



Global University Entrepreneurial Spirit Students' Survey

# Entrepreneurship intention and activity of students in Hungary

Global University Entrepreneurial Spirit Student's  
Survey 2011

National Report

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2014



Project promoters in Hungary

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Acknowledgement

We are using this opportunity to thank every colleague and higher education representatives who supported us in organising the data collection. In addition, we would like to thank all the students who took the time to fill out our questionnaire.

## Publications, based on the GUESSS database 2011

- Gubik, A.S. (2014). The Role of Higher Education Institutions in the Entrepreneurship of Hungarian Students. *Theory Methodology Practice: Club of Economics in Miskolc* 10:(1) pp. 71-79. <http://tmp.gtk.uni-miskolc.hu/index.php?i=2070>
- Gubik, A.S. (2014). Hungarian Students' Career Aspirations. *Marketing and Management of Innovations* 2014:(2) pp. 196-207. [http://mmi.fem.sumdu.edu.ua/sites/default/files/mmi2014\\_2\\_196\\_207.pdf](http://mmi.fem.sumdu.edu.ua/sites/default/files/mmi2014_2_196_207.pdf)
- Gubik, A.S., Farkas, Sz. (2014). Entrepreneurial Activity of Hungarian Students. In: Alexandra Vécsey (szerk.) *Management, Enterprise and Benchmarking – In the 21st Century: Volume of Management*. Konferencia helye, ideje: Budapest, Magyarország, 2014.05.30-2014.05.31. Budapest: Keleti Károly Faculty of Business and Management, Óbuda University, pp. 125-140. [http://kgk.uni-obuda.hu/sites/default/files/08\\_Gubik\\_Farkas.pdf](http://kgk.uni-obuda.hu/sites/default/files/08_Gubik_Farkas.pdf); <https://ideas.repec.org/h/pkk/meb014/125-140.html>
- Farkas, Sz., Gubik, A.S. (2013). Az egyetemi-főiskolai hallgatók vállalkozói attitűdkutatásának módszertani sajátosságai (Research of students' entrepreneurial intention - Methodological remarks of the GUESSS project). *Statistikai Szemle (Hungarian Statistical Review)* 91:(10) pp. 993-1012. [http://www.ksh.hu/statszemle\\_archive/2013/2013\\_10/2013\\_10\\_993.pdf](http://www.ksh.hu/statszemle_archive/2013/2013_10/2013_10_993.pdf)
- Gubik, A.S., Farkas, Sz. (2013). Vállalkozói attitűdök kutatása egyetemi-főiskolai hallgatók körében (Research of students' entrepreneurial attitudes among Hungarian students). *Vezetéstudomány (Budapest Management Review)* 44:(7-8.) pp. 5-17.
- Gubik, A.S. (2013). A magyar hallgatók vállalkozásindító szándékát befolyásoló tényezők modellje: Ajzen tervezett magatartás elméletének kiterjesztése (Model of the Hungarian students' business start-up intention influencing factors – Extending of Ajzen's Theory of Planned Behavior). *Vezetéstudomány (Budapest Management Review)* 44:(7-8.) pp. 18-29.
- Szerb, L., Lukovszki, L. (2013). Magyar egyetemi hallgatók vállalkozási attitűdjei és az attitűdöket befolyásoló tényezők elemzése a GUESSS-felmérés adatai alapján – Kik is akarnak ténylegesen vállalkozni? (Entrepreneurial attitudes of the Hungarian students and the analysis of the factors influencing attitudes based on the data of GUESSS survey – Who want to undertake really?) *Vezetéstudomány (Budapest Management Review)* 44:(7-8.) pp. 30–40.
- Reisinger, A. (2013). Családi vállalkozás folytatásának tervei a felsőoktatási hallgatók körében (The plans of students on taking over family firms). *Vezetéstudomány (Budapest Management Review)* 44:(7-8.) pp. 41–50.
- Imreh-Tóth, M., Bajmócy, Z., Imreh, Sz. (2013). Vállalkozó hallgatók – Valóban reális jövőkép a vállalkozóvá válás? (Entrepreneurial students – Really realistic vision of becoming an entrepreneur?) *Vezetéstudomány (Budapest Management Review)* 44:(7-8.) pp. 51–63.

