

Entrepreneurial career: Factors influencing the decision of Hungarian students

Andrea S. Gubik

ABSTRACT

Objective: The objective of the article is to examine the career plans and their key shaping factors among Hungarian students, with a special focus on entrepreneurial ambitions.

Research Design & Methods: The study is based on the analysis of the Hungarian database of the GUESSS (Global University Entrepreneurial Spirit Students' Survey), with 9 677 valid answers.

Findings: After graduation, a significant proportion of students would like to work as an employee. The proportion of those planning an entrepreneurial career is low. Our research suggests that positive entrepreneurial attitudes and better knowledge about the entrepreneurial processes increase the chance of an entrepreneurial career. The entrepreneurial university environment may also have a positive effect on entrepreneurial aspirations. Finally, experiences from a family entrepreneurial background leave a very strong imprint on students' career plans.

Implications & Recommendations: Understanding student opinions in the context of entrepreneurship, and in particular the key drivers behind them, makes it possible to develop policies and university practices that can increase students' entrepreneurial intention and thus entrepreneurial activity.

Contribution & Value Added: The study provides a literature overview of the factors which influence entrepreneurial career choices, introduces the main characteristics of students' career aspirations in 2018 in Hungary and contributes to understanding the factors shaping the decision.

Article type: research article

Keywords: entrepreneurship; entrepreneurial intentions; entrepreneurial spirit; entrepreneurial career; career plans; higher education; GUESSS research

JEL codes: L26, A20, I23

Received: 7 December 2020

Revised: 25 March 2021

Accepted: 17 April 2021

Suggested citation:

Gubik, A.S (2021). Entrepreneurial career: Factors influencing the decision of Hungarian students. *Entrepreneurial Business and Economics Review*, 9(3), 43-58. <https://doi.org/10.15678/EBER.2021.090303>

INTRODUCTION

Entrepreneurship is not a new concept, Richard Cantillon (1755) was the first to use this expression in the 17th century. Subsequently, more and more approaches came to light (entrepreneurship as the source of innovation and technological change (Schumpeter, 1934), entrepreneurship as opportunity recognition (Kirzner, 1973) and new aspects became known to professionals (Gancarczyk & Ujwary-Gil, 2021). Both entrepreneurship and innovation play a crucial role in the contemporary economies in the local, regional, but also in global context (Bigos & Wach, 2021).

In recent decades, the role of entrepreneurship in economic growth has become increasingly accepted (Carree & Thurik, 2010; Hope, 2016; Meyer & Krüger, 2021), but its cross-cutting analysis has also brought to the fore the framework conditions that can guarantee a positive correlation (Van Stel *et al.*, 2004; Ács *et al.*, 2008). As a result, a considerable number of new approaches have emerged that capture this complexity, such as ecosystem models (Isenberg, 2011; World Economic Forum, 2013; Stam & Spigel, 2016; Ács *et al.*, 2018) and the institutional approach (Wennekers & Thurik, 1999; GEM, 2019; Ács *et al.*, 2008; Zygmont, 2018; 2020).

Today's changes, such as digitalisation and the consequent drastic transformation of economy, which entails changes in the labour market (Leone & Cascio, 2020), also further increase the role of entrepreneurship. Personality traits and skills that are significant in business also prove to be beneficial within large corporations. The concept of intrapreneurship (Wennekers & Thurik, 1999) or corporate entrepreneurship (Bouchard & Fayolle, 2018) refers to the aspiration of large companies to achieve higher performance by increasing their entrepreneurial spirit (Gubik, 2020).

Within the promotion of entrepreneurship, special attention is paid to youth's and especially university students' entrepreneurial activity (Meyer & Krüger, 2021; Wach & Bilan, 2021; Loan *et al.*, 2021) and their competencies (Solesvik, 2019). This is partly due to the conclusions of the research that education positively affects the probability of trying to be an entrepreneur (Nikolova *et al.*, 2012), and these companies outperform the average in terms of their growth orientation (Autio, 2005; Schrör, 2006) and innovation (Richert & Schiller, 1994, cited by Lüthje & Franke, 2002). Another reason is the fact that higher education can influence the entrepreneurial ideas of these young people under the right conditions.

Recognizing the role of young people in entrepreneurship, a broad range of reports have been published that make recommendations for modernising education (methodology and content) and for the services provided to increase entrepreneurial intention and activity (EC, 2013; Eurofound, 2015; EYE, 2015). This article also focuses on young people, examining students in higher education.

The objective of this article is to investigate career choices of the Hungarian youth and to highlight some important driving forces of students' entrepreneurial career plans. In the literature, we often come across works that look for a correlation between certain factors and entrepreneurial intention, or a model that shows the combined effect of some factors in the evolution of entrepreneurial intention. The present work also aims to contribute to this area of research. What is new about our approach is that instead of the entrepreneurial intention used in the literature, we examine student career plans because we estimate that this variable (which career path do you intend to pursue) is more valid for future student plans. A further advantage of our work is that the questionnaire revealed not only the career ideas right after studies, but also highlights what longer-term plans the students have. Thus, we can also map the development of entrepreneurial ideas over time. In our work, we rely on the GUESSS (Global University Entrepreneurial Spirit Students' Survey) project database which is major international research on entrepreneurship, involving about 50 countries. Descriptive statistics, hypothesis testing and binary logistic regression are used to get to know the topic.

In this article, we attempt to create a complex model that shows the combined effects of individual characteristics, family entrepreneurial background, higher education, and the social environment on career plans. On the one hand, the idea fits into the complex approach of entrepreneurship, and on the other hand, it also provides an opportunity to be convinced of the partial impact of each factor.

The structure of the article is as follows: after reviewing the literature background and presenting our hypotheses, we clarify some methodological issues of the research. This is followed by a presentation of the research results and a discussion. Finally, we summarize the key lessons of the work.

LITERATURE REVIEW

Individual characteristics

The individual level addresses demographic factors (gender, age), as well as the role of skills and abilities in entrepreneurial issues. Entrepreneurial personality traits also emerge in the literature as critical individual characteristics (Wach & Głodowska, 2021). The ability to take risks (Meager *et al.*, 2003; Reissová *et al.*, 2020; Shamsudin *et al.*, 2017; Ključnikov *et al.*, 2019; Dankiewicz *et al.*, 2020) and the desire to become independent (Meager *et al.*, 2003) are especially crucial entrepreneurial characteristics (Mensah *et al.*, 2021). Bigos and Michalik (2020) found a statistically significant correlation between self-awareness and self-motivation and the students' entrepreneurial intentions using the binomial logistic regression model.

Other studies suggest that in addition to examining individual characteristics, the issue of entrepreneurial mindset should also be addressed. Because while the former is not, or is difficult to modify,

the latter can be shaped and demonstrate what behaviours and attitudes can be expected from individuals during an entrepreneurial process (Gauthier *et al.*, 2018).

Krueger *et al.* (2000) emphasize that the individual variables alone are poor predictors and intention models offer opportunities to improve the explanatory power. Such models are known in the entrepreneurship literature, for example, the Social Cognitive Theory (Bandura, 1977; 1989), the Entrepreneurial Event (Shapero & Sokol, 1982), and the Theory of Planned Behaviour (Ajzen, 1991). These models consider the individual's values, attitudes and impressions important, at the same time, they also emphasize that signs from an individual's environment greatly shape these individual characteristics and the entrepreneurial ideas themselves.

The above highlights that skills and abilities alone are not enough, emotional charge must be present, a positive attitude and a sense of confidence in achieving goals are necessary conditions for intentions and then action. Besides, attitudes influence the transfer of knowledge and skills, thus, the relationship between these factors is reciprocal (OECD, 2019).

