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Crafting future entrepreneurs from emerging adults: what matters more – personality or context?

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Abstract: This paper analyses the effects of an integrated set of factors – personality traits and contextual variables on the entrepreneurial intention (EI) of emerging adults. Data were analysed with confirmatory factor analysis (CFA) for evaluating the model and stepwise multiple regression analysis for hypotheses testing. The key personality trait variable associated with the intent of emerging adults to open a business in future is the internal locus of control. (LOC) Two additional variables with significant association with EI are contextual variables: perceived barriers (PB) (a negative association) and perceived support factors (PS) (a positive association). Contrary to other studies, the authors did not find risk-taking propensity (RTP) to be associated with EI. This calls for additional research. The increase in emerging adults' social inclusion through self-employment is of great importance, so policymakers and the scientific community should search for the underlying factors that promote or hinder the entrepreneurial intentions of these young people.

Keywords: entrepreneurial intentions; personality traits; contextual variables; emerging adults.

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1 Introduction

Entrepreneurship is often seen as a driving force for economic growth, social development and job creation through self-employment, in both developed and underdeveloped countries (Denanyoh et al., 2015; Rajh et al., 2018). The process of creating wealth and economic progress in a country relies mainly on the competitiveness of domestic firms. In other words, economic development relies on the willingness of entrepreneurs and business managers to be innovative and create additional value through their investments (Cuervo et al., 2007). Considering the positive impact that entrepreneurship exercises on economic and overall societal development through the

integration of people, the introduction of innovations, and the creation of competition, it is clear why the interest in this topic by researchers has endured.

Many studies have tried to analyse the main variables that cause certain people to activate their entrepreneurial spirit and try self-employment as an alternative way of integration into society as compared to employment by others or employment in governmental institutions. In some developing societies, such as North Macedonia (hereafter N. Macedonia), self-employment is often the only way to find a job. Most of these entrepreneurs, (60.98%), follow this path of necessity, while only 22.95% are opportunity driven. This runs counter to other countries from the region, such as Slovenia and Croatia, and other countries from the EU, where entrepreneurship is much more motivated by perceived opportunities than necessity (GEM Macedonia, 2013).

EI is one's inclination to take on an entrepreneurial activity or the aim of being self-employed and owning a business. Clear EIis closely connected with the attempt to start one's own business (Ozaralli and Rivenburgh, 2016). This topic has been heavily researched and explored in the last two decades (e.g., Lüthje and Franke, 2003; Nabi and Linan, 2013; Karabulut, 2016; Kerr et al., 2017; Rajh et al., 2018; Šubić et al., 2019).

Research studies show that personality and psychological aspects such as the internal LOC (Lumpkin, 1985), self-efficacy and innovativeness, the need for achievement, together with RTP and goals and aspirations of entrepreneurs (Kerr et al., 2017) play a crucial role. Other studies claim that contextual and social variables, referring to the education, background or the family, are the driving force of self-employment through entrepreneurship (Lüthje and Franke, 2003; Ozaralli and Rivenburgh, 2016). Others propose that entrepreneurial development depends mostly on the economic, social and cultural environment in which the person has grown up (Cuervo et al., 2007). Also, the need for achievement and the readiness to face uncertainty are factors that typically distinguish entrepreneurs from others in society (McClelland, 1961). However, we should state that entrepreneurship, even though impacted by environmental, technological, normative or demographic changes, is still mainly a human activity.

Nevertheless, many factors have an impact on one's propensity to engage in entrepreneurship, such as personal history, social context, one's attitude toward entrepreneurship, planned behaviour and personality traits. These factors are categorised as internal, involving the personality, and external, relating to context or the environment (Yıldırım et al., 2016).

The sample analysed for this research consists of emerging adults who are undergraduate students of business and economics from N. Macedonia, aged 19 – 24 years. In order to better understand the concept of emerging adults, it is noteworthy to mention that according to Arnett (2000), they are between 18 and 29 years old, transitioning from the end of adolescence to the young-adult responsibilities of a stable job, marriage and parenthood. Emerging adults are found to expect a lot out of life – a well-paid and personally meaningful job and long-lasting relationships and, are characterised by heterogeneity in terms of the varying paths they can take and the levels of success they can achieve. Today's generation of emerging adults belongs to the so-called Generation Z and has experienced the biggest changes and advancements related to social media, the internet, smartphones and other technological advancements, which became their identity (Singh and Dangmei, 2016). The literature regarding emerging adults points to certain characteristics suggesting that representatives of this group (generation) consider starting their business venture as a means of professional activity, especially since they believe it offers them better pay and a sense of freedom and

independence. They perceive self-employment as an opportunity to create a job position that matches their needs and expectations (Pocztowski et al., 2015). Furthermore, emerging adults are somewhat fascinating because they have completely different values and lifestyles than all the other generations in the labour market, considering the characteristics that best describe them (Arnett, 2014): the age of identity exploration (decisions about who they are, what they want out of work and life); the age of instability (residence changes due to education or a romantic partner); the age of self-focus (choices about what to study/do, where to go and who to be); the age of feeling in between (making steps towards adulthood – taking care of themselves, but not completely an adult – still financially dependent on parents and not fully responsible for oneself); the age of possibilities (most emerging adults believe they can live better than their parents did).

The decision to research and investigate the entrepreneurial intent of emerging adults is because of the existing gap in the literature regarding such studies, and also due to the belief that educational and societal efforts to support young people in their transition into careers and adulthood can help them integrate into the labour market and create a chance for advancement. Such efforts could make a significant difference, given the self-awareness people develop in their twenties and their willingness to change, as well as since emerging adults without support, who can not afford college or do not attend vocational programs (do not have support) end up in life-long low-paid jobs in the secondary labour market (Munsey, 2006).