- Petheő, A. (2013). Hallgatói vállalkozási tervek vizsgálata a GUESSS 2011-es felmérés alapján (Assessing entrepreneurial intentions and plans among students based on GUESSS 2011 research). *Vezetéstudomány* (Budapest Management Review) 44:(7-8.) pp. 64–70.
- Koltai, J.P., Szalka, É. (2013). A vállalkozói hajlandóság vizsgálata a női hallgatók körében Magyarországon (Research of entrepreneurial intentions of the Hungarian female students). *Vezetéstudomány* (Budapest Management Review) 44:(7-8.) pp. 71–97.
- Farkas, Sz., Gubik, A.S. (2013). A test of the Theory of Planned Behaviour - the cross section of the students' entrepreneurial attitude in Hungary. *Közgazdász Fórum* (Economists' Forum) XVI.:(115.) pp. 49-64.  
[http://epa.oszk.hu/00300/00315/00107/pdf/EPA00315\\_kozgazdasz\\_2013\\_06.pdf](http://epa.oszk.hu/00300/00315/00107/pdf/EPA00315_kozgazdasz_2013_06.pdf)

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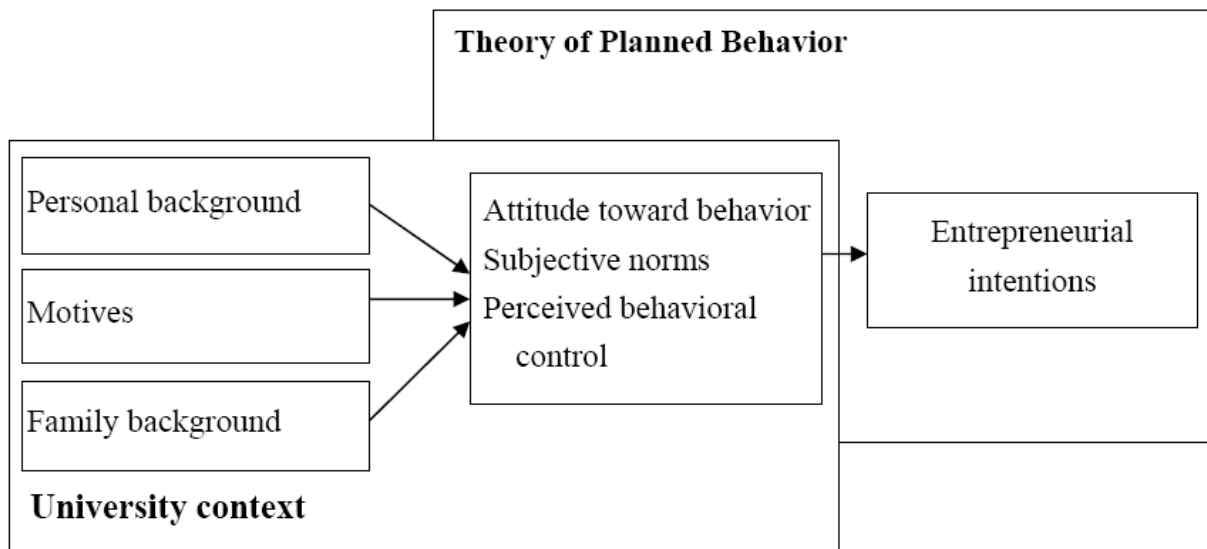
## Introduction

The report uses the database of the international research project GUESSS (Global University Entrepreneurial Spirit Students' Survey). The project is coordinated by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG).

The aims of GUESSS is a systematic and long-term observation of entrepreneurial intentions and activities of students, the identification of antecedents and boundary conditions in the context of new venture creation and entrepreneurial careers in general and the observation and evaluation of Universities' activities and offerings related to the entrepreneurial education of their students (Sieger et al. 2011).

The research concept of GUESSS relies on Ajzen's Theory of Planned Behaviour (1991). According to this theory, attitude, subjective norms and the degree of behavioural control together influence the individual's willingness to become an entrepreneur.

An important boundary condition is the University context, so GUESSS 2011 investigates it with specific attention. In addition, personal background, motives, and family background as antecedents came to the focus of the project. According to the main focus points the theoretical framework of GUESSS 2011 is the following:



*Sieger et al. 2011*

**Figure 1 Theoretical framework of GUESSS 2011**

The survey is conducted every second year. The first survey was conducted in 2003 with the participation of two countries. The last questionnaire was published in 2011, when 26 countries joined the project.<sup>1</sup> In the fifth survey in 2011, 93,265 students took part in the survey from 502 higher education institutions. In Hungary, 5,677 students filled in the electronic questionnaire (the average response rate was 8%, and only institutions where over 1,000 students studied were selected for the survey).

<sup>1</sup> For the details of the survey see the homepage of the survey: <http://www.guesssurvey.org/>.



## 1. Demographic Characteristics

This chapter presents the composition of the Hungarian database. Besides the most important demographic characteristics (gender, age, nationality), this study focuses on the composition of respondents by higher education institutions, field and level of study.