Almost all research examining the role of attitudes in entrepreneurship found a positive relationship between the two variables (Wach & Wojciechowski, 2016; Gubik & Farkas, 2019; Nishimura & Tristán, 2011, Liñán & Chen, 2009, Autio *et al.*, 2001, Krueger *et al.*, 2000), we only know of one or two studies that came to the opposite conclusion (Pingying *et al.*, 2014; Siu & Lo, 2013).

The concept of self-efficacy comes from Bandura (1982). It is "people's sense of personal efficacy to produce and regulate events in their lives". Bandura emphasizes that these judgments, whether accurate or faulty, influence peoples' choices. People with a strong sense of efficacy make a greater effort to master challenges. In the entrepreneurship literature, entrepreneurial self-efficacy is relevant, which is the "strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship" (Chen *et al.*, 1998). Several studies have confirmed the positive effect of self-efficacy on business start-up intent (Autio *et al.*, 2001; Krueger *et al.*, 2000; Nishimura & Tristán, 2011; Liñán & Chen, 2009; Kautonen *et al.*, 2015; Farashah, 2015; Zellweger *et al.*, 2011; Bartha *et al.*, 2018; Wach & Wojciechowski, 2016). The analysis of the Hungarian database came to the same conclusion (Gubik & Farkas, 2019). These prior empirical results allowed us to assume the following research hypotheses:

- H1:** The more positive a student's entrepreneurial attitude is, the greater the chances of choosing an entrepreneurial career.
- H2:** The higher self-efficacy of students is, the greater the chances of choosing an entrepreneurial career.

Social environment

Concerning the impact of the social environment on entrepreneurial intentions, there are usually two focal points in the literature. One focuses on the relationship between general acceptance and status of entrepreneurship in society and thus the role of positive feedback from society in the development of entrepreneurial ideas (Turulja *et al.*, 2020; Nowiński *et al.*, 2020; Shamsudin, 2017; Doanh, 2021), the other is on the role of culture in entrepreneurship (Thurik & Dejardin, 2012; Thomas & Mueller, 2000; Shane *et al.*, 1991; Zhao *et al.*, 2012).

Persistent differences (beyond economic reasons) in entrepreneurship data in individual countries suggest that cultural factors, as "a subset of stable contextual factors", may also play a role (Thurik & Dejardin, 2012). As for the role of culture, its influence on individuals' characteristics (Thomas & Mueller, 2000; Thurik & Dejardin, 2012) and aggregated entrepreneurial statistics (Shane *et al.*, 1991; Zhao *et al.*, 2012) are the focus of scientific interest. In this article, we will deal only with the influence of the perception of the individual's narrower and wider environment because we believe that these behaviours are substantially influenced by deep-rooted cultural patterns.

As far as the importance of the environment is concerned, according to Autio and Wennberg (2010), the norms and attitudes of an individual's community may have a greater impact on entrepreneurial behaviour than their attitudes and perceived self-efficacy. These links are typical for all spheres of youth engagement, including the employment relations (Bilan *et al.*, 2020).

During the analysis of the social environment, the subjective norm is the most often used term. It refers to the 'perceived social pressure to perform or not to perform the behaviour' (Ajzen, 1991). Research that seeks to assess the impact of the subjective norm usually asks about the supportive nature of the respondent's environment (family, friends, colleagues, schoolmates) (Liñán & Chen, 2009; Gubik & Farkas, 2019). Some research uses different terms, but the same solutions during operationalisation. For example, Turulja *et al.* (2020) use the informal support expression, others use the social norm expression (even if it is a wider concept than subjective norms).

Regarding the role of the subjective norm, there is no consensus in the literature. Engle *et al.* (2010), Ozaralli and Rivenburgh (2016), and Kautonen *et al.* (2015) proved subjective norms to be an important predictor of entrepreneurial intention. However, other research did not find a significant correlation between entrepreneurial intentions and subjective norms (Autio *et al.*, 2001; Krueger *et al.*, 2000; Nishimura & Tristán, 2011; Liñán & Chen, 2009; Wach & Wojciechowski, 2016).

The reasons for the different research results can be very diverse. Often methodological reasons may lie in the background. Some research on the relationship between entrepreneurial intentions and the subjective norm has found that norms have an indirect effect, they participate in models by influencing attitudes (Nowiński *et al.*, 2020; Gubik & Farkas, 2019; Wach & Bilan, 2021), entrepreneurial self-efficacy and risk attitudes (Nowiński *et al.*, 2020).

Another reason for the different results may be the low social prestige of being an entrepreneur, which is also true for the Hungarian society (Szerb & Kocsis-Kisantal, 2008), which not only can lead to not finding a meaningful relationship, but also to the relationship becoming negative. We want to test this on our database.

Norms and values are part of the social culture that an individual acquires during socialisation. Some individual values have a great impact on entrepreneurial aspirations and intentions of university students as it is proved by Eysel *et al.* (2020), Çera *et al.* (2018). The first scene of this process is the family. From the point of view of entrepreneurial ideas, the importance of family (business) background is decisive (Belas *et al.*, 2017; Gubik & Farkas, 2019; Shamsudin, 2017). Role models are crucial in the personal decision-making process (Bosma, 2012), and these roles often come from the family. Under certain circumstances, a family business can also appear as an entrepreneurial experience, and when planning to take over a family business, it significantly determines career ideas.

Laspita and his colleagues (Laspita *et al.*, 2012) highlighted that the strength of the effect varies across cultures. As for the relationship itself, we only know of one research that found no connection. Nguyen (2018) failed to prove the relationship between the family entrepreneurial environment and entrepreneurial intention in his research among Vietnamese students. We do not know of any research that found a negative relationship. These prior empirical results allowed us to assume the following research hypotheses:

H3: Subjective norms negatively affect students' entrepreneurial career plans.

H4: A family entrepreneurial background increases the chances of choosing an entrepreneurial career.

Education

The role of education in entrepreneurship is one of the most frequently investigated topics in entrepreneurial literature (Wach & Głodowska, 2019; Kobylińska & Lavios, 2020). Empirical studies show that formal education has a significant impact on entrepreneurial intention (Gubik, 2014), but there is a growing need for innovative solutions in education that effectively contribute to the transfer of skills and knowledge needed to start and run a business successfully (EC, 2008; Solomon *et al.*, 1994, Kickul & Fayolle, 2007; Harms, 2015; Costin *et al.*, 2018). Kurczewska *et al.* (2020) stated that education and professional experience are mutually indispensable to succeed as an entrepreneur, which draws attention to the complementarity between them.

The impact of education on entrepreneurial ideas and activity is not questioned by the scientific public, however, little is known about the mechanism of action (Gubik & Bartha, 2021). Research findings suggest that education has a direct impact on intentions towards entrepreneurship (Nowiński *et*

al., 2017; Maresch et al., 2016; Turker & Selcuk, 2009; Kramarz et al., 2019, Karyaningsih et al., 2020), Students' involvement in entrepreneurship programmes at university is positively related to start-up activities, too (Morris et al., 2017).

At the same time, entrepreneurship education also indirectly influences student decisions. It is likely to be a proxy for other individual characteristics that encourage entrepreneurial attempts (Nikolova et al., 2012; Dvorský et al., 2019). By gaining entrepreneurial knowledge, students also get an impression of their entrepreneurial aptitude (von Graevenitz et al., 2010), increase their self-efficacy (Egerová et al., 2017) and, as a result, increase their chances of running a successful business (Kolstad & Wiig, 2015).

There are three important aspects to mention in connection with entrepreneurship education. One is that entrepreneurship is not for everyone. An important task of entrepreneurship education is also to support students in learning about their abilities and drawing the right conclusion about their suitability for entrepreneurial activity. Von Graevenitz and his colleagues (2010) point out that the impact of entrepreneurship education is not uniform. It can be very different depending on what beliefs about their entrepreneurial aptitude students have, what signals they receive during education, and how these are valued.

