



Youth and Entrepreneurial Intentions in Four South-East European Countries

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Abstract: We combine variables from the Theory of Planned Behaviour with additional personality trait and contextual variables to explain entrepreneurial intentions of 1,200 students of economics and business in four South-East European countries: Bosnia and Herzegovina, Croatia, Macedonia and Serbia. Among these four countries, entrepreneurial intentions are highest in Macedonia. This can be explained by perceptions such as personal attitude towards entrepreneurship and perceived behavioural control, which positively affect entrepreneurial intentions and which are found to be higher on average in Macedonia. Another striking finding is the lack of explanatory power of the contextual variables (in particular perceived barriers for entrepreneurship) in these countries which are known for their poor business climate. The present study indicates that although young people in these four transition countries hold a positive attitude towards entrepreneurship, they don't show a clear entrepreneurial intent.

Keywords: entrepreneurship, entrepreneurial intentions, transition countries, South-East Europe, Theory of Planned Behaviour.

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1. Introduction

Entrepreneurial activities play important roles in various aspects of economic and social development around the world. Already for some decades promoting entrepreneurial activities in market economies is considered to be essential (Baumol, 1968). Evidence of the link between entrepreneurship and national economic growth has a shorter scholarly history (Carree and Thurik, 2003; Erken, Donselaar and Thurik, 2016), but it is now generally accepted that entrepreneurship is positively associated with higher economic development. Consequently, analysis of the determinants of entrepreneurship is an obligation rather than a luxury (Grilo and Irigoyen, 2006). Knowledge of the determinants and their impact is crucial for setting up public policies and their evaluation (Storey, 2003).

Thus, it is not surprising that entrepreneurial behaviour has received significant scholarly attention from various academic disciplines (Shane and Venkataraman, 2000; Busenitz et al., 2003; Van Praag and Versloot, 2007; Shepherd and Williams, 2015). For instance, differences have been found between thinking about setting up a business and levels of (actual) engagement, explained by levels of risk tolerance and economic development (Van der Zwan et al., 2013). Entrepreneurial intention has become an important phenomenon in entrepreneurship research (Bird, 2015; Linan and Fayolle, 2015). Since the pioneering works by Shapero (1984) and Shapero and Sokol (1982), the entrepreneurial intention framework has been used in a number of studies (Krueger et al., 2000; Lüthje and Franke, 2003; Veciana et al., 2005; De Pillis and Reardon, 2007; Lee et al., 2011; Linan and Fayolle, 2015; Tognazzo et al., 2016). Also, its framework has been integrated with theories from the field of social psychology (Ajzen, 1991; Bandura, 1982).

Many studies explore the effects of various personal-level variables on entrepreneurial intention (Lee and Wong, 2004; Segal et al., 2005; Linan and Santos, 2007). Numerous phenomena are analyzed as antecedents of entrepreneurial intention, such as demographics, personal traits and psychological variables, as well as prior entrepreneurial exposure and social capital. Another stream of research deals with various contextual variables, such as national, regional or cultural variables, as antecedents of entrepreneurial intention (Veciana et al., 2005; Freytag and Thurik, 2007; Engle et al., 2010).

Other studies (Grilo and Thurik, 2005 and 2008) focus on explaining engagement levels of entrepreneurial activity (the entrepreneurial ladder) using

demographic variables (such as gender, age, education level, whether parents are self-employed), country-specific effects (such as the current economic climate), measures of risk tolerance, internal and external locus of control and perceptions of obstacles (such as administrative complexities, availability of financial support, accessibility of information for start-up). Still other studies focus on theoretical and methodological issues of the entrepreneurial intention model (Linan and Chen, 2009; Schlaegel and Koenig, 2014).

What do we know so far about who becomes an entrepreneur? Is it a stroke of genius or a result of a hard and long work on an idea? We seek to understand which of the antecedents mentioned above have an association with entrepreneurial intention using a sample of students of economics and business in four South-East European countries using the Theory of Planned Behaviour (TPB). Also, since no other studies have addressed these questions for South-East European countries, we consider it important to suggest which course of action should be taken to nurture entrepreneurship. Whether a change in the education system is more urgent than change in public policies or whether changes in both areas should occur simultaneously and interdependently?

Our paper attempts to contribute to the entrepreneurial intention in several ways, i.e. by combining three streams of research. First, we compare entrepreneurial intention levels between four transition countries. Second, we explore the effects of personal-level and contextual variables on entrepreneurial intention, and address the need for research using country-specific factors in these four transition countries. Third, the basic model of planned behaviour is extended with locus of control, risk taking propensity, perceived barriers and perceived support factors.

There are clear indications for differences in entrepreneurial intent and engagement among developed countries dependent on cultural values, risk taking and perceptions of complexity of administrative barriers (Freytag and Thurik, 2007; Van der Zwan et al., 2013), and between developed and developing countries dependent on the vitality of the economic situation and risk-perceiving behaviours (Iakovleva et al., 2011). These studies suggest that entrepreneurial intentions are stronger among respondents from developing countries. According to the GEM National and Global Reports and Country Profiles for separate countries², among the transition countries Macedonia and Serbia show a higher percentage of the population with entrepreneurial intent (29% and 22%, respectively), but a lower percentage of early-stage entrepreneurial activity (6.6% and 4.9%, respectively), in contrast to Croatia that shows a lower percentage of entrepreneurial intention (20%), but a higher percentage of early-stage entrepreneurial activity (8%). An exception is Bosnia and Herzegovina, which shows lower percentage of entrepreneurial intention than the other observed transition countries (same percentage as Croatia), but a higher percentage of

2. See GEM (National or Global Reports and/or Country Profiles) for Macedonia (2013), Serbia (2009), Bosnia and Herzegovina (2014a) and Croatia (2014b) at www.gemconsortium.org.

early-stage entrepreneurial activity (7.4%) than other transition countries. We feel that additional research is needed in order to identify the level of entrepreneurial intention in transition countries and explain some of their antecedents. Conducting the research in four South-East European countries, we provide an empirical testing ground to explore the effects of national environments of these specific countries on entrepreneurial intent. And finally, we conduct an empirical test using Ajzen's Theory of Planned Behaviour. Throughout our analysis and text, we use a framework where entrepreneurial intention is the variable 'to be explained'. We are well aware that many reversed causalities may occur regarding our 'independent' variables but given our cross-sectional approach, we do very little to tackle this.