### 1.1. Distribution of respondents by higher education institutions

Table 1 shows the distribution of Hungarian respondents by institution. Responses were received from all Hungarian regions (13 counties in total).

**Table 1 Peculiarities of participation in GUESSS 2011**

Name of Institution	No. of students enrolled for 2009/2010	Distribution of enrolled students	No. of sent inquiries (link)*	No. of completed questionnaires	Distribution of completed questionnaires	Response rate
BME – Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem)	23,219	8.0%	0	5	0.1%	
BCE – Corvinus University of Budapest (Budapesti Corvinus Egyetem)	17,422	6.0%	4,800	201	3.5%	4.2%
SZE – Széchenyi István University (Széchenyi István Egyetem)	10,786	3.7%	8,900	681	12.0%	7.7%
DE –University of Debrecen (Debreceni Tudományegyetem)	30,728	10.6%	n.a.	538	9.5%	
ME –University of Miskolc (Miskolci Egyetem)	13,940	4.8%	14,055	620	10.9%	4.4%
PTE –University of Pécs (Pécsi Tudományegyetem)	29,032	10.0%	8,400	757	13.3%	9.0%
SZTE –University of Szeged (Szegedi Tudományegyetem)	27,436	9.5%	n.a.	254	4.5%	
PE – University of Pannonia (Pannon Egyetem)	10,125	3.5%	0	1	0.0%	
KE – Kaposvár University (Kaposvári Egyetem)	3,244	1.1%	n.a.	38	0.7%	
NYME – University of West Hungary (Nyugat-magyarországi Egyetem)	14,261	4.9%	7,600	291	5.1%	3.8%
ELTE – Eötvös Lóránd University (Eötvös Lóránd Tudományegyetem)	30,767	10.6%	n.a.	175	3.1%	
SZIE – Szent István University (Szent István Egyetem)	10,786	3.7%	n.a.	166	2.9%	
BGF – Budapest Business School (Budapesti Gazdasági Főiskola)	17,911	6.2%	13,622	620	10.9%	4.6%
BMF – Óbuda University (Óbudai Egyetem)	11,438	4.0%	0	5	0.1%	
DF – College of Dunaújváros (Dunaújvárosi Főiskola)	4,312	1.5%	2,460	158	2.8%	6.4%
KRF – Károly Róbert College (Károly Róbert Főiskola)	11,530	4.0%	8,000	97	1.7%	1.2%
ÁVF – Budapest College of Management (Általános Vállalkozási Főiskola)	2,949	1.0%	n.a.	147	2.6%	
GDF – Dennis Gábor College (Gábor Dénes Főiskola)	2,720	0.9%	n.a.	182	3.2%	

EJF – Eötvös József College (Eötvös József Főiskola)	1,634	0.6%	1,350	65	1.1%	4.8%
BKF –University of Applied sciences Budapest (Budapesti Kommunikációs és Üzleti Főiskola)	2353	0.8%	0	1	0.0%	
KJF – Kodolányi János University of Applied Sciences (Kodolányi János Főiskola)	6,673	2.3%	n.a.	423	7.5%	
MÜTF – College for Modern Business Studies (Modern Üzleti Tudományok Főiskolája)	2,073	0.7%	1,200	145	2.6%	12.1%
SE – Semmelweis University, (Semmelweis Egyetem)	3,173	1.1%	330	65	1.1%	19.7%
Others		0.0%		42	0.7%	
Total	289,336	100.0%	70,717	5,677	100%	8.0% (average)

*Own calculation*

\* Sent inquiry (link) – the number of students that received the internet link for filling in the GUESSS questionnaire. 0 means that the institution has not made the questionnaire available for its students either through its internal system or in any other form.

Regarding nationality, 97.9 percent of the respondents were Hungarian, 8 students were of dual citizenship. The rest of the foreign respondents were Slovakian (36.9 percent), Romanian (24.3) and Ukrainian (12.6 percent). Besides these three nationalities, Serbian, Croatian, Slovenian, Albanian, Russian and Kazakh students were also sampled. When making a decision which Hungarian higher educational institution to choose, most international students were motivated by its geographical constraints (for example, Slovakian students usually prefer Győr or Miskolc, while a large proportion of Romanian students choose Debrecen, because these cities are close to their home town).

