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DETERMINANTS OF ENTREPRENEURIAL INTENTIONS: EMPIRICAL EVIDENCE FROM CROATIAN PERSPECTIVE

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ABSTRACT

The growing body of literature is arguing that entrepreneurial intentions play a significant role in the decision-making process of becoming an entrepreneur. Bolstering the entrepreneurial and innovation-oriented mindsets, primarily among younger generations, might be considered crucial for the successful economic and social evolvement. Detecting the appropriate reasons which induce youngsters, especially students, to become entrepreneurs is a potentially valuable input for different policymakers and a problem explored in this paper. Personal attitudes, subjective norm and perceived behavioural control are called motivational 'antecedents' of entrepreneurial intentions and has been thoroughly studied within the theory of planned behaviour, developed by Ajzen (1991). The applicability of Ajzen's model for predicting the main antecedents of entrepreneurial intentions were successfully tested in this study among students with or without international studying experience, as well as distinctions considering several background (individual and social) factors. The results of the correlation and regression analysis pointed out that personal attitudes towards entrepreneurship and entrepreneurial ability represent the most relevant components of the theory of planned behaviour model, while subjective norms have a minor role. Statistically significant differences were found in six factors: age, family background, household incomes, profession, country of origin, and student exchange programmes. These results confirmed previous conclusions about the explanation power of Ajzen's model to predict entrepreneurial intentions and brought empirical evidence about studying abroad experience which has a noticeable impact on predictors of entrepreneurial intention among students, which potentially deserves additional incentives from policymakers and higher education institutions.

Key words: Entrepreneurial Intentions, Theory of Planned Behaviour, Background Factors

1. INTRODUCTION

Numerous empirical evidence has been accumulated since the 1990s which points to a positive and robust relationship between measures of entrepreneurship and a broad spectrum of economic performance measures such as employment creation, economic growth, firm survival, innovation and technological change, productivity increases, and exports (Audretsch, 2003: 13). However, entrepreneurial projects and entrepreneurial behaviour do not happen by reflex. Some individuals become more entrepreneurial than others. The reasons vary from individual to social, economic and political.

Recently introduced NACI index within GEM global report for 2019 (Bosma and Kelley, 2019: 58-60), represents a new composite index covering 12 framework conditions and the results show that Croatia occupies the last place among 18 European countries included in the measurement. This indicator alone implicates that there is a lot to improve. Another indicative information from GEM report (Bosma and Kelley, 2019: 23) positions Croatia along Austria as the countries which show a steep drop-off in the oldest age group (55-64 years) and a most prevalent entrepreneurial activity among ages 25-34, i.e. the group in which most of the graduate students belong. Consequently acquiring the necessary knowledge and entrepreneurial skills should be a major task for this age group and the responsible institutions.

This study attempts to verify the influence of some well-researched and widely applicable antecedents of the entrepreneurial intentions, in Croatian student context and to compare the relevance of the theory of planned behaviour model components, with previous studies. Additionally, it considers the country of origin and the influence of student exchange programmes involvement to entrepreneurial behaviour. The impact of country of origin has been studied frequently (regularly within GEM reports); however, the factor of studying abroad lacked the attention of researchers. This factor was chosen as according to Erasmus impact study (European Commission, 2019: 2), the students involved in student exchange programmes (like Erasmus or Ceepus) gain in adaptability, ability to collaborate with people from different cultures, communication skills and problem-solving skills. Furthermore, 80% of Erasmus graduates who participated in the exchange programme are more likely to find their first job in less than three months, and almost 75% of them plan to start their own company or can envisage doing so in the future. For comparison, according to the GEM Report (Bosma and Kelley, 2019: 55), on average, 10% of respondents in surveyed European countries declared entrepreneurial intentions (in the next three years).

International experiences might be especially requisite for Croatian students who should be able to embrace the advantages of a globalised economy and international labour market, considering that Croatia appertains to a group of a net labour export countries within the EU. The factor of studying abroad could be of particular interest to the higher education institutions, as they could boost the utilisation rate and influence to the availability of these programmes.

Finally, the results of the study can extend the economist's contribution in the context of the theory of planned behaviour usage. Their contribution is considered worthwhile already, as they succeeded in exerting considerable influence over government policy using concepts derived

predominantly from the psychology literature, despite the scarcity of evidence (Armitage, 2015: 151).

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Literature review

Regardless of entrepreneurship type (traditional, corporate or social), the opportunity identification process is intentional, so the role of entrepreneurial intention is critical. In order to assist in disclosing the appropriate public entrepreneurial behaviour incentives, the relevant antecedents of entrepreneurial intentions have been studied extensively. Intentions are considered a decisive predictor of entrepreneurial behaviour, a prerequisite for an entrepreneurial approach to occur in the private or public sector. Intentionality is a state of mind directing a person's attention towards a specific object (Bird, 1988: 442), i.e. the entrepreneurial intention leads towards starting a business or some innovative path in existing organisations.