A literature review is presented in the next section. A conceptual framework is presented and hypotheses are developed in the third section. The methodology is described in the fourth section, followed by the results and discussion sections. The final section includes conclusions with theoretical and policy implications, limitations and some lines for future research.

2. Literature Review

The need to understand what drives individuals to become entrepreneurs is an essential research question in the area of entrepreneurship (Shane and Venkataraman, 2000). Some studies, for example, find that there are significant differences among countries (US and Europe) when it comes to latent and actual entrepreneurship (Grilo and Irigoyen, 2006), and that individual perceptions of administrative complexity play a significant role, whereas actual administrative complexity is not a hindering factor (Van der Zwan et al., 2013). Others, like Krueger and Brazeal (1994, p. 91) state that: "Before there can be entrepreneurship there must be the potential for entrepreneurship, whether in a community seeking to develop or in a large organization seeking to innovate." Academic research has presented several motivational theories that may be helpful to understand these two steps, including TPB (Ajzen, 1991). Ajzen's model of planned behaviour appeared to be an effective predictor of different behaviours (risk-oriented behaviour, ethical behaviour, the intent to start one's own business) in a number of studies in the social sciences, with an average correlation of 0.73 between behavioural intent and the targeted behaviour (Engle et al., 2010). Several studies suggest that this model can also be used to predict entrepreneurial intent at the international level (Kolvereid, 1996; Krueger et al., 2000; Autio et al., 2001).

Krueger et al. (2000) have stated that intention based models resulting from TPB imply that entrepreneurial intentions are a function of the perceived possibility and perceived appeal of the entrepreneurial act. Research has suggested that high entrepreneurial intentions increase the probability of actual

nascent entrepreneurial behaviour and new venture creation (Pfeifer et al., 2016). In order to start one's own venture, the individual has to identify an opportunity, and undergo a process of thinking and cautious planning, which makes entrepreneurship a deliberate intentional behaviour (Bird, 1988) and thus, appropriate for intention models (Krueger, 1993). Entrepreneurial intentions are seen as the first step in the process of discovering, generating, and using opportunities (Gartner et al., 1994). They represent a mental orientation such as desire, wish and hope influencing an individual's choice of entrepreneurship (Peng et al., 2012). Intentions are considered the single best indicator of actual behaviour (Ajzen, 1991; Kolvereid, 1996; Krueger et al., 2000), especially when it comes to behaviour that is hard to observe, or when it involves unpredictable time lags (Krueger et al., 2000). Entrepreneurial intentions are conceived to be central to better understanding entrepreneurial behaviour in the process of discovering, creating and exploiting opportunities (Gartner et al., 1994).

There are two main theoretical models of entrepreneurial intention. One of the earliest models of entrepreneurial intention is the entrepreneurial event model (Shapiro, 1975; Shapiro and Sokol, 1982; Krueger, 1993). Based on this model, entrepreneurial intention depends on three main antecedents: perceived desirability, propensity to act and perceived feasibility. Another important theoretical model of entrepreneurial intention is adopted from the field of social psychology. It is known as the Theory of Planned Behaviour. This theory was developed by Ajzen (1991) as a framework to be applied in different behavioural contexts, and first used in the entrepreneurial intention context by Krueger and Carsrud (1993). According to this model, the following variables affect entrepreneurial intention: attitude towards entrepreneurship, subjective norm and perceived behavioural control. Additionally, there have also been efforts to extend and develop new theoretical models of entrepreneurial intention (Davidsson, 1995; Krueger et al., 2000; Elfving et al., 2009) and to integrate them into a single, coherent model (Shook and Bratianu, 2010; Schlaegel and Koenig, 2014; Langer et al., 2016). Nevertheless, TPB has been shown as consistent in predicting entrepreneurial intentions (Krueger et al. 2000; Engle et al., 2010; Iakovleva et al., 2011).

The entire stream of research in the entrepreneurial intention field seeks to identify additional antecedents of entrepreneurial intention. Antecedents range from various personal-level variables to specific contextual variables. Indeed, the context appears to matter, which may be particularly important for non-transition countries. Lüthje and Franke (2003) added risk taking propensity and locus of control as personality variables to the model. Also, they included support and barriers as specific contextual variables. De Pillis and Reardon (2007) explored the effects of achievement motivation, tolerance for ambiguity and personal efficacy on entrepreneurial intention as well as the effects of cultural contextual variables operationalized as face-to-face and mass media persuasion about entrepreneurship. Crant (1996) explored the effects of proactive personality and

demographics on entrepreneurial intention. Segal et al. (2005) included risk perception into their analysis of entrepreneurial intentions while Carr and Sequeira (2007) and Peng et al. (2012) included prior entrepreneurial experience (personal and/or family).

Since entrepreneurial intention is assumed to be strongly influenced by the contextual environment, numerous studies have explored the differences in entrepreneurial intention among different countries, regions and cultural groups. Veciana et al. (2005) compared entrepreneurial intentions between Catalonia and Puerto Rico, which may share a cultural tradition but live under different economic models. Kristiansen and Indarti (2004) conducted a comparison between Norway and Indonesia which have different cultural traditions and economic models. Engle et al. (2010) conducted an analysis of entrepreneurial intention among 12 countries representing 10 regional cultural clusters while Iakovleva et al. (2011) conducted a comparison among 13 countries focusing on the differences among developed and developing countries.