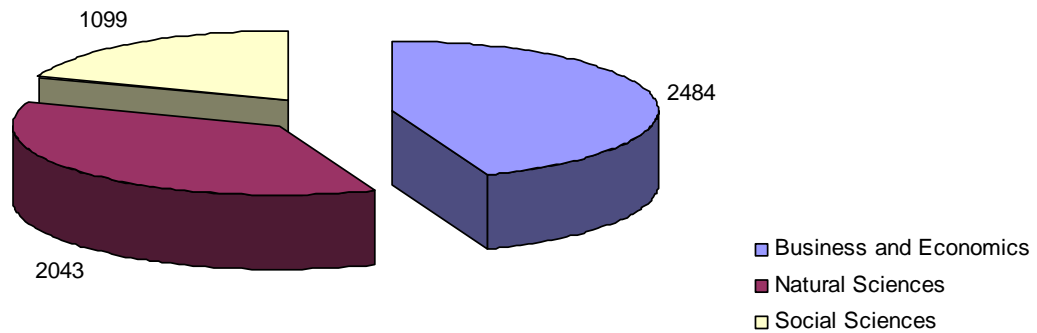
## ***1.2. Distribution by field of study and level of study***

As for the field of study, 43.8 percent of the respondents studied business and economics, 36 percent of them studied natural sciences, and further 19.4 percent social sciences.<sup>2</sup>

<sup>2</sup> Business and Economics: Economics; Management / business administration

Social Sciences: Linguistics; Cultural studies (including religion, philosophy, psychology), Education / pedagogy; Other social sciences (e.g., sociology, political science)

Natural Sciences: Medicine and health science Mathematics and natural sciences; Engineering sciences (including architecture); Computer sciences / informatics



*Own calculation*

**Figure 2 Distribution by Field of Study**

Altogether 13 MBA and 7 post doctoral students answered the questionnaire. A vast majority of respondents were BSc students (85.2 percent), while the MSc students amounted to 13.4 percent. Only 62 PhD, 13 MBA and 7 postdoctoral students filled out the questionnaire.

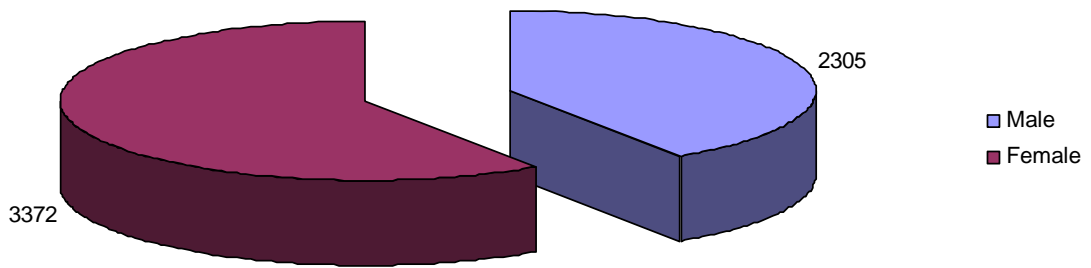
**Table 2 Distribution by Level of Education**

Level of Education	Frequency	Percentage
Undergraduate (Bachelor)	4835	85.2
Graduate (Master)	760	13.4
PhD/doctoral	62	1.1
Faculty/ post doctoral	7	0.1
MBA student/Executive Education	13	0.2
Total	5677	100

*Own calculation*

### ***1.3. Distribution by gender***

Regarding the respondents' gender, our sample contains larger female ratio (59.4 percent). The male-female ratio reflects the gender-characteristics of the Hungarian higher education.

