

## Student Entrepreneurship in Hungary: Selected Results Based on GUESSS Survey

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### ABSTRACT

**Objective:** This study investigates students' entrepreneurial activities and aims to answer questions regarding to what extent do students utilize the knowledge gained during their studies and the personal connections acquired at universities, as well as what role a family business background plays in the development of students' business start-ups.

**Research Design & Methods:** This paper is based on the database of the GUESSS project investigates 658 student entrepreneurs (so-called 'active entrepreneurs') who have already established businesses of their own.

**Findings:** The rate of self-employment among Hungarian students who study in tertiary education and consider themselves to be entrepreneurs is high. Motivations and entrepreneurial efforts differ from those who owns a larger company, they do not necessarily intend to make an entrepreneurial path a career option in the long run. A family business background and family support play a determining role in entrepreneurship and business start-ups, while entrepreneurial training and courses offered at higher institutions are not reflected in students' entrepreneurial activities.

**Implications & Recommendations:** Universities should offer not only conventional business courses (for example, business planning), but also new forms of education so that students meet various entrepreneurial tasks and problems, make decisions in different situations, explore and acquaint themselves with entrepreneurship.

**Contribution & Value Added:** The study provides literature overview of youth entrepreneurship, describes the main characteristics of students' enterprises and contributes to understanding the factors of youth entrepreneurship.

**Article type:** research paper

**Keywords:** entrepreneurship education; higher education; youth entrepreneurship; self-employment; family business background

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## INTRODUCTION

Business enterprises have become indispensable institutions of modern market economies because they stimulate economic and social development through innovation and job creation. As early as 1980s small-sized enterprises started to play an outstanding role in lowering the rate of unemployment, which had considerably increased due to downsizing and restructuring activities in large companies (Audretsch & Thurik, 2001). Currently, decision-makers are also attempting to seek solutions for the problem of unemployment which grew considerably during the financial crisis of 2008 and the following economic recession. They believe that entrepreneurship as a career opportunity can be a viable solution to youth unemployment.

Although the moderate economic recovery after the crises has improved the rate of youth employment to some extent, a real breakthrough in reducing the unemployment rate has not been achieved yet. Statistical data clearly show that the rate of youth unemployment has increased in most countries, which resulted in difficult to manage economic and social problems. The rate amounted to 21.6% in the EU member states in 2014 (Eurofound, 2015). An important element of managing this problem is the promotion of self-employment and youth entrepreneurship (Eurofound, 2015). Research studies also show that there is some transition of young unemployed people into self-employed (Shutt & Sutherland, 2003).

There are several documents dealing with youth entrepreneurship and its fostering. The Entrepreneurship 2020 Action Plan identifies three areas of intervention. One of these areas is entrepreneurial education and training. Both the Youth Entrepreneurship Strategies (YES), a project stimulating entrepreneurial aspirations of young people, and Erasmus for Young Entrepreneurs (EYE), a business exchange programme, aim at fostering entrepreneurship.

These important documents have come to a common conclusion, namely, that students studying in higher educational institutions must be provided complex assistance to be able to create new businesses. They should be taught good practices, offered reformed entrepreneurial education and given access to financial support.

This study investigates students' entrepreneurial activities. We are seeking an answer to questions such as how much students utilise the knowledge gained during their studies and the personal connections acquired at universities, as well as what role a family business background plays in the development of students' entrepreneurial aspirations, intentions and business start-ups. Also, students' objectives and motivations in becoming entrepreneurs as well as their success and growth orientations are investigated. In order to answer these questions, the Hungarian database of the international research project GUESSS (Global University Entrepreneurial Spirit Students' Survey) is used. After giving a literature overview, this study describes the main characteristics of the database and analyses student-entrepreneurs and their businesses in detail based on the survey of 2013, as this is the last available database.

## LITERATURE REVIEW

### Main Definitions

Entrepreneurship is a complex concept. It is “the mindset and process to create and develop economic activity by blending risk-taking, creativity and/or innovation with sound management, within a new or an existing organisation” (European Commission, 2003, p. 5). The definition of youth entrepreneurship also attempts to highlight this complexity: youth entrepreneurship is defined as a “practical application to enterprising qualities, such as initiative, innovation, creativity and risk-taking into the work environment (either in self-employment or employment in small start-up firms), using the appropriate skills necessary for success in that environment and culture” (Schnurr & Newing, 1997) quoted in (Eurofound, 2015, p. 11).