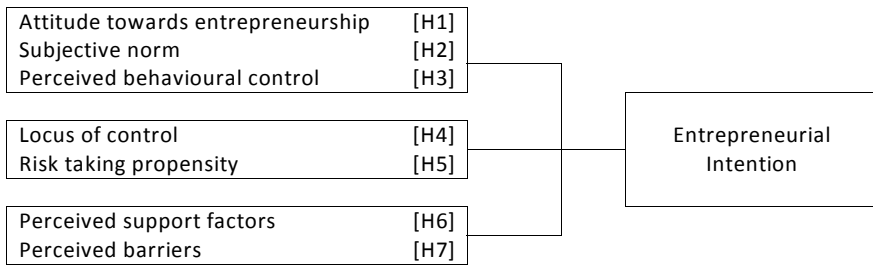
The importance of entrepreneurial intentions has been recognized in the South-East European countries that we analyse in the present study³ but not yet using a particular theory such as that of planned behaviour. We fill the gap by providing a comparative study of entrepreneurial intent in four transition countries: Bosnia and Herzegovina, Croatia, Macedonia and Serbia. According to the best of our knowledge, this is the first exploratory study of this kind for South-East European countries. These countries share the same path-dependency of ex-Yugoslav republics and belong to the same Balkan region, which gives rise to the assumption that there are many similarities in the attitudes and behaviours of their citizens. However, as our study is conducted on the younger population, these inherited effects may be mitigated since the dissolution of the former states.

3. Conceptual Framework and Hypotheses

Our research model is based on TPB with additional personality trait variables (such as locus of control and risk-taking propensity) and contextual variables (such as perceived barriers and perceived support factors). Also, we explore the effects of specific national environments of four South-East European countries on entrepreneurial intention. It is presented in Figure 1.

3. See for example Pašić Mesihović, and Šestić (2016) and Macura et al. (2015) for Bosnia and Herzegovina, Langer et al. (2016) for Croatia, and Stanković et al. (2015) for Serbia.

Figure 1. Conceptual Framework



Personal attitude towards entrepreneurship, subjective norm and perceived behavioural control are basic antecedent variables of entrepreneurial intention and they represent original elements of TPB (Ajzen, 1991). Personal attitude towards entrepreneurship refers to the degree to which the individual holds a positive or negative personal valuation about being an entrepreneur (Ajzen, 2001; Linan and Chen, 2009). Subjective norm represents the perceived social pressure to carry out, or not carry out entrepreneurial behaviour. It refers to the perception that “reference people” would approve of the decision to become an entrepreneur, or not (Ajzen, 2001; Linan and Chen, 2009). Perceived behavioural control is defined as the perception of the ease or difficulty of becoming an entrepreneur (Linan and Chen, 2009).

These three variables are considered to be key predictors of intention in any behavioural context, not just an entrepreneurial one (Ajzen, 1991; Krueger and Carsrud, 1993). There are numerous studies that have tested this model in various settings, and with somewhat conflicting results. Krueger et al. (2000) found empirical evidence for a positive relationship between personal attitude towards entrepreneurship and perceived behavioural control on one hand and entrepreneurial intention on the other, but they could not find empirical evidence for a positive relationship between subjective norm and entrepreneurial intention. Autio et al. (2001) also could not confirm the positive relationship between subjective norm and entrepreneurial intention. On the other hand, several studies have found evidence for a positive relationship between all three basic antecedent variables and entrepreneurial intention (Kolvereid, 1996; Tkachev and Kolvereid, 1999; Kolvereid and Isaksen, 2006). Therefore, the following hypotheses are proposed:

H1: Personal attitude towards entrepreneurship is positively associated with entrepreneurial intention.

H2: Subjective norm is positively associated with entrepreneurial intention.

H3: Perceived behavioural control is positively associated with entrepreneurial intention.

Locus of control and risk-taking propensity represent two additional variables that we added to our model. They represent personality variables and may help explore how personality differences affect entrepreneurial intention. Locus of control represents the degree to which individuals believe that they have control over the outcome of events in their lives (Rotter, 1966; Lumpkin, 1985). Risk taking propensity refers to the individual's tendency to engage in activities that are perceived as risky (Brockhaus, 1980; Lüthje and Franke, 2003). There are some studies that provide evidence of the existence of a positive relationship between these two variables and entrepreneurship and entrepreneurial intention (Brockhaus, 1980; Brockhaus, 1987; Bonnett and Furnham, 1991; Hisrich and Peters, 1995; Lüthje and Franke, 2003). Therefore, we propose the following hypotheses:

H4: Locus of control is positively associated with entrepreneurial intention.

H5: Risk taking propensity is positively associated with entrepreneurial intention.

Considerable research focuses on cross-country comparisons of entrepreneurial intentions and their antecedents. The studies range from two-country comparisons (Kristiansen and Indarti, 2004; Veciana et al., 2005) to large multi-country comparisons (Engle et al., 2010; Iakovleva et al., 2011). There is also strong empirical evidence that entrepreneurial intention differs between various countries and these differences may be explained by differences in economic, social and cultural environments. Therefore, another set of variables is added to our model representing contextual aggregate variables. We included two variables that can be regarded as proxies for economic, social and cultural contexts: perceived support factors and perceived barriers, initially developed by Lüthje and Franke (2003). The existing literature recognizes the importance of social, cultural, institutional and economic contextual variables for the entrepreneurial intention formation process at the individual level. Previous studies have explored the effects of contextual variables such as attitudes towards entrepreneurship in society, availability of business incubators, funding, content of mass-media and face-to-face communication about entrepreneurship (Shapero, 1984; Hisrich and Peters, 1995; Pennings and Kimberly, 1997; Lüthje and Franke, 2003; De Pillis and Reardon, 2007). These factors have been found to have strong positive relationships with entrepreneurial activities. Therefore, the following hypotheses are proposed:

H6: Perceived support factors are positively associated with entrepreneurial intention.

H7: Perceived barriers are negatively associated with entrepreneurial intention.

4. Methodology and Data

Data were collected during 2016 by using a paper-and-pencil self-administered survey. The survey was conducted in four South-East European countries: Bosnia and Herzegovina, Croatia, Macedonia and Serbia. The sample consists of 1,200 university students of economics and business, with 300 respondents from each country included in the study.⁴ The sample is constructed with the convenience sampling technique and it includes university students that were present at the lecture when the survey was conducted. The summary statistics are presented in Table 1.