The second is that the knowledge and experience gained can be used elsewhere. Entrepreneurship education boosts not only entrepreneurship but enhances the overall employability of students (Ling & Venesaar, 2015).

The third is that it would be a mistake to think only of the curriculum when assessing the role of education. Entrepreneurial ideas can also be encouraged by creating an entrepreneurial environment that makes clear the institution's commitment to entrepreneurial values, which should be apparent in communication and different activities (programmes, supports). We focus on this broader role in research and formulate our hypothesis accordingly:

H5: There is a positive correlation between the entrepreneurial university environment and students' entrepreneurial career plans.

The framework of the research

In the course of the analyses, we could not measure the already presented influencers (individual characteristics, family background, universities and social environment), instead, the students' self-assessments on them (attitude, self-efficacy, subjective norms, perceived university environment and entrepreneurial models from the family). The relationship between the variables is illustrated in Figure 1.

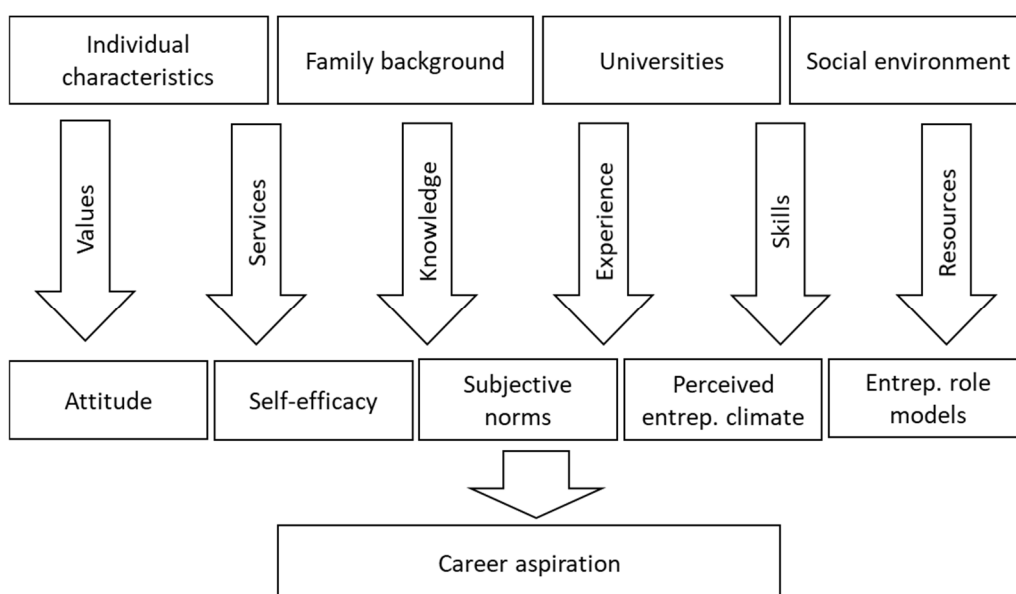


Figure 1. Career choice model

Source: own elaboration.

RESEARCH METHODOLOGY

Database

The research aims to explore the reasons behind the differences in student career plans, primarily to understand the driving forces behind choosing an entrepreneurial career. For this, we use the latest (2018) Hungarian database of the GUESSS research.

The GUESSS (Global University Entrepreneurial Spirit Students' Survey) is one of the largest entrepreneurship research in the world. The main focus of it is the entrepreneurial intentions and activity of students. Emphasis is also placed on the issue of the university environment, family background and family firm succession. The research was established in 2003, in 2018 55 countries participated and 208 636 students answered the questionnaire. The article relies on the analysis of the sample in Hungary, where 9 667 responses were collected from 19 universities. The composition of the respondents by field of study is as follows: engineering 22.3%; business, management and economics 22.2%, computer sciences/IT 9.3%; arts/humanities 8.4%; medicine, health sciences and social sciences 8.3%. 70% of respondents study on BSc and 16% on the MSc level. As regards gender distribution, the female-male ratio is 58.2% and 41.8%. The distribution by the level of education and by gender is close to the distribution of the total population, which, according to the level of education is as follows: 60% BSc, 12% MSc and 15% undivided, long-term Master's degree programme (in some fields of study, e.g. in human medicine, dentistry, pharmacy, law etc.) and by gender: 53% female, 47% male. 85.2% of respondents were born after 1990, that is, they were younger than 28 at the time of completing the questionnaire.

Variables

The dependent variable of the research was the career choice intention. Respondents were also asked to report on their career plans right after graduation and 5 years later ("Which career path do you intend to pursue right after completion of your studies?" "Which career path do you intend to pursue 5 years later?"). One of the following answers could be marked (only one per question): an employee in a small business (1-49 employees); an employee in a medium-sized business (50-249 employees); an employee in a large business (250 or more employees); an employee in a non-profit organisation; an employee in academia (academic career path); an employee in public service; a founder (entrepreneur) working in my own business; a successor in my parents'/family's business; a successor in another business; Other / do not know yet. These answers were grouped into 4 response categories during the analysis, these are: Employee, Founder, Successor and Other / do not know yet.

During the analysis we used the following independent variables:

Attitudes (ATT)

Students' attitudes towards entrepreneurship were measured following Liñán and Chen (2009) using the following items "Being an entrepreneur implies more advantages than disadvantages to me"; "A career as an entrepreneur is attractive for me"; "If I had the opportunity and resources, I would become an entrepreneur"; "Being an entrepreneur would be very satisfying for me"; "Among various options, I would rather become an entrepreneur" (1-7 Likert scale) (Cronbach's Alpha is 0.955). Students' attitudes were assessed by the arithmetic mean of the four items.

Subjective norms (SUB)

For subjective norms we used three items (Liñán & Chen, 2009): If you were to pursue a career as an entrepreneur, how would people in your environment react? Your close family/your friends/your fellow students (1-7 Likert scale) (Cronbach's Alpha is 0.797). Students' subjective norms were assessed by the arithmetic mean of the three items.

Self-efficacy (SEF)

Entrepreneurial self-efficacy was measured by the level of competence required for 6 entrepreneurial tasks (Chen *et al.*, 1998): "Identifying new business opportunities"; "Creating new products and ser-

vices”; “Managing innovation within a business”; “Being a leader and a communicator”; “Building up a professional network”; “Commercialising a new idea or development”; “Successfully managing a business” (1-7 Likert scale) (Cronbach’s Alpha is 0.920). Students’ self-efficacy was assessed by the arithmetic mean of the three items.

Family background (FAM)

In assessing the family environment, we examined whether parents are self-employed or majority owners of a business: Are your parents self-employed? No/Yes, my father is/Yes, my mother is/Yes, both are; Are your parents majority owners of a business? No/Yes, my father is/Yes, my mother is/Yes, both. By merging the two variables, we created a new variable (has/does not have a family business background).

University entrepreneurial climate (ECO)

Students rated their university entrepreneurial environment by answering the following items (Franke & Lüthje, 2004): “The atmosphere at my university inspires me to develop ideas for new businesses”; “There is a favourable climate for becoming an entrepreneur at my university”; “At my university, students are encouraged to engage in entrepreneurial activities” (1-7 Likert scale) (Cronbach’s Alpha is 0.877). Students’ evaluation on entrepreneurial climate was assessed by the arithmetic mean of the three items.