2 Literature review

2.1 Personality traits

Personality traits are mostly biologically based, while the contextual variables are situational characteristics that are usually exogenous to both the organisation and the entrepreneur. Concepts that refer to behavioural dispositions such as attitude and personality traits have proven to be very valuable in forecasting and clarifying human behaviour (Campbell, 1963; Sherman and Fazio, 1983). One's personality reflects the stimuli of the individual's emotions, thoughts and behaviours. The effect that personality has on EI is a topic of great interest (Irengun and Arikboga, 2015). The internal LOC, according to Lumpkin (1985), and RTP, according to Lüthje and Franke (2003), are key personality traits that significantly influence the entrepreneurial intent of a person. Using personality traits is one of the traditional and early methods of studying entrepreneurship. There is a broad consensus that there is sufficient proof for the validity of certain personality variables in research into entrepreneurship (Rauch and Frese, 2007). The focus of many scholars and researchers currently is to outline how personality may affect EI and the creation of new business ventures (Kerr et al., 2017). Personality traits have been researched previously to explore the connection of personality traits with EI (Karabulut, 2016; Kerr et al., 2017; Lumpkin, 1985) and the connection of personality traits and contextual factors with EI (Lüthje and Franke, 2003).

LOC and RTP are personality variables that allow for the inspection of how one's personality can influence EI (Rajh et al., 2017). LOC is a personality characteristic that shows the level of feeling of being in control and is a relevant trait in the entrepreneurial literature (Karabulut, 2016). This characteristic is considered to depend on the culture

(Kerr et al., 2017). Risk-taking is a personality trait that shows the readiness and predisposition of a person to undertake risks and is the latest perspective in the study of entrepreneurship, as risk-taking can lead to both success and failure.

When considering these personality traits as independent variables to be included in this research, an extensive literature review indicated that most of the prior researchers have used these traits as a part of the structural models (Lumpkin, 1985; Utsch and Rauch, 2000; Lüthje and Franke, 2003; Karimi et al., 2015; Farrukh et al., 2018).

2.2 Contextual variables

Unlike personality traits and characteristics, contextual variables and their impact on entrepreneurship have gotten less attention from scholars and researchers (Arenius and Minniti, 2005), even though the perceived contextual barriers and support factors, such as public policies, programmes and incentives, play an important role in entrepreneurial behaviour (Karimi et al., 2015). Moreover, the contextual factors of one's environment can also trigger or block entrepreneurial activities, since each individual makes an economic estimation of the expected costs and benefits of pursuing the entrepreneurial career path (Luthje and Franke 2003; Nabi and Linan, 2013; Boyd and Vozikis, 1994; Tubbs and Ekelberg, 1991; Lee and Wong, 2004).

Social factors, such as experiential activities, entrepreneurial education, exposure to the family business and one's perceptions of the economic and political situation of the home country, have been some of the contextual factors used in studies thus far (Ozaralli and Rivenburgh, 2016; Abou et al., 2020). Other studies include educational support, teaching and learning, appropriate knowledge and motivation, family and peer support and environmental support, such as governmental initiatives, credit facilities and policy interventions, as contextual factors connected to the entrepreneurial intent (Denanyoh et al., 2015). Moreover, social influence as a contextual variable includes the influence of family members, instructors, advisors and consultants, friends, and the wider community. The primary social influences in education include various social support, such as best practice examples, active support, and financial backing (Rukundo et al., 2016). In this context, the role of the entrepreneurial university is seen as very important as both, a knowledge – producer and a disseminating institution (Guerrero and Urbano, 2012). According to the guiding framework for entrepreneurial universities, universities should develop and assess their work based on seven different areas: leadership and governance; organisational capacity, people and incentives; entrepreneurship development in teaching and learning; pathways for entrepreneurs; University – business/external relationships for knowledge exchange; The Entrepreneurial University as an internationalised institution; measuring the impact of the Entrepreneurial University.

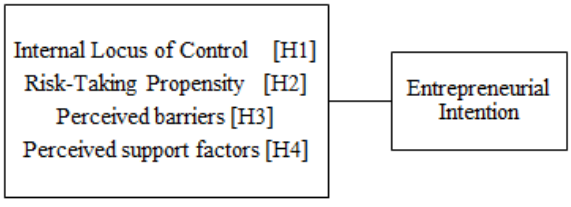
The perception of contextual factors, such as restricted credit conditions and limited access to finance, could be presented as PB to entrepreneurship or through such systems as consultancy services, university support and perceived support for entrepreneurship (Lüthje and Franke, 2003). Moreover, Choo and Wong (2006) discovered several major groups that affect EI, which are: the shortage of capital, deficiency of skills, absence of confidence and compliance costs.

Cultural and institutional differences between countries are also widely researched and may be a guide to an explanation of the extreme differences in the rates of entrepreneurship. Country-specific contextual variables affect students' entrepreneurial intentions and give insights into the differences noted between students of different nationalities (Giacomin et al., 2011). In some cases, regulative structures (lack of money) and cognitive conditions (lack of skills) are relevant as PB that affect EI (Iakovleva et al., 2014). The relevance of the macroeconomic environment to entrepreneurial decisions is also emphasised (Arenius and Minniti, 2005).

Literature provides support for the idea that, despite the relevance of entrepreneurship in social and economic development and growth, most of the past research was prepared for Western countries. Shortage in empirical research on the association of personality traits and contextual variables with entrepreneurial intentions for emerging adults in South-East European countries and developing economies is still present (Rajh et al., 2018).

The study by Tomovska Misoska et al. (2016) that examines the EI in the Republic of N. Macedonia suggests the need for further research, and also calls for further work on modernisation of the educational system; it emphasises the key role of the educational system as the main foundation for students regarding their knowledge about entrepreneurship. However, the current university context in the country is seen as rather poor and insufficient in enabling students to integrate into the labour market quickly and efficiently through employment or self-employment. Young people aged 15–29 represent a very high percentage (33%) among the unemployed people and the lowest percentage among the employed people (16%) when compared to the other age groups. Emerging adults are the first ones to leave the country in pursuit of better work and life abroad, and some of the main reasons for leaving the country are the high unemployment, low wages, low quality of education and the unfavourable socio-political and living conditions. The business sector often criticises universities as creators of the gap between the needed knowledge and skills in the labour market and the knowledge and skills taught at universities. Additionally, problems in higher education range from issues regarding university autonomy, weak connections with the private sector, and slow changes in study programs, to the consistent lack of funds, resources and investments for research and development (Stojanovski et al., 2020). The universities are far from entrepreneurial universities as seen through the guiding framework developed by the European Commission and the OECD.

