GRADUATE STUDENTS’ OPINIONS ABOUT ENTREPRENEURSHIP AS AN EMPLOYMENT OPPORTUNITY

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Abstract: One of the most unwanted and unavoidable consequences of the economic recession is the high rate of unemployment. Graduate students in Croatia are faced with lack of employment possibilities, and for some of them the self-employment looks like a good solution. In this paper, we investigate attitudes and intentions of graduate students at the University of Zagreb Faculty of Agriculture regarding to self-employment. Most of the surveyed students are in the age between 21 and 25 years, and they have already got some kind of knowledge about entrepreneurship during the formal education. In addition, majority of them have the experience of part-time jobs. The Theory of Planned Behaviour (TPB) model was used to find out to which extent students’ attitudes and experience influence their expressed self-employment intentions. The results revealed that Zagreb students’ scores are close but somewhat lower than the same scores found in the comparable study from Australia. This goes for the investigated variables: (1) previous entrepreneurial experience (PEE), perceived desirability of self-employment (PDSE), perceived entrepreneurial self-efficacy (PESE) and self-employment intentions (SEI). It was found that the score on the PEE is significantly related to scores on the PDSE (p=0.000), and PESE (p=0.000), which means that the experience positively influence respondents’ attitudes on self-employment and self-efficacy. There is also a statistically significant difference in the on the SEI with respect to the PDSE (ANOVA F= 9.804, p=0.000): respondents that consider self-employment more desirable expressed higher intention to perform it. The PDSE was found as the most influencing model variable in regards to the self-employment intention. The results points out the importance of previous experience, role models and positive attitudes towards self-employment in the process of the entrepreneurship development in young, educated population.

Keywords: entrepreneurship, self-employment, students, theory of planned behaviour

1. Introduction

In the conclusions from May 2014, the Council of the European Union clearly states that the youth unemployment has the strong negative impact on society while entrepreneurship based on creativity and innovation of young generation steer the economic growth. The entrepreneurship offers self-employment possibility and therefore, it helps fighting the low rate of employment in youth. (Council of the EU 2014, 18, 19).

The Eurobarometer Survey showed a higher preference for entrepreneurship among young people. Although 37% of the interviewed young people prefer self-employment to employment in others, 58% of them have never thought about starting the own business. Compared to the USA, more young Europeans believe they do not have necessary entrepreneurial skills and they are more afraid of failure in business. It is sure that positive social climate is necessary to stimulate the self-employment together with supportive economic conditions. It is the official opinion of the Council of the European Union that entrepreneurship skills and attitudes develop through formal, non-formal and informal education. They must be stimulated since the early age.

It seems that the EU is missing people with readiness to start new businesses, and the growth of new enterprises is rather slow. The number of self-employed with employees dropped for -7% in the period 2008-2011. The rapidly growing new companies (i.e. gazelles) with 10 or more employees account for about 0.58% of employment in the population of active enterprises in the EU. (Council of the EU 2014, 19)

According to the Eurobarometer survey on entrepreneurship, propensity to self-employment in the EU is 49%, which is lower than in the USA (55%) and China (71%) (Stawińska 2012). In the same time the image of entrepreneurs is also the lowest in the EU, and especially in the Eastern and Central Europe Countries.

In his paper about entrepreneurship determinants, Schmiemann (2012) states that entrepreneurship is the creation of economic activity based on the blend of an individual risk taking, creativity, and need for achievement or reward. It is the process which can induce macroeconomic changes in the form of higher employment.

There are examples of successful operation on the development of entrepreneurship in the local community. In Söderhamn, Sweden, the city authorities decided to take active role in the development of entrepreneurial attitude of the community. It is significant that the action included changes...
in the whole system of formal education: from pre-school to higher education. The authorities accepted the interpretation that entrepreneurial skills and attitudes need to be nourished throughout the education process to yield the start of the business venture (Högberg 2012).