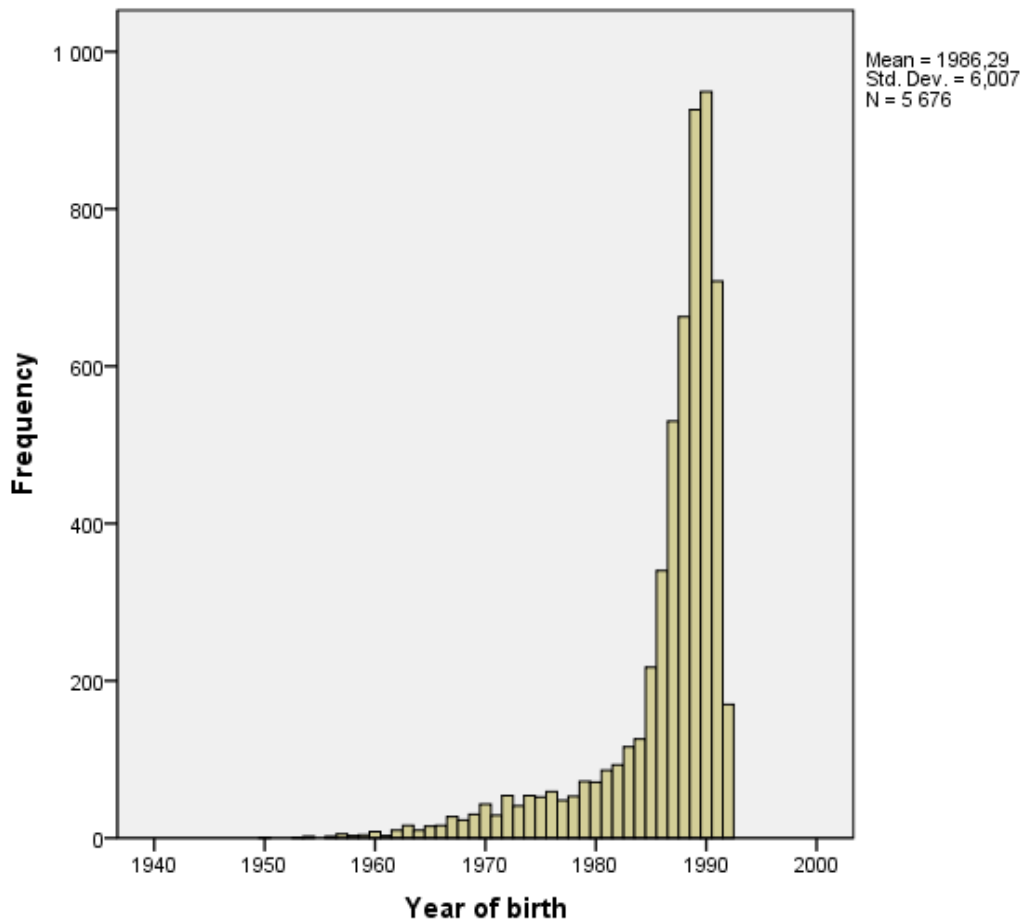


Own calculation

**Figure 3** Distribution of respondents by gender

#### 1.4. Age Profile

The average age of the respondents was 25. About 32.3 percent of all respondents were born in 1990s, so they were younger than 22 at the time of the survey. The respondents who were less than 30 (and born later than 1980) accounted for 86.8 percent of the sample. As for the age profile the majority of the respondents were single (85.5 percent of the students).



Own calculation

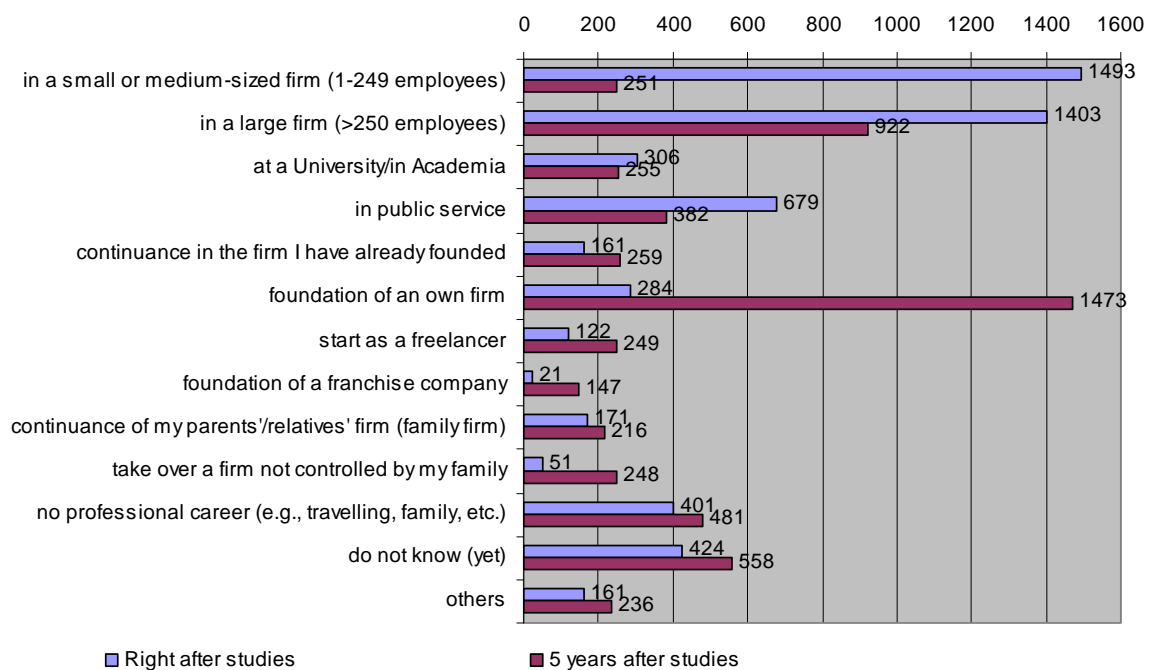
**Figure 4** Age profile of respondents

## 2. Career Choice<sup>3</sup>

The students were asked about their career aspirations after graduation. The responses to this question and its additional variable computed from the original question and containing four attributes (Employee, Founder, Successor, Other) highlighted the differences in career aspirations arising from three partially significant variables. These are the gender, the field of study and the family business background.