Figure 1 Measurement model



Many studies Lüthje and Franke (2003), Nabi and Linan (2013), Karimi et al. (2015), Rajh et al. (2018), and Farrukh et al. (2018) have found that very little research, in general, has considered and incorporated both internal psychological factors and external contextual environmental factors in their models when exploring new venture creation. There is still an obvious need for integrated research on the factors that influence entrepreneurial intent in South-East European countries and developing economies as well. Therefore, this paper tries to fill this gap by analysing the research problem on the basis of an integrated model Figure 1 that studies the association of both personality traits (internal LOC and RTP) and contextual factors (PB and PS) as independent variables, with EI as a dependent variable, on a sample of emerging adults, in higher education in a specific national environment (a developing economy).

3 Aim of the study

The motive for this research is to gain additional insights into the relationship of personality traits and contextual variables with entrepreneurial intent in emerging adults. Furthermore, the authors have tried to give context to this research and investigate it in a developing country in Europe (North Macedonia), for students in business and economics majors, who are known to gain a certain level of knowledge about running a business. The question of significant factors of influence and the attitude to EI in emerging adults can help in explaining their intention of running their own business in future and what can be done to help them make a successful transition towards financial independence. According to Arnett (2004), the process in which emerging adults can successfully transition to adulthood and full independence as a person depends on the right balance between the emerging adult pursuing independence on one side, and society providing the correct amount of support on the other. Considering that research on emerging adults and their EI has been rarely conducted, especially in developing economies such as the Republic of N. Macedonia, its scientific contribution is promising.

As stated in the literature review, some studies have found a strong relationship and a causal effect of personality traits and contextual variables on entrepreneurial intent, while others have failed to make this connection. Research on the topic has pointed to an increasing need for studies that integrate personality traits and contextual factors, specifically for developing countries, as well as for emerging adults. This identified gap is the reason the authors propose to test the following hypotheses:

H1 There is a positive association between internal LOC and the EI of emerging adults in a developing economy.

H2 There is a positive association between RTP and the EI of emerging adults in a developing economy.

H3 There is a negative association between PB and the EI of emerging adults in a developing economy.

H4 There is a positive association between PS and the EI of emerging adults in a developing economy.

Based on the existing literature, and the registered need for integrated research of factors that are connected to the entrepreneurial intent of young people in South-East European

and developing countries, this study tries to contribute by considering and integrating both personality traits and contextual factors into a structural model of entrepreneurial intent in a developing economic setting. More specifically, we want to find out if emerging adults in developing economies put more emphasis on their personality or external factors or consider both when thinking about entrepreneurship and the idea of owning a business in the future. The aim is to also see whether these phenomena would emerge as important in a non-developed economy. The results could enable us to see which factors should be considered when constructing national policies for the development of entrepreneurship, or curricula in the educational system, to enable emerging adults to enter the private sector as employers, rather than waiting for employment.

4 Methodology

4.1 Participants

The sample consists of 317 emerging adults enrolled in business and economics majors at the Faculty of Economics – Stip in N. Macedonia Table 1.

Table 1 Summary statistics of respondents, n = 317

Age		*Frequency*	*%*
Valid	19	1	0.3
	20	14	4.4
	21	145	45.7
	22	125	39.4
	23	22	6.9
	24	10	3.2
Year of study		*Frequency*	*%*
Valid	1	2	0.6
	3	204	64.4
	4	111	35.0
Gender		*Frequency*	*%*
Valid	Male	104	32.8
	Female	213	67.2

The age group varies from 19–24 years, with the majority being 21 (45.7%) and 22 (39.4%). The sample includes 67.2% female and 32.8% male students. Regarding the year of study, 64.4% are in their 3rd year of study and 35% are in their 4th year of study, and 0.6% are in their first year of study. Students in the 2nd year of study has not participated in the study, due to the convenience sampling technique, which included only the students attending the semesterly lectures of the authors, to whom the questionnaire was sent. Students in their first year of studies (and 19 years of age) are included for two reasons:

1 During the first year, they have 10 subjects in their curricula, of which 80% (eight subjects) are connected to running a business, such as management, organisational behaviour, finance for business, accounting for business, etc.

2 Most of the new businesses in the country are founded by the age group 18–24 (GEM report, 2020); thus, making students 19 years of age relevant to the study.

These emerging adults are in the process of formulating their basic knowledge and their skills in entrepreneurship through their studies of business and economics. The curriculum is set of 40 subjects in total, divided into 4 mandatory years of studies. The gaining of knowledge regarding running a business starts in the first year, and continues during the whole period, with a combination of subjects connected to business and entrepreneurship, such as: management, organisational behaviour, finance for business, accounting for business, marketing, entrepreneurship (at the beginning of the second year of studies, i.e., third semester), Small business management, strategic management, Strategic marketing, E-business, Economics of innovation, trade law, etc. The students also have mandatory semesterly internships and clinical lectures (lectures from private sector representatives), from their first years of studies onwards. These skills and knowledge are considered important to perform the required activities for establishing new businesses (Kickul et al., 2009).

Analysis of the different personality-related and contextual variables possibly connected with their entrepreneurial intentions will enable us to understand the underlying factors that influence their behaviour necessary for turning into an entrepreneur in the future as an alternative to engagement in the public sector or depending on others for employment.

4.2 Instruments

The research instrument applied in our paper is a structured questionnaire which includes a set of closed questions in the form of multi-item scales for the independent and dependent variables, previously developed and published by other researchers in the relevant literature, and also examines the respondent's age, gender and year of study. The five-point Likert-type scale for measurement of the items was used (1 – strongly disagree to 5 – strongly agree). Data from individual Likert-type questions are treated as ordinal, and data from the overall Likert scale are treated as interval level (Carifio and Perla, 2008). The items representing the scales in the model were taken from the literature as follows: Personality traits (internal LOC) from Lumpkin (1985); RTP from Luthje and Franke, 2003); contextual factors (PB and PS from Luthje and Franke, 2003); Entrepreneurial intentions from Linan and Chen, (2009).

4.3 Scales

Regarding personality traits, the internal LOC scale is based on Lumpkin (1985). The scale consists of three items. The internal LOC represents the self-efficacy of an individual to influence the result. A person with a higher internal LOC believes that a person's life is controlled by his/her own decisions. People with internal LOC consider that the outcomes may be affected by their personal ability, effort or skills, compared to the external forces that control the results. e.g., an item from LOCi reads 'What happens to me depends on my own actions'.

