

ENTREPRENEURIAL INTENTIONS OF STUDENTS IN SERBIA: EVIDENCE FROM DIFFERENT FIELDS OF STUDY

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Abstract: *This paper aims to examine entrepreneurial intentions to anticipate future entrepreneurial behavior of undergraduate students enrolled in two different fields of study at the same university. Following the theory of planned behavior, empirical relationships between entrepreneurial intention and its determinants are established. The data were collected using an especially tailored survey questionnaire, while students of business economics and electrical engineering were attending their courses. Three antecedents were tested in relation to entrepreneurial intentions. Correlation analysis confirmed that attitudes toward entrepreneurship, perceived behavioral control, and subjective norms form positive and statistically significant associations with entrepreneurial intentions. However, certain differences between these two groups of students' stances related to the items that describe the determinants of entrepreneurial intentions are confirmed. This requires additional attention and remains for future research.*

Keywords: *entrepreneurship, entrepreneurial intention, students of economics and electrical engineering, Serbia.*

JEL Classification: *I25, I31, L26*

1. INTRODUCTION

This paper aims to study entrepreneurial intentions (EIs) to anticipate future entrepreneurial behavior of undergraduate students enrolled in two different fields of study at the same university. Furthermore, we are trying to argue that EIs are different from the adults and among the students themselves. In this paper, EIs of business economics students compare with the entrepreneurial intentions of electrical engineering students. Based on previous empirical findings (Lüthje and Franke, 2003; van Gelderen, et al., 2008), and theoretical constructs (Ajzen, 1991) the main objective of this paper is defined:

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- to examine the effects of three groups of EI determinants to explain why some individuals (i.e., undergraduate students) have more entrepreneurial spirits than others, and
- to explain the main differences between the two groups of students with different previous knowledge about entrepreneurship.

Following theoretical models constructed on Ajzens' theory of planned behavior (Ajzen, 1991), the empirical relationship between EIs and their determinants was established using the data collected through a tailored survey questionnaire. As the theory of planned behavior (TPB) suggests the intention is the most immediate predictor of an individual's actual behavior. Translated to the field of entrepreneurial behavior, in this paper, three antecedents of EIs are studied:

- Attitudes toward entrepreneurship,
- Perceived behavioral control,
- Subjective norms.

As explained in Ajzen's (1991) seminal paper, attitudes toward entrepreneurship reflects one's awareness of the result of concrete behavior, perceived behavioral control reflects belief or sentiment that this behavior is under one's control. In contrast, subjective norms represent beliefs about significant others who may influence one's intent to perform the behavior. According to some previous empirical studies, these three determinants explain up to 45% of the variation in EIs (see, for example, van Gelderen, et al., 2008). Besides these three core antecedents of EIs, summaries of the most studied determinants of EIs are provided, for example, in Schlaegel and Koenig (2014), Liñán and Fayolle (2015), etc.

So far, entrepreneurship has been studied from different perspectives in Serbia. One strand of recent research focuses on the institutional support to the development of entrepreneurship and entrepreneurs, with special emphasis on entrepreneurship from necessity. They include social entrepreneurship analyses and grants assessments provided through active labor market policy schemes (Obradović and Ivanović, 2021). The other strand of literature includes only a few papers on entrepreneurial values and decisions of young people (i.e., undergraduate students) to choose entrepreneurship as a professional call (Stanković, Dedjanski and Vojteški-Kljenak, 2015; Papić, Garabinović and Jovičić, 2019). Several other studies have been focused on the comparative perspective, where entrepreneurial intentions of individuals have

been explored in several countries of the region, including Serbia, Bosnia and Herzegovina, Croatia and Macedonia (Rajh, et al., 2018; Petković, et al., 2018).

This paper is organized into several sections. In the following section, a review of the most recent literature about the determinants of EIs is presented. This section focuses not only on theory but also provides empirical findings. The research methodology is presented in a separate section, followed by a discussion of the main results, while the last section provides conclusions of the paper.

2. LITERATURE REVIEW

The literature review in researching entrepreneurial intentions suggests that various sets of determinants can be those which may predict one's behavior. However, most of them rely on the TPB, claiming that intentions are a substantial predictor of planned behavior. This section will provide a comprehensive summary of recent academic literature on this topic. Entrepreneurship development has become one of the essential strategies for boosting economic growth and solving aggregated issues in the labor market (Vasić, Tancioni and Ognjenović, 2011). An increasing number of studies in post-transition economies are dealing with this topic (Turulja, et al., 2020; Turuk, Horvatinović and Sudarić, 2020; Pejić Bach, Aleksić and Merkač Skok, 2018; Rajh, et al., 2018).