Table 1. Summary Statistics of Sampled Respondents, n = 1200

Sample characteristics	%
Gender	
Male	27.6
Female	72.4
Age	
19-21	43.4
22-24	49.8
25-27	3.9
28+	3.1
Year of study	
1 st	0.2
2 nd	20.8
3 rd	51.4
4 th	27.7
Country	
Bosnia and Herzegovina	25.0
Croatia	25.0
Macedonia	25.0
Serbia	25.0

Data were collected using a structured questionnaire that included a set of items derived from the literature and questions about the respondent's gender, age and year of study (see Appendix). The items were measured on a five-point

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4. The respondents included in the study are students of business and economics at public universities as follows: respondents from Macedonia are students at the Faculty of Economics, State University Goce Delcev – Shtip; respondents from Croatia are students at the Faculty of Economics and Business Zagreb, University of Zagreb; respondents from Serbia are students at The Faculty of Economics at the University of Belgrade; respondents from Bosnia and Herzegovina are students at the Faculty of Economics, University of Banja Luka.

Likert-type scale, anchored at one (strongly disagree) and five (strongly agree). Items related to the following scales were included in the questionnaire: locus of control, risk taking propensity, perceived barriers, perceived support factors, personal attitude towards entrepreneurship, perceived behavioural control, subjective norm and entrepreneurial intention. Items for locus of control were taken from Lumpkin (1985), items for risk taking propensity, perceived barriers and perceived support factors were taken from Lüthje and Franke (2003), and items for personal attitude towards entrepreneurship, perceived behavioural control, subjective norm and entrepreneurial intention were taken from Linan and Chen (2009).

Collected data were first analysed with exploratory and confirmatory factor analysis in order to assess validity of applied measurement scales (Anderson and Gerbing, 1988; Churchill, 1979). Initial exploratory analysis with varimax row rotation of factors was performed on the entire pool of 35 items. Nine items were removed from further analysis – these were items with low factor loadings on their primary factor and items with high factor loadings on more than one factor. The remaining items were again factor analysed, and the final exploratory factor analysis resulted in a factor solution with eight factors, where each item had a high factor loading on its primary factor (see Table 2). Principal components analysis was employed to extract the factors. The Kaiser-Guttman rule was used to determine the number of factors to extract – factors with eigen values greater than one were retained. The eight-factor solution explained 39.2 percent of the variance. After exploratory factor analysis, 26 items were subjected to confirmatory factor analysis to conduct a more rigorous evaluation of the underlying factor structure and the validity of measurement scales. Fit indices indicate an acceptable level for the specified measurement model and all factor loadings were significant at the $p < 0.01$ level (see Table 2). The values of variables were then calculated as unweighted arithmetic means of the respective item scores (see Table 3 for summary statistics).

Table 2. Exploratory and Confirmatory Factor Analysis Results

Items	EFA factor loadings	CFA factor loadings
Personal attitude towards entrepreneurship		
i16	0.67	0.54*
i17	0.77	0.89*
i18	0.78	0.86*
i19	0.80	0.92*
Subjective norm		
i33	0.78	0.68*
i34	0.91	0.86*
i35	0.85	0.74*
Perceived behavioural control		
i23	0.65	0.68*
i24	0.78	0.75*
i25	0.79	0.77*
i26	0.54	0.53*
Locus of control		
i2	0.77	0.41*
i3	0.73	0.45*
Risk taking propensity		
i7	0.76	0.64*
i8	0.78	0.77*
i9	0.52	0.41*
Perceived support factors		
i14	0.80	0.33*
i15	0.73	0.80*
Perceived barriers		
i10	0.82	0.28*
i11	0.74	0.98*
Entrepreneurial intention		
i27	0.73	0.82*
i28	0.81	0.89*
i29	0.86	0.93*
i30	0.88	0.99*
i31	0.85	1.04*
i32	0.87	1.03*

Note: CFA fit indices: GFI = 0.91, AGFI = 0.88, NFI = 0.90, NNFI = 0.90, CFI = 0.92, RMSEA = 0.065. * Factor loadings significant at $p < 0.01$ level.

The results of exploratory and confirmatory factor analyses indicate that the applied measurement scales exhibit an acceptable level of validity.

Five regression analyses were conducted to test the hypotheses, one for each country and one for all countries. Entrepreneurial intention was specified as a dependent variable and locus of control, risk taking propensity, perceived barriers, perceived support factors, personal attitude towards entrepreneurship, perceived behavioural control, and subjective norm as independent variables. Furthermore, we controlled for gender, age, year of study and country. The tolerance measures were verified to detect possible multicollinearity. Since the values of tolerance were between 0.62 and 0.98, it was safe to conclude that multicollinearity did not play a role (Kutner, Nachtsheim and Neter, 2004). Data analysis was conducted using the software package Statistica 12.

5. Results

5.1. Differences Between the Four Countries

Summary statistics of the variables across the observed countries are presented in Table 3. The average level of entrepreneurial intentions exhibits some differences between the observed countries (Macedonia, Bosnia and Herzegovina, Croatia and Serbia). The attitude towards entrepreneurial intention (EI) is the lowest in Serbia and the highest in Macedonia: young people in Macedonia mostly agree with the affirmative statements on EI. The extent of this difference is confirmed by a *t*-test conducted at the significance level of 1% [$t_{299} = 6.56, p < 0.01$], while the differences between Macedonia and the remaining two countries, Croatia [$t_{299} = 4.88, p < 0.01$] and Bosnia and Herzegovina [$t_{299} = 2.14, p < 0.05$], are somewhat smaller yet still statistically significant. These results are in line with the personal attitude towards entrepreneurship that is also more pronounced in Macedonia when compared with the other countries. Namely, when Macedonia is compared with Bosnia and Herzegovina [$t_{299} = 8.54, p < 0.01$], Croatia [$t_{299} = 3.76, p < 0.01$] and Serbia [$t_{299} = 6.10, p < 0.01$] the differences in means generate statistical significance in all observed cases.