The literature on entrepreneurial intentions derives from two distinct strands (Linan and Fayolle, 2015: 908). The first comes from social psychology, which sheds light on the mental process leading from attitudes and beliefs to effective action (principal contributions comes from Ajzen and Fishbein, 1980, and Bandura, 1997). The second strand is specific to the field of entrepreneurship. Seminal papers by Shapero (Shapero, 1975; Shapero and Sokol, 1982), and Bird (1988), marked the starting point of this strand. By the end of 1990s entrepreneurship research has become one of the fastest-growing fields in social sciences (Katz, 2003: 294). Several meta-analyses emerged in the meantime, concerning different fields of research (e.g. Schlaegel and Koenig, 2014 performed meta-analytic test to compare the theory of planned behaviour and entrepreneurial event model; McEachan et al., 2011 meta-analysed health-related behaviours and Hagger et al., 2002 physical activity). More recently, Linan and Fayolle (2015: 911-914) conducted a meta-analysis of 409 papers studying entrepreneurial intentions between 2004 and 2013 and identified 24 most influential and most cited papers. They divided these studies into six categories (with several themes each). The study presented in this paper addresses the topics which appertain to the Core entrepreneurial intention model category, theme: General test of the theory (of planned behaviour), but also touches research areas like Personal-level variables, e.g. themes Background factors (different control variables) and Gender issues (probably the most researched single topic).

The paper by Krueger and Carsrud (1993) is probably the 'breaking point' responsible for the explosion of research in the field of entrepreneurial intention. These authors made the theory of planned behaviour the 'reference' theory in entrepreneurial intentions research (Linan and Fayolle, 2015: 909). The theory of planned behaviour originates from social psychology. It works on the assumption that intention is a significant predictor of behaviour, while intention itself is a function of behavioural beliefs that link the given behaviour to specific outcomes (Kautonen et al., 2011: 697). According to Icek Ajzen (author of the theory of planned behaviour), the theory reached over 2.400 applications in the last three decades (bibliography of English articles updated in March 2019, available at Ajzen, University of Massachusetts Amherst, <https://people.umass.edu/ajzen>). However, the theory has become one of the most frequently cited and influential models for the

prediction of human social behaviour, but it has also been the target of much criticism and debate. Still, meta-analyses showed a satisfactory level of (medium) correlations among the theory's constructs ranging from (r) 0.31 to around 0.60 (Ajzen, 2011: 1114).

2.2 Research model and hypotheses

According to the theory of planned behaviour, a close relationship would exist between the intention to be an entrepreneur and its effective performance. Intention becomes the fundamental element of explaining behaviour. Entrepreneurial intention indicates the effort that the person will make to carry out entrepreneurial behaviour (Linan and Chen, 2006: 4). It captures three behavioural antecedents (Ajzen, 1991): personal attitudes towards behaviour (personal attraction), subjective norm and perceived behavioural control (Linan and Chen, 2009: 596). These predictors represent main hypotheses of this research.

Personal attitudes towards entrepreneurship. According to Fishbein and Ajzen's (1975) expectancy-value model of attitudes, attitudes (towards entrepreneurship) develop reasonably from the beliefs people hold about the entrepreneurship. So, individuals in general, favour behaviours they believe have predominantly desirable consequences and form unfavourable attitudes towards behaviours we associate with mostly undesirable consequences (Ajzen, 1991: 191). Numerous studies confirmed the relation between attitudes and intentions. For instance, Armitage and Conner (2001: 481) conducted a meta-analysis of 115 studies and determined an average (medium) correlation of 0.49. The results of the research performed with the sample of students (213 respondents), revealed a similar level of correlation ($r = 0.46$) in Macedonia (Tomovska Misoska et al., 2016: 1069), while Rajh et al. (2016: 14) research conducted in four Southeast European countries (1.200 students from Bosnia and Herzegovina, Croatia, Macedonia and Serbia) showed a statistically significant results of multiple regression analysis ($\beta = 0.44$). As a result, the following hypothesis has been made:

H1 Favourable personal attitudes toward entrepreneurship, have a direct, positive and substantial influence on the entrepreneurial intentions of respondents.

Subjective norm is the perceived social pressure to engage or not to engage in a behaviour. It is assumed that subjective norm is determined by the total set of accessible normative beliefs concerning the expectations of essential referents, such as the person's spouse, family, friends, supervisor, and coworkers. Meta-analyses of the theory of planned behaviour application proved subjective norm as a less critical component of the model. For instance, Steinmetz et al. (2016: 224) found the lowest weighted average effect size ($\delta = 0.14$), while Armitage and Conner (2001: 481), determined the lowest average correlation with entrepreneurial intentions ($r = 0.34$). Even lower correlation results ($r = 0.08$) were discovered by Tomovska Misoska et al. (2016: 1069) and by Rajh et al. (2016: 14), with a regression coefficient (β) of 0.05. As a result, the following hypothesis has been made:

H2 Subjective norm, have a direct, positive and substantial influence on the entrepreneurial intentions of respondents.