Most regional studies employ the TPB as a theoretical background for empirical research. Starting with a most recent study published by Turuk, Horvatinović and Sudarić (2020), who surveyed Croatian economics students, tested the theoretical model, and the empirical results show that attitudes toward entrepreneurship and perceived behavioral control form a positive relationship with EIs. Their results also confirmed that subjective norms significantly but negatively impact EIs; gender moderates this effect. Pejić Bach, Aleksić and Merkač Skok (2018) found, on the other hand, empirical support for all the determinants of the TPB in their research. The authors conduct this research among Slovenian undergraduate and master studies students in business economics. In addition, their research confirmed that innovative cognitive style has a significant effect in creating an entrepreneurial intent.

Turulja, et al. (2020) investigated an extended set of determinants on EIs of business economics students in Bosnia and Herzegovina. Their results pointed to the positive influence of subjective norms on EIs, examined through the

support of family and close friends, while fear of failure has a negative impact on EIs. The impact of subjective norms moderates this negative association between fear of failure and EIs. They also show that entrepreneurial capacity may positively predict entrepreneurial behavior. This additionally supports the idea of the importance of entrepreneurship education, which is a predictor of entrepreneurial behavior omitted from most empirical studies (Schlaegel and Koenig, 2014).

Petković, et al. (2018) conducted an empirical research on a sample of undergraduate students in Bosnia and Herzegovina, Croatia and Serbia. They examined the differences in students' willingness to choose entrepreneurship or managerial jobs as a professional call. Students in Croatia and Serbia did not find the impact of society or cultural context as favorable for creating an entrepreneurial intent. In contrast, students in Bosnia and Herzegovina see attitudes toward entrepreneurship as an essential predictor of EIs. Rajh, et al. (2018) employ the TPB in their research which is extended by additional determinants of EIs. They surveyed undergraduate business economics students in Bosnia and Herzegovina, Croatia, Macedonia, and Serbia. They obtained somewhat different results between the countries. Three fundamental antecedents of EIs have a positive and significant influence on the entrepreneurial intent of students in Bosnia and Herzegovina, and Croatia, while Macedonian and Serbian students did not find subjective norms a considerable predictor of EIs. They did not find a significant correlation between additional contextual variables and EIs. Gender has an important but diminishing effect showing that female students are less prone to entrepreneurial behavior.

Similar findings are obtained by Shinnar, et al. (2018) on a sample of US management students. The authors find a significant relationship between antecedents and EIs as suggested by the TPB, and a moderated effect of gender. Not all empirical studies give the same results when it comes to testing the relationship between EIs and their determinants. Giacomini, et al. (2011), on the other hand, found that cultural background plays a significant role in explaining differences in EIs among American, Asian and European students. It is also an unavoidable factor to consider when creating entrepreneurship education programs, whose influence on EIs is less represented in empirical studies. Several other studies provide results for European students of business economics. On a sample of Dutch undergraduate business administration students, van Gelderen, et al. (2008) tested the TPB and show that the most important predictors of EIs are entrepreneurial alertness and financial security.

In most of recent academic literature about EIs students of business economics are examined, while, for example, students of technical faculties are less represented in similar research. Lüthje and Franke (2003) conducted their research among US engineering students and found that personality traits variables, such as attitudes toward entrepreneurship, have a significant positive relationship with EIs. While contextual variables, represented by perceived barriers and perceived support factors, have significant but diverse effects on students' EIs.

3. METHODOLOGY

To test the main research hypothesis, an empirical model is constructed. Following the theoretical construct derived from Ajzen's approach (1991), three antecedents of EIs are selected, and their association with the entrepreneurial intention is examined. Although entrepreneurial behavior had studied among different subpopulations (Bruton, Ahlstrom and Obloj, 2008), in this paper, the primary sampling units are undergraduate students, mostly of final years of studies, as, for example, in works of Lüthje and Franke (2003) and van Gelderen, et al. (2008). Sometimes this approach is considered the main limitation of the research into the behavior-intent relationship (Vuorio, Puumalainen and Fellnhofer, 2018), but, on the other hand, it may explain most of our understanding of the entrepreneurial process that begins in the educational system (Giacomin, et al., 2011).

The design of the methodology and data collection process, which is employed in this paper, was previously developed by Rajh, et al. (2018). The survey questionnaire includes several sections about the determinants of EIs and EIs themselves. The pen-and-paper personal interviews (PAPI) were conducted, while students were in their classrooms. The students of two fields of study at the University of Belgrade were selected, including those from the Faculty of Economics (FE) and the Faculty of Electrical Engineering (FEE). Thus, the survey was conducted only in Belgrade, which represents the most developed part of the country, introducing innovative study programs and attracting the most significant number of inhabitants (including students) from the rest of the country. The data were collected during the 2016/2017 schooling year, i.e., at the beginning of the summer semester at FE and the beginning of the winter semester at FEE. The data collection process was finalized within one week in both cases. The response rates were over 100% because our planned sample counted 300 undergraduate students at each of the faculties.