Additionally, the RTP Scale is based on Luthje and Franke (2003), and it examines the readiness to take risks in life. People who are more eager to take risks are found to have more pronounced entrepreneurial intent and implement their business ideas more often (Karabulut, 2016). The scale includes three items. The example item reads 'I took a risk recently (last six months)'.

Apropos of contextual factors, the scales for PB and PS scale are taken from Luthje and Franke (2003). They inspect the perceived obstacles and favourable factors that hinder or endorse, respectively, entrepreneurial intent. The Lüthje and Franke (2003) model suggests that entrepreneurial intentions are directly impacted by contextual factors. In their study, it was estimated that if students consider that the environment is antagonistic towards business founders, for example, if banks do not readily provide loans to customers, they are less likely to pursue a career as entrepreneurs. However, if an optimistic possibility for help for the potential business founders exists, it is more probable that the students will become entrepreneurs. Both scales –PB and PS consist of three items, each. e.g., an item from PB reads 'State laws (rules and regulations) are unfavourable for running a business', while an item from PS reads 'qualified consultants and service support for new companies are available in N. Macedonia'.

The entrepreneurial intent is measured by the scale created by Linan and Chen (2009), which explores the readiness to start a business. It comprises of six items. e.g., the items read 'I have a firm intention to start my own company one day'; 'I will make the necessary effort to establish and run my own company', etc.

A more in-depth analysis of the measures is done in the 'results' section, and the items used in the questionnaire are presented in Appendix 1.

4.4 Procedure

Data was collected using a structured, self-administered survey, on a sample of 317 students of economics and business from the University Goce Delcev – Stip, N. Macedonia, representing emerging adults (by years of age). The convenience sampling technique was used, i.e., only students attending lectures participated in the study and gave answers. The questionnaire guaranteed anonymity and was voluntary. The average time for completing the instrument was around 10 minutes. The participants were knowledgeable about the purpose of the study and could ask any questions. Statistical analysis was done using Stata 14 and IBM SPSS 22.

4.5 Analysis

The statistical analysis included testing the model fit and hypotheses. CFA (executed with Stata 14) was done to test the validity of the proposed measurement model presented in Figure 1. The following indices with accepted cut-off criteria according to the literature (Wheaton et al., 1977; Kline, 2005; Hooper, 2008) are reported: standardised factor loadings (values above 0.5 as satisfactory) and the corresponding p-values (cut-off $p < 0.01$); the relative value of chi-square ($\chi 2/df$) (a ratio of approximately 5 or less to indicate a reasonable fit); RMSEA (cut-off for good fit RMSEA <0.08); CFI (cut-off for good fit CFI ≥0.90); TLI (cut-off for good fit TLI ≥ 0.90); SRMR (cut-off for good fit SRMR <0.08); and CD (with values closer to 1 indicating a better fit).

Figure 2 P-p plot for normality

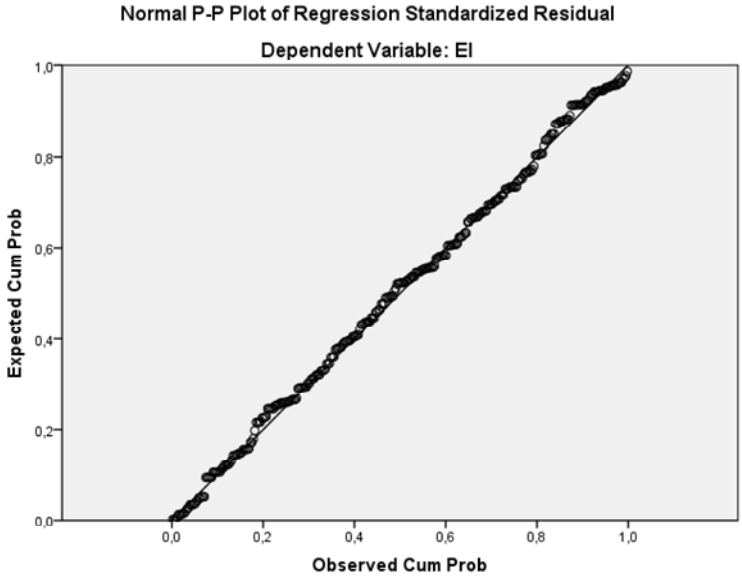
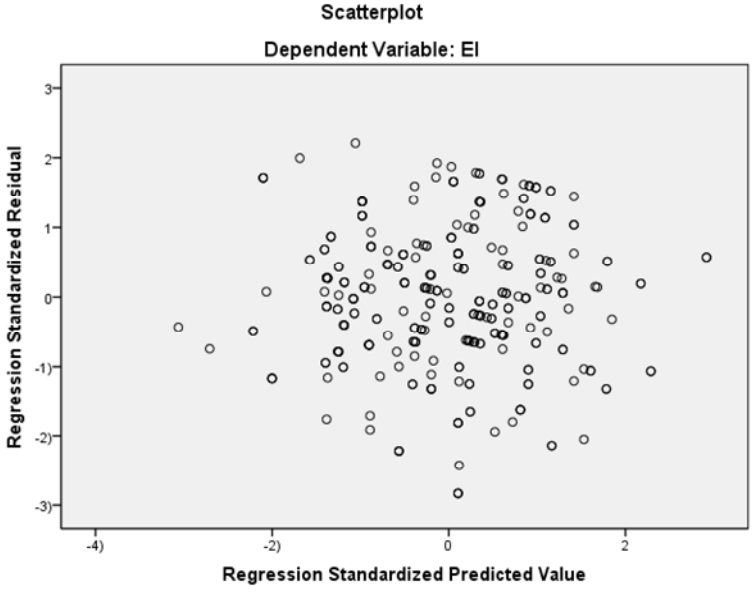


Figure 3 Scatterplot for homoscedasticity



Also, the authors present descriptive as well as deductive analysis (Pearson correlation analysis and stepwise multiple regression analysis, where EI was specified as the dependent variable and LOCi, RTP, PB and PS as independent variables) to test the hypotheses. Data analysis was conducted using the software package IBM SPSS 22. According to former studies (e.g., Pearson, 1931, 1932a, 1932b; Dunlap, 1931; Havlicek

and Peterson, 1976; Carifio and Perla, 2008; Norman, 2010), parametric statistics (Pearson correlation and ANOVA) can be used with Likert data, with small sample sizes, with unequal variances, and with non-normal distributions, with no fear of ‘‘coming to the wrong conclusion’ for several reasons: while Likert questions are considered to be ordinal, Likert’s scales, consisting of sums across items, are interval; ANOVA and other tests of central tendency are highly robust to things like skewness and non-normality; Pearson correlation is robust concerning skewness and is rather insensitive to extreme violations of the basic assumptions of normality and the type of scale.