RESULTS AND DISCUSSION

Figure 2 illustrates the differences in students’ future career plans. A significant proportion of students preferred to be employed immediately after graduation and wanted to find a job in a large company or a small and medium-sized company. Working in the public sector was also attractive to respondents. Overall, 84.9% of the students intended to become employees after graduation. Five years after graduation, the attractiveness of employee status diminished in favour of entrepreneurial career (as founders or followers). The responses suggest that students only want to start their own business after gaining a few years of employee experience.



Figure 2. Career aspirations right after graduation and five years after studies (Number of students)
 Source: own elaboration, N=9667.

To test the hypotheses, the first step was to calculate the arithmetic mean of the Likert scale items (attitude (ATT), self-efficacy (SEF), subjective norms SUB), perceived university environment (ECO) so that we could express each variable with one value. The variable of career plans is also aggregated because for the focus of this article the distinction according to entrepreneurial / non-entrepreneurial career is relevant, so we aggregated all employee career choices into one category. After that, we examined what assessment students give according to their career ideas. Table 1 shows that after graduation and also five years later students with entrepreneurial plans gave above-average evaluations for each variable.

As the variables are not normally distributed, we performed Kruskal-Wallis test. The significance level of the test justified the differences according to the career plans (all null hypotheses were rejected), and the pairwise comparisons showed that these differences are significant in each pairing except founder/successor comparison. The strength of the relationship was checked using Eta statistics.

Table 1. Relationship between career plans and attitudes, self-efficacy, subjective norms and perceived university environment

Variables		Right after studies				5 years later			
		ATT	SUB	SEF	ECO	ATT	SUB	SEF	ECO
Employee	Mean	3.92	5.59	3.93	3.61	3.27	5.36	3.69	3.48
	N	6239	8159	6225	8151	3827	4377	3824	4370
Founder	Mean	5.85	5.90	4.85	3.79	5.47	5.93	4.53	3.81
	N	89	436	88	437	1970	3607	1965	3600
Successor	Mean	4.94	5.69	4.50	4.13	4.54	5.82	4.36	4.03
	N	90	168	90	168	186	302	185	302
Other / do not know yet	Mean	3.45	5.31	3.31	3.32	3.27	5.30	3.37	3.30
	N	703	844	700	840	1138	1321	1129	1324
Total	Mean	3.91	5.58	3.89	3.60	3.91	5.58	3.89	3.60
	N	7121	9607	7103	9596	7121	9607	7103	9596
Eta		0.158	0.094	0.163	0.075	0.546	0.255	0.312	0.131
Kruskal-Wallis p		0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000

Source: own study.

Based on the data of Table 1, it can be seen that in the case of entrepreneurial careers, higher averages were obtained for all the variables examined. That is, the more positive entrepreneurial attitudes, the more supportive environment, the greater self-confidence and the entrepreneurial university atmosphere are more likely to go hand in hand with entrepreneurial career ideas. The direction of the relationship is uncertain, nor do these cross-sectional studies clarify how entrepreneurial ideas are shaped as a result of education.

Our fifth variable in this study is family background, the effect of which was measured through the family entrepreneurial background: namely whether there is a sole proprietor or a majority owner of a business between the parents. We found that an entrepreneurial background increases the chances of an entrepreneurial career: those who report a family business are more likely to choose an entrepreneurial career themselves. The Chi-square test is significant. To test also the strength of the association we calculated Cramer V, an indicator with a value between 0 and 1 facilitates interpretation, in our case, it shows that the relationship is rather weak.

Table 2. Relationship between career plans and family business background

Variables	Right after studies			5 years later		
	No	Yes	Total	No	Yes	Total
Employee	5809	2398	8207	3308	1097	4405
	70.8%	29.2%	100.0%	75.1%	24.9%	100.0%
Founder	283	158	441	2333	1292	3625
	64.2%	35.8%	100.0%	64.4%	35.6%	100.0%
Successor	44	124	168	120	185	305
	26.2%	73.8%	100.0%	39.3%	60.7%	100.0%
Other / do not know yet	637	214	851	1012	320	1332
	74.9%	25.1%	100.0%	76.0%	24.0%	100.0%
Total	6773	2894	9667	6773	2894	9667
	70.1%	29.9%	100.0%	70.1%	29.9%	100.0%
Cramer's V			0.134	0.167		
p			0.000	0.000		

Source: own study.

Once we have determined that the variables included in the study are individually related to career choice, the next step is to examine 1) the extent to which they jointly explain the career choice decision, and 2) whether they retain their explanatory power when included with the other variables in the model.

For the analysis, we used binary logistic regression, which can be performed as opposed to linear regression even if the variables are not normally distributed (as in our case). The price of the “leniency” of the method is the more difficult interpretation of the model. In the study, we used an aggregate version of the career variable (1: planning a non-entrepreneurial career, 2: planning an entrepreneurial career). As an independent variable, we used the 5 variables of our analysis (attitude, self-efficacy, subjective norms, perceived university environment and entrepreneurial family background).

The developed model is significant (Chi-square test is significant), its explanatory power is 12.6% right after studies and 41.5% after 5 years (Nagelkerke’s R^2 values). The significant effect of the variables included in the model can be verified individually with the help of Wald statistics.

Table 3. Relationship between career plans and attitudes, self-efficacy, subjective norms and perceived university environment

Right after studies		B	Std. Error	Wald	df	Sig.	Exp(B)
Entrepreneurial career	ATT	0.534	0.066	65.977	1	0.000	1.705
	SEF	0.157	0.075	4.351	1	0.037	1.170
	SUB	-0.264	0.085	9.770	1	0.002	0.768
	ECO	0.074	0.054	1.888	1	0.169	1.077
	FAM	0.992	0.156	40.199	1	0.000	2.697
	Constant	-6.015	0.488	151.904	1	0.000	0.002
5 years later		B	Std. Error	Wald	df	Sig.	Exp(B)
Entrepreneurial career	ATT	0.882	0.027	1046.331	1	0.000	2.416
	SEF	0.069	0.030	5.410	1	0.020	1.072
	SUB	0.023	0.034	0.451	1	0.502	1.023
	ECO	-0.064	0.022	8.225	1	0.004	0.938
	FAM	0.401	0.069	33.943	1	0.000	1.493
	Constant	-5.028	0.204	609.109	1	0.000	0.007

The reference category is the non-entrepreneurial career. Nagelkerke’s R^2 =0.126 right after studies and 0.415 after 5 years

Source: own study.

An examination of odds ratios shows the role of each factor in the development of an entrepreneurial career. Given that entrepreneurial family background is a dichotomous variable (the effect of the appearance of entrepreneurial background is shown in the Table), it is unfortunate to compare its odds ratio with the effect of other variables obtained by averaging items measured on a Likert scale from 1 to 7. But logistic regression helps us to show which factors are also partially significant, i.e., keeping the effect of the other variables under control.

The role of attitudes is decisive in the development of both post-graduate plans and plans 5 years later, but its role will increase significantly in more distant career plans. In the case of the family entrepreneurial background, the case is opposite, the role of the family is much greater immediately after graduation than 5 years later, but in both periods it is a significant explanation of the student’s decision. The explanatory power of self-efficacy is modest despite its significance (this is even more so for more distant plans).

In the case of career plans immediately after studies the effect of the university entrepreneurial environment and after 5 years the subjective norm is not significant, apart from these all the variables appearing in the model affect the career plans.

We also examined the effect of several other factors that are not currently part of the article, such as demographic variables (gender and age). These variables showed a significant correlation in pairs with career plans, but their explanatory power was no longer significant when we included them in the model along with the variables we examined. Their effect is presumably exerted through our variables included in the study.

Based on our calculations, we can accept Hypothesis 1 on attitudes, Hypothesis 2 on the role of self-efficacy, and Hypothesis 4 on the family entrepreneurial background. The third hypothesis can only be accepted conditionally, the negative correlation between the subjective norm and entrepreneurial ideas is significant only immediately after the studies. Our fourth hypothesis about the university entrepreneurial climate is also not acceptable for career choices in general, as its significant effect was only demonstrated on plans after 5 years of study.