The realized sample includes 309 (FE) and 307 (FEE) completed questionnaires used in the data processing phase. Three groups of EI antecedents were analyzed using statistical tests to test the differences in means between the responses provided by these two groups of students. In addition, a pairwise correlation analysis is conducted to identify the magnitude and statistical significance of the associations between EIs and its determinants.

In Table 1 some descriptive statistics, including gender, age, and year of study for students from two faculties, are reported.

Table 1. Differences in personal characteristics of students

| Descriptive statistics | Study group | |
|------------------------|-----------------------|------------------------------------|
| | Students of Economics | Students of Electrical Engineering |
| Gender (in %) | | |
| Male | 23.30 | 63.84 |
| Female | 76.67 | 36.16 |
| Age (in years) | | |
| Mean | 21.63 | 21.89 |
| Std. dev. | 1.21 | 1.17 |
| Year of study (in %) | | |
| 1 st | 0.33 | 0.00 |
| 2 nd | 33.00 | 7.49 |
| 3 rd | 47.25 | 46.91 |
| 4 th | 19.42 | 45.60 |
| No. of observations | 309 | 307 |

Source: Self-administered survey.

The main difference between the two groups reflects in the gender of students. While most students of FE are young women, the opposite is true when the FEE students are observed. Female students constitute 76.67% of the sample of FE respondents, while male students make 63.84% of the FEE sample. As far as age is concerned there is no significant difference among the students. In both cases, most sampled students are those of the 3rd and 4th year of study, except for the FE sample, which includes almost one-third of students enrolled in the second year of study. This appears due to both common subjects that students attend in the same classroom or that they have already chosen their field of study, for example, major in business economics.

4. RESULTS AND DISCUSSION

This section contains the key results of the empirical analysis conducted to show whether EIs for the two groups of students can be explained by selected antecedents as suggested by the theory and tested in other empirical studies. The research hypotheses have been formulated and empirically tested to show that ‘Attitude toward entrepreneurship’, ‘Perceived behavioral control’, and ‘Subjective norm’ form a positive and statistically significant association with EIs.

Reliability of data

All responses in the survey questionnaire are measured using a 5-point Likert scale, ranging from 1-strongly disagrees to 5-strongly agree, where three means neither agree nor disagree. The number of items within a group of related questions is relatively uniform.

Table 2. Reliability statistics by an item group

| Variable content | Study group | |
|---------------------------------------|-----------------------|------------------------------------|
| | Students of Economics | Students of Electrical Engineering |
| IG1: Entrepreneurial intention | | |
| No. of items | 6 | 6 |
| Scale | 5-point Likert | 5-point Likert |
| <i>Cronbach's alpha</i> | 0.896 | 0.907 |
| IG2: Attitude toward entrepreneurship | | |
| No. of items | 4 | 4 |
| Scale | 5-point Likert | 5-point Likert |
| <i>Cronbach's alpha</i> | 0.788 | 0.815 |
| IG3: Perceived behavioral control | | |
| No. of items | 4 | 4 |
| Scale | 5-point Likert | 5-point Likert |
| <i>Cronbach's alpha</i> | 0.857 | 0.842 |
| IG4: Subjective norm | | |
| No. of items | 3 | 3 |
| Scale | 5-point Likert | 5-point Likert |
| <i>Cronbach's alpha</i> | 0.954 | 0.957 |

Source: Self-administered survey.

The *Cronbach's alpha*, i.e., the coefficient of reliability for the six items for the entrepreneurial intention's set of questions for both groups of students, is

relatively high, exhibiting the values of 0.896 and 0.907, respectively (Table 2). These values of the alpha coefficients suggest relatively high internal consistency of items for both groups of students, considering a threshold of 0.70 or higher as an acceptable measure of internal reliability.

As depicted in Table 2, the same conclusions can be drawn for all other items representing EI antecedents. In general, the items' lowest, but still acceptable, internal consistency is provided for the group 'Attitudes toward entrepreneurship' and the highest for the group 'Subjective norm'. This finding is not surprising since the alpha coefficient value increases with the increase of the average inter-item correlation, regardless of the number of items. In the former case, the number of items is four, while in the latter only three.