Furthermore, to make valid inferences from the multiple regression analysis, the authors also tested for: normality (the residuals of the regression follow a normal distribution, shown through the (P-P) plot in Figure 2); the assumption for homoscedasticity (the scatterplot of the residuals shows that the assumption is met, see Figure 3); and multicollinearity (the VIF values in Table 3 shows there is no multicollinearity problem and are all close to the value of 1).

4.6 Results

The proposed model was assessed by conducting a CFA. The initial results did not show an acceptable fit and indicated a need for the model to be corrected. Several items did not show a significant relationship with the hypothesised constructs and the indicators were not good reflections of their respective latent constructs with standardised loadings < 0.5 that did not meet the criteria $p < 0.01$. Additionally, fit indices ($x2/179 = 3.57$; RMSEA = 0.09; CFI = 0.85; TLI = 0.80; SRMR = 0.07; CD = 0.99) did not show an acceptable fit, which led to the decision to correct the model, and improve the overall fit. Thus, three items with insufficient factor loadings were removed: one item on internal locus of control (LOCi 1); one item on RTP (RTP 3); and one item on PS (PS 3). The removal of items from the model with CFA is not uncommon, since some items could deteriorate in future samples and no longer perform as proposed, as can be found in the literature (Hair et al., 2009; Leung et al., 2013; Rajh et al., 2018; Apasieva et al., 2021).

The final model consists of 15 items, measuring five constructs: internal LOC (two items), RTP (two items), PB (three items), PS (two items) and entrepreneurial intentions (six items). The CFA indicated that the validity evaluation standards were satisfied, meeting the cut-off criteria for fit indices. Specifically, at parameter level fit, the p-values for all of the factor loadings are below the cut off of 0.01, leading to the rejection of the null hypothesis that the factor loadings are equal to 0; hence, the factor loadings are statistically significant, with values above 0.5. At overall model level fit, the fit indices (RMSEA = 0.08; CFI = 0.94; TLI = 0.92; SRMR = 0.06; CD = 0.99) show an acceptable model fit. Additionally, the relative chi-square value, $x2/82 = 4.01$, is below the Wheaton et al. (1977) criterion. Therefore, the proposed research model can be recommended as an acceptable model.

The basic descriptive statistics in Table 2 present the mean values, calculated as arithmetic means of the respective item scores, of the independent and the dependant variables and the Pearson correlations. The descriptive statistics of the value of EI indicate that emerging adults in N. Macedonia do not show clear entrepreneurial intentions (EI mean 3.46). Furthermore, personality trait variables (internal LOC and RTP) have higher mean values (3.7855 and 4.2792, respectively), suggesting that these emerging adults believe that their success depends on their actions and are more prone to risk-taking behaviour. In contrast, contextual variables (PB and PS) have lower mean

values (3.2198 and 3.0662, respectively), signifying that the respondents do not perceive that there are many barriers or support for entrepreneurs.

The Pearson correlation Table 2 shows a significant and positive correlation between EI and one of the personality trait variables – LOCi; a significant and positive correlation with PS (as a contextual variable); and a significant but negative correlation between EI and PB as a contextual variable. No significant correlation was found between EI and RTP, one of the personality trait variables. All correlations are statistically significant at $p < 0.01$.

Table 2 Descriptive statistics – means and standard deviations and Pearson correlations (2-tailed)

	M	*SD*	*LOCi*	*RTP*	*PB*	*PS*	*EI*
LOCi	3.7855	0.76185	1	–0.004)	0.003	–0.017)	0.219**
RTP	4.2792	0.73571	–0.004)	1	–0.127)*	0.190**	0.081
PB	3.2198	0.70292	0.003	–0.127)*	1	–0.204)**	–0.146)**
PS	3.0662	0.73693	–0.017)	0.190**	–0.204)**	1	0.158**
EI	3.4595	0.85326	0.219**	0.081	–0.146)**	0.158**	1

Note: N = 317, Legend: * $p < 0.05$, ** $p < 0.01$.

Moreover, the Cronbach's Alpha reliability test indicates an acceptable level of reliability for all of the scales, according to the rule of acceptable level of reliability > 0.70 (Ursachi et al., 2013), as follows: LOCi ($\alpha = 0.723$; n = 2); RTP ($\alpha = 0.701$; n = 2); PB ($\alpha = 0.772$; n = 3); PS ($\alpha = 0.763$; n = 2) and EI ($\alpha = 0.906$; n = 6).

A stepwise multiple regression analysis was performed to test the hypotheses Table 3. The analysis includes only significant predictors in the regression model, and those that do not contribute uniquely to predicting EI are not entered into the regression equation. The stepwise analysis resulted in a three factor model (Model 2 in Table 3), which shows the impact of three independent variables, i.e., the predictors that contribute the most to predicting the outcome variable, with p-values below the threshold of 0.05 (Stevens, 2002; Agresti and Franklin, 2014): LOCi as personality trait variable, PS and PB as contextual variables. The personality trait variable RTP was excluded because it did not meet the stepwise criteria with its p-value above the threshold of 0.10 (Nicol and Pexman, 2010; Field, 2013). The statistical significance of the variables entered was determined based on the rule of decision-making: $p < 0.05$ (Howell, 2002; Newbold et al., 2007).