The entrepreneurs-to-be in Bosnia and Herzegovina exhibit the lowest perceptions on the subjective norm as a possible antecedent of entrepreneurial intention and the significant differences between this country and Croatia [$t_{299} = -4.78, p < 0.01$] and Macedonia [$t_{299} = -3.92, p < 0.01$] are confirmed at the 1% level. There are only slight differences among the remaining countries in general, with the exception of Macedonia and Croatia where there is no significant difference in subjective norms [$t_{299} = -0.69, p < 0.49$].

On the other hand, perceived behavioral control is rated as the highest by economics and business students in Macedonia, and the lowest by their peers in

Serbia and Croatia. The differences in student attitudes are more pronounced between Macedonia and Serbia [$t_{299} = 8.53, p < 0.01$] than between Macedonia and the remaining countries.

The students interviewed in Macedonia exhibited the lowest perceptions towards locus of control. The only difference that is statistically significant is revealed when Macedonia is compared with Croatia [$t_{299} = -4.12, p < 0.01$]. However, there are no significant differences in the locus of control among the young entrepreneurs-to-be in Macedonia and the other two transition countries. In addition, the risk-taking propensity is more pronounced among the entrepreneurs-to-be in Macedonia than in the other countries. For instance, the difference between Macedonia and Bosnia and Herzegovina is significant at the 1% level [$t_{299} = 9.01, p < 0.01$] as well as the difference between Macedonia and Croatia [$t_{299} = 8.92, p < 0.01$], and between Macedonia and Serbia [$t_{299} = 8.73, p < 0.01$].

Perceived support factors are rated as the lowest by the young entrepreneurs-to-be in Macedonia. On the contrary the highest expectations are revealed among the students in Serbia and Croatia. These differences between Macedonia and Serbia [$t_{299} = -6.69, p < 0.01$] and Macedonia and Croatia [$t_{299} = -6.46, p < 0.01$] are statistically supported by a *t*-test, while there is no statistically significant difference in the perceived support factors among the students interviewed in Macedonia and Bosnia and Herzegovina [$t_{299} = -1.30, p < 0.20$].

Perceived barriers are lowest in Macedonia and the highest in Croatia, and the differences are considerable across the countries. Calculated *t*-ratio between Macedonia and Croatia is higher [$t_{299} = -7.84, p < 0.01$] than when the differences in perceived barriers are compared between Macedonia and Bosnia and Herzegovina [$t_{299} = -3.64, p < 0.01$] or between Macedonia and Serbia [$t_{299} = -3.90, p < 0.01$].

Table 3. Summary Statistics of Variables by Country – Means and Standard Deviations

Variables	Macedonia (mean; standard deviation)	Bosnia and Herzegovina (mean; standard deviation)	Croatia (mean; standard deviation)	Serbia (mean; standard deviation)
Personal attitude towards entrepre- neurship	4.198; 0.62	3.703; 0.88	3.976; 0.89	3.816; 0.91
Subjective norm	4.194; 0.78	3.922; 0.86	4.239; 0.78	4.079; 0.82
Perceived behav- ioural control	3.432; 0.64	3.219; 0.76	3.146; 0.82	2.953; 0.75
Locus of control	3.765; 0.76	3.798; 0.76	3.988; 0.60	3.827; 0.72
Risk taking pro- pensity	4.134; 0.69	3.557; 0.83	3.577; 0.81	3.583; 0.84
Perceived support factors	3.188; 0.88	3.282; 0.85	3.605; 0.75	3.635; 0.73
Perceived barriers	3.280; 0.75	3.523; 0.86	3.738; 0.72	3.513; 0.70
Entrepreneurial intention	3.439; 0.84	3.289; 0.90	3.078; 1.06	2.925; 1.01

Other studies present interesting additional information. According to the national GEM Report for Macedonia (2013) people tend to have mainly positive perceptions of entrepreneurial activity, and 50 percent of the respondents (population of 18-64 years of age) believe that they have the necessary knowledge and skills to start and manage a business. Furthermore, 37 percent (population of 18-64 years of age) think that there are good opportunities to start a business in the next six months in the area where they live, and 29 percent consider themselves a latent entrepreneur who intends to start a business within three years. This percentage of entrepreneurial intent among the population (18-64 years of age) in Macedonia is higher than in the other Balkan countries. These results are in line with the ease of doing business in this country, as documented in the Doing Business Report (World Bank, 2016), where Macedonia (rank 12) is the leader in the Balkan region in reforming business regulation.

However, the number of days to register a business or the regulation of paying taxes or obtaining construction permits – as measured by the World Bank's Ease of Doing Business index – does not reflect the entire business environment of a country. When reporting on a country's business regulation and environment, many additional factors of influence for investment should be taken into consideration: market size, security of the region, macroeconomic stability, cost and availability of credit, skills and training of the work force, state of the financial system, levels of corruption, etc. For example, some reasons for stagnation in the number of new enterprises in Macedonia are found to be the relatively small size of the market with respect to number of consumers, limited

geographic markets and general preference for employment in the public sector or in large companies (GEM Macedonia, 2013).

Although methodology and scope of the indicators are different, it is worth putting our results on entrepreneurial intentions in the GEM context, which for Croatia⁵, Bosnia and Herzegovina⁶ and Serbia⁷ shows that around one-fifth of the adult population is considered latent entrepreneurs, i.e., have expressed their intent to become an entrepreneur in the next three years (recall that this is 29% in Macedonia).

5.2. Factors ‘Influencing’ Entrepreneurial Intentions – A Multiple Regression Approach

The results of our multiple regression analysis (Table 4) indicate that, in all four countries, entrepreneurial intentions are positively and significantly linked to respondents’ personal attitude towards entrepreneurship and perceived behavioural control. Only one of the countries, Bosnia and Herzegovina, has all three TPB variables as statistically significant predictors of entrepreneurial intention. Personality based variables (locus of control and risk-taking propensity) as well as contextual variables (perceived barriers and perceived support factors) seem to have less importance as predictors of entrepreneurial intention.