The third antecedent of intention is the degree of perceived behavioural control, which refers to the perceived ease or difficulty of performing the behaviour (i.e. of becoming an entrepreneur or acquiring entrepreneurial behaviour), and it is assumed to reflect experience as well as anticipated impediments and obstacles (Ajzen, 1991: 188). Previous studies implicate a positive relationship between perceived behavioural control and entrepreneurial intentions. Steinmetz et al. (2016: 224) found the weighted average effect size (δ) of 0.26, while Armitage and Conner (2001: 481), recorded the correlation level of (r) 0.43. Studies with somewhat geographically comparable samples determined similar results: Tomovska Misoska et al. (2016: 1069) found $r = 0.31$, while Rajh et al. (2016: 14), found regression coefficient (β) of 0.36. In this study, perceived behavioural control concerns the entrepreneurial ability of the respondents, so the following hypothesis has been made:

H3 Favourable entrepreneurial ability, have a direct, positive and substantial influence on the entrepreneurial intentions of respondents.

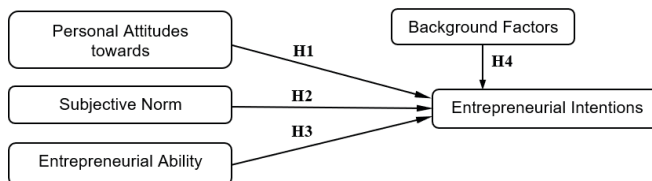
Ajzen's theory of planned behaviour assumes several background factors which often have a significant impact on behaviour, normative and control beliefs which influence each of the three entrepreneurial intentions antecedents. These factors include individual (age, gender, education, income, values, etc.), and social factors like culture, economy, geography, etc. (Ajzen, University of Massachusetts Amherst, <https://people.umass.edu/aizen>). The researchers' attention somewhat skipped this area as a relatively small number of studies tested the influence of these factors. For instance, Schlaegel and Koenig meta-analysis (2014: 307), of 98 studies (123 samples, $n = 114,007$), revealed that some 15% of papers incorporated age and gender, while Linan and Fayolle meta-analysis found only 35 (of 409 studies) considering various background factors).

Furthermore, the results of these studies are often inconsistent. For instance, Kibler (2013: 303) found statistically significant ($p < 0.05$) very weak, negative correlations for gender (female from $r = -0.09$ to 0.16), age (-0.08 to -0.34), higher education (-0.08), and population density (-0.07), and positive correlations for entrepreneurial experience (from $r = 0.08$ to 0.13). Linan and Chen (2009: 606) found a weak positive correlation for (male) gender (0.225, $p < 0.05$) and non-significant results for age, while Schlaegel and Koenig (2014: 307) found positive relationship for age ($r = 0.05$) and negative for gender (-0.06). Besides testing the impact of individual factors, this study included the country of origin and student exchange programmes participation, as specific background factors (control variables). Studying abroad factor was chosen considering the benefits for student emphasised in the introductory part. Consequently, the following hypothesis has been made:

H4 There is a statistically significant difference between personal attitudes towards entrepreneurship, subjective norm, entrepreneurial ability, and entrepreneurial intentions, regarding individual (age, sex, education level, profession, household income, population density, entrepreneurial environment, and work experience) and specific background factors (country of origin and participation in the student exchange programmes) of the respondents.

Diagram 1 displays the proposed hypotheses within the conceptual model.

Diagram 1. Conceptual research model



Source: Author (modified from Ajzen, 1991: 182)

3. RESEARCH METHODOLOGY AND RESULTS

3.1 Research instrument and sample description

Despite the previously mentioned broad consensus among authors, regarding the theory of planned behaviour as a reference theory within entrepreneurial intentions research opus, entrepreneurial intention research instruments did not receive similar attention, as authors mostly used their ad hoc instruments. Linan and Chen (2009: 612) recognised this gap and offered a scale developed and validated it in a multicultural environment. Since then, this instrument has been widely cited and used. This research included the statements from the original instrument, amended with different self-developed control variables, as well as some following the scales used by Dohse and Walter (2012: 889), and Kibler (2013: 308). Finally, 21 items were measured within the theory of planned behaviour variables on a seven-point Likert-type scale (from 1: “totally disagree” to 7: “totally agree”). Control variables tested in this study were: gender, age, profession, education level, household revenues, entrepreneurial environment, work experience, population density, country of origin, and participation (or intentions to participate) in student exchange programmes (Erasmus, Ceepus).

The questionnaire was prepared in English and Croatian language via LimeSurvey online tool and distributed to over 1.000 e-mail addresses of students and ex-students of University in Rijeka (three faculties) and Polytechnic of Rijeka (Croatia) and students currently on a student exchange programme. The students were contacted via student assembly representatives, Alumni and Erasmus coordinators of University and Polytechnic of Rijeka. In total, 194 responses were collected between May and July 2019. Table 1 provides demographic sample characteristics.