Testing statistical differences in EI antecedents between two groups of students

In order to examine the differences in EI antecedents between the two groups of students, we applied Welch's t-test statistics (Welch, 1938). Under the null hypotheses, the difference between the population means for the two independent samples is assumed to be equal to zero ($H_0: M_1 - M_2 = 0$). Under the assumption about unequal population variances ($\Sigma_1 \neq \Sigma_2$), appropriate test statistics is given in the form:

$$t' = \frac{\mu_1 - \mu_2 - (M_1 - M_2)}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}. \quad (1)$$

If H_0 is true (i.e., $M_1 - M_2 = 0$), the t' test statistics can be approximated by Student's t distribution. Then, the degrees of freedom are calculated according to the Welch-Satterthwaite correction formula (Welch, 1938).

Table 3 contains the results of testing the hypotheses about the differences in attitude toward entrepreneurship between business economics and electrical engineering students. This group of antecedents of EIs is represented by four explanatory factors, showing that all the items exhibit significant differences in explaining EIs. Only exception is the claim 'If I had the opportunity and resources, I'd like to start a firm' which doesn't differ between the two groups of students. In other words, both groups of students rated this question with a similar average score, 4.02 (FE) and 3.89 (FEE), so the difference of 0.127 is not statistically significant [$t=1.417$ $p=0.16$]. On a Likert scale up to 5, high average estimates exhibit a firm attitude toward the intention to create a new venture. This statement is evident in its sense, implying that if the opportunity is here and resources are available young people will probably not hesitate to start

their own business. Pejić Bach, Aleksić and Merkač Skok (2018) found antecedents of entrepreneurial behavior highly statistically correlated with Slovenian students' intentions to start their own business. Additionally, they also found the gender of the students as a significant explanatory factor of EIs. Some recent studies for Serbia, for example, show that gender itself doesn't provide clear conclusions when financial performances of companies are observed as a measure of business success (Stevanović and Simović, 2017). The authors concluded that the influence of gender on the financial performances of medium-sized companies in the manufacturing sector is somewhat inconclusive regarding the variety of factors that may moderate gender effects.

It also can be noticed that undergraduate business economics students give on average higher scores to all the items explaining one's attitude toward entrepreneurship than students of electrical engineering. This is expected and can be explained by the role of entrepreneurship education, which is much closer to business economics students. This part of education is even more critical because some empirical studies show that the companies do not find training provided at the workplace necessary for improving business performances in the short term (Ognjenović, 2015).

Table 3. Differences in 'Attitude toward entrepreneurship'

| Item | Mean (μ_1, μ_2) | Std. dev. (σ_1, σ_2) | Diff. ($\mu_1 - \mu_2$) | t-test, $\alpha = 0.05$ |
|---|-------------------------|------------------------------------|---------------------------|-------------------------|
| I11: Being an entrepreneur implies more advantages than disadvantages | | | | |
| Faculty 1 | 3.82 | 0.84 | 0.125 | 1.706 p=0.09 |
| Faculty 2 | 3.69 | 0.97 | | |
| I12: A career as an entrepreneur is attractive for me | | | | |
| Faculty 1 | 3.64 | 1.08 | 0.318 | 3.389 p=0.00 |
| Faculty 2 | 3.32 | 1.25 | | |
| I13: If I had the opportunity and resources, I'd like to start a firm | | | | |
| Faculty 1 | 4.02 | 1.07 | 0.127 | 1.417 p=0.16 |
| Faculty 2 | 3.89 | 1.15 | | |
| I14: Being an entrepreneur would entail great satisfaction for me | | | | |
| Faculty 1 | 3.74 | 1.14 | 0.337 | 3.610 p=0.00 |
| Faculty 2 | 3.41 | 1.17 | | |

Note: Faculty 1 and Faculty 2 stand for students of Faculty of Economics and Faculty of Electrical Engineering, respectively.

Source: Self-administered survey.

A set of determinants explaining how perceived behavioral control influences EIs has obtained the lowest score among the students of both study groups. Students perceive the knowledge of all necessary practical details about starting a firm or developing an entrepreneurial project as insufficient. This implies that a lack of practical knowledge about starting own firm may distance young graduates from realizing a business idea. No statistical differences were found in students' responses, suggesting that students of business economics don't perceive 'the control of the creation process of a new firm' or 'expected probability of succeeding' differently from students of electrical engineering.

Students' views about the statement 'I know the necessary practical details to start a firm' should be carefully analyzed. Both scores are based on an attitude that students disagree with such a claim on average. As depicted in Table 4, average scores are 2.62 (FE) and 2.27 (FEE), indicating a significant difference in students' responses [$t=4.471$ $p=0.00$]. Students have lower expectations for controlling the process of starting a business venture, knowing that this process may be accompanied by something beyond their control. So, entrepreneurial education is important, and some other unobserved factors would raise students' confidence in the success of their endeavor.