Regarding attitudes, our work supports the research results learned from the literature (Wach & Wojciechowski, 2016; Gubik & Farkas, 2019; Nishimura & Tristán, 2011; Liñán & Chen, 2009; Autio *et al.*, 2001; Krueger *et al.*, 2000). Regarding the family entrepreneurial background, our results also confirm previous results (Belas *et al.*, 2017; Gubik & Farkas, 2019; Shamsudin, 2017; Bosma, 2012). Since all students were interviewed for two dates (immediately after graduation and 5 years after graduation), so our analyses shed light on the changing role of these factors over time. The role of attitudes is intensifying and the role of family background is diminishing in the development of career plans for the distant future.

We were able to show the positive effect of self-efficacy similarly to previous research (Wach & Wojciechowski, 2016; Autio *et al.*, 2001; Krueger *et al.*, 2000; Nishimura & Tristán, 2011; Liñán & Chen, 2009; Kautonen *et al.*, 2015; Farashah, 2015), but we found its significance to be small in the explanatory building.

In terms of subjective norms, our results do not help resolve the debate among researchers on the topic. The peculiarity of the Hungarian economy, that the substantive development of entrepreneurship could take place only after 1990, and the supporting institutional system was not available in the right quality from the beginning, certainly determines the negative social opinion related to entrepreneurship, which does not help the development of entrepreneurial ideas.

As for the role of the university environment, universities in Hungary are making serious efforts both to transform curricula and to build other services (entrepreneurial clubs, programmes, start-up competitions, etc.), but we cannot show the remarkable impact of this in the development of career decisions yet.

There are many other aspects of deciding on career ideas. The modest explanatory power of the model (12.6% and 41.5%) also draws attention to this. At the same time, we have demonstrated the significant effects of some variables that can be mainly shaped within the framework of higher education.

Entrepreneurial careers are not an option for many students at the moment, but labour market rearrangements and the trends we experience have an impact on the spread of entrepreneurial careers. Conscious preparation for this can increase the chance for survival, profitability and so on, so university efforts are important for both the individual and society.

CONCLUSIONS

We examined the impact of the following factors: individual characteristics, family background, universities and social environment on students' future career plans. Instead of examining these directly, we focused on perceptions of students based on the fact that students perceive their opportunities and strengths very differently because of their inherent interests, different efforts and backgrounds. The five variables we analysed were attitudes, self-efficacy, subjective norms, perceived university environment and entrepreneurial family background. According to our results, we can conclude that attitudes considerably influence students' career plans. The more positive the entrepreneurial attitude of students, the more likely they are to plan an entrepreneurial career. Self-efficacy, which is about the strength of a "person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship" (Chen *et al.*, 1998), is also a weak but significant influencing factor.

Social norms, that is the behaviour of the environment (family, friends, etc.), also shapes plans. We were able to prove the decisive role of the family background, it conveys successful entrepreneurial patterns and experiences that contribute greatly to the formation of future entrepreneurial career aspirations. The weak negative effect of the subjective norm indicates that the social status of entrepreneurship is low in Hungary and at the same time does not significantly affect student perceptions.

Our analyses shed light on the changing role of these factors over time. The role of attitudes is intensifying and the role of family background is diminishing in the development of career plans (plans right after studies and five years later).

The university itself could be part of this environment, and the entrepreneurial ecosystem it creates could be an important favourable influence on student career plans, but our results indicate that there is still work to be done in this area.

Understanding student opinions in the context of entrepreneurship, and in particular the key drivers behind them, makes it possible to develop policies and university practices that can increase students' entrepreneurial intention and thus entrepreneurial activity.

The results suggest that to make the entrepreneurial career more attractive, a complex solution is needed, which simultaneously conveys knowledge and information and also changes students' attitude and way of thinking. This goes beyond traditional curricula, there would be a need to develop new solutions that allow students to deepen their knowledge through experience and make them possible to try out different roles. Also for services that collect information, help to develop business ideas, and also in implementation. Unfortunately, these are processes that change very slowly and require a lot of resources (both human and financial), so a serious commitment is needed from both decision-makers and university management.

There are several limitations to our work, three of which we highlight. First, we analysed only the responses of students who participated in the Hungarian higher education and not the entire youth population, which may affect our outcomes. Second, questionnaire research, by its nature, is not suitable for full-depth understanding, with many individual motives remaining hidden. Finally, although the career questions formulated for the two dates attempted to illustrate the role of temporal change, due to the cross-sectional nature of the research, the exploration of causal relationships and the understanding of impact mechanisms are incomplete. These limitations must be taken into account when interpreting our conclusions. Applying qualitative research methods (case studies and interviews) could help to ensure a better understanding of the topic.

REFERENCES

- Ács, Z.J., Szerb, L., Lafuente, E., & Lloyd, A. (2018). *Global Entrepreneurship and Development Index 2018* Springer, Cham. <https://doi.org/10.1007/978-3-030-03279-1>
- Acs, Z., Desai, S., & Hessels, J. (2008). Entrepreneurship, economic development and institutions. *Small Business Economics*, 31, 219-234. <https://doi.org/10.1007/s11187-008-9135-9>
- Ajzen, I. (1991). The Theory of Planned Behavior Organizational. *Behavior and Human Decision Processes*, 50(2), 179-211.
- Autio, E., & Wennberg, K. (2010). You think, therefore, I become: Social attitudes and the transition to entrepreneurship. Paper presented at DRUID Summer Conference 2010, Imperial College London Business School, 16-18 June 2010, London.
- Autio, E. (2005). Report on High-Expectation Entrepreneurship. Global Entrepreneurship Monitor, London Business School – Babson College Retrieved from <https://negocios.udd.cl/gemchile/files/2010/12/HEE-2005.pdf> on February 12, 2021.
- Autio, E., Keeley, R.H., Klosfsten, M., Parker, G.C., & Hay, M. (2001). Entrepreneurial Intent among Students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, 2(2), 145-160. <https://doi.org/10.1080/14632440110094632>
- Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147. <https://doi.org/10.1037/0003-066x.37.2.122>
- Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of Child Development. Six theories of child development* (Vol. 6, pp. 1-60). Greenwich, CT: JAI Press.
- Bartha, Z., Gubik, A.S., & Bereczk, A. (2018). The Social Dimension of the Entrepreneurial Motivation in the Central and Eastern European Countries. *Entrepreneurial Business and Economics Review*, 7(1), 9-27. <https://doi.org/10.15678/EBER.2019.070101>