Table 1. Sample descriptive statistics

Characteristics	N	%	Characteristics	N	%
Sex	194		Age (years)	194	
Female	129	65,46	< 18	0	0,0
Male	65	34,54	19 - 22	73	37,6

<i>Education level</i>	194		23 - 26	51	26,3
Lower	0	0,0	27 - 30	19	9,8
High school graduate	107	55,2	31 - 40	18	9,3
Bachelor's degree	59	30,4	41 - 50	23	11,9
Master's degree or higher	28	14,4	> 50	10	5,2
<i>Your profession is (or will be) in the field of:</i>	194				
Economy/business/tourism	102			52,6	
Engineering (traffic/machinery/electrotechnical/telematics, etc.)	36			18,6	
Informatics/computing	31			16,0	
Other engineering	25			12,9	
<i>My work experience encompasses:</i>	194				
Just obligatory pupil/student internship	41			21,1	
Summer vacation jobs only	72			37,1	
Occasional jobs during study	60			30,9	
Permanent employment	99			51,0	
Temporary unemployed	19			9,8	
Other	11			5,7	
<i>Your permanent residence is in:</i>	194				
Urban (city/town) area	140			72,2	
Rural (village) area	54			27,8	
<i>About Erasmus (or Ceepus) student exchange programme:</i>	194				
I was, or I am a part of the student exchange programme	42			21,6	
I have not been, but I intend to go to the student exchange programme	43			22,2	
Definitely not planning to go to a student exchange programme	109			56,2	
<i>Your close environment involves regular contacts with:</i>	194				
Parents and/or siblings who are entrepreneurs	51			26,3	
Close relatives or friends who are entrepreneurs	84			43,3	
I do not have any entrepreneurs in my close environment	59			30,4	
<i>How would you assess your household incomes in the last few years:</i>	194				
Below-average (hardly make our ends meet)	3			1,5	
Average – enough for daily purposes and some savings	53			27,3	
Above-average – we can save, go to trips, etc.	93			47,9	
Considerably above-average – we live a luxurious life	45			23,2	

Source: Author's research

The sample included Croatian students (173 respondents) and international students from 11 EU countries (21 respondent). International students were surveyed during their Erasmus student exchange programme participation. Croatian students displayed a noticeable interest in student

exchange programmes, as almost half of the respondents (43,8 %), declared that they 'were', 'are', or 'will' benefit from these programmes.

3.2 The reliability test

The Cronbach alpha coefficients were calculated in order to verify the reliability of the measurement scales. Table 2 contains a summary of the results.

Table 2. Cronbach alpha coefficient values

Variable (concept)	No. of items	Cronbach α coefficient
Personal Attitudes towards Entrepreneurship	5	0,93
Subjective Norm	3	0,83
Entrepreneurial Ability	6	0,92
Entrepreneurial Intentions	7	0,93
Total instrument	21	0,95

Source: Authors' research

The reliability analysis shows that the value of the Cronbach alpha coefficient varies between 0.83 and 0.93 for each concept in the measurement instrument. All coefficients are within the referential limits of reliability. The coefficient of reliability for the total measurement instrument is 0.95, which indicate a high level of internal stability and instrument consistency.

4. RESEARCH RESULTS

For the analysis of the collected empirical data, methods of descriptive and inferential statistics were used, and the statistical tool GNU PSPP Statistical Analysis Software (Release 0.9.0-g3a3d58, version 2014). Collected data were first analysed with t-test for independent samples and ANOVA in order to compare the results regarding control variables. Tables 3 and 4 contain only statistically significant differences between the concept results based on background factors (control variables) within the theory of planned behaviour.

Table 3. Statistically significant differences regarding individual factors

Age groups:	Young < 27 (N = 124)		Middle ≥ 27 ≤ 39 N=37)		Older > 39 (N = 33)		F	Sig.
	A. M.	Std. Dev.	A. M.	Std. Dev.	A. M.	Std. Dev.		
Subjective Norm	5,84	1,12	5,39	1,42	5,31	1,62	3,23	0,042*
Family background:	Parents, brothers / sisters are entrepreneurs (N=51)		Close relatives or friends are entrepreneurs (N=84)		No entrepreneurs in close environment (N=59)		F	Sig.
	A. M.	Std. Dev.	A. M.	Std. Dev.	A. M.	Std. Dev.		
Entrepreneurial Ability	4,39	1,36	4,71	1,41	3,68	1,51	9,26	0,000**
Entrepreneurial Intentions	4,08	1,93	4,52	1,65	3,49	1,55	6,35	0,002**
Household revenues:	Below-average and sufficient (N = 56)		Average and above-average (N = 138)		t	Sig.		
	A. M.	Std. Dev.	A. M.	Std. Dev.				
Entrepreneurial Ability	3,87	1,42	4,49	1,48	2,67	0,008**		
Present or future profession:	Economy/business/tourism (N = 102)		Engineers, IT and others (N = 92)		t	Sig.		
	A. M.	Std. Dev.	A. M.	Std. Dev.				
Personal Attitudes towards Entrepreneurship	5,24	1,48	4,70	1,53	- 2,53	0,012**		
Entrepreneurial Ability	4,54	1,38	4,06	1,56	- 2,29	0,023**		
Entrepreneurial Intentions	4,36	1,72	3,79	1,73	- 2,31	0,022**		