Delmar and Davidsson (2000) in their survey of start-ups found out that 2% of the interviewees try to start their own business in Norway. It is less than in the USA and Sweden. They also confirmed that role models, working experience, age and education influence inclination towards self-employment. Self-employed persons have significantly higher education and management experience.

In the 2009 labour survey in the United Kingdom (Dawson et al. 2009) were looking for key motivational factors of self-employment. They found out that the most important motivational dimensions for entrepreneurship are business opportunity, type of occupation, propensity to the specific lifestyle, necessity for balancing of private life and business, available resources, and supportive environment. However, they also found that opportunity driven self-employment is more inherent to people with higher education.

Social scientists, psychologists and economists have been looking for the most acceptable explanation of entrepreneurship or self-employment behaviour. Beside the abovementioned results, different theoretical behavioural models were developed to explain how and why the entrepreneurial behaviour is expressed. Most of the models are based on cognitive theories which have been widely used in research of connection between human attitudes, norms, intentions and behaviour. (Kolveroid and Isaksen 2006, McStay 2008).

According to Kolveroid and Isaksen (2006), the intention to be self-employed is a necessary prerequisite to the actual self-employment behaviour. They found that most of new business founders used to have strong intentions to become self-employed before starting own businesses. However, it is necessary for an individual to consider self-employment as desirable before his or her self-employment intention will be formed. (Shapero and Sokol 1982).

Young population, especially students, have been given a special attention in such surveys since they will have to play an important role in the future business development. In most of the works done so far, students express positive attitudes, high level of perceived self-efficacy and positive intentions in regards to self-employment. However, their fear of unknown, lack of ideas and skills prevent them to practice it at higher rate (Tretten 2005). Tretten also stated that the intention is highly related to the positive attitudes about the self-employment. More than one third of the students sample in his research stated that they are interested in starting their own business. Regarding to the gender differences, male students expressed higher level of interest. He also found out that someone’s perceived and expressed self-efficacy is influenced by examples from nearby social groups (family, friends).

Kumara (2012) also accepted the Ajzens Theory of planned behaviour (TPB) in the examination of undergraduates’ intentions towards entrepreneurship. Yet, he determined only a modest connection between students’ attitudes and self-employment intentions. There has been found no difference in the attitudes towards self-employment across gender, but the difference in the entrepreneurship intentions has been found.

In the research conducted in 2011/2012, Majagoro and Mgabo (2012) surveyed 302 students to measure relations between self-employment experience (personal or through role models), attitudes and intentions. Parental influence and risk taking propensity have been found as the most influential variables. More positive attitudes towards self-employment were found with students from entrepreneurial families as well as students that were exposed to some form of the entrepreneurship education. It is interesting that female students showed higher interest in self-employment than their male colleagues.

As stated by McStay (2008), “the intention to be self-employed is a necessary antecedent to the actual behaviour of choosing self-employment as a career option”. In that sense, new business founders are found to have intentions to become self-employed very much connected with the subsequent behaviour. She also stressed out that stated intention could serve as a good basis in predicting of person’s behaviour, while personal attitudes or cognitions are the primary explanatory mechanism for the formation of intention.

An attitude is a mental state of readiness that influence the individual’s respond to objects and situations related to him or her. In this way, attitudes are used to predict human intentions and behaviour, where persons with positive attitude towards particular behaviour are expected to have higher probability to perform it. (Tretten 2005)

Attitudes towards entrepreneurship are also considered as related to origin of an individual. Bauder (2005) found that urban or rural background is a good predictor of entrepreneurial attitudes, while regional origin, ethnic origin, and classes of immigrants to Canada are weakly linked with attitudes towards entrepreneurship.

Each individual has a certain level of faith in his or her abilities to perform successfully. We can take the level of faith as a perceived self-efficacy, and it has been found that this personal perception of self-ability increases the likelihood of positive attitude, then intention and finally the consequent behaviour (Gardner and Pierce 1998; Ajzen 1991).