- Belas, J., Gavurova, B., Schonfeld, J., Zvarikova, K., & Kacerauskas, T. (2017). Social and economic factors affecting the entrepreneurial intention of university students. *Transformations in Business and Economics*, 16(3), 220-239.
- Bigos, K., & Michalik, A. (2020). Do emotional competencies influence students' entrepreneurial intentions?. *Sustainability*, 12(23), 10025. <https://doi.org/10.3390/su122310025>
- Bigos, K., & Wach, K. (2021). Product innovation as the cause for export propensity in the Caucasus: Empirical evidence for Armenia, Azerbaijan and Georgia. *Central Asia and the Caucasus*, 22(2).
- Bilan Y., Mishchuk, H., Roshchuk, I. & Joshi, O. (2020). Hiring and retaining skilled employees in SMEs: problems in human resource practices and links with organizational success. *Business: Theory and Practice*, 21(2), 780-791. DOI: <https://doi.org/10.3846/btp.2020.12750>
- Bosma, N., Hessels, J., Schutjens, V., Van Praag, M., & Verheul, I. (2012). Entrepreneurship and role models. *Journal of Economic Psychology*, 33(2), 410-424. <https://doi.org/10.1016/j.joep.2011.03.004>
- Bouchard, V., & Fayolle, A. (2018) *Corporate Entrepreneurship*. Routledge.
- Cantillon (2010 first published in 1755). An Essay on Economic Theory An English translation of Richard Cantillon's *Essai sur la Nature du Commerce en Général*. Translated by Chantal Saucier Edited by Mark Thornton. Retrieved from https://cdn.mises.org/An%20Essay%20on%20Economic%20Theory_2.pdf on February 17, 2021.
- Carree, M.A., & Thurik, A.R. (2010). The Impact of entrepreneurship on Economic Growth. In Z. Acs & D. Audretsch (Eds.), *International Handbook of Entrepreneurship Research* (2nd edition, pp. 557-594). New York: Springer.
- Chen, C.C., Greene, P.G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers?. *Journal of Business Venturing*, 13(4), 295-316. [https://doi.org/10.1016/s0883-9026\(97\)00029-3](https://doi.org/10.1016/s0883-9026(97)00029-3)
- Costin, Y., O'Brien, M.P., & Slattery, D.M. (2018). Using simulation to develop entrepreneurial skills and mind-set: an exploratory case study. *International Journal of Teaching and Learning in Higher Education*, 30(1), 136-145.
- Dankiewicz, R., Ostrowska-Dankiewicz, A., & Bulut, C. (2020). The attitudes of entrepreneurs of the small and medium-sized enterprises sector in Poland to key business risks. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 15(3), 511-536. <https://doi.org/10.24136/eq.2020.023>
- Doanh, D.C. (2021). The moderating role of self-efficacy on the cognitive process of entrepreneurship: An empirical study in Vietnam. *Journal of Entrepreneurship, Management and Innovation*, 17(1), 147-174. <https://doi.org/10.7341/20211715>
- Dvorský, J., Petráková, Z., Zapletalíková, E., & Rózsa, Z. (2019). Entrepreneurial propensity index of university students. The case study from the Czech Republic, Slovakia and Poland. *Oeconomia Copernicana*, 10(1), 173-192. <https://doi.org/10.24136/oc.2019.009>
- EC. (2008). Entrepreneurship in Higher Education. Especially within Non-business Studies Final Report of the Expert Group European Commission. Retrieved https://ec.europa.eu/growth/content/entrepreneurship-higher-education-especially-within-non-business-studies-0_nn on February 12, 2021.
- EC. (2013). Entrepreneurship 2020 Action Plan. Retrieved from <https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/entrepreneurship-2020-action-plan#related-linkson> February 12, 2021.
- Egerová, D., Eger, L., & Micik, M. (2017). Does entrepreneurship education matter? Business students' perspectives. *Tertiary Education and Management*, 23(1), 1-15. <https://doi.org/10.1080/13583883.2017.1299205>
- Engle, R.L., Dimitriadi, N., Gavidia, J.V., Schlaegel, Ch., Delanoé, S., Alvarado, I., He, X., Buame, S., & Wolff, B. (2010). Entrepreneurial Intent: A Twelve-country Evaluation of Ajzen's Model of Planned Behavior. *International Journal of Entrepreneurial Behavior and Research*, 16(1), 35-57. <https://doi.org/10.1108/13552551011020063>
- Eurofound. (2015). *Youth entrepreneurship in Europe: Values, attitudes, policies*. Luxembourg: Publications Office of the European Union.
- EYE. (2015). Erasmus for Young Entrepreneurs. Retrieved from <http://www.erasmus-entrepreneurs.eu/upload/Programme%20Guide%20EN%20-May%202015.pdf> on September 25, 2018.
- Eyel, C. Ş., Kaplan, B., & Ünkeya, G. (2020). The effect of business administration students' individual values on their entrepreneurial tendency in Istanbul. *Economics and Sociology*, 13(4), 187-212. <https://doi.org/10.14254/2071-789X.2020/13-4/12>
- Farashah, A.D. (2015). The effects of demographic, cognitive and institutional factors on development of entrepreneurial intention: Toward a socio-cognitive model of entrepreneurial career. *Journal of International Entrepreneurship*, 13(4), 452-476.
- Franke, N., & Lüthje, C. (2004). Entrepreneurial Intentions of Business Students — a Benchmarking Study. *International Journal of Innovation and Technology Management*, 1(3), 269-288 <https://doi.org/10.1142/S0219877004000209>

- Çera, G., Cepel, M., Zakutna, S., & Rozsa, Z. (2018). Gender differences in perception of the university education quality as applied to entrepreneurial intention. *Journal of International Studies*, 11(3), 147-160. <https://doi.org/10.14254/2071-8330.2018/11-3/13>
- Gancarczyk, M., & Ujwary-Gil, A. (2021). Entrepreneurial cognition or judgment: The management and economic approaches to the entrepreneur's choices. *Journal of Entrepreneurship, Management and Innovation*, 17(1), 7-23. <https://doi.org/10.7341/20211710>
- Gauthier, J.F., Stangler, D., Penzel, M., Morelix, A., & Ortmans, J. (2018). Global Startup Ecosystem Report 2018. Succeeding in the New Era of Technology. Startup Genome and Global Entrepreneurship Network (GEN). Retrieved from <https://startupgenome.com/reports/global-startup-ecosystem-report-gser-2018> on February 12, 2021.
- Gubik, S.A., & Farkas, Sz. (2019). Entrepreneurial Intention in the Visegrad Countries. *Danube: Law and Economics Review*, 10(4) 347-368. <https://doi.org/10.2478/danb-2019-0018>
- Gubik, S.A. (2014). The Role of Higher Education Institutions in the Entrepreneurship of Hungarian Students. *Theory Methodology Practice: Club of Economics in Miskolc*, 10(1), 71-79.
- Gubik, S.A. (2020). Entrepreneurship and Economic Growth – Conceptualization Choices in the Literature. *Észak-Magyarországi Stratégiai Füzetek*, 17(1), 45-56.
- Gubik, S.A., & Bartha, Z. (2018). The role of university in influencing the entrepreneurial intention of university students. *International Entrepreneurship Review*, 4(3), 177-188.
- Gubik, S.A., & Bartha, Z. (2021). Student perception and the efficacy of universities in shaping the entrepreneurial mindset. *Theory Methodology Practice: Club of Economics in Miskolc*, 17(SI). 65-76. <http://doi.org/10.18096/TMP.2021.01.07>
- Harms, R. (2015). Self-regulated learning, team learning and project performance in entrepreneurship education: Learning in a lean startup environment. *Technological Forecasting and Social Change*, 100, 21-28.
- Hope, K. (Ed.) (2016). Annual Report on European SMEs 2015/2016. SME Recovery Continues. European Commission. Retrieved from https://ec.europa.eu/jrc/sites/jrcsh/files/annual_report_-_eu_smes_2015-16.pdf on February 12, 2021.
- Isenberg, D.J. (2011). Introducing the Entrepreneurship Ecosystem: Four Defining Characteristics Retrieved from <https://www.forbes.com/sites/danisenberg/2011/05/25/introducing-the-entrepreneurship-ecosystem-four-defining-characteristics/#3d1700cc5fe8> on February 12, 2021.
- Karyaningsih, R.P.D., Wibowo, A., Saptono, A., & Narmaditya, B.S. (2020). Does entrepreneurial knowledge influence vocational students' intention? Lessons from Indonesia. *Entrepreneurial Business and Economics Review*, 8(4), 138-155. <https://doi.org/10.15678/EBER.2020.080408>
- Kautonen, T., van Gelderen, M., & Fink, M. (2015). Robustness of the Theory of Planned Behavior in Predicting Entrepreneurial Intentions and Actions. *Entrepreneurship Theory and Practice*, 39(3), 655-674. <https://doi.org/10.1111/etap.12056>
- Kickul, J., & Fayolle, A. (2007). Cornerstones of change: revisiting and challenging new perspectives on research in entrepreneurship education. In Fayolle, A. (Ed.) *Handbook of Research in Entrepreneurship Education*, Volume 1 A General Perspective. Edward Elgar Publishing Limited.
- Kirzner, I.M. (1973). *Competition and entrepreneurship*. University of Chicago Press.
- Ključnikov, A., Civelek, M., Čech, P., & Kloudová, J. (2019). Entrepreneurial orientation of SMEs? executives in the comparative perspective for Czechia and Turkey. *Oeconomia Copernicana*, 10(4), 773-795. <https://doi.org/10.24136/oc.2019.035>
- Kobylińska, U., & Lavios, J. J. (2020). Development of research on the university entrepreneurship ecosystem: trends and areas of interest of researchers based on a systematic review of literature. *Oeconomia Copernicana*, 11(1), 117-133. <https://doi.org/10.24136/oc.2020.005>
- Kolstad, I., & Wiig, A. (2015). Education and entrepreneurial success. *Small Business Economics*, 44(4), 783-796. <https://doi.org/10.1007/s11187-014-9621-1>
- Kramarz, P., Dębski, M., & Luty, L. (2019). Trends in entrepreneurial behaviour among immigrant students: Conclusions from research conducted at the University of Social Sciences. *International Entrepreneurship Review*, 5(4), 25-39. <https://doi.org/10.15678/IER.2019.0504.02>
- Krueger, N., Reilly, M.D., & Carsrud, A.L. (2000). Competing Models of Entrepreneurial Intentions. *Journal of Business Venturing*, 15(5-6), 411-432. [https://doi.org/10.1016/s0883-9026\(98\)00033-0](https://doi.org/10.1016/s0883-9026(98)00033-0)