Table 4. Differences in 'Perceived behavioral control'

| Item | Mean (μ_1, μ_2) | Std. dev. (σ_1, σ_2) | Diff. ($\mu_1 - \mu_2$) | t-test, $\alpha = 0.05$ |
|--|-------------------------|------------------------------------|---------------------------|-------------------------|
| I21: I can control the creation process of a new firm | | | | |
| Faculty 1 | 3.10 | 1.00 | 0.084 | 1.011 $p=0.31$ |
| Faculty 2 | 3.02 | 1.06 | | |
| I22: I know the necessary practical details to start a firm | | | | |
| Faculty 1 | 2.62 | 0.93 | 0.357 | 4.471 $p=0.00$ |
| Faculty 2 | 2.27 | 1.05 | | |
| I23: I know how to develop an entrepreneurial project | | | | |
| Faculty 1 | 2.74 | 0.96 | 0.350 | 4.111 $p=0.00$ |
| Faculty 2 | 2.39 | 1.14 | | |
| I24: If I tried to start a firm, I would have a high probability of succeeding | | | | |
| Faculty 1 | 3.34 | 0.89 | 0.069 | 0.923 $p=0.36$ |
| Faculty 2 | 3.27 | 0.98 | | |

Note: Faculty 1 and Faculty 2 stand for students of Faculty of Economics and Faculty of Electrical Engineering, respectively.

Source: Self-administered survey.

Electrical engineering students perceive the subjective norm as a better antecedent of EIs than business economics students. The most significant difference in their attitudes can be seen in the claim that 'If I decided to create a firm, my colleagues would approve it'. However, this difference (-0.081) is not statistically significant [$t=-1.093$ $p=0.28$], neither is any other difference that would show 'important others' as supporters of students' business ideas (Table 5). In other words, both groups of students expect high support from their families, friends, or colleagues if they decide to realize a business venture.

Table 5. Differences in 'Subjective norm'

| Item | Mean (μ_1, μ_2) | Std. dev. (σ_1, σ_2) | Diff. ($\mu_1 - \mu_2$) | t-test, $\alpha = 0.05$ |
|--|-------------------------|------------------------------------|---------------------------|-------------------------|
| I31: If I decided to create a firm, my close family would approve it | | | | |
| Faculty 1 | 4.15 | 0.95 | -0.027 | -0.372 $p=0.71$ |
| Faculty 2 | 4.18 | 0.85 | | |
| I32: If I decided to create a firm, my friends would approve it | | | | |
| Faculty 1 | 4.13 | 0.89 | -0.050 | -0.717 $p=0.47$ |
| Faculty 2 | 4.18 | 0.84 | | |
| I33: If I decided to create a firm, my colleagues would approve it | | | | |
| Faculty 1 | 3.94 | 0.95 | -0.081 | -1.093 $p=0.28$ |
| Faculty 2 | 4.02 | 0.89 | | |

Note: Faculty 1 and Faculty 2 stand for students of Faculty of Economics and Faculty of Electrical Engineering, respectively.

Source: Self-administered survey.

Testing statistical differences in EIs between two groups of students

Claims explaining one's entrepreneurial intentions, which represent a dependent variable, are reported in Table 6. Both groups of students find some differences in proposed explanations. The only two claims where students have similar opinions are those represented by 'I am determined to create a firm in the future' [$t=1.515$ $p=0.13$] and 'I have very seriously thought of starting a firm' [$t=1.534$ $p=0.13$].

Table 6. Differences in 'Entrepreneurial intention'

| Item | Mean (μ_1, μ_2) | Std. dev. (σ_1, σ_2) | Diff. ($\mu_1 - \mu_2$) | t-test, $\alpha = 0.05$ |
|--|-------------------------|------------------------------------|---------------------------|-------------------------|
| I01: I am ready to do anything to be an entrepreneur | | | | |
| Faculty 1 | 2.86 | 1.06 | 0.297 | 3.348 p=0.00 |
| Faculty 2 | 2.57 | 1.14 | | |
| I02: My professional goal is to become an entrepreneur | | | | |
| Faculty 1 | 2.89 | 1.10 | 0.281 | 3.015 p=0.00 |
| Faculty 2 | 2.61 | 1.21 | | |
| I03: I will make every effort to start and run my own firm | | | | |
| Faculty 1 | 2.88 | 1.09 | 0.405 | 4.470 p=0.00 |
| Faculty 2 | 2.48 | 1.16 | | |
| I04: I am determined to create a firm in the future | | | | |
| Faculty 1 | 3.00 | 1.13 | 0.143 | 1.515 p=0.13 |
| Faculty 2 | 2.86 | 1.22 | | |
| I05: I have very seriously thought of starting a firm | | | | |
| Faculty 1 | 2.91 | 1.18 | 0.150 | 1.534 p=0.13 |
| Faculty 2 | 2.76 | 1.26 | | |
| I06: I have the firm intention to start a firm someday | | | | |
| Faculty 1 | 3.00 | 1.18 | 0.166 | 1.677 p=0.09 |
| Faculty 2 | 2.83 | 1.28 | | |

Note: Faculty 1 and Faculty 2 stand for students of Faculty of Economics and Faculty of Electrical Engineering, respectively.