Different career choice intentions of students are shown in Figure 5. The aggregated results illustrate that a significant proportion of the students (2896 students) would like to work either for a large or a small and medium-sized company. The public service employment is also attractive among respondents. All in all 56.4 percent of the students want to be employees.

Due to the question about their plans after five years, majority of the respondents think about setting up their own business. The number of responses, considering employment by other companies, is decreased.



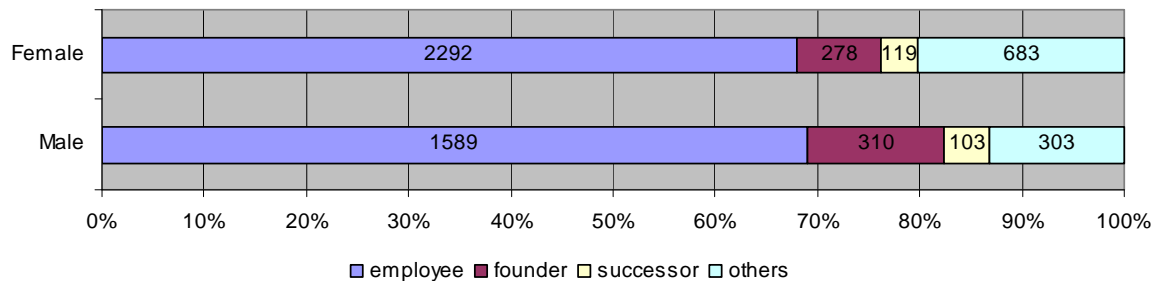
*Own calculation*

**Figure 5 Career aspirations right after graduation and five years after studies (Number of students)**

<sup>3</sup> This chapter is based on Gubik, A.S. (2014) Hungarian Students' Career Aspirations MARKETING AND MANAGEMENT OF INNOVATIONS 2014:(2) pp. 196-207.  
[http://mmi.fem.sumdu.edu.ua/sites/default/files/mmi2014\\_2\\_196\\_207.pdf](http://mmi.fem.sumdu.edu.ua/sites/default/files/mmi2014_2_196_207.pdf)

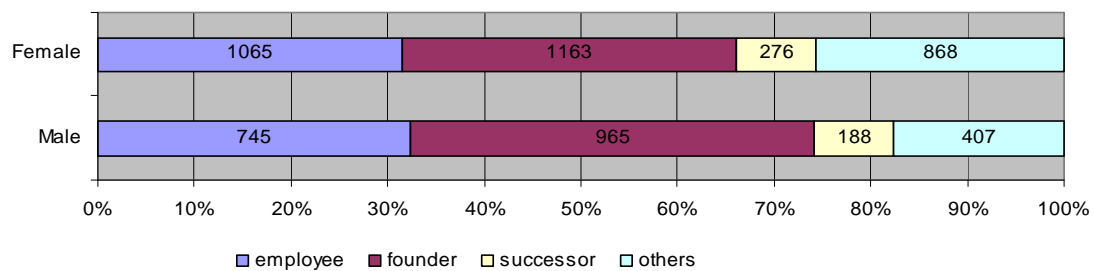
## 2.1. Differences by Gender

It is common knowledge that entrepreneurship is a predominantly male field. This specific feature of entrepreneurship is reflected in our results. Figures 6, 7 show the differences in carrier choice intentions by gender of the respondents.



*Own calculation*

**Figure 6 Carrier aspirations right after studies by gender (%)**



*Own calculation*

**Figure 7 Carrier aspirations five years after studies by gender (%)**

The gender variations in the two figures remained the same:

The women's intention of founding a business of their own or taking over a firm is lagging behind men.

Almost the same ratio of woman would like to be an employee as men, however women prefer working in civil service sector to large companies (this preference remained hidden in figure 2 and 3 because of the aggregated data).

More female respondents chose the other options than men. This can be explained by a larger ratio of woman would choose other carriers (such as not professional carrier, family).

Independently of gender we found that the attractiveness of an employee status decreases and the appealing force of business life increases five years later in both gender. The ratio of students who have chosen the 'other' option is increasing especially in case of women. This can be explained by the above mentioned traditional woman roles (such as taking care of children).