- Kurczewska, A., Doryń, W., & Wawrzyniak, D. (2020). An Everlasting Battle between Theoretical Knowledge and Practical Skills? The Joint Impact of Education and Professional Experience on Entrepreneurial Success. *Entrepreneurial Business and Economics Review*, 8(2), 219-237. <https://doi.org/10.15678/EBER.2020.080212>
- Laspita, S., Breugst, N., Hebllich, S., & Patzelt, H. (2012). Intergenerational transmission of entrepreneurial intentions. *Journal of Business Venturing*, 27(4), 414-435. <https://doi.org/10.1016/j.jbusvent.2011.11.006>
- Leone, J., & Cascio, J.L. (2020). Income gaps: Education and inequality. *Economics and Business Review EBR*, 20(4), 27-50. <https://doi.org/10.18559/ebr.2020.4.3>
- Liñán, F., & Chen, Y.W. (2009). Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship: Theory and Practice*, 33(3), 593-617. <https://doi.org/10.1111/j.1540-6520.2009.00318.x>
- Ling, H., & Venesaar, U. (2015). Enhancing Entrepreneurship Education in Engineering Students to Increase Their Metacognitive Abilities: Analysis of Student Self-Assessments. *Engineering Economics*, 26(3), 333-342. <https://doi.org/10.5755/j01.ee.26.3.5283>
- Lüthje, C., & Franke, N. (2002). Fostering Entrepreneurship through University Education and Training: Lessons from Massachusetts Institute of Technology. European Academy of Management, 2nd Annual Conference on Innovative Research in Management, 2002, May 9-11, Stockholm. Retrieved <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.203.2530&rep=rep1&type=pdf> on February 12, 2021.
- Loan, L.T., Doanh, D.C., Thang, H.N., Viet Nga, N.T., Van, P.T., & Hoa, P.T. (2021). Entrepreneurial behaviour: The effects of fear and anxiety of Covid-19 and business opportunity recognition. *Entrepreneurial Business and Economics Review*, 9(3), 7-23. <https://doi.org/10.15678/EBER.2021.090301>
- Maresch, D., Harms, R., Kailer, N., & Wimmer-Wurm, B. (2016). The impact of entrepreneurship education on the entrepreneurial intention of students in science and engineering versus business studies university programs. *Technological Forecasting and Social Change*, 104(3), 172-179. <https://doi.org/10.1016/j.techfore.2015.11.006>
- Meager, N., Bates, P., & Cowling, M. (2003). An evaluation of business start-up support for young people. *National Institute Economic Review*, 186(1), 59-72. <https://doi.org/10.1177/00279501031861007>
- Mensah, E.K., Asamoah, L.A., & Jafari-Sadeghi, V. (2021). Entrepreneurial opportunity decisions under uncertainty: Recognizing the complementing role of personality traits and cognitive skills. *Journal of Entrepreneurship, Management and Innovation*, 17(1), 25-55. <https://doi.org/10.7341/20211711>
- Meyer, N., & Krüger, N. (2021). South African female entrepreneurs' motivational factors: Differences between young and established businesses owners. *Forum Scientiae Oeconomia*, 9(1), 75-90. https://doi.org/10.23762/FSO_VOL9_NO1_5
- Morris, M.H., Shirokova, G., & Tsukanova, T. (2017). Student entrepreneurship and the university ecosystem: a multi-country empirical exploration. *European Journal of International Management*, 11(1), 65-85. <https://doi.org/10.1504/ejim.2017.10001679>
- Nguyen, C. (2018). Demographic factors, family background and prior self-employment on entrepreneurial intention - Vietnamese business students are different: why?. *Journal of Global Entrepreneurship Research*, 8(10), <https://doi.org/10.1186/s40497-018-0097-3>
- Nikolova, E., Ricka, F., & Simroth, D. (2012). Entrepreneurship in the transition region: An analysis based on the Life in Transition Survey. EBRD Working Paper No. 141. Retrieved from <https://www.ebrd.com/downloads/research/economics/workingpapers/wp0141.pdf> on March 15, 2021.
- Nowiński, W., Haddoud, M., Wach, K., & Schaefer, R. (2020). Perceived public support and entrepreneurship attitudes: A little reciprocity can go a long way!. *Journal of Vocational Behavior*, 121, 103474. <https://doi.org/10.1016/j.jvb.2020.103474>
- OECD. (2019). Future of Education and Skills 2030 Conceptual learning framework, Attitudes and Values for 2030. Retrieved from http://www.oecd.org/education/2030-project/teaching-and-learning/learning/attitudes-and-values/Attitudes_and_Values_for_2030_concept_note.pdf on 15th March, 2021.
- Serida Nishimura, J., & Morales Tristán, O. (2011). Using the Theory of Planned Behavior to Predict Nascent Entrepreneurship. *Academia. Revista Latinoamericana de Administración*, 46, 55-71. Retrieved from <https://www.redalyc.org/articulo.oa?id=71617238005> on February 12, 2021.
- Ozaralli, N., & Rivenburgh, N.K. (2016). Entrepreneurial Intention: Antecedents to Entrepreneurial Behavior in the U.S.A. and Turkey. *Journal of Global Entrepreneurship Research*, 6(3), 2-32. <https://doi.org/10.1186/s40497-016-0047-x>