The term ‘youth entrepreneurship’ constitutes an integral part of the general definition of entrepreneurship. Half a dozen or so common elements of youth entrepreneurship and entrepreneurship (opportunity recognition, risk-taking, commitment, etc.) indicate that there are only age differences between the two concepts. As for the age of ‘youth entrepreneurship’, the United Nations (UN) uses the age band of 15-24 years. Eurostat includes people who are 15-29 years old in the group of ‘youth entrepreneurs’. The Global Entrepreneurship Monitor (GEM) defines young entrepreneurs as people between the ages of 18-34 years. Although students studying in tertiary education make up only a special subset of the youth population, they are the target audience of this study. This study considers self-employed students to be young entrepreneurs in order to comply with the methodology used by the European data sampling.

### Importance of Youth Entrepreneurship

Fostering entrepreneurship of students in higher education results not only in improving unemployment prospects of students, but also has some further benefits. According to GEM findings, the levels of entrepreneurial intentions of respondents belonging to this age group are 1.6 times higher than those of adults (Schot, Kew & Cheraghi, 2015), whereas the proportion of respondents pursuing actual entrepreneurial activities is significantly lower. In addition, businesses run by young entrepreneurs have lower survival rates than those of older entrepreneurs (OECD, 2015). The surviving businesses are more growth oriented. The questionnaire survey on Factors of Business Success conducted by Eurostat shows that enterprises run by people under the age of 30 more than doubled their growth during the examined period of three years, whereas entrepreneurs aged 40 and over achieved only an average growth of 131% (Schrör, 2006).

As for levels of education, the proportion of respondents with tertiary education background established more businesses in higher added-value industries (high-tech) and with higher initial capital (Richert & Schiller, 1994) quoted in (Lüthje & Franke, 2002). According to Autio (2005), enterprises run by well-qualified young entrepreneurs with a solid financial background who are motivated to utilise good business opportunities show higher growth potential.

In the 28 EU member states the rate of self-employed young people amounts to 6.5%, which translates into 2.67 million people. There are considerable differences between countries. Greece with its 16% shows the highest self-employment activity and

Luxembourg the lowest with 3.5%. As for the rate of self-employed respondents, Hungary takes the middle position among 28 EU member states. Studies limited to investigating self-employment came to the same conclusion as above, and state that there is a correlation between higher levels of education and self-employment rate, which means that the knowledge, competences and skills gained in higher educational institutions considerably contribute to entrepreneurship and business start-up intentions (Blackburn, 1997; Green, 2013). Generation role models are also significant in terms of self-employment because a high rate of children follow in their parents' footsteps (Mungai & Valemuri, 2011). 'Older' young people, especially males, are more likely to become self-employed than others (Dolton & Makepeace, 1990).

### **Who Will Become an Entrepreneur?**

Since the threshold of active enterprises is entrepreneurial intention, a great number of business models can be adopted (Ajzen, 1991; Bandura, 1977; Shapero & Sokol, 1982). All of the models focus on complexity of decision-making processes. Numerous attempts have been made to understand the role of entrepreneurial attitudes, activities, conditions, characteristics and aspirations in entrepreneurship (GEM, 2014; YBI, 2011).

Several individual factors (personality traits and attitudes) and institutional factors affect the respondents' decisions to become an entrepreneur. Research studies differ in terms of factors included in the models and in the level of importance assigned to factors. Here are a few examples to show the diversity of coexisting findings. Willingness to take risks and striving to become independent are considered to be of extremely important individual factors (Meager, Bates & Cowling, 2003). Autio and Wennberg's (2010) findings are very surprising. They believe that norms and attitudes of the social group have a stronger impact on entrepreneurial behaviour than the personal attitudes and perceived self-efficacy of the individual herself<sup>1</sup>. According to Bartha (2015), institutional factors, such as the taxation system, the level of transaction costs and the administrative burdens might have a significant effect on growth orientation of companies and lead to diverse business structure.

There is a consensus among academics and researchers that education and training provide the knowledge and competencies that are indispensable for entrepreneurship. Particular entrepreneurial knowledge and competencies can be taught and improved by effectively incorporating some subjects in the standard curricular (business studies, marketing, etc.), while others can further be developed by applying innovative teaching methodology (entrepreneurial thinking) (Borsi & Dóry, 2015; Imreh-Tóth, 2015). Universities have not only teaching tasks and responsibilities, but they also play a determining role in shaping opinions and building relationships.

Our previous papers dealt with modelling of students' entrepreneurial intention in detail. The database was analysed with multinomial logistic regression, based on Ajzen's theory of planned behaviour (Gubik, 2013; Gubik, 2015).

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<sup>1</sup> Self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations.