The results support hypotheses H1 and H3 in all four countries, H2 in two countries, and H4 in one country. However, hypotheses H5, H6 and H7 are not supported in the results for any of the countries (note that perceived barriers for Bosnia has the ‘wrong’ sign).

5. GEM Croatia (2014), <http://www.gemconsortium.org/country-profile/54>.

6. EM Bosnia and Herzegovina (2014), <http://www.gemconsortium.org/country-profile/45>.

7. EM Serbia (2009), <http://www.gemconsortium.org/country-profile/143>.

Table 4. Regression Analysis – Dependent Variable: Entrepreneurial Intention

Independent variables	Bosnia and Herzegovina	Croatia	Macedonia	Serbia	All
	Standardized coefficients (std. error)	Standardized coefficients (std. error)	Standardized coefficients (std. error)	Standardized coefficients (std. error)	Standardized coefficients (std. error)
Personal attitude towards entrepreneurship	0.31** (0.05)	0.47** (0.05)	0.41** (0.05)	0.57** (0.04)	0.44** (0.02)
Subjective norm	0.17** (0.05)	0.08* (0.04)	0.05 (0.05)	-0.01 (0.04)	0.06** (0.02)
Perceived behavioural control	0.38** (0.05)	0.32** (0.05)	0.36** (0.05)	0.30** (0.05)	0.36** (0.02)
Locus of control	-0.04 (0.04)	-0.07 (0.04)	0.11** (0.04)	0.01 (0.04)	0.00 (0.02)
Risk taking propensity	-0.06 (0.05)	0.03 (0.04)	0.06 (0.04)	0.01 (0.04)	0.00 (0.02)
Perceived support factors	-0.02 (0.04)	0.02 (0.04)	0.01 (0.04)	0.01 (0.04)	-0.01 (0.02)
Perceived barriers	0.08* (0.05)	0.02 (0.04)	-0.03 (0.05)	-0.06 (0.04)	0.00 (0.02)
Gender (female)	-0.13** (0.04)	-0.14** (0.04)	-0.16** (0.04)	-0.08** (0.04)	-0.12** (0.02)
Age					
19-21 (ref.)					
22-24	0.12 (0.08)	0.03 (0.05)	-0.16** (0.07)	-0.02 (0.05)	0.01 (0.03)
25 and over	0.08 (0.09)	0.04 (0.05)	0.00 (0.00)	0.00 (0.00)	0.03 (0.02)
Year of study					
1 st and 2 nd	-0.10** (0.04)	0.05 (0.08)	-0.02 (0.05)	-0.07 (0.07)	-0.07** (0.04)
3 rd	-0.03 (0.05)	0.08 (0.07)	-0.11* (0.07)	-0.10* (0.06)	-0.04* (0.03)
4 th (ref.)					
Country dummies	No	No	No	No	Yes
Number of observations	300	300	300	300	1200
Chow test	F(39; 1147) = 4.41, p = 0.000				
Model fit	Adj. R ² = 0.47; F-value = 23.24 p = 0.000	Adj. R ² = 0.55; F-value = 31.20 p = 0.000	Adj. R ² = 0.46; F-value = 24.25 p = 0.000	Adj. R ² = 0.56; F-value = 35.86 p = 0.000	Adj. R ² = 0.52; F-value = 89.12 p = 0.000

Note: * significant at $p < 0.10$ level; ** significant at $p < 0.05$ level.

We have also tested the hypothesis that there is no difference in the structure of the entrepreneurial intentions model depending on the country observed by using a Chow test. The results show that the estimates of the model vary across countries, as confirmed by an F-test statistic [$F(39; 1147) = 4.41$] compared to the critical value of 1.60 at the 1% level of significance.

A set of control variables is also included in the estimating equations to control for the impacts of gender, age and year of study on the entrepreneurial intentions of economics and business students. Additionally, country dummies control for the country effects in the equation estimated on a full set of observations. Undoubtedly, young women are less prone to become entrepreneurs compared to young men in all four countries. This finding is in line with previous research (Linan et al., 2011; Dabić et al., 2012; Morić Milovanović et al., 2015a, 2015b; Debarliev et al., 2015).

We found hardly any impact of the age of the students, possibly because the variation of ages within the sample is small (as only students are considered). In contrast, year of study is more important in explaining EI. With the exception of Croatia, students in earlier years of studies are less prone to accept entrepreneurial profession compared to students in later years of studies. This might be due to the accumulation of knowledge a student acquires as education continues from earlier years to the final year of studies.

6. Discussion

The findings on positive and significant links between personal attitudes and perceived behavioural control on one hand, and entrepreneurial intentions on the other, are in line with past research in other countries (Krueger et al., 2000; Kolvereid and Isaksen, 2006). The present study indicates that although young people in these four transition countries hold a positive attitude towards entrepreneurship (perceiving the career of an entrepreneur as attractive, with more advantages than disadvantages), they don't show a clear (high) entrepreneurial intent. From Table 3 we see that the mean EI for the four countries is 2.9 (Serbia), 3.1 (Croatia), 3.3 (Bosnia) and 3.4 (Macedonia). So, in particular for Serbia and Croatia there is no clear entrepreneurial intent, and in the other two countries (Bosnia and Macedonia) the respondents are closer to being indifferent than to having a high entrepreneurial intent. The optimism demonstrated in the answers regarding personal attitudes may be due to the fact that the respondents are students of business and economics, and many of them in their third and fourth year of studies with previously acquired knowledge on the topic or alternatively, due to the fact that only intentions are at stake and not real choices.