Notes: A. M. = arithmetic mean; Std. Dev. = standard deviation; Sig. = significance; **significance level at 0.01; *significance level at 0.05

Source: Author's research

The results of the analysis pointed out the most statistically significant differences ($p < 0,01$) in entrepreneurial abilities (perceived behaviour control) variable, followed by entrepreneurial intentions and subjective norm. The respondents in economy/business/tourism profession declared a higher level of entrepreneurial abilities (and entrepreneurial intentions), as well as those with average and above-average household revenues and entrepreneurs among close relatives or friends. The analysis of the subjective norm concept (i.e. the expected reactions to the decision to start a business from the people in the proximity) showed that younger respondents expect better (positive) reactions than the older age groups.

Table 4. Statistically significant differences regarding specific factors

Country of origin:	Croatia (N=173)		Others (N = 21)				t	Sig.
	A. M.	Std. Dev.	A. M.	Std. Dev.	A. M.	Std. Dev.		
Entrepreneurial Ability	4,37	1,47	3,29		1,41		- 2,38	0,018**
<i>Student exchange programmes (Erasmus, Ceepus):</i>	Was or is a part of the programme (N=42)		Was not, but intend to go (N=43)		Definitely will not go (N=109)		F	Sig.
Concept	A. M.	Std. Dev.	A. M.	Std. Dev.	A. M.	Std. Dev.		
Subjective Norm	5,80	1,28	6,08	0,91	5,44	1,39	4,15	0,017**

Notes: A.M. = arithmetic mean; Std. Dev. = standard deviation; Sig. = significance; **significance level at 0.01; *significance level at 0.05

Source: Author's research

The results indicate that Croatian respondents evaluate their entrepreneurial abilities as average (4,37 on 1-7 scale), but higher than their international counterparts (3,29) from 11 EU countries (involved in the student exchange programme, during the survey). The same conclusion about more positive reactions about starting a business, valid for those who 'have not been, but intend to go to student exchange', followed by those who 'were or currently are at the student exchange programme.' The correlation analysis was performed for further analysis of the control variables impact (results in table 5).

Hypothesis H1, H2 and H3 assume that favourable personal attitudes towards entrepreneurship, subjective norms and entrepreneurial abilities have a direct, positive and statistically significant impact on entrepreneurial intentions. A correlation and multiple regression analysis were performed for examining the hypotheses. Table 5. exhibits results of Pearson correlation analysis of variables with statistically significant differences according to control variables.

Table 5. Correlation analysis of analysed variables (abbreviated form)

Variable (concept)	Pearson coeff.	Significance (2-tail)
H1: PAE ↔ EI	0,68	0,000**
H1: PAE ↔ EI Economy/business/tourism professions	0,64	0,000**
H1: PAE ↔EI Other professions	0,70	0,000**
H2: SN ↔ EI	0,30	0,000**
H2: SN ↔ EI Young < 27 years	0,31	0,000**
H2: SN ↔EI Middle ≥ 27 ≤ 39 years	0,26	0,027*
H2: SN ↔ EI Older > 40 years	0,34	0,182
H2: SN ↔ EI Was or are a part of the student exchange programme	0,19	0,225
H2: SN ↔ EI Was not, but intend to go to the student exchange programme	0,29	0,063
H2: SN ↔ EI Definitely will not go to the student exchange programme	0,33	0,001**
H3: EA ↔ EI	0,70	0,000**
H3: EA ↔ EI Parents or brothers/sisters are entrepreneurs	0,68	0,000**
H3: EA ↔ EI Close relatives or friends are entrepreneurs	0,64	0,000**
H3: EA ↔ EI No entrepreneurs in a close environment	0,73	0,000**
H3: EA ↔ EI Economy/business/tourism professions	0,63	0,000**
H3: EA ↔ EI Other professions	0,74	0,000**
H3: EA ↔ EI Below-average and sufficient household revenues	0,65	0,000**
H3: EA ↔ EI Average and above-average household revenues	0,70	0,000**
H3: EA ↔ EI Croatian	0,71	0,000**
H3: EA ↔ EI Other countries	0,62	0,043*

Legend: PAE = Personal Attitudes towards Entrepreneurship; SN = Subjective Norm; EA = Entrepreneurial Ability (perceived behavioural control); EI = Entrepreneurial Intentions; ** - significant correlation on level 0.01; * - significant correlation on level 0.05

Source: Authors' research

The results indicate positive and statistically significant correlation, between all three predictors (personal attitudes towards entrepreneurship, subjective norm and entrepreneurial ability) and entrepreneurial intentions as a dependent variable. Meanwhile, the intensity of the correlations differs from weak ($r = 0.30$, $p < 0.01$) between subjective norm and entrepreneurial intentions, medium correlation ($r = 0.68$, $p < 0.01$) between personal attitudes towards entrepreneurship and entrepreneurial intentions and high correlations ($r = 0.70$, $p < 0.01$) between entrepreneurial abilities and entrepreneurial intentions. These results entirely support the hypotheses H1, H2 and H3.