## Hypotheses

After reviewing the available literature and previous research findings, it turned out that there are still some questions that remained unanswered in the field of student entrepreneurship. Also, a gap in the research literature has been identified since student entrepreneurs' motivation by company size and their effect on students' long-term career plans are to be investigated. That is why the authors of this study formulated and tested the following hypotheses:

- H1:** The rate of self-employment among Hungarian students who study in tertiary education and consider themselves to be entrepreneurs is high.
- H2:** A great majority of self-employed students do not intend to make an entrepreneurial path a career option in the long run. They prefer working as employees in companies.
- H3:** A family business background and family support play a determining role in entrepreneurship career and business start-ups.

## MATERIAL AND METHODS

GUESSS (Global University Entrepreneurial Spirit Students' Survey) investigates entrepreneurial intentions and activities of students. The survey explores the students' career intentions immediately after graduation and several years later, examines families' and students' own businesses and investigates their future entrepreneurial visions.<sup>2</sup> Systematic and long-term analyses help to identify the processes and factors that can have a decisive impact on entrepreneurial intentions.

The first survey was conducted in 2003 with the participation of two countries. Ten years later (in 2013) 34 countries had joined the project and 109,026 students from 759 higher educational institutions sent their responses to the questionnaire. In Hungary 8,839 students completed the questionnaire. Only the institutions where over 1000 students studied were selected for the survey in Hungary.

The distribution of respondents in our database partially represents the distribution of students by higher institution in Hungary. The distribution by the level of study and gender corresponds to the country ratios. As for the field of study, 41.5% of the respondents studied business and economics, 35.5% of them studied humanities and natural sciences, and the remaining 16.2% studied social sciences. The average age of the respondents was 23. About 27.0% of all respondents were younger than 20 and 88% were younger than 30 when they completed the questionnaire.

Mainly descriptive statistics were used to answer the stated hypotheses and the stochastic relationships among the variables were tested. We consider these methods appropriate for highlighting the main differences between different groups of entrepreneurs.

We used SPSS software to analyse the database. The structure of the tables follows the logic of the output tables of the software.

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<sup>2</sup> See project and partners at <http://www.guesssurvey.org>. For more information on the Hungarian database and methodology see Gubik (2015).

## RESULTS AND DISCUSSION

### Main Characteristics of the Students' Enterprises

In the sample 7.4% of the respondents (658 students) indicated that they ran a business of their own. Over 25% of the respondents running their own businesses were nascent entrepreneurs and had established their businesses in the year when the survey was conducted (2013) (Table 1). The rate of enterprises that were 3 years old or younger amounted to over 50%. Since a major part of enterprises were new or established not long ago, the students did not have much experience.

**Table 1. Student enterprises by year of establishment**

Answers	Year of establishment	Frequency	%	Valid %	Cumulative %
Valid	2013	152	1.7	25.2	25.2
	2012	84	1.0	14.0	39.2
	2011	89	1.0	14.8	54.0
	2010	64	0.7	10.6	64.6
	2009	30	0.3	5.0	69.6
	2008	29	0.3	4.8	74.4
	2007	16	0.2	2.7	77.1
	2006	18	0.2	3.0	80.1
	2005	20	0.2	3.3	83.4
	Earlier	100	1.1	16.6	100.0
Total	602	6.8	100.0	–	
Missing	left unanswered	56	0.6	–	–
	System	8181	92.6	–	–
	Total	8237	93.2	–	–
Total		8839	100.0	–	–

Source: own elaboration.

Over half of the students running their own businesses were self-employed, 38.4% owned micro enterprises and 3.5% small-sized enterprises. The sample included only three medium-sized enterprises, which will be analysed only in an aggregate form, but they are not included in the comparative analysis of companies by size.

Table 3 shows the distribution of students' enterprises by activity areas and company size. The most popular sectors are 'Trade' (14.9%), 'Education and training' (14.4%) and 'Other services' (18.5%). In the sample 11.7% of respondents listed their activities as 'Other services', where such sectors as food industry, sports and media were the most popular.

The self-employed students were the most active in 'Other services' (including finance and insurance) and 'Education and Training' (18.3%). The indicated services were very varied: cosmetic beauty advisor, insurance advisor, amateur artistic activities and so on. These illustrative examples of performed activities show that students established enterprises to supplement their income in order to finance their studies, and the performed activities contain very few real entrepreneurial elements that would differ from employee elements.

Most micro-enterprises operated in 'Trade' (17.2%) and 'Other services' (16.7%). In the sample businesses out of the 21 small-sized enterprises three operated in 'Trade', three in 'Education and training', three in 'Tourism and catering' and three in 'Other' sectors.

**Table 2. Student enterprises by company size**

Answers		Frequency	%	Valid %	Cumulative %
Valid	Self-employed (0 employees)	350	4.0	57.7	57.7
	Micro enterprises (1-9 employees)	233	2.6	38.4	96.0
	Small enterprises (10-49 employees)	21	0.2	3.5	99.5
	Medium enterprises (50-249 employees)	3	0.0	0.5	100.0
	Total	607	6.9	100.0	–
Missing	System	8232	93.1	–	–
Total		8839	100.0	–	–

Source: own elaboration.