Source: Self-administered survey.

Though the claim 'My professional goal is to become an entrepreneur' represents an entrepreneurial intention, most honestly, average student responses don't lead to a high level of commitment that would indicate that they will realize their business idea soon. The average scores of 2.89 (FE) and 2.61 (FEE) are well below the threshold 'neither agree nor disagree' that indicates an indifferent opinion of students about their willingness to become entrepreneurs.

The results in Table 6 show that neither business economics nor electrical engineering students exhibit a clear intention to start their business venture after graduation. This conclusion can be derived regardless of the statistically

significant differences obtained from their responses. These differences were tested and confirmed at low average scores. This conclusion may be further supported by Rajh, et al. (2018), who found that attitude toward entrepreneurship and perceived behavioral control form a positive and statistically significant relationship with EIs, while subjective norms have no impact on EIs. Their results are confirmed on a sample of Serbian students of business economics. Similar results were found by Turuk, Horvatinović and Sudarić (2020) for Croatian students of business economics who took entrepreneurship as a compulsory course. Their results show that attitudes toward entrepreneurship and perceived behavioral control positively impact, while subjective norms negatively impact EIs.

Correlation analysis

Table 7 and Table 8 present correlation matrixes with pairwise associations between each set of determinants and EIs. Both the coefficients of correlation and significance levels are reported in the matrix. This part of the analysis should confirm the alliance between EIs and their antecedents. As previously shown, they form hypotheses to be tested.

All determinants that describe one's attitude towards entrepreneurship form a positive and statistically significant relationship with EIs. However, the associations between an entrepreneurial career choice and opportunities and resources with EIs are more pronounced. For example, the correlation coefficients between these two attitudes described as 'A career as an entrepreneur is attractive for me' and 'If I had the opportunity and resources, I'd like to start a firm' and an intention 'My professional goal is to become an entrepreneur' are 0.69 ($p < 0.001$) and 0.61 ($p < 0.001$), respectively.

Table 7. Correlation matrix - variables for study group Economics

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|-----|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----|----|----|----|----|----|
| I01 | | | | | | | | | | | | | | | | |
| I02 | .71 ¹ | | | | | | | | | | | | | | | |
| I03 | .72 ¹ | .80 ¹ | | | | | | | | | | | | | | |
| I04 | .67 ¹ | .79 ¹ | .86 ¹ | | | | | | | | | | | | | |
| I05 | .65 ¹ | .77 ¹ | .81 ¹ | .88 ¹ | | | | | | | | | | | | |
| I06 | .64 ¹ | .75 ¹ | .80 ¹ | .88 ¹ | .89 ¹ | | | | | | | | | | | |
| I11 | .43 ¹ | .44 ¹ | .33 ¹ | .38 ¹ | .37 ¹ | .16 ¹ | | | | | | | | | | |
| I12 | .62 ¹ | .69 ¹ | .60 ¹ | .64 ¹ | .59 ¹ | .60 ¹ | .59 ¹ | | | | | | | | | |
| I13 | .57 ¹ | .61 ¹ | .57 ¹ | .61 ¹ | .59 ¹ | .61 ¹ | .52 ¹ | .78 ¹ | | | | | | | | |
| I14 | .57 ¹ | .61 ¹ | .56 ¹ | .58 ¹ | .54 ¹ | .58 ¹ | .52 ¹ | .80 ¹ | .84 ¹ | | | | | | | |
| I21 | .44 ¹ | .45 ¹ | .43 ¹ | .44 ¹ | .46 ¹ | .43 ¹ | .33 ¹ | .44 ¹ | .44 ¹ | .43 ¹ | | | | | | |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|-----|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| I22 | .34 ¹ | .36 ¹ | .31 ¹ | .35 ¹ | .33 ¹ | .30 ¹ | .27 ¹ | .29 ¹ | .15 ² | .19 ¹ | .45 ¹ | | | | | |
| I23 | .42 ¹ | .38 ¹ | .38 ¹ | .41 ¹ | .40 ¹ | .34 ¹ | .17 ² | .28 ¹ | .19 ¹ | .19 ¹ | .46 ¹ | .67 ¹ | | | | |
| I24 | .45 ¹ | .39 ¹ | .42 ¹ | .43 ¹ | .41 ¹ | .40 ¹ | .25 ¹ | .39 ¹ | .35 ¹ | .34 ¹ | .57 ¹ | .33 ¹ | .41 ¹ | | | |
| I31 | .21 ¹ | .23 ¹ | .19 ¹ | .29 ¹ | .23 ¹ | .23 ¹ | .25 ¹ | .30 ¹ | .26 ¹ | .24 ¹ | .24 ¹ | .19 ¹ | .14 ² | .25 ¹ | | |
| I32 | .21 ¹ | .17 ¹ | .18 ¹ | .25 ¹ | .18 ¹ | .15 ² | .18 ¹ | .27 ¹ | .21 ¹ | .22 ¹ | .19 ¹ | .20 ¹ | .15 ² | .23 ¹ | .72 ¹ | |
| I33 | .17 ¹ | .13 ² | .15 ¹ | .20 ¹ | .16 ² | .13 ² | .17 ² | .23 ¹ | .18 ¹ | .22 ¹ | .20 ¹ | .16 ² | .11 ³ | .25 ¹ | .55 ¹ | .74 ¹ |