The correlation analysis regarding background factors (hypotheses 4) was performed for the individual and specific factors with statistically significant differences of results (as displayed in Tables 3 and 4). The correlation results proved the statistically significant relationships between the personal attitudes towards entrepreneurship and entrepreneurial ability of both professional groups (at $p < 0.01$) and entrepreneurial intentions as a dependent variable. A similar (medium to high) level of correlation was found between the entrepreneurial ability of respondents regarding three types of contacts with their close (entrepreneurial) environment, different groups of the profession, household revenues, country of origin, and the entrepreneurial intentions. Dohse and Walter (2011: 889), analysed the sample of 1.816 students in Germany and also found a positive impact of entrepreneurs among family, relatives, or friends, but with a very weak level of the regression coefficients (0.09 to 0.10 depending on the model, at $p < 0.001$).

The respondents below 27 years of age and those who will not go to the student exchange programmes, displayed a statistically significant (weak) level of correlation between subjective norm and entrepreneurial intentions (at $p < 0.01$). The relationships between subjective norm and the dependent variable of other age groups and groups who were (are), or plan to go to student exchange programmes, were positive, but statistically non-significant. For comparison, Schlaegel and Koenig (2014: 307) meta-analysis found 11 studies which tested age impact on the components of the theory of planned behaviour. The results of the correlations displayed very weak relations varying from 0.05 (age-entrepreneurial intent) to -0.05 (age-subjective norm). Hatak et al. (2014: 44) analysed the sample of 766 respondents in Austria and found that age has a negative impact (-0.054, $p < 0.01$) on entrepreneurial intentions, i.e. older respondents are less likely to start the business.

These results partly support the hypotheses H4, i.e. confirm that there is a significant difference in correlations between all predictors of entrepreneurial intentions regarding six (out of ten) control variables: age, profession, household income, family background, country of origin and participation in student exchange programmes.

Other control variables displayed non-significant differences in predictor values which is comparable to (inconsistent) results of the previous studies. For instance, Haus et al. (2013: 145), gender meta-analysis of 30 studies with an overall sample size of 52.367 individuals, revealed very weak but significant negative relationships between gender and attitude (-0.06), subjective norm (-0.09) and perceived behavioural control (-0.08 at $p < 0.01$). The similar (very weak) correlation coefficient level was found for gender impact in Schlaegel and Koenig (2014: 307) meta-analysis of 19 studies. These negative relationships imply that women express lower attitudes, subjective norms, and perceptions of control toward starting a business. The same conclusion was drawn from Bhandari's (2012: 138) research on the sample of US students (390 respondents). This study found a non-significant gender influence. Furthermore, Dohse and Walter (2011: 889) established very weak, non-significant differences for population density parameter ($\beta = 0.06$) and work experience ($\beta = 0.01$), while Kibler (2013: 303) found the negative, very weak impact of population density ($r = -0.07$, $p < 0.05$) and positive, very weak correlation of work experience and entrepreneurial intention (0.09, $p < 0.05$). Finally, a meta-analysis conducted by Steinmetz et al. (2016: 224) found positive, weak correlation regarding higher education level (average $\beta = 0.23$).

In order to determine the intensity of the correlations between predictors and the dependent variable, multiple regression analysis was conducted. The sample contains 194 informants, which meets the recommended criterion of 100 informants in the sample and the criterion of the least proposed ratio of 5:1 between the number of elements in the sample and the number of independent variables (Hair et al. 2010, 175-176). In the specific case, the ratio is 194:1 (194 informants and one variable). A distribution normality analysis was conducted in order to verify the representativeness requirement of the multiple regression analysis results (Table 6).

Table 6. Verification of distribution normality of variables in the regression model

Variable (concepts)	A.M.	Std. Dev.	Skewness	Kurtosis
Personal Attitudes towards Entrepreneurship	4,98	1,52	- 0,77	- 0,10
Subjective Norm	5,66	1,29	- 0,96	0,87
Entrepreneurial Ability	4,31	1,49	- 0,26	- 0,69
Entrepreneurial Intentions	4,09	1,75	- 0,24	- 0,98

Legend: A.M. = arithmetic mean; Std. Dev. = standard deviation

Source: Authors' research

A negative skewness of all variables was detected, but all skewness coefficients are within the acceptable referential limits for normal distribution. Table 7 indicate correlations coefficients in the regression model.