**Table 3. Student enterprises by sector (in %)**

Answers	Self-employed	Micro enterprise	Small enterprise
Information technology and communication	9.2	9.5	9.5
Trade (wholesale/retail)	12.9	17.3	14.3
Consulting (law, tax, management, HR)	9.2	10.4	0.0
Advertising / Marketing / Design	4.9	4.8	9.5
Education and training	18.4	9.1	14.3
Tourism and catering	1.7	6.9	14.3
Health services	4.6	2.6	0.0
Other services (including finance, insurance, etc.)	20.4	16.9	9.5
Architecture and engineering	3.7	3.5	9.5
Construction and manufacturing	1.4	4.3	4.8
Agriculture	3.2	2.2	0.0
Other	10.3	12.6	14.3
Total	100.0	100.0	100.0
<i>n</i>	348.0	231.0	21.0

Source: own elaboration.

A considerable proportion of the students cannot be viewed as entrepreneurs if we define an entrepreneur as a person, who takes risks, explores opportunities, is willing to experiment and is performance and future-oriented. Although most students are engaged in different types of enterprises, they perform activities that are very similar to activities performed by employees (e.g. insurance advisors and Avon advisors working on commission bases). It is obvious that these activities are very beneficial for entrepreneurship and entrepreneurial activities, because they allow students to gain an insight into the administrative burden related to entrepreneurship and specificities of entrepreneurial lifestyles (autonomy and working hours).

The high rate of self-employed students indicates how valuable this student group is. However, self-employed students rarely become entrepreneurs who operate ventures with substantial growth rates.

### Company Foundation Process

More than half of the respondents started their businesses alone, without co-founders. The rate of respondents with one co-founder amounted to 31%, another 10% had 2 co-founders and the remaining respondents founded ventures with 3 or more co-founders (Table 4).

**Table 4. Number of co-founders in student enterprises**

Answers		Frequency	%	Valid %	Cumulative %
Valid	No Co-Founders	325	3.7	53.3	53.3
	1 Co-Founder	189	2.1	31.0	84.3
	2 Co-Founders	61	0.7	10.0	94.3
	3 Co-Founders	24	0.3	3.9	98.2
	>3 Co-Founders	11	0.1	1.8	100.0
	Total	610	6.9	100.0	–
Missing	left unanswered	48	0.5	–	–
	System	8181	92.6	–	–
	Total	8229	93.1	–	–
Total		8839	100.0	–	–

Source: own elaboration.

As for co-founder persons, they were mostly family members, as indicated by 189 respondents. A lower rate of co-founders (70 responses) came from non-university and non-college friends, 66 respondents had co-founders from professional networks and only 51 entrepreneurs founded their companies together with peers from higher institutions.

Questions related to company formation (Table 5) clearly show that students did not really express planned behaviour in the process of company formation. The table contains the mean values of the students' answers. Calculating mean of the scale values is also often used in the literature dealing with entrepreneurial intention and student entrepreneurship to aggregate different attributes of attitudes and other Likert scale statements (Ozaralli & Rivenburgh, 2016; Sieger, Fueglistaller & Zellweger, 2014; Zellweger, Sieger & Englisch, 2012; Lüthje & Franke, 2002; Szerb & Márkus, 2007).

The company size significantly affected the assessment (business strategy, target and market analyses, competitiveness analyses and marketing). The larger the enterprise the students owned, the more thoughtful answers they gave to the questions related to company formation. Surprisingly, business family background did not really affect the evaluation of the statements with the exception of two statements 'I was careful not to commit more resources than I could afford to lose' and 'I was careful not to risk more money than I was willing to lose'. Hence, even respondents with family business backgrounds did not make any serious preparations before forming a company. Neither the respondents' age, nor their field of education had any impact on the variables. Thus it is clear that the business and economics knowledge gained during studies is not incorpo-



rated in students' entrepreneurships. The analyses of enterprises by year of their establishment show the same results. It means that enterprises formed during students' studies also show an insignificant relationship with these variables.

Particular variables correlate with each other, which indicates that the respondents either considered themselves to be considerate and thoughtful or they did not.