In Step 1, internal LOC (LOCi) as a personality variable was included and it explained 4.5% of EI. The results indicate that LOCi is statistically significant ($p < 0.05$) and is positively associated with entrepreneurial intention, which means that higher LOCi results in higher EI. In Step 2, the contextual variables, PS and PB, were additionally included. Step 2 explains an additional 3.4% of the variance, i.e., approximately 8% of the dependent variable EI is explained with these independent variables (LOCi, PS and PB). The statistical significance ($p < 0.05$) was confirmed for LOCi as a personality trait variable (with a positive association with EI), as well as for both of the contextual variables, perceived support/PS (with a positive association with EI) and PB (with a negative association with EI). The results suggest that a higher internal LOC and PS can lead to higher EI, while higher PB can lead to lower EI. The results confirm hypotheses H1, H3 and H4. Hypothesis H2 is not confirmed.

Table 3 Stepwise multiple regression analysis – dependent variable: entrepreneurial intention

		Model 1					*Model 2*				
		B	*SE*	*β*	*t*	*p*	*B*	*SE*	*β*	*T*	*p*
Step 1	Constant	2.529	0.238		10.639	0.000	2.493	0.398		6.267	0.000
	LOCi	0.246	0.062	0.219*	3.992*	0.000	0.249	0.060	0.222*	4.113*	0.000
Step 2	PS						0.159	0.064	0.137*	2.490*	0.013
	PB						–1.44)	0.067	–0.118)*	–2.144*	0.033
	R^2	0.048					0.088				
	Adj. R^2	0.045					0.079				
	F	15.938					10.023				
	Sig. F	0.000					0.000				
	VIF	1.000					1.000				
							1.044				
							1.044				
	Durbin-Watson						2.001				

Note: *Significant at $p < 0.05$ level (Sig.0.000 < α; α = 0.05; H0: There is no impact on EI is rejected; thus, the alternative hypothesis is accepted).

5 Discussion

The study shows a deficit of a clear (high) entrepreneurial intent of emerging adults in N. Macedonia (mean value of 3.46). The finding is in line with past research in N. Macedonia (Tomovska Misoska et al., 2016). This result is also consistent with the results from the global GEM country report (2020), where EI in N. Macedonia is below the average with a rank of 26 out of 50. According to the report, most of the respondents think about running their own business to earn a living (83.6% a low rank of 14 out of 50) and are not considered to be entrepreneurs from possibility, but rather need. This implies that these emerging adults, who are also students of business and economics, although in the process of acquiring knowledge related to running and operating a business, are not yet ready to do something specific to become an entrepreneur, nor do they have a clear professional goal as entrepreneurs. This is a rather interesting finding since a study on the Entrepreneurial ecosystem in N. Macedonia (Dimitrova, 2020) shows that the majority of the newly opened businesses are founded by young people during or right after finishing their studies, and most of them are students from business and economics studies. This is also found in the GEM report (2020), i.e., new businesses are mostly founded by young emerging adults (18–24 and 25–34 years) and are declining with age.

However, the GEM report (2020) shows that the total early-stage entrepreneurial activity is among the lowest (6.2%) and is also lower than the established business ownership level (8%). This shows that even though most of the new businesses are developed by emerging adults with higher education, the rate of new business creation is relatively low and not many emerging adults choose entrepreneurship as their vocation. This is so, even though most of them (around 90%) start their higher education immediately after finishing high school and, besides the fact that they compose around 26% of the total number of unemployed people in the country (Dimitrova, 2020).

So, what could motivate and push these young people towards a more obvious EI?

The descriptive statistics show that the personality trait variables (LOCi and RTP) are more evident with higher mean values than contextual variables (PB and PS). The respondents on average expressed a higher RTP (RTP mean value of 4.28). Namely, they mostly agree that they take new routes, try new things when travelling and take risks often. Also, the internal LOC (LOCi) is higher (mean value of 3.78), i.e., they mostly agree that 'personal decisions are what controls one's own life'. These young people tend to believe that ability is the key to making people do the right things and that what happens in life is under their control. In connection to the importance of the belief in oneself (LOCi), a study on the challenges of entrepreneurship in N. Macedonia states that almost half of the new businesses of their respondents were developed based on personal beliefs about one's ability and perceived skills (Culkin and Simmons, 2018).

Regarding the contextual variables, like PB and PS, the results show a lower mean value of 3.22 and 3.07, respectively Table 2. These young people neither agree nor disagree that the PB, such as difficult credit allowance by banks, adverse state laws and difficulty in finding business ideas, are highly pronounced in society. The same situation is seen for the PS. Specifically, the students neither agree nor disagree that a positive image of entrepreneurs, available consultants and support services for new companies and an inspiring and creative university atmosphere for new business development, are very perceptible in society. The absence of a clear perception of barriers might be due to a lack of knowledge about the business environment found in previous studies (Pop

Kostova et al., 2019; GEM, 2020), which could call for corrections and improvements in entrepreneurial (and business) education. The perception of low average support factors is in line with the actual findings of the low GEM national entrepreneurship context index (NECI) score (mean of 3.84 out of 10)[1] for N. Macedonia for 2019, due to the absence of better support for new businesses in several areas that call for more attention: government policies for new businesses; alternative financial sources like venture capitalists and business angels for new business; single agency (one-stop-shop) for government support for new businesses; increased support for new businesses at local government level; education that encourages creativity, self-sufficiency (strong internal LOC) and personal initiative. The absence of support is also confirmed by other studies (Youth Entrepreneurship Support Network, 2014; Pop-Kostova et al., 2019).

Moreover, deductive statistics look at the relationship between EI and the personality trait and contextual variables of the model. There is a positive correlation between LOCI and EI and PS and EI, and a negative correlation for PB with EI. Additionally, the results from the stepwise multiple regression analysis confirmed hypotheses H1, H3 and H4.

This implies that emerging adults who have a higher internal LOC (LOCi) and believe that they are creators of their own life, tend to have a higher, although not clear, entrepreneurial intent to start a business in the future. The findings on the effect of the personality trait variable LOCi are in line with research in other developed and developing countries (Lüthje and Franke, 2003; Arenius and Minniti, 2005; Kerr et al., 2017; Rajh et al., 2017). The results suggest that an internal LOC can be a valuable characteristic in emerging adults for building individual entrepreneurial intentions. These emerging adults have had learning activities and practice in the industry through internships, but students with a higher internal LOC are also found to be more active in the learning process (Yesilyaprak, 2004), which might be the reason behind the belief that personal ability is important for becoming successful in life. This personality trait, if fostered through education, might determine the individual intent and success in starting a business faster than external (contextual) factors, since it is found that individuals with a higher internal LOC believe that they can influence the success of their business as well (Karabulut, 2016). Bearing in mind that education about self-sufficiency helps in fostering EI, it might be wise to put more emphasis on this type of curriculum at different levels of education to help young people to develop and strengthen their internal LOC.