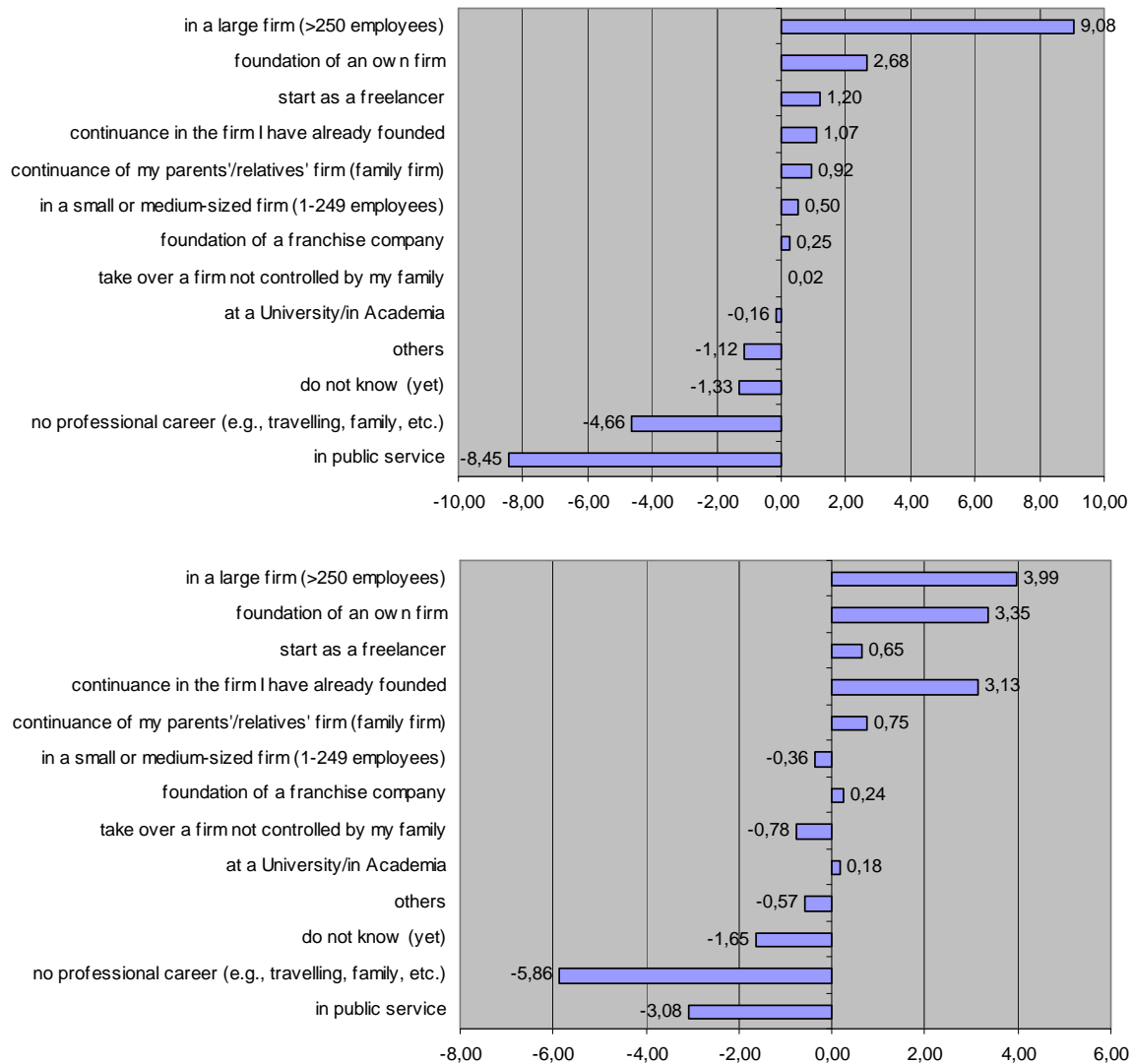
Remarkable differences can be seen in evaluation of public service and no professional careers (e.g., travelling, family, etc.). The ratio of female respondents who favour working in

public service right after graduation amounted to 15.4 (the average is 12.0 percent) and those who would choose this carrier five years later accounted to 8.0 (the average is 6.7).

According to the survey woman who chose no professional carriers amount to 9.0 percent right after their studies (the average is 7.1 percent) and account to 10.9 (the average is 8.5 percent) after five years.