In this paper we use the TPB model to examine how students’ intentions are interconnected with their attitudes towards self-employment and self-efficacy. Individual’s intentions show the willingness to perform a particular behaviour, and are determined by person’s attitudes and norms. Since attitudes can change under the influence of social groups and norms, we have extended our research with the variable of previous entrepreneurial experience, as proposed by McStay (2008).

The objectives of the research were:
1. To evaluate the interrelationship between students’ entrepreneurial and work experience, and:
   - Their perceptions of entrepreneurial self-efficacy and attractiveness of self-employment,
   - Their self-employment intentions.
2. Assess the impact of experience on attractiveness of self-employment among the students.
3. To assess the extent to which students’ perceived de-
irability of self-employment and entrepreneurial self-efficacy influence their self-employment intentions.

4. To investigate if local students achieve results equivalent to those of comparable studies conducted in different parts of the world.

Based on the objectives, the following research hypotheses where tested in the paper:

1. Students’ previous entrepreneurial experience is positively correlated with perceived entrepreneurial self-efficacy, and the attitude toward self-employment;
2. There is no significant differences between male and female students in regards to their attitudes towards self-employment, perceived self-efficacy and self-employment intentions;
3. Students with more positive attitude towards self-employment express the intention to become self-employed to a greater extent.

2. Materials and Methods

Same as in the McStay’s study (2008), three cognition-based theories were used in constructing of the used model. All three theories are interconnected for the purpose of the model since they try to explain and predict individuals’ intentions based on his or her perceptions or cognitions:

– Shapero’s Entrepreneurial Event (SEE) (Shapero and Sokol 1982),
– The Theory of Planned Behaviour (TPB) (Ajzen 1991) and
– Social Cognitive Theory (SCT) (Bandura 1986).

However, probably the most often used model so far is the model based solely on the Ajzen’s TPB.

Many researchers have used the TPB to measure attitudinal, intentional and behavioural constructs in the entrepreneurship. The intentions models of Shapero and Sokol, and Ajzen, with additional variables included to those used in this research, have been implemented in several studies dealing with the antecedents to entrepreneurial intention.

In this combined intentions model, the perceived behavioural control variable (TPB model) and perceptions of feasibility variable (SEE model) were replaced by perceived entrepreneurial self-efficacy variable. This replacement is supported by results of Armitage and Conner work. They actually confirmed that self-efficacy is more succinctly defined and more strongly correlated with intention than perceived behavioural control, and that perceived feasibility of self-employment and perceived entrepreneurial self-efficacy are highly correlated (Armitage and Connor 2001, McStay 2008).

The model and its variables that were measured in the research, as well as their interconnections, are indicated in the Figure 1.

The previous entrepreneurial experience is the exogenous variable, while perceived desirability of self-employment, perceived entrepreneurial self-efficacy, and self-employment intentions are endogenous variable.

The survey was conducted in academic year 2014/2015 on the University of Zagreb Faculty of Agriculture. In total 227 students out of 2300 at bachelor and master study levels were surveyed. The used questionnaire consisted of five parts, namely:

1. 7 dichotomous questions used to determine students’ entrepreneurial experience
2. 4-items Likert scale for the assessment of the perceived entrepreneurial self-efficacy
3. 14-items Likert scale for the assessment of the perceived desirability of self-employment
4. 8-items Likert scale for the assessment of the self-employment intention
5. Questions about demographic and social status of respondents.

The entrepreneurial experience was measured on the two levels scale: high or low. Respondents could achieve 1 or 0 points per each of 7 questions, depending on whether the answer was “yes” or “no”. The maximum achievable result or sum was, consequently, 7. The respondents with the sum of 5 or above are those with high previous entrepreneurial experience, while others are with low experience level.