Furthermore, the results show that the PS as a contextual variable, even when not highly perceptible, are significantly associated with EI and, when increased, can result in higher entrepreneurial intent in these emerging adults. These results are in line with other studies that have also confirmed the effect of these factors on EI (Lüthje and Franke, 2003; Nabi and Linan, 2013; Karimi et al., 2015). Research shows that students who take the government's long-term policies for entrepreneurship into consideration, have on average higher entrepreneurial intensity, frequency of entrepreneurial activities, proactiveness and innovativeness, than those that do not consider these policies (Prakash et al., 2015). In addition, the PB, even when not highly noticeable, can still hinder the EI of emerging adults and get in the way of their decision to become entrepreneurs in the future. According to Chowdhury (2007), barriers such as corruption, poor quality of education and absence of training, lack of financial help and infrastructure facilities, political instability, ineffective justice system, etc., can seriously deter entrepreneurial intent and current behaviour, and thus, significantly slow the development of developing nations. The study indicates that even though the emerging adults tend to rely more on themselves (LOCi), they could still benefit from the support of institutions or other

participants in the entrepreneurial surroundings. Governments should frame effective policies in order to promote support and overcome existing obstacles, while universities and other educational institutions should offer more training in economics and business. Studies suggest that with economic training, students have better economic literacy and understanding of the country's current economic data and conditions (Martins and Veiga, 2020), which could help emerging adults make more informed decisions about starting and running a business.

Nevertheless, the GEM report (2020) shows that the entrepreneurial education in N. Macedonia is ranked below the GEM average, both in school stage (2.83) and post-school stage (3.94). There is also an identified gap between the higher education programs and the market needs and possibilities with a negative effect on future entrepreneurial activities (Dimitrova, 2020). On the other hand, the Education Survey of the State Statistical Office (2017), demonstrates an increased demand for non-formal entrepreneurial education (more than 63% have attended entrepreneurial education outside the formal educational system) and relatively high and constant intentions for entrepreneurial skills development (3.9) in the next three years.

Thus, policymakers and other relevant institutions such as schools and universities and business service providers should consider increasing the transparency in their work, enhancing the promotion and visibility of their support for new business creation and helping in the connection of potential entrepreneurs with consultancy agencies, funds or financial institutions, clients and markets. Sieger et al. (2019) state that the university context and entrepreneurial education have a significant role in shaping emerging adults' EI and future entrepreneurial activities. Accordingly, modernisation of the educational system both in the formal and non-formal sectors and a closer connection between the market demand and supply could support the development of a clearer EI among the emerging adults in higher education in a developing economy. According to the Education Survey of the State Statistical Office (2017, educational institutions are advised to develop an integrated model that combines different methods in teaching, consisting of online tools, discussions, problem-solving activities, case studies and more easily relatable best practice examples of small and medium-sized businesses applicable in local markets, in combination with the theoretical approach. Additionally, some of the curricula should focus on the need for more advanced entrepreneurial skills (market research process, implementation of research findings through business planning, and guidance through regular feedback) to boost their feeling of skillfulness and ability to identify and assess opportunities, strengths and weaknesses, and develop business models to exploit them in the future. Universities can also create and manage a variety of activities towards strengthening their own position as entrepreneurial universities, such as: developing and proposing support measures for entrepreneurship to national and local governmental bodies, regularly updating the formal education on entrepreneurship and the teaching methodologies, presenting and promoting role models and success stories, investing in their own human capital, developing networks and alliances with partners from the entrepreneurial eco system and bringing them closer to the emerging adults during their formal education. Universities and particularly, faculties of business and economics have an important role in crafting emerging adults into future entrepreneurs, because the models and theories that graduates learn during their studies are found to have a positive impact on their entrepreneurial activities, through skill/knowledge development and access to business networks (Stephens, 2020).

Parallel to this, government institutions on the national and local level should also work towards increasing the support, decreasing the barriers to entrepreneurship, and promoting these changes, which can further encourage the EI of emerging adults in society. The government can affect entrepreneurship because it controls different policy instruments that can encourage individual entrepreneurial efforts (Shapero and Sokol 1982). Researchers have identified different types of entrepreneurship policies that can increase the intent and innovation towards the development of entrepreneurial societies. According to Jacobides et al. (2006), the creation of links between the private sector and universities, design of regions and need - based programmes for support, subsidies and funding for research and development, can be effective in encouraging entrepreneurship and innovation. The support regarding available infrastructure like co-working spaces, hubs and incubators before and after registering a company, increasing the productivity and availability of labour, funding for women entrepreneurship, etc., could also help in pushing young people towards entrepreneurial actions.

Contrary to the expectations and other studies (Lüthje and Franke, 2003; Arenius and Minniti, 2005; Kerr et al., 2017), the RTP as a personality trait variable does not affect the EI of emerging adults, as seen from the results (H2 is not confirmed). Why is the EI of these young people not affected by their RTP, which was more pronounced than the other variables? It can be that these young people simply do not associate taking risks with something serious like running a business, but merely with trying new things for fun, due to their developmental stage of life as emerging adults. Another explanation could be the fact that people with higher RTP often perceive the same situation as less risky than those with lower RTP (Sitkin and Weingart, 1995), and thus do not necessarily associate risk behaviour with running one's own business. It is also possible, that they are not fully aware of the risks associated with running a business, having in mind that they still are not entrepreneurs. However, it is important to mention that even though RTP has been considered a variable that is connected to the process of entrepreneurship and new venture creation for a long time, the findings are somewhat contradictory. Certain studies conclude that it can relate to business start-ups (Stewart and Roth, 2001; Nicholson et al., 2005), while others are claiming that entrepreneurs tend to be more risk avoidant and the role of risk propensity in entrepreneurship remains unresolved (Miner and Raju, 2004). It is also argued that RTP may be positively related to entrepreneurship at moderate levels, and not at higher levels of risk-taking (Antoncic et al., 2015). Moreover, risk-taking is seen as a relatively unstable trait that can change depending on the situation (Antoncic, 2003), which suggests that situational or cultural factors can affect the actual risk-taking behaviour concerning entrepreneurship (Auer Antoncic et al., 2018). Relevant institutions and especially educational institutions should put more emphasis on creating a clearer perception of the connection between taking risks and building an entrepreneurial society. It might be beneficial for universities and the informal educational sector to develop curricula and training programs that educate about the balance between risk – taking and rational decision making and management, in order to encourage emerging adults to take a more moderate approach to risk-taking, while also fostering the intent for entrepreneurship.