**Table 5. Company foundation process**

Answers	Self-employed	Micro enterprises	Small enterprises
I designed and planned business strategies.*	4.06	4.56	5.25
I researched and selected target markets and did meaningful competitive analyses.*	3.93	4.42	4.60
I designed and planned production and marketing efforts.*	4.09	4.48	5.05
The product/service that I now provide is substantially different from the one I first imagined.	3.37	3.36	3.60
I tried a number of different approaches until I found a business model that worked.	3.94	4.08	4.67
I was careful not to commit more resources than I could afford to lose.	4.96	5.27	4.25
I was careful not to risk more money than I was willing to lose.*	4.96	5.06	4.05
I allowed the business to evolve as opportunities emerged.	5.16	5.18	5.20
I adapted what I was doing to the resources we had.	5.11	5.31	5.00
I was flexible and took advantage of opportunities as they arose.	5.28	5.39	5.71

(1=strongly disagree, 7=strongly agree)

\*Significant effect of company size

Source: own elaboration.

### The Role of Parental Support

A family business background plays a significant role in students' career aspirations (Gubik, 2013; Gubik & Farkas, 2014). In the sample 38.1% of respondents had parents or other family members who were entrepreneurs compared with 28% of students with non-family business backgrounds.

The positive effect of family business background favourably influenced students' entrepreneurial aspirations and was also experienced in the provision of parental support. Parental support was measured on the Likert scale from 1 to 7. Table 6 clearly shows that parents with business experience provided substantial support to their children in all areas. Students had access primarily to contacts and networks. Also, knowledge and advice were highly valued.

**Table 6. Parental support**

Answers	<i>n</i>	Without a family business background	<i>n</i>	With a family business background
Materials (equipment, facilities)	383	2.45	228	4.25
Contacts and networks	382	2.60	228	4.42
Knowledge and advice	384	2.89	228	4.54
Idea generation / evaluation	380	2.49	225	4.29
Financial resources (e.g., debt and equity capital)	383	2.43	226	4.21

(1=not at all, 7=very much)

Source: own elaboration.

### Performance

The responses to the question relating to hours spent at work showed that students worked 25.8 hours per week on average, but there were significant differences. In larger companies respondents worked more than the average (Table 7). There was a significant correlation between company sizes and the invested amount of work ( $r = 0.149$ ,  $p = 0.000$ ). Students studying economics and business worked more than those studying social sciences ( $\text{Eta} = 0.152$ ,  $p = 0.004$ ).

**Table 7. Hours worked per week by company size**

Answers	Mean	<i>n</i>	Std. Deviation
Self-employed	21.33	315	19.341
Micro-enterprises	31.00	226	20.281
Small enterprises	32.14	21	17.289
Medium enterprises	58.00	3	11.357
Total	25.79	565	20.308

Source: own elaboration.

The average age of respondents involved in business activities (27.5) was higher than the age of those without enterprises (23.4). In the sample two-thirds of student running enterprises had regular jobs in addition to their studies, which may indicate that they were part-time students studying within the framework of correspondence or distance learning programmes (this was not part of the questionnaire). They are likely to have an established living standard and have an operating enterprise, when they decide to develop themselves. It was not their studies that inspired them to get engaged in entrepreneurial activities.

The surveyed entrepreneur students had to compare themselves with their competitors. The analyses of average scores provided only a limited basis for making any conclusions about competitors because respondents gave average scores to almost all questions (an average value of 4 on a 7-point Likert Scale) except to the question related to job creation. The majority of respondents generally considered that they lagged behind their competitors. When the company sizes were analysed, it turned out that the respondents who owned larger companies (and invested more efforts in their businesses)

compared favourably with their competitors. This correlation is significant at  $p=0,000$ , Eta values are between 0.164 and 0.300 (Table 8).

**Table 8. Company performance compared to competitors**

Performance type	Mean	Self employed	Micro enterprise	Small enterprise
Sales growth	4.05	3.81	4.32	4.63
Market share growth	3.73	3.43	4.06	4.47
Profit growth	3.97	3.73	4.22	4.65
Job creation	3.01	2.56	3.42	4.84
Innovativeness	3.99	3.67	4.25	5.62

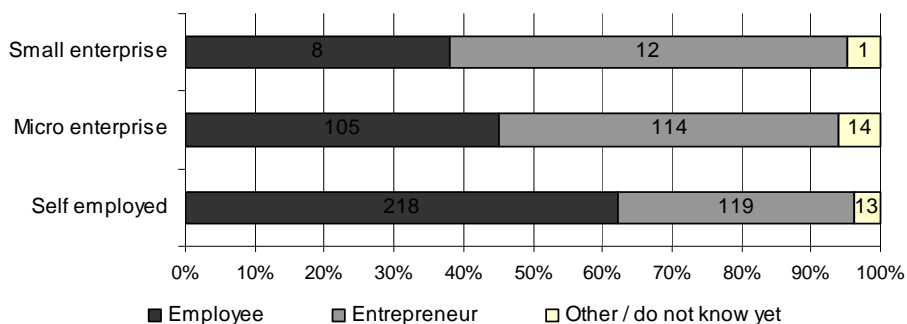
(1=worst, 7=best)

Source: own elaboration.