All three Likert scales were constructed in the same manner giving interviewees chance to express their level of agreement with the statements offered on the five point scale from 1 to 5. In all cases 1 meant “fully disagree”, and 5 “totally agree”. For all three variables determined by using Likert scales the score was calculated as the average of the scores on all items. This way the scores were obtained namely for: (1) the perceived entrepreneurial self-efficacy (PESE), (2) the perceived desirability of self-employment (PDSE), and (3) the self-employment intention (SEI).

To achieve the goals of the research, the collected data were analysed by using descriptive statistics indicators. Differences in scores on PESE, PDSE and SEI with respect to gender were tested using t-test for independent samples (2-tailed). The same test was used to check differences in scores on PESE and PDSE with respect to the previous entrepreneurial experience (PEE). The one-way ANOVA was used to estimate the relationship between the intention of self-employment as the dependent variable, and entrepreneurial experience and

Figure 1. The adjusted entrepreneurial intentions model
Source: Authors’ drawing according to McStay 2008.
attitudes of respondents as independent variables.

The multivariate GLM or multiple linear regression was applied to build the quantitative model for prediction of self-employment intentions. The mathematical expression of the regression model used is:

\[ SEI_i = \beta_0 + \beta_1PEE_i + \beta_2PESE_i + \beta_3PDSE_i + \epsilon_i \]  \hspace{1cm} (1)

where:
SEI is the score for self-employment intention
PEE is the score on previous entrepreneurial experience
PESE is the score on perceived entrepreneurial self-efficacy and PDSE is the score on the perceived desirability of self-employment.

3. Results and Discussion

There are nine three-year undergraduate and thirteen two-year graduate study programmes with about 2,300 students at the University of Zagreb Faculty of Agriculture. Female students are prevailing since they make, depending on the year, about 60% of the total number (UZFA 2015). The study included 227 students majority of which were also feminine (63.4%). Given that the surveyed students come from undergraduate and graduate programmes, the age of the participants varies from 21 to 36 years. It should be noted that the average age was 23, and that 93.3% of the respondents are in the range of 21 to 25 years. Only seven of them, or 3.1%, are older than 26 years. Surveyed students in the vast majority are not married, but still 50.7% of them live in some kind of relationship. Further, 47.6% of respondents are single, while only 17% are married or in extramarital community.

The surveyed students in most have available the monthly budget of up to HRK 3,000: 40% has the budget of up to HRK 1,000, and 47% between 1,000 to 3,000 HRK (1 EUR≈7.65 HRK). Additional 12% of respondents have available 3,000 to 5,000 HRK, and only two respondents have the monthly budget of more than 5,000 HRK. Available funds come either from the family or from their own, mostly part-time, working engagements. Hence, the majority of surveyed students occasionally perform work for pay (52.4%). The others are equally divided between those who are not working (25.3%) and those who work for pay regularly (21.8%).

Almost 4/5 of interviewed students regularly or occasionally work for pay. However, very few of those perform the work in the business ran by himself/herself or the family. In addition, as shown by the scale on variable previous entrepreneurial experience (PEE), a small number of respondents have met with entrepreneurship directly or through role models. On the scale from 1 to 7, the respondents have scored 3.43 in average (st. dev.=1.88), which is less than in the similar study conducted at an Australian university (mean=4.28, st.dev.=2.086) (McStay 2008). A little less than ¾ of respondents (73.6%) achieved Low score for PEE (between 1 and 4 points), which means that they do not have experience with entrepreneurship, both personally and in the immediate social groups. The rest achieved High score for PEE (5-7 points), meaning they have had entrepreneurial experience. PEE variable in the study was treated as an exogenous factor that is expected to have an effect on the intention of self-employment.

