uz poduzetništvo kroz četiri komponente učenja (*znati što, znati zašto, znati kako* i *znati tko*), tada bi učinkovit program (sadržajem i metodama) trebao djelovati tako da komponenta *znati što* dovodi do povećanja poduzetničke namjere na kraju petogodišnjeg školovanja, komponenta

znati zašto do poboljšanih stavova studenata o poduzetništvu, komponenta *znati kako* do poboljšanja percipirane kontrole ponašanja, a komponenta *znati tko* do intenziviranja kontakata s poduzetničkom okolinom, odnosno do boljeg poznavanja poduzetničke infrastrukture.

Poboljšanje stavova studenata tijekom studija tumačimo postojanjem prikladnih sadržaja kao što su poduzetništvo, mala i srednja poduzeća u Europskoj uniji i ostali predmeti u kojima se implicitno naglašava važnost poduzetništva. Nadalje, to poboljšanje pripisujemo adekvatnim metodama: osim tradicionalnog poučavanja koriste se gostovanja i predavanja uspješnih poduzetnika (posebno žena, što je bitno kako bi studentice dobile poticaj za poduzetničku aktivnost), kao i predavanja mlađih poduzetnika s kojima se studenti mogu identificirati, a organiziraju se i posjeti poduzećima. Na taj način uspješno funkcioniraju komponente *znati zašto* i *znati tko*. U prilog uspješnosti u komponenti *znati tko* govore i rezultati vezani uz poznavanje poduzetničke infrastrukture jer postoji statistički značajna razlika između grupa studenata na nižim i višim godinama studija. To je važna implikacija i za kreatore poduzetničke politike budući da protok i dostupnost informacija i kontakata u poduzetničkoj okolini predstavljaju važne faktore namjere, ali i realizacije poduzetničkog djelovanja. U domeni *znati kako* dotični program ne funkcionira dobro s obzirom na to da se percipirana kontrola ponašanja ne poboljšava na višim godinama studija. Iako neki od predmeta imaju sadržaje namijenjene upravo ostvarivanju ishoda vezanih uz poboljšanje percepcije izvodljivosti poduzetničkog pothvata (poslovno planiranje i projekti, praktikum, poduzetničke strategije), potrebno je dodati nove sadržaje koji bi bili usmjereni na prepoznavanje i evaluaciju poduzetničkih prilika u profitnom i neprofitnom sektoru. Postojeće predmete treba inovirati prikladnijim metodama učenja i poučavanja kao što su projektni zadaci osmišljavanja poduzetničkih pothvata na području tradicionalnog i socijalnog poduzetništva ili izrada cjelovitog poslovnog plana. U konačnici, ovo je istraživanje pokazalo da se poduzetnička namjera uslijed izloženosti programu poduzetničkog obrazovanja ne povećava. Ovdje ipak treba skrenuti pažnju na činjenicu da se radi o programu Ekonomika poduzetništva, koji odgovara razini osvještavanja značaja poduzetništva *per se.* To bi ukazivalo na uspješnost programa kao takvog, no za edukatore i kreatore programa studija ipak ostaje otvoreno pitanje slabih rezultata u razvoju percipirane kontrole ponašanja, tj. percepcije studenata o izvedivosti poduzetničke aktivnosti. Iako je za ispitivanje učinkovitosti sveučilišnog poduzetničkog obrazovanja i mogućnost međunarodnih usporedbi potrebno standardizirati instrumente, ispitivanje učinkovitosti nastavnog programa s pomoću modela poduzetničke namjere, na temelju ovog primjera, čini se prikladnim alatom za samoevaluaciju programa poduzetničkog obrazovanja. No ovdje se, također, otvara pitanje ishoda učenja, tj. onoga što se želi postići studijem, kao i pitanje o razini poduzetničkog obrazovanja koja bi bila odgovarajuća s obzirom na zahtjeve okoline vezane uz zapošljivost i samozapošljavanje mladih visokoobrazovanih ljudi. Zahtjevi iz okoline upućuju na potrebu pomaka prema višoj razini poduzetničkog obrazovanja – obrazovanju za pokretanje poduzetničkog pothvata.

Ako učinke analiziramo na razini tripartitnog konstrukta afektivnog, konativnog i kognitivnog načina mentalnog funkcioniranja, koje u primjenu u poduzetničko obrazovanje uvode Ruohotie i Koiranen (2000), tada možemo zaključiti da je program uspješniji na razini afektivnog (temperament i emocije, uključujući stavove) i kognitivnog (deklarativna i proceduralna znanja, uključujući vještine), a manje je uspješan na razini konativnog (volja i motivacija, uključujući samodjelotvornost, odnosno percipiranu kontrolu ponašanja).

Iako istraživanje ima nedostatke i ograničenja jer nije longitudinalnog karaktera, može biti prikladan uvod u longitudinalno istraživanje koje bi obuhvatilo studente od prve godine studija do radno aktivne dobi i kojim bi se pratila poduzetnička namjera te veza poduzetničke namjere i stvarne poduzetničke aktivnosti bivših studenata. Također bi trebalo proširiti istraživanje i na druge skupine studentske populacije prema vrsti studija, osim studenata poduzetništva, kako bi se promatrao učinak poduzetničkog obrazovanja na inženjere, informatičare i druge, kod kojih je jednako važno potaknuti poduzetnički duh i osposobiti ih za djelovanje na poduzetan način u svim poslovnim i životnim situacijama. Zbog značenja cjelovitog poduzetničkog obrazovanja od najranije dobi, treći vid nastavljanja ovog istraživanja mogao bi biti usmjeren i na niže razine obrazovanja (srednje škole).