Note: (1), (2), (3) stand for the 1%, 5% and 10% level of significance, respectively.

Source: Self-administered survey.

Perceptions about controlling factors such as 'I can control the creation process of a new firm' and the intentions described as 'My professional goal is to become an entrepreneur' or 'I have very seriously thought of starting a firm' are less pronounced among FE students. Estimated correlation coefficients are 0.45 ($p < 0.001$) and 0.46 ($p < 0.001$), which confirms strong associations.

Even though FE students perceive the subjective norms as EI antecedents as most important, potential relationships they form with an entrepreneurial intent are moderate. The correlation coefficient between a family as a supporter 'If I decided to create a firm, my close family, would approve it' and an intent 'I am determined to create a firm in the future' is estimated at 0.29 ($p < 0.001$). Colleagues are perceived as less necessary in the students' intention to start own business than family members or close friends. Turulja, et al. (2020) also found the support of family and close friends highly significantly associated with EIs of students in Bosnia and Herzegovina.

As described by several antecedents, attitude toward entrepreneurship is also highly correlated with FEE students' intentions. The claim 'A career as an entrepreneur is attractive for me' that reveals one's potential professional choice is strongly associated with EIs as reported in Table 8. Correlational analysis reveals high and statistically significant relationships between attitudes and EIs.

Table 8. Correlation matrix – variables for study group Electrical Engineering

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|-----|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| I01 | | | | | | | | | | | | | | | | |
| I02 | .77 ¹ | | | | | | | | | | | | | | | |
| I03 | .79 ¹ | .79 ¹ | | | | | | | | | | | | | | |
| I04 | .74 ¹ | .82 ¹ | .79 ¹ | | | | | | | | | | | | | |
| I05 | .72 ¹ | .79 ¹ | .75 ¹ | .84 ¹ | | | | | | | | | | | | |
| I06 | .74 ¹ | .81 ¹ | .77 ¹ | .86 ¹ | .85 ¹ | | | | | | | | | | | |
| I11 | .43 ¹ | .47 ¹ | .44 ¹ | .46 ¹ | .47 ¹ | .51 ¹ | | | | | | | | | | |
| I12 | .64 ¹ | .69 ¹ | .64 ¹ | .67 ¹ | .69 ¹ | .66 ¹ | .66 ¹ | | | | | | | | | |
| I13 | .51 ¹ | .56 ¹ | .54 ¹ | .63 ¹ | .60 ¹ | .61 ¹ | .56 ¹ | .76 ¹ | | | | | | | | |
| I14 | .60 ¹ | .67 ¹ | .61 ¹ | .68 ¹ | .65 ¹ | .67 ¹ | .61 ¹ | .81 ¹ | .83 ¹ | | | | | | | |
| I21 | .51 ¹ | .49 ¹ | .50 ¹ | .51 ¹ | .51 ¹ | .46 ¹ | .38 ¹ | .52 ¹ | .47 ¹ | .50 ¹ | | | | | | |
| I22 | .45 ¹ | .41 ¹ | .45 ¹ | .42 ¹ | .40 ¹ | .39 ¹ | .24 ¹ | .36 ¹ | .23 ¹ | .31 ¹ | .52 ¹ | | | | | |
| I23 | .52 ¹ | .49 ¹ | .51 ¹ | .47 ¹ | .50 ¹ | .45 ¹ | .27 ¹ | .44 ¹ | .31 ¹ | .35 ¹ | .57 ¹ | .72 ¹ | | | | |
| I24 | .48 ¹ | .42 ¹ | .45 ¹ | .44 ¹ | .44 ¹ | .42 ¹ | .19 ¹ | .34 ¹ | .31 ¹ | .33 ¹ | .48 ¹ | .38 ¹ | .46 ¹ | | | |
| I31 | .12 ² | .17 ² | .20 ¹ | .19 ¹ | .16 ² | .24 ¹ | .26 ¹ | .20 ¹ | .24 ¹ | .24 ¹ | .19 ¹ | .11 ² | .16 ² | .26 ¹ | | |
| I32 | .19 ¹ | .23 ¹ | .23 ¹ | .22 ¹ | .23 ¹ | .30 ¹ | .33 ¹ | .23 ¹ | .26 ¹ | .26 ¹ | .29 ¹ | .20 ¹ | .25 ¹ | .28 ¹ | .69 ¹ | |
| I33 | .27 ¹ | .27 ¹ | .30 ¹ | .30 ¹ | .30 ¹ | .35 ¹ | .28 ¹ | .27 ¹ | .27 ¹ | .27 ¹ | .26 ¹ | .22 ¹ | .30 ¹ | .37 ¹ | .53 ¹ | .71 ¹ |