As mentioned above, many authors highlight the importance of perceived attractiveness or desirability of an activity for an individual in creating intention to undertake the activity. McStay (2008) developed the Likert scale to measure the desirability of self-employment, and found that the students see self-employment as relatively desirable, since the average degree of agreement with the positive statements was 3.49 (5 was the maximum). The same Likert scale was used in this research, while the average degree of agreement by all respondents on the PDSE variable was 3.66 (st. dev.=0.8373). The score is quite similar to the McStay’s. Kumara (2012) has received an average result of 4.2, but she used a direct question about the attractiveness of self-employment instead of the Likert scale.

<table>
<thead>
<tr>
<th>Table (1): Descriptive statistics for the model variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>Missing</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Median</td>
</tr>
<tr>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Range</td>
</tr>
<tr>
<td>Minimum</td>
</tr>
<tr>
<td>Maximum</td>
</tr>
<tr>
<td>Percentiles</td>
</tr>
<tr>
<td>50</td>
</tr>
<tr>
<td>75</td>
</tr>
</tbody>
</table>

Source: Authors’ data processing output in SPSS.

Self-confidence or belief in the own ability is the trait of proactive people, of persons who tend to create a job by themselves. The perceived own entrepreneurial ability was measured by the Likert scale with 16 items, where the average degree of agreement shows what is the confidence of the respondents in their own abilities. The higher the score on the scale from 1 to 5, the respondent is more confident in self-efficacy. Respondents achieved scores in the range from 2 to 5, and the average score for all was 3.68 (St. dev. = 0.5626). In a comparable McStay’s (2008) survey the average score was 3.81, which indicates a slightly higher perception of self-efficacy with the Australian students.

The third Likert scale yielded values of the dependent variable, i.e. the variable which measures the intention of self-employment. The Likert scale has 8 statement and the
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agreement degree range of 1 to 5. The higher the number means the stronger intention to self-employment. Average degrees of agreement in respondents ranged from 1.38 to 5.00, and the overall average of the whole sample was 3.22 (St. dev.=0.7132). The result is comparable with the McStay’s (2008) work, where the participants had an average value of 3.18, and a slightly higher standard deviation (0.959).

Results of testing the differences in mean values with respect to gender showed that a statistically significant difference at a significance level of 5% exists only for the variable perceived desirability of self-employment (PDSE).

Table (2): Results of the T-test for Equality of Means*: PESE, PDSE and SEI with respect to gender

<table>
<thead>
<tr>
<th>Test variables</th>
<th>t</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>PESE</td>
<td>.021</td>
<td>.983</td>
<td>.00166</td>
</tr>
<tr>
<td>PDSE</td>
<td>2.221</td>
<td>.027</td>
<td>.25412</td>
</tr>
<tr>
<td>SEI</td>
<td>1.743</td>
<td>.083</td>
<td>.17056</td>
</tr>
</tbody>
</table>

*Equal variances assumed; 95% Confidence Interval of the Difference.
Source: Authors’ data processing output in SPSS.

It turned out that self-employment is more desirable for male than female students, and the difference in mean values is 0.254 (Sig. (2-tailed)=0.027). The magnitude of this difference is small because Eta squared is only 0.021. As for the perceived entrepreneurial self-efficacy and the self-employment intention, there is no statistically significant difference in scores between males and females. This finding partially confirmed the hypothesis about zero difference between males and females on variables PDSE, PESE and SEI.

Correlation and t-test were used to analyse relationship and mean differences in perceived desirability of self-employment and perceived self-efficacy with respect to the score on the variable previous entrepreneurial experience. Correlation coefficients indicate a weak, but positive correlation between prior experience and the desirability of self-employment (Pearson correlation = 0.265), and between experience and self-efficacy (Pearson correlation = 0.265). In both cases, the obtained correlations are statistically significant at the 12:01 level (2-tailed). This means that students with a higher value for the variable PEE have higher values on variables PDSE and PESE.