### Future Plans

In the sample 33.8% of the respondents did not plan any increase in the number of employees, 2.8% intended to decrease the workforce and the remaining entrepreneurs indicated growth intentions in the next five years. The company size had a significant impact on expansion plans since owners of larger companies had more positive visions regarding their growth potential. Some respondents (14 students) seemed to have unrealistic expansion plans. Owners of micro-enterprises intended to transfer into middle-sized companies within a couple of years. Half of these respondents were involved in 'IT/communication' and 'Other' sectors of industry. It was difficult to judge whether the surveyed students gave these responses to the questions in the questionnaire because of the anonymity and confidentiality guaranteed or because they really thought that there was a huge potential in their business ideas.

The same differences in the responses were experienced in students' intended career paths. Among active entrepreneurs 54.5% of students intended to work as employees after graduation. This rate among self-employed was the highest accounting to 62.3% and decreased with company size (Figure 1).



**Figure 1. Career aspirations right after graduation by company size**

Source: own elaboration.

This correlation is also significant (Cramer  $V = 0.148$ ,  $p = 0.000$ ) and is related to the higher performance and longer working hours. Both long working hours and high performance are also experienced in major companies.

### Motivations

'Making money and becoming rich' appeared to be the most important goal of entrepreneurial students (mean 5.0 on the Likert scale from 1 to 7). Respondents considered 'to advance my career' to also be important (4.8). The types of motivation such as solving social problems, changing the conditions or changing the way the world works belonged to the least popular motives (Table 9).

**Table 9. Motivations and goals**

I created my firm in order...	<i>n</i>	Mean	Std. Deviation
... to make money and become rich	613	5.00	1.781
... to advance my career in the business world	612	4.80	1.877
... to solve a specific problem for a group of people that I strongly identify with (e.g., friends, colleagues, club, community)	611	4.34	2.034
... to play a proactive role in shaping the activities of a group of people that I strongly identify with	613	4.18	2.035
... to solve a societal problem that private businesses usually fail to address (such as social injustice, destruction of environment)	618	3.74	2.169
... to play a proactive role in changing how the world operates	611	3.84	2.210
Valid <i>n</i>	605	–	–

(1=strongly disagree, 7=strongly agree)

Source: own elaboration.

Table 10 shows that the level of importance of different elements of motivations and goals decreased with the increase in age of entrepreneurs. Similar changes were experienced in the case of the companies' age (the significant correlation between the two variables, namely the age of entrepreneurs and the age of companies may provide an explanation for this). Money and success appear to be the driving force of young people. They would like to be powerful shapers of their environment. This idealism decreases with the age of the company.

The analysis of company sizes show significant relationship only in case of the motivation of 'to advance my career in the business world'.

**Table 10. Effect of entrepreneurs' age and company characteristics on motivations and goals (correlation matrix)**

Answers	1	2	3	4	5	6	7	8	9
1. Your age?	1								
2. When did you found your firm (year)	0.492** (0.000)	1							
3. How many employees do you have today (full-time equivalent)?	0.056 (0.254)	0.063 (0.125)	1						
4. to make money and become rich	0.198** (0.000)	0.124** (0.002)	0.058 0.156	1					
5. to advance my career in the business world	0.205** (0.000)	0.162** (0.000)	0.135** (0.001)	0.563** (0.000)	1				
6. to solve a specific problem for a group of people that I strongly identify with (e.g., friends, colleagues, club, community)	0.084 (0.086)	0.111** (0.007)	0.071 (0.084)	0.084* (0.038)	0.331** (0.000)	1			
7. to play a proactive role in shaping the activities of a group of people that I strongly identify with	0.032 (0.519)	0.118** (0.004)	0.075 (0.068)	0.065 (0.109)	0.316** (0.000)	0.833** (0.000)	1		
8. to solve a societal problem that private businesses usually fail to address (such as social injustice, destruction of environment)	0.110* (0.024)	0.110** (0.007)	0.035 (0.390)	0.034 (0.395)	0.294** (0.000)	0.658** (0.000)	0.673** (0.000)	1	
9. to play a proactive role in changing how the world operates	0.123* (0.012)	0.139** (0.001)	0.033 (0.427)	0.067 (0.099)	0.280** (0.000)	0.585** (0.000)	0.620** (.000)	0.770** (0.000)	1

\*\*Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed).

Spearman's rho values were calculated.

Source: own elaboration.