Table 7. Correlation coefficients in the regression model (model summary)

R	R ²	Adjusted R ²	Standard error of the estimate
0.79	0.63	0.62	1.07

Source: Authors' research

The multiple correlation coefficient R (0.79), implies that there is a high (strong) correlation between three independent variables and dependent variable. According to the determination coefficient ($R^2 = 0.63$), the model variables share 63% of common factors. It means that 63% of the variance (information) of entrepreneurial intentions may be predicted (explained) with personal attitudes towards entrepreneurship, subjective norm and entrepreneurial ability variables. Adjusted R^2 provides an insight into how well the regression model can be generalised. In this case, the adjusted R^2 is 0.62, which is very close to R^2 , so the model derived from the population instead of the sample, account for 2.5% lower variance of the dependent variable. The standard error of the estimate implies that the limit of error for any value of the dependent variable could be estimated within the interval of ± 2.14 . The analysis of the variance was performed in order to examine the prediction capability of the regression model. The results are given in Table 8.

Table 8. Analysis of variance for the regression model (ANOVA)

	Sum of squares	Degrees of freedom	Mean square	F	Significance
Regression	370,64	3	123,55	107,62	0,000
Residual	218,11	190	1,15		
Total	588,76	193			

Source: Authors' research

The analysis of variance determined statistically significant results, $F(3, 190) = 107.62$ (at $p < 0.01$). It means that these independent variables can considerably predict the dependent variable, i.e., that personal attitudes towards entrepreneurship, subjective norm and entrepreneurial ability variables can successfully account for the entrepreneurial intentions. Table 9 displays the regression coefficients and their significance in the regression model.

Table 9. Regression coefficients in the regression model

Variables (concepts)	Non-standardised coefficients		Standardised coefficients	t	Significance
	B	Standard error	β		
(Constant)	-0,66	0,38	0,00	-1,75	0,082
Personal Attitudes towards Entrepreneurship	0,52	0,06	0,45	8,01	0,000*
Subjective Norm	-0,04	0,07	-0,03	-0,63	0,532
Entrepreneurial Ability	0,56	0,06	0,48	9,28	0,000*

Source: Authors' research

According to the results presented in Table 9 (B coefficients), the increase of the results on the personal attitudes towards entrepreneurship scale by one point is associated with the average increase of results on the scale of entrepreneurial intentions by 0.52 point and entrepreneurial ability by 0.56 point. At the same time, the subjective norm indicates statistically non-significant results. These outcomes are comparable with B values from Pejić Bach et al. (2018: 1465) research of the sample of Slovenian students, which displayed similar order of the impact intensity of the variables (i.e. attitudes, perceived behavioural control and subjective norm). The obtained lower values of the regression coefficient's standard error indicate a more reliable assessment of the extent to which the regression coefficient would change if it were calculated for different samples from the same population and more specific reliability intervals (Hair et al. 2010, 212). The values of t-test (Table 9) imply that personal attitudes towards entrepreneurship and entrepreneurial ability variables significantly ($p < 0.01$) contribute to entrepreneurial intentions.

Furthermore, the values of β coefficients show a proportional significance of independent variables in the regression model. The value of β for the personal attitudes towards entrepreneurship variable

is 0.45 and for entrepreneurial ability 0.48, which means that they have a substantial influence on the entrepreneurial intentions. The results *additionally confirm the hypotheses H1 and H3*, i.e., determine the extent to which these variables directly, positively and significantly influence the entrepreneurial intentions of the respondents. However, the regression analysis results did *not confirm* the correlation between *subjective norm and entrepreneurial intentions (H2)*.

5. DISCUSSION AND CONCLUSION

5.1 Concluding remarks

Theory of planned behaviour is considered to have a good reputation and robust power for predicting entrepreneurial intentions in different contexts. The results of this study contributed to these considerations especially about the explanation power, as 63% of explained variance in this study, is comparable to the Linan and Fayolle meta-analysis (2015: 916), who found that same three predictors explain from 40% to 60% of the variance in entrepreneurial intentions, while Armitage and Conner, meta-analysis (2001: 481), found 39 % of explanation power, on average. Regarding the components of the model of the theory of planned behaviour, the results are comparable to previous studies. For instance, Schlaegel and Koenig (2014: 305), and Steinmetz et al. (2016: 223) meta-analyses found similar relative results between subjective norm and entrepreneurial intentions as the relationship with the lowest average corrected correlation coefficients of 0.36 and 0.25, respectively (0.30 in this study). Rajh et al. (2016: 16) found the lowest result of regression analysis ($\beta = 0.05$ at $p < 0.01$) for the same relationship and the similar geographical region. Schlaegel and Koenig (2014: 305), also found that perceived behavioural control – entrepreneurial intentions, relationship have the highest correlation result of 0.53 as in this study ($r = 0.70$), and the medium level of correlation of 0.43 (0.68 in this study) for the personal attitudes toward behaviour and entrepreneurial intentions relation. The outcomes of this study corroborate that the theory of planned behaviour with three antecedents could be seen as a good predictor on one's entrepreneurial intention.