Additionally, other studies show differences in the type of entrepreneurs among the countries. For example, more than half of the entrepreneurs in Macedonia (61 percent) are entrepreneurs by necessity, a number that is higher

than in any other Balkan country, probably determined by low economic development and a high unemployment rate (GEM Macedonia, 2013). Although Macedonia, the best-performing country in sense of ease of doing business, has shown an increase in entrepreneurial opportunities in recent years as documented in the Doing Business Report, this has not contributed to an increase in the number of start-ups. Moreover, in the last five to six years, the Government of Macedonia has been highly and rigorously criticized by the public for implementation of populist changes in policies that are ineffective and misused for the purposes of the governing party propaganda. In addition, our research provides evidence that one of the personality variables, the degree to which individuals believe that they have control over the outcome of the events in their lives, is a determinant of EI in Macedonia (see Table 4; variable Locus of control) as opposed to the perceived barriers and support factors which show no positive association with EI. It is tempting to assume that when people are made aware of populist propaganda, they place lower trust in the effectiveness and efficiency of governmental policies. Can it be that this ‘distrust’ also plays a role in the high percentage of entrepreneurs by necessity? All in all, this raises the question whether in the future the Macedonian government – and also that of other South-East European countries - should place more value on changes in the educational system, instead on policies concerning entrepreneurship.

Bosnia and Herzegovina is ranked 79 in the Doing Business Report and shows a considerable delay in the reform process (World Bank, 2016). It is remarkable that our results show that it is the only of the four countries where the perceived barriers show a positive effect on entrepreneurial intentions: the interviewed young people who have answered affirmatively to the statements that the banks and state laws in the country are adverse to running a company, and that it is hard to find an idea for a business that hasn’t been realized before, think at the same time that these factors do not influence their intention to start a business in a negative fashion. This is a surprising result, since the literature suggests that perceived barriers have mostly negative effects on entrepreneurial activity, and that the perceived lack of financial support and of administrative complexities are considered to be entry impediments (Van Stel et al., 2007). In addition, Grilo and Irigoyen (2006) show that both perceptions of administrative and financial obstacles play a negative role for a self-employment status both by hindering the willingness to become self-employed and/or its materialization in actual status. However, other findings conclude that the odds of thinking about setting up a business are not affected by the perception of administrative complexities and that the perception of lack of financial support has no discriminative effect across various levels of entrepreneurial engagement (Grilo and Thurik, 2008).

On the other hand, the GEM Bosnia and Herzegovina Report (2013) shows that Bosnia and Herzegovina is the only Balkan country where the number of entrepreneurs by necessity is lower than entrepreneurs motivated by opportunity. This, once again, raises the question whether being self-employed is, at least

partially, the expression of a genuine wish rather than an accident or a constrained choice, as also suggested in Grilo and Irigoyen (2006).

Moreover, a finding that also differs from the other observed South-East European countries is the effect of social (subjective) norm on EI in Bosnia and Herzegovina and Croatia. This implies that in these countries, contrary to the findings of Autio et al. (2001), the support of close friends and family is of importance for future business undertaking. Is it possible that in the face of many barriers, people tend to appreciate the perceived possible opportunities for starting a business, especially if they have the support of family and friends? Nevertheless, we must take into consideration that this may be a consequence of the fact that most of the interviewed young people still live with their families, and are financially dependent upon their parents. Eurostat data for 2013 provide evidence that in the EU-28 only 39 percent of young population aged 25-29 live with their parents, while in our four countries this percentage is much higher. Furthermore, it seems that countries where a high share of the population aged 20-29 still lives with their parents have a higher youth unemployment rate. Some of these young people are in the education process, but others may be even unwilling to look for a job (Tomić, 2016).

In the European context, for instance, the number of entrepreneurs who started their businesses due to some opportunity is almost half the total number of respondents who at some point run a business, while those who became entrepreneurs by necessity are less than a third of all the respondents (European Commission, 2013).

Perceived support factors referring to institutional support and a positive general image of entrepreneurs in society, appear not to be important for entrepreneurial intention. In line with this finding, legislation and bank support do not stand out as significant obstacles to entrepreneurial intention. This result is interesting because the business climate in the Balkans is relatively poor.⁸ However, perceived barriers seem not to hamper entrepreneurial intention in most of the surveyed countries. This finding is in line with previous results, for example, for Croatia, the anti-entrepreneurial climate does not seem to be influencing students' entrepreneurial aspirations (Langer et al., 2016). Young entrepreneurs-to-be may have the courage, although risk-taking propensity is also not a significant determinant of their entrepreneurial intention in the region. Moreover, the rate of unemployment among the young population is considerably higher than among the adults in all surveyed countries (Tomić, 2016). It seems that those young, educated people who have strong commitment to the idea of starting their own business consider this their own responsibility. This can be further elaborated and explained through the institutional support for the development of entrepreneurship in the observed South-East European countries. For instance, the support for young entrepreneurs in Serbia is rather sporadic in

8. See SEE-6 Economic Outlook, 2015, Švaljek (Ed), 2015.

spite of elaborate plans to put the development of small and medium-sized enterprises and entrepreneurship at the top of the agenda of economic policy reforms for the present decade (Government of Serbia, 2015). These plans are a continuation of the previous economic reforms that did not result in a significant growth of the entrepreneurial sector. Maybe this is why young people do not yet perceive the institutional support as strong and continuous. In Serbia, young people rather opt for employment in large organizations, in the informal sector or to stay unemployed instead of choosing self-employment as career option.⁹ In the after-crisis period in Croatia, necessity self-employment is dominant for both young and, especially so, for the elder unemployed people, whereas opportunity self-employment is slightly more pronounced for the younger population (Botrić and Tomić, 2016).

7. Conclusions

The present research on the determinants of entrepreneurial intentions (EI) in four transition countries (Macedonia, Croatia, Serbia and Bosnia and Herzegovina), provides insight into the attitudes and behaviour of young entrepreneurs-to-be in the Balkan region. The results indicate that among these four countries, entrepreneurial intentions are highest in Macedonia. This, in turn, can be explained by perceptions such as personal attitude towards entrepreneurship and perceived behavioural control, which positively affect entrepreneurial intentions and which are found to be higher on average in Macedonia.