## CONCLUSIONS

The composition of entrepreneur groups is very heterogeneous, starting from Avon advisors through advisors selling financial products to owners of small processing businesses. Particular activities require different amounts of time, money and other investments, involve different risks and show specific characteristics of entrepreneurship. Major conclusions of this study are as follows:

- The vast majority of entrepreneurial students work under conditions that are more characteristic of the status of employees and are considered to be students. Only a small group of respondents comply with the status of 'entrepreneurs' so it is they who make up the student-entrepreneur group.
- A significant part of students are self-employed. They invest less time in their work, are less considerate and growth-oriented than students with larger enterprises and prefer to work as employees after graduation. However, entrepreneurial activities of students who view entrepreneurship as a temporary source of living or supplementary income can also be beneficial because they have to resolve various entrepreneurial tasks and problems, make decisions in different situations and explore and acquaint themselves with entrepreneurship. Students belonging to this group are more likely to become entrepreneurs and are less uncertain about their career path than students who do not pursue entrepreneurial activities at all.

- Entrepreneurial training and courses offered at higher institutions are not reflected in students' entrepreneurial activities. To simplify the survey results, there are two extreme situations: a self-employment form that finances studies and studies that are accompanied by mature entrepreneurship.
- As for the size of enterprises, respondents who owned larger enterprises had a more serious approach to entrepreneurship. They worked longer hours and achieved better performance. The majority of them intended to be entrepreneurs and own enterprises with growth potential.
- Family business background plays a determining role in shaping the entrepreneurial intentions of students. Start-up intention highly depends on the amount of the financial support offered by parents and on a planned and proactive approach towards founding an enterprise.

Based on the research results of the paper we accept the hypotheses of H1, H2 and H3. The results of the survey are useful for training, education and enterprise development. In the training and education context, teaching and learning forms that comply with particular education levels and may be useful in entrepreneurial processes should be developed. Universities should offer not only conventional business courses (for example, business planning) but also new forms of education. This does not necessarily require a substantial investment from educational institutions if they are willing to support the elaboration of new programmes within the current inflexible regulatory environment (for example, higher education training and certification requirements) and finance the development work performed by academic and teaching staff from project resources.

As this database contains more than 8000 answers from more than 30 higher education institutions, the results of the analysis can be generalised in terms of Hungarian students. At the same time, further econometric calculations and qualitative techniques are required to be carried out in order to identify the reasons for the existing differences between the analysed groups.

## REFERENCES

- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50(2), 179-211.
- Audretsch, B.D., & Thurik, A.R. (2001). What's New about the New Economy? Sources of Growth in the Managed and Entrepreneurial Economies. *Industrial and Corporate Change*, 10(81), 267-315.
- Autio, E. (2005). *Report on High-Expectation Entrepreneurship*. London: Business School-Babson College.
- Autio, E., & Wennberg, K. (2010). *You think, therefore, I become: Social attitudes and the transition to entrepreneurship*. Proc. DRUID Summer Conference 2010. Imperial College London Business School, 16-18 June 2010, London. Retrieved on April 30, 2016 from <http://www2.druid.dk/conferences/viewpaper.php?id=501642&cf=43>
- Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, New Jersey: Prentice-Hall.