Table (3): Results of the T-test for Equality of Means*: PESE and PDSE with respect to PEE

<table>
<thead>
<tr>
<th>Test variables</th>
<th>t</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Eta squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>PESE</td>
<td>-3.964</td>
<td>0.000</td>
<td>-0.32527</td>
<td>0.065</td>
</tr>
<tr>
<td>PDSE</td>
<td>-4.121</td>
<td>0.000</td>
<td>-0.5019</td>
<td>0.070</td>
</tr>
</tbody>
</table>

*Equal variances assumed; 95% Confidence Interval of the Difference.
Source: Authors’ data processing output in SPSS.

The t-test results confirmed statistically significant differences in the mean scores on both examined variables for students with different levels of entrepreneurial experience. The mean difference for PDSE score was -0.502 (Sig. (2-tailed) = 0.000), but the magnitude of this difference is moderate (Eta squared=0.070). For the PESE variable the mean difference is also statistically significant (Sig. (2-tailed) = 0.000) with the absolute value -0.325, and the magnitude only slightly higher (Eta squared = 0.065).

Given that the attitude toward certain activity is considered a very good predictor of intention to perform the activity, we examined the relationship between scores for the perceived desirability of self-employment as an independent, and self-employment intention as dependent variable.

Table (4): One way ANOVA output for SEI as the dependent variable and PDSE as the factor

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>47.212</td>
<td>15</td>
<td>3.147</td>
<td>9.804</td>
</tr>
<tr>
<td>Within Groups</td>
<td>67.736</td>
<td>211</td>
<td>.321</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>114.948</td>
<td>226</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ data processing output in SPSS.

The results showed that there is a statistically significant difference in the self-employment intention score with respect to the perceived desirability of self-employment as determined by one-way ANOVA (F (15, 211)=9.804, p=0.000). Students who have achieved higher scores on the variable PDSE also have higher scores on the variable SEI. This confirmed the hypothesis that students who prefer self-employment as a way of finding a job will also have stronger intention to become self-employed.

Based on the results presented so far, we assumed that the positive previous experience, the desirability of self-employment and the self-confidence all together should have a positive effect on the self-employment intention. Thinking in this way, we have created a multivariate linear regression model where the score for the self-employment intention is taken as the dependent variable, while independent variables are PEE, PESE, and PDSE. Results of the regression analysis showed that the model explains about 37.5% of the variation in self-employment intentions.
The regression model also showed that the variable PDSE is the largest contributor in explaining the variation, i.e. it has the highest correlation with the dependent variable SEI (beta=0.536, Sig.=0.000).

### 4. Conclusion

Entrepreneurship and self-employment are forms of desirable behaviour we would like as much as possible to see in young people. Especially in students who are expected to be carriers of economic development in the society of the near future. The study based on the Theory of Planned Behaviour examined to which extent students at the University of Zagreb Faculty of Agriculture intend to move towards self-employment, what are their experiences and attitudes, and how they assess their entrepreneurial abilities. The conducted research reveals a number of interesting facts, and one of them is that a similar model could be applied to populations of students in very different environments, from the Australian to the Croatian.

The results indicate the importance of experience in the creation of self-employment intention, which means that previous own entrepreneurial experience, or the same experience of persons close, has a positive effect on the creation of individual's intention to start up own business. For the development of entrepreneurship is extremely important to nurture positive attitude about this phenomenon. In fact, the study results proved that students who have a more positive attitude towards entrepreneurship and are more self-confident would think about self-employment to a greater extent.

This finding is particularly important in the context of the still rather negative general attitude towards entrepreneurship in Croatia, which is a result of negative experiences in the transition period of the economy and the related questionable process of privatization of state property. Indeed, although the positive correlation was found between perceived the self-efficacy and the self-employment intention, the higher correlation coefficient was obtained for the relation between the desirability of self-employment and the self-employment intention. As for the results with the respect to gender, male students achieved higher score on desirability of self-employment. Therefore, we can expect, at least judging by the intentions, that gender balance will remain disturbed in the future since women entrepreneurs will continue to be in the minority.

### 5. References