The results on the positive impact of perceived behavioural control on entrepreneurial intention are in line with past research (Krueger et al., 2000). Young people have in general more self-confidence, which seems to be decisive for entrepreneurial intention, in particular since our sample comprises of students of business and economics that have gathered some knowledge on developing entrepreneurial projects and management. Given the scope of our research, focus on the business students limits the extension of conclusions to the general population. However, it suggests that education could help in creating a beneficial climate for fostering entrepreneurial intentions, especially among young people (Cieslik and Van Stel, 2017).

This study also confirms the differences between genders when it comes to entrepreneurial intention (EI) in all four countries, presenting young women as less inclined to become entrepreneurs compared to young men. Age of young people is found to be less important than the year of study in explaining EI. Students in earlier years of their studies are less likely to seek an entrepreneurial career compared to students in their final year of studies.

9. Among those seeking for a first job only about 11 percent opt for self-employment (Government of Serbia, 2015).

These findings are important for policymakers, especially when we take into consideration that we found perceptions to be the most important determinant of EI in all four countries. Policymakers would be well advised to pay more attention to developing strategies for promotion and education of entrepreneurship on all levels in schools and universities. Also, governments should promote entrepreneurship to the point where perceptions about studying entrepreneurship and starting one's own business are not so different from considering a career in large organizations or in the state and/or informal sector.

Future research can include young people with different educational background in order to broaden the characteristics of the sample, use other measures in addition to the self-administered survey and include a longitudinal study for better understanding the causality between the factors of 'influence' and entrepreneurial intention. In addition to this, it would be interesting to ask young entrepreneurs who have already established their businesses what were the main factors influencing them while developing their entrepreneurial projects. We also recommend a further exploration of the role of economic and environmental variables, which may affect the relationship between the above-mentioned factors and entrepreneurial intention. However, more studies on entrepreneurial intent and youth unemployment in the transition setting should be undertaken. Higher levels of entrepreneurial intent may induce self-employment of youth and job creation for young people, and thus contribute in alleviating this burden to the national economy.

In comparison to other research, we show that dimensions taken from the theory of planned behaviour, such as personal attitude towards entrepreneurship, subjective norm and perceived behavioural control play a role in shaping EI in transition countries, whereas personal and contextual variables which play an important role in EI in developed countries, don't have such a role. The most striking result is the lack of explanatory power of the contextual variables in these countries with a poor business climate. This is an encouraging finding in the sense that students' entrepreneurial intentions in these four Balkan countries are apparently not discouraged by perceived barriers, in spite of the poor business climate. However, even when the concept of entrepreneurship and entrepreneurial mind-set is familiar to young population in these four South-East European transition countries, there is still no clear entrepreneurial intent (on average they remain indifferent and might not make it their professional goal to become an entrepreneur in the future). It seems it's not enough for young people only to believe that a career as entrepreneur is attractive; or that they have the knowledge and could control the creation process of a new firm.

Moreover, for those young people with entrepreneurial intentions, institutions are important in order to realise their intentions by actually setting up a business. Further improvement of the business environment should therefore be an important target for governments in these four countries in the coming years.

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Appendix: Questionnaire

To what extent do you agree or disagree with each of the following statements? Please circle only one answer for every statement on the scale from 1 to 5.

1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree.

i1	When I make plans, I am almost certain that I can make them work.	1	2	3	4	5
i2	Getting people to do the right things depends upon ability; luck has nothing to do with it.	1	2	3	4	5
i3	What happens to me is my own doing.	1	2	3	4	5
i4	Many of the unhappy things in people's lives are partly due to bad luck.	1	2	3	4	5
i5	Getting a good job depends mainly on being in the right place at the right time.	1	2	3	4	5
i6	Many times I feel that I have little influence over the things that happen to me.	1	2	3	4	5
i7	When I travel I tend to use new routes.	1	2	3	4	5
i8	I like to try new things (e.g. exotic food or going to new places).	1	2	3	4	5
i9	I have taken a risk in the last six months.	1	2	3	4	5
i10	Banks in >My Country< do not readily give credit to start-up companies.	1	2	3	4	5
i11	State laws (rules and regulations) are adverse to running a company.	1	2	3	4	5
i12	It is hard to find a business idea for a business that hasn't been realized before.	1	2	3	4	5
i13	Entrepreneurs have a positive image with >Country< society.	1	2	3	4	5
i14	Qualified consultant and service support for new companies is available in >Country<.	1	2	3	4	5
i15	The creative atmosphere in the society inspires to develop ideas for new businesses.	1	2	3	4	5
i16	Being an entrepreneur implies more advantages than disadvantages.	1	2	3	4	5
i17	A career as entrepreneur is attractive for me.	1	2	3	4	5
i18	If I had the opportunity and resources, I'd like to start a firm.	1	2	3	4	5
i19	Being an entrepreneur would entail great satisfactions for me.	1	2	3	4	5
i20	Among various options, I would rather be an entrepreneur.	1	2	3	4	5
i21	To start a firm and keep it working would be easy for me.	1	2	3	4	5
i22	I am prepared to start a viable firm.	1	2	3	4	5
i23	I can control the creation process of a new firm.	1	2	3	4	5
i24	I know the necessary practical details to start a firm.	1	2	3	4	5
i25	I know how to develop an entrepreneurial project.	1	2	3	4	5
i26	If I tried to start a firm, I would have a high probability of succeeding.	1	2	3	4	5
i27	I am ready to do anything to be an entrepreneur.	1	2	3	4	5
i28	My professional goal is to become an entrepreneur.	1	2	3	4	5
i29	I will make every effort to start and run my own firm.	1	2	3	4	5
i30	I am determined to create a firm in the future.	1	2	3	4	5
i31	I have very seriously thought of starting a firm.	1	2	3	4	5
i32	I have the firm intention to start a firm someday.	1	2	3	4	5

i33	If I decided to create a firm, my close family would approve it.	1	2	3	4	5
i34	If I decided to create a firm, my friends would approve it.	1	2	3	4	5
i35	If I decided to create a firm, my colleagues would approve it.	1	2	3	4	5

Please mark your gender, age and the year of study you are enrolled in.

D1	Gender	M	F		
D2	Age				
D3	Study year	1	2	3	4