- Pingying, Z., Dongyuan, D.W., & Crystal, L.O. (2014). Study of Entrepreneurial Intention of University Students. *Entrepreneurship Research Journal*, 5(1), 61-82. <https://doi.org/10.1515/erj-2014-0004>
- Reissová, A., Šimsová, J., Sonntag, R., & Kučerová, K. (2020). The influence of personal characteristics on entrepreneurial intentions: International comparison. *Entrepreneurial Business and Economics Review*, 8(4), 29-46. <https://doi.org/10.15678/EBER.2020.080402>
- Remeikienė, R., Dumčiuvienė, D., & Startienė, G. (2013). Explaining Entrepreneurial Intention of University Students: The Role of Entrepreneurial Education. In V. Dermol, N.T. Širca, & G. Dakovic (Eds.), *Active Citizenship by Knowledge Management & Innovation: Proceedings of the Management, Knowledge and Learning International Conference* (pp. 299-307). ToKnowPress.
- Schrör, H. (2006). The profile of the successful entrepreneur. Results of the survey 'Factors of Business Success'. *Statistics in focus* 29/2006, Eurostat
- Schumpeter, J.A. (1982). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle (1912/1934)*. Transaction Publishers.–1982.–January, 1, 244.
- Shamsudin, B., Mamun, A., Nawi, N., Nasir, N., & Zakaria, M. (2017). Factors Affecting Entrepreneurial Intention Among The Malaysian University Students. *The Journal of Developing Areas*, 51(4), 423-431.
- Shane, S., Kolvareid, L., & Westhead, P. (1991). An Exploratory Examination of the Reasons Leading to New Firm Formation Across Country and Gender. *Journal of Business Venturing*, 6(6), 431-446. [https://doi.org/10.1016/0883-9026\(91\)90029-d](https://doi.org/10.1016/0883-9026(91)90029-d)
- Shapiro, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. In C.A. Kent, D.L. Sexton, & K.H. Vesper (Eds.), *Encyclopedia of entrepreneurship* (pp. 72-90). Prentice-Hall, Inc., New Jersey: Englewood Cliffs.
- Siu, W., & Lo, E.S. (2013). Cultural Contingency in the Cognitive Model of Entrepreneurial Intention. *Entrepreneurship Theory and Practice* 37(2), 147-73. <https://doi.org/10.1111/j.1540-6520.2011.00462.x>
- Solesvik, M. (2019). Entrepreneurial competencies and intentions: the role of higher education. *Forum Scientiae Oeconomia*, 7(1), 9-23. https://doi.org/10.23762/FSO_VOL7_NO1_1
- Solomon, G.T., Weaver, K.M., & Fernald, L.W. (1994). A historical examination of small business management and entrepreneurship pedagogy. *Simulation and Gaming*, 25, 338-52.
- Stam, E., & Spigel, B. (2016). Entrepreneurial Ecosystems. Working Papers 16-13, Utrecht School of Economics.
- Szerb, L., & Kocsis-Kisantal, O. (2008). Vállalkozói kultúra Magyarországon két napilap tükrében (Entrepreneurship culture in Hungary in the face of two dailies). *Közgazdasági Szemle*, 55(3) 243-261.
- Thomas, A.S., & Mueller, S.L. (2000). A Case for Comparative Entrepreneurship: Assessing the Relevance of Culture. *Journal of International Business Studies*, 31(2), 287-301. <https://doi.org/10.1057/palgrave.jibs.8490906>
- Thurik, R., & Dejardin, M. (2012). Entrepreneurship and Culture. In Marco van Gelderen & Enno Masarel (Eds). *Entrepreneurship in Context* (pp. 175-186). Routledge: Routledge Studies in Entrepreneurship.
- Turker, D., & Sonmez Selcuk, S. (2009). Which factors affect entrepreneurial intention of university students?. *Journal of European Industrial Training*, 33(2), 142-159. <https://doi.org/10.1108/03090590910939049>
- Turulja, L., Veselinovic, L., Agic, E., & Pasic-Mesihovic, E. (2020). Entrepreneurial intention of students in Bosnia and Herzegovina: what type of support matters?. *Economic Research-Ekonomska Istraživanja*, 33(1), 2713-2732. <https://doi.org/10.1080/1331677X.2020.1730216>
- von Graevenitz, G., Harhoff, D., & Weber, R. (2010). The effects of entrepreneurship education. *Journal of Economic Behavior and Organization*, 76(1), 90-112. <https://doi.org/10.1016/j.jebo.2010.02.015>
- Wach, K., & Bilan, S. (2021). Public support and administration barriers towards entrepreneurial intentions of students in Poland. *Administratie si Management Public*, 36(1).
- Wach, K., & Głodowska, A. (2019). The Role of University in the Development of Entrepreneurial Intentions of Younger Generations: Selected Models. In M. Pietrzykowski (Ed.), *Fostering Entrepreneurial and Sales Competencies in Higher Education* (pp. 45-63). Poznań (Poland): Bogucki Wydawnictwo Naukowe. <https://doi.org/10.12657/9788379862801-4>
- Wach, K., & Głodowska, A (2021). How do demographics and basic traits of an entrepreneur impact the internationalisation of firms?. *Oeconomia Copernicana*, 12(2).
- Wach, K., & Wojciechowski, L. (2016). Entrepreneurial Intentions of Students in Poland in the view of Ajzen's Theory of Planned Behaviour. *Entrepreneurial Business and Economics Review*, 4(1), 83-94. <https://doi.org/10.15678/eber.2016.040106>


- Wennekers, A.R.M., & Thurik, A.R. (1999). Linking entrepreneurship and economic growth. *Small Business Economics* 13, 27-55. <https://doi.org/10.1023/A:1008063200484>
- World Economic Forum. (2013). Entrepreneurial Ecosystems Around the Globe and Company Growth Dynamics. Report Summary for the Annual Meeting of the New Champions. Retrieved from http://www3.weforum.org/docs/WEF_EntrepreneurialEcosystems_Report_2013.pdf on February 12, 2021.
- World Economic Forum. (2015). New Vision for Education: Unlocking the Potential of Technology. World Economic Forum, Switzerland. Retrieved from http://www3.weforum.org/docs/WEFUSA_NewVisionforEducation_Report2015.pdf on February 12, 2021.
- Zellweger, T., Sieger, P., & Halter, F. (2011). Should I stay or should I go? Career choice intentions of students with family business background. *Journal of Business Venturing*, 26(5), 521-536.
- Zhao, X., Li, H., & Rauch, A. (2012). Cross-country Differences in Entrepreneurial Activity: The Role of Cultural Practice and National Wealth. *Frontiers of Business Research in China*, 6(4), 447-474. <https://doi.org/10.3868/s070-001-012-0021-0>
- Zygmunt, J. (2018). Entrepreneurial activity drivers in the transition economies. Evidence from the Visegrad countries. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 13(1), 89-103. <https://doi.org/10.24136/eq.2018.005>
- Zygmunt, J. (2020). The effect of changes in the economic structure on entrepreneurial activity in a transition economy: the case of Poland. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 15(1), 49-62. <https://doi.org/10.24136/eq.2020.003>

Author

Andrea S. Gubik

Associate Professor at the Faculty of Economics of the University of Miskolc (Hungary). PhD in Management and Business Administration, International Comparative Studies. Her research interests include entrepreneurship, entrepreneurial intentions, international comparative studies.

Correspondence to: Dr. Andrea S. Gubik; University of Miskolc, Faculty of Economics, Institute of Economic Theory and Methodology; 3515 Miskolc-Egyetemváros, Hungary; e-mail: getgubik@uni-miskolc.hu

ORCID  <http://orcid.org/0000-0002-7632-9828>

Acknowledgements and Financial Disclosure

This research was supported by the project no. EFOP-3.6.2-16-2017-00007, titled *Aspects on the development of intelligent, sustainable and inclusive society: social, technological, innovation networks in employment and digital economy*. The project has been supported by the European Union, co-financed by the European Social Fund and the budget of Hungary.

Conflict of Interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright and License



This article is published under the terms of the Creative Commons Attribution – NoDerivs (CC BY-ND 4.0) License <http://creativecommons.org/licenses/by-nd/4.0/>