Furthermore, this study confirmed the reliability and applicability of the Linan and Chen (2009: 612-613) entrepreneurial intentions questionnaire. It also brought additional empirical evidence to prior observations about the impact of background factors (control variables), such as age, gender, household income, geographical and professional differences. The research in this area is rather scant, apart from gender which is probably the most frequent single research topic (for instance, see meta-analyses Linan and Fayolle, 2015: 917 and Schlaegel and Koenig, 2014: 307). The results of these studies are often inconsistent, so additional testing is welcomed. The study revealed a novelty regarding the influence of the participation (or non-participation) in student exchange programmes, which were found statistically significant.

These outcomes contribute to the evidence base for evaluating present and designing future incentive policies toward entrepreneurial behaviour development, particularly for the extending and utilisation boost of the student exchange programmes. This issue is of crucial importance for net labour exporting countries (like Croatia), as it enables students to acquire indispensable transversal and entrepreneurial skills. These results might become even more useful as could

induce the actions on the micro-level, directly from the higher education institutions, without waiting for the massive bureaucratic system to move.

5.2 Research limitations and areas for future research

Several limitations should be stressed out. First, the research is based on self-reported data retrieved from respondents via questionnaire, so they represent individual perceptions, not actual abilities or behaviours. In order to avoid this kind of subjectivity about real entrepreneurial intentions, objective data (from statistical sources) could be gathered, and/or compared with existing sources like GEM results (especially in the context of the country of origin effect). Otherwise, longitudinal studies of entrepreneurial intentions and actual behaviours might provide better results.

Second, the international part of the sample is insufficient to draw valid conclusions or comparisons between Croatian and international respondents. Although the Croatian part of the sample, was retrieved from one university and one polytechnic, it might be considered as a solid research base, especially regarding the usual large percentage of students originating outside the local/regional area. Third, the research goals did not cover the alternative relationships amid variables. For instance, the influence of subjective norm onto personal attitudes towards entrepreneurship and entrepreneurial abilities (perceived behavioural control), as suggested by Linan and Chen (2009: 597).

In order to offer additional empirical evidence, further research of this topic should include other control variables like entrepreneurial education impact, especially outside the economy/business type of studies. Moreover, the concept of the entrepreneurial intention should be extended to capture the holistic understanding of entrepreneurship, i.e. to investigate corporate, social, academic, and family entrepreneurship intentions (as recommended by Fayolle and Linan, 2014: 664).

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ODREDNICE PODUZETNIČKIH NAMJERA: EMPIRIJSKI DOKAZI IZ HRVATSKE PERSPEKTIVE

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SAŽETAK

Rastući opus literature zastupa da poduzetničke namjere imaju krucijalnu ulogu u oblikovanju poduzetničkog ponašanja, kao i u procesu donošenja odluka o postajanju poduzetnikom. Podupiranje poduzetničkog i inovacijama orijentiranog načina razmišljanja, prvenstveno među mladima, može biti ključno za uspješan ekonomski i društveni razvoj. Otkrivanje pravih razloga koji potiču mlade, posebno studente da postanu poduzetnici, potencijalno čini vrijedan input različitim donositeljima politika i problem istraživan u ovom radu. Osobni stavovi, subjektivne norme i percipirana kontrola ponašanja predstavljaju motivacijske pretpostavke koje utječu na poduzetničke namjere i iscrpno se istražuju unutar teorije planiranog ponašanja koju je razvio Ajzen (1991). Primjenjivost Ajzenovog modela za predviđanje glavnih pretpostavki poduzetničkih namjera, ovom je studijom uspješno testirano na uzorku studenata sa ili bez iskustva studiranja u inozemstvu, kao i razlike nastale zbog utjecaja brojnih pozadinskih čimbenika (individualnih i društvenih). Rezultati korelacijske i regresijske analize pokazali su da osobni stavovi prema poduzetništvu i poduzetničke sposobnosti predstavljaju najutjecajnije komponente modela teorije planiranog ponašanja, dok subjektivne norme imaju skromniju ulogu. Statistički značajne razlike zabilježene su kod analize šest provjerenih pozadinskih čimbenika kontrolnih varijabli (dob, poduzetničko obiteljsko porijeklo, prihodi kućanstava, zanimanje, država porijekla ispitanika i programi razmjene studenata). Ovi rezultati su potvrdili zaključke brojnih prethodnih istraživanja Ajzenovog modela i dali nove empirijske dokaze o studiranju u inozemstvu koji značajno utječe na prediktore poduzetničkih namjera među studentima što potencijalno zaslužuje dodatne poticaje nositelja politika i visokoškolskih institucija.

Ključne riječi: poduzetničke namjere, teorija planiranog ponašanja, pozadinski čimbenici