The study shows that emerging adults in higher education in a developing economic setting put an emphasis more on their personality (LOCi), but also on the external factors (PB and PS) when thinking about entrepreneurship and the idea of opening their own business in future. These phenomena have appeared as important in a developing economy, the same as in developed economies. Thus, an integrated approach toward

research of the factors of influence is beneficial, since it captures the different reasons that promote or hinder EI in emerging adults. This way, society can focus on the significant factors and work towards the needed change to boost entrepreneurial activities and help the youth to make a successful transition towards the creation of value and financial independence.

6 Conclusions

Young people are more than ever faced with a difficult challenge in choosing their future. Although it is not that simple to orientate oneself in the world in which we live, entrepreneurship undoubtedly represents a way of taking responsibility and opportunity into one's own hands for creating a better future. Theory and practice show that entrepreneurship is the key driving economic force in every economy, as it increases employment, boosts the standard of living and promotes the common interests and objectives in a society (Papulova and Papula, 2015).

Though several factors can affect the entrepreneurial intent of young people, in this paper the authors have tested the influence of personality traits (internal LOC and RTP) and contextual variables (PB and PS) on the EI of emerging adults in higher education in a developing economy setting, bearing in mind that the literature lacks such evidence and research.

This paper addresses the importance of entrepreneurship and EI and helps to understand which factors affect the entrepreneurial intent of young people because it:

1 examines the relationship of several key variables with the entrepreneurial intent

2 fills the gap, of the inconsistency of results from previous research papers

3 provides comprehensive analysis and detailed description of the obtained findings.

Hence, an essential discovery in this study is that the internal LOC, as a personality trait variable, is positively associated with the entrepreneurial intentions of emerging adults, while RTP does not affect EI. National and local institutions and various organisations should implement different measures to support and promote the feeling of personal control, trust or enhancement in one's own skills to accelerate the interest in self-employability and creation of new business entities. Moreover, PB, which have a negative association, and PS, which have a positive association, as contextual variables, also showed an association with EI in emerging adults. The financial and government institutions are well-advised to work on decreasing the barriers and increasing the support, such as better credit conditions, easier access to finance, free consultancy services, and available university support, for starting a new business, alongside the continuous promotion of every change from which a start-up can benefit.

Even though LOCi as a personality trait and contextual variables are associated with the EI of emerging adults in a developing economy, it is important to highlight that this entrepreneurial intent, although present, is not clear enough. Government institutions working in the field of entrepreneurship and educational institutions should consider these findings when constructing strategies for the development of an entrepreneurial society, and find ways to increase the EI of young people, as an important element of current entrepreneurship and social inclusion through self-employment in the future. The focus should be on the important factors of influence such as LOCi, PS and PB, as well

as building positive perceptions among young people of entrepreneurship as a 'wanted and desired' profession of choice (Jovanov Apasieva et al., 2020).

Furthermore, the obtained results can be utilised for further research and can be implicated in practice by educational institutions, the government, start-up centres and other stakeholders. Moreover, additional research on the stated topic, with further elaboration on other variables of interest, could show a clearer picture of the EI of emerging adults in higher education in a developing economy and help to more fully understand the factors that stimulate young people in N. Macedonia to behave entrepreneurially. This way, we can accelerate the social inclusion of emerging adults and the development of an entrepreneurial society. The study fills the gap of insufficient research on the topic of EI in emerging adults in developing economies.

7 Limitations and future work

The study has some limitations. The sample consists of emerging adults in higher education from studies in business and economics, which limits the possibility to generalise the results to the whole population of emerging adults. In addition, the exclusion of three items from the model due to the CFA and the lack of association of the personality trait variable RTP with EI could indicate some measurement errors, leading to an underestimation of the correlation with the criterion variable. Also, the usage of self-reported data can include bias due to social desirability or different interpretations of item content.

Future work shall include a larger and more diversified sample of emerging adults with different educational backgrounds, for higher significance and possibility for generalisation. Additionally, the model will integrate more variables on different scales measuring other factors of influence, besides the ones used in this study. The authors believe that further research on this subject is needed to clarify the underlying reasons for the somewhat conflicting results (of RTP) as well as to test other relevant factors of influence.

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Note

1 GEM NECI is a composite index representing in one figure the weighted average state of the set of national entrepreneurship framework conditions.

Appendix 1

Items used in the questionnaire

- Internal LOC
  - i1 When I make plans, I'm almost sure they can work.
  - i2 Getting people to do the right thing depends on ability, luck has nothing to do with it.
  - i3 What happens to me depends on my own actions.
- Risk-taking propensity (RTP)
  - i1 I often choose new paths, when I travel.
  - i2 I like to try new things (e.g., exotic food or going to unfamiliar places).
  - i3 I took a risk recently (last six months).
- Perceived barriers (PB)
  - i1 Banks in Macedonia do not give loans to new companies easily.
  - i2 State laws (rules and regulations) are unfavourable for running a business.
  - i3 It is difficult to find a business idea that has not been used before.
- Perceived support factors (PS)
  - i1 Entrepreneurs are perceived positively in the Macedonian society.
  - i2 Qualified consultants and service support for new companies are available in North Macedonia.
  - i3 The creative atmosphere in the society inspires ideas for new businesses.

- Entrepreneurial intent
  - i1 I am ready to do anything to be an entrepreneur.
  - i2 My professional goal is to become an entrepreneur.
  - i3 I will make the necessary effort to establish and run my own company.
  - i4 I am determined to create my own company in the future.
  - i5 I have seriously thought of creating my own company.
  - i6 I have a firm intention to start my own company one day.