Note: (1), (2), (3) stand for the 1%, 5% and 10% level of significance, respectively.

Source: Self-administered survey.

Perceived control over the process of creating a potential firm, as described with a claim ‘I know how to develop an entrepreneurial project’, is more strongly associated with FEE student’s intentions, given as ‘I am ready to do anything to be an entrepreneur’, than with those revealed in the sample of FE students. The estimated correlation coefficient is 0.51 ($p < 0.001$). However, unlike FE students, who see family members as supporting in their intention to engage in entrepreneurship, FEE students put their colleagues first. This conclusion is strongly related to their perception of entrepreneurship as an idea that starts with a project.

5. CONCLUSION

This paper employs the TPB (Ajzen, 1991) to explain the intent-behavior relationship among young entrepreneurs to be in Serbia. The empirical research relies on the data collected by a survey conducted among business economics and electrical engineering students at the University of Belgrade. The data were collected using a PAPI method through two independent samples, while economics and electrical engineering students attended their classes. The data collection process took one week in the 2016/2017 schooling year. Thus, only students who attended the class filled the survey questionnaire. Their answers form the database which was explored in the empirical research.

Three fundamental antecedents of entrepreneurial intentions were empirically examined: attitudes toward entrepreneurship, perceived behavioral control, and subjective norms. They are selected as most studied predictors of entrepreneurial intentions in the peer-reviewed academic literature over the last ten years (Bruton, Ahlstrom and Obloj, 2008; Schlaegel and Koenig, 2014; Liñán and Fayolle, 2015). The empirical strategy is based on testing the differences in explanatory factors of students' entrepreneurial intentions using Welch's approximation of t-test statistics (Welch, 1938). In addition, correlation analysis was conducted to confirm the magnitude and significance of the associations between entrepreneurial intentions and their antecedents.

Correlation analysis, which was conducted at both samples of students independently, confirmed that attitudes toward entrepreneurship, perceived behavioral control, and subjective norms form positive and statistically significant associations with entrepreneurial intentions. Similar results are confirmed by previous empirical studies conducted for Serbia and other countries of the region, including Bosnia and Herzegovina, Croatia, Macedonia, and Slovenia. These countries share common economic history (see, for example, Pejić Bach, Aleksić and Merkač Skok, 2018, Rajh, et al., 2018; Turuk, Horvatinović and Sudarić, 2020; Turulja, et al, 2020). These studies also confirm a moderated effect of gender when it is included in the entrepreneurial intention model as a controlling factor.

However, specific differences between the attitudes of business economics and electrical engineering students related to the items that describe determinants of entrepreneurial intentions are further revealed. These differences are mostly related to their understanding of the significant others in creating alliances between subjective norms and entrepreneurial intentions. Some previous studies for Serbia, conducted on a sample of economics students, did not find subjective norms as a significant supporting factor for one's entrepreneurial intent (Rajh, et al., 2018). Sometimes, gender is a factor that moderates the effects of subjective norms (Horvatinović and Sudarić, 2020). This requires additional attention and remains for future research.

Although this research was conducted among undergraduate students who are determined to receive tertiary education, the contribution of this paper is at least twofold. Firstly, the paper seeks to reveal potential sources of the entrepreneurial population in Serbia. Secondly, the article explains the main determinants of entrepreneurial intentions among young people enrolled in two different fields of study at the same university.

This research paper fills the existing gap in studies of entrepreneurial intentions in Serbia. It contributes to the academic literature in the field of (i) youth entrepreneurship, (ii) youth wellbeing, (iii) the influence of entrepreneurship education on the decision process of undergraduate students who are enrolled in different study programs, and (iv) exploring the determinants of the professional status of future entrants to the Serbian labor market. The implications from this paper may help understand the entrepreneurial propensities of undergraduate students and address the potential gap in entrepreneurship education programs.

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