- Bartha, Z. (2015). The effect of the tax system as an Institutional Factor on the Business Structure in Europe. In A.S. Gubik & K. Wach (Eds.), *Institutional Aspects of Entrepreneurship* (pp. 97-109). Miskolc: University of Miskolc.
- Blackburn, R. (1997). *Enterprise support for young people: A study of young business owners*. Proc. 20th ISBA Conference, Belfast, November 1997.
- Borsi, B., & Dóry, T. (2015). *A vállalkozóképzés nemzetközi trendjei és a vállalkozói készségek egyetemi fejlesztése* (International trends in entrepreneurship education and developing entrepreneurial competences at university level). *Közgazdasági Szemle*, 57(7-8), 835-852.
- Dolton, P.J., & Makepeace, G.H. (1990). Self-employment among graduates. *Bulletin of Economic Research*, 42(1), 35-53. doi: 10.1111/j.1467-8586.1990.tb00290.x
- European Commission (2003). *Green Paper, Entrepreneurship in Europe*. Retrieved on February 15, 2016 from [http://ec.europa.eu/invest-in-research/pdf/download\\_en/entrepreneurship\\_europe.pdf](http://ec.europa.eu/invest-in-research/pdf/download_en/entrepreneurship_europe.pdf)
- Eurofound (2015). *Youth Entrepreneurship in Europe: Values, Attitudes, Policies*. Luxembourg: Publication Office of the European Union.
- GEM (2014). *Global Entrepreneurship Monitor: 2013 Global Report*. Retrieved on February 15, 2016 from <http://www.babson.edu/Academics/centers/blank-center/global-research/gem/Documents/GEM%202013%20Global%20Report.pdf>
- Green, F. (2013). *Youth entrepreneurship: A background paper for the OECD Centre for Entrepreneurship, SMEs and Local Development*. Paris: OECD.
- Gubik, A.S. (2013). *A magyar hallgatók vállalkozásindító szándékát befolyásoló tényezők modellje: Ajzen tervezett magatartás elméletének kiterjesztése* (The model of factors affecting business start-ups of Hungarian students: the expansion of Ajzen's Theory of Planned Behaviour). *Vezeztudomány*, 44(7-8), 18-29.
- Gubik, A.S. (2015). Understanding Career Aspirations of Hungarian Students (Chapter 9). In A.S. Gubik & K. Wach (Eds.), *Institutional Aspects of Entrepreneurship* (pp. 131-150). Miskolc: University of Miskolc.
- Gubik, A.S., & Farkas, S. (2014). Entrepreneurial activities of Hungarian students. In A. Vécsey (edit.), *Management, Enterprise and Benchmarking – In the 21st Century* (pp. 125-140). Budapest: Keleti Károly Faculty of Business and Management, Óbuda University.
- Imreh-Tóth, M. (2015). *Az egyetemi vállalkozásoktatás lehetséges szerepe a vállalkozóvá válás elősegítésében*. (The Potential Role of the Entrepreneurship Education of Universities in the Promotion of Entrepreneurship). Szeged: JATEPress.
- 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 on February 20, 2016 from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.203.2530&rep=rep1&type=pdf>
- Meager, N., Bates, P., & Cowling, M. (2003). An evaluation of business start-up support for young people. *National Institute Economic Review*, 186, 59-72. doi: 10.1177/002795010300100111
- Mungai, E., & Velamuri, S.R. (2011). Parental entrepreneurial role model influence on male offspring: Is it always positive and when does it occur? *Entrepreneurship Theory and Practice*, 35, 337-357. doi: 10.1111/j.1540-6520.2009.00363.x
- OECD (2015). *Policy Brief on Youth Entrepreneurship. Entrepreneurial Activities in Europe*. Luxembourg: Publications Office of the European Union.

- 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), 1-32. Doi: 10.1186/s40497-016-0047-x
- Richert, J., & Schiller, R. (1994). *Hochschulabsolventen als Existenzgründer*. Report of the "Deutsche Ausgleichsbank" for the Federal Ministry of Education and Science in Germany, Bonn.
- Schnurr, J., & Newing, A. (1997). *A conceptual and analytical framework for youth enterprise and livelihood skills development: Defining an IDRC niche*. Ottawa: International Development Research Centre.
- Schot, T., & Kew, P., & Cheraghi, M. (2015). *Future Potential. A GEM perspective on youth entrepreneurship*. 2015 Global Enterprise Monitor. Retrieved on March 5, 2016 from <http://www.innovacion.gob.cl/wp-content/uploads/2015/08/gem-2015-youth-report-1436523546.pdf>
- Schrör, H. (2006). *The profile of the successful entrepreneur Results of the survey 'Factors of Business Success'*. Statistics in focus 29/2006, Eurostat.
- Shapiro, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. In C.A. Kent, D.L. Sexton & K.H. Vesper (Eds.), *Encyclopaedia of entrepreneurship* (pp. 72-90). New Jersey: Prentice-Hall.
- Shutt, J., & Sutherland, J. (2003). Encouraging the transition into self-employment. *Regional Studies*, 37(1), 97-103. doi: 10.1080/0034340022000036427
- Sieger, P., Fueglistaller, U., & Zellweger, T. (2014). *Student Entrepreneurship Across the Globe: A Look at Intentions and Activities*. St. Gallen: Swiss Research Institute of Small Business and Entrepreneurship at the University of St.Gallen (KMU-HSG).
- Szerb, L., & Márkus, G. (2007). *Karrierválasztás és az oktatási környezet hatása a vállalkozói attitűdökre az egyetemi hallgatók körében Magyarországon, nemzetközi összehasonlításban 2006-ban* (Carrier expectations and the influence of the education environment on student's entrepreneurial attitudes). *Közgazdasági Szemle* (Hungarian Economic Review), 54(3), 248-273.
- YBI (2011). *Global Youth Entrepreneurship Survey 2011*. London: Youth Business International. Retrieved on February 20, 2016 from <http://www.youthbusiness.org/wp-content/uploads/2012/08/YouthEntrepreneurshipSurvey2011.pdf>
- Zellweger, T., Sieger, P., & Englisch, P. (2012). *Coming Home or Breaking Free Career Choice Intentions of the Next Generation in Family Businesses*. St. Gallen: University of St. Gallen.



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The contribution of co-authors is equal. A.S. Gubik prepared the literature review and the statistical calculations, while S. Farkas took part in the creation of the research concept, formulation of hypotheses and drawing the conclusions of the results.

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