Figure 8 compares the distribution of the given answers (the top bar chart shows the right-after-graduation-data and the bottom bar chart shows the situation after five years). After analysing the frequency of the particular answers, women distributions were subtracted from the correspondent data of men. It can be clearly seen from this figure that there is a large difference between the ratio of female and male respondents who chose working for large firms, which amount to 9.08 percentage points. Analysing gender distribution only within this category we cannot see this bias (50.5 percent of the total answers in this category were given by woman). The difference in the field of public service and no professional careers can be seen here also (the difference is 8.45 percentage points in case of public service and 4.66 percentage points in case of no professional careers in both cases in favour of woman).

The bottom chart illustrating the situation in five years time shows considerable difference between female and male respondents only those who chose non-professional carrier. This might be explained by the conventional role of woman played in the family, family planning, child care.



*Percentage point differences (distribution of men's answers given to the different categories less women's answers given to the different categories)*  
*Own calculation*

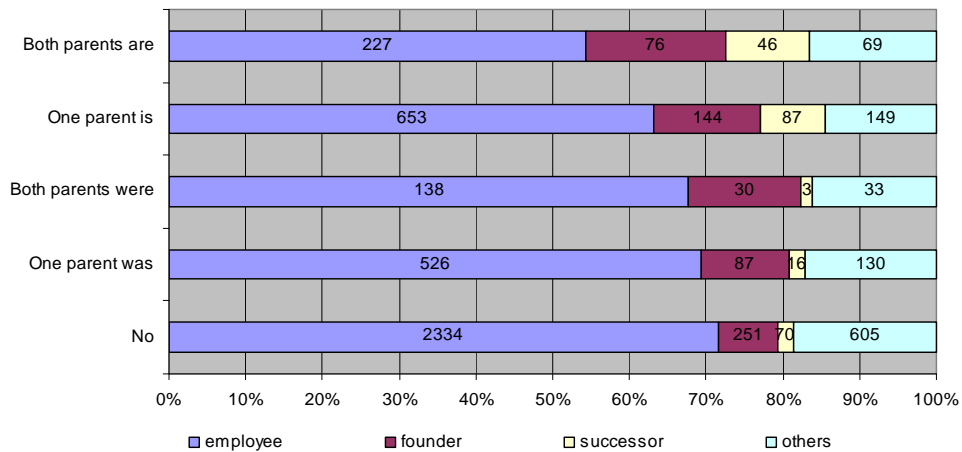
**Figure 8 Percentage point differences in carrier aspirations of women and men**

## ***2.2. Family business background***

The family business background plays an important role in carrier aspirations and business start-ups. Students raised in a business environment can acquire not only knowledge related to business and venture, but they easily adopt business life styles as well.

We found that the family business background increased the probability of becoming an entrepreneur either as a founder or as a successor independently of time horizon. If students come from a family which had no previous business experience his chances of favouring employment status over being an entrepreneur increased. Furthermore this fact enhances the possibility of uncertainty (do not know answer) regarding their future carrier plans.

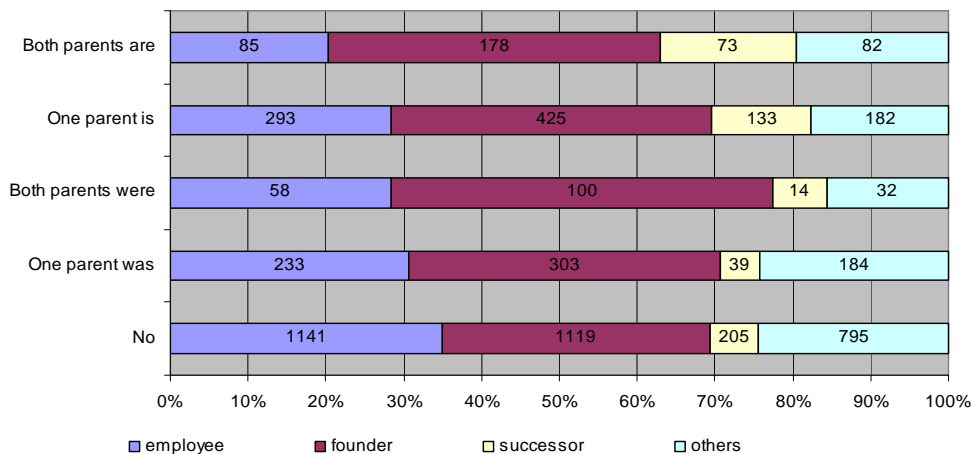




Own calculation

**Figure 9 Carrier aspirations right after studies by family business background (%)**

Entrepreneur-non-entrepreneur family background greatly influenced the respondents' carrier aspirations, that is why the difference in carrier aspirations measured five years after studies remained the same as right after studies.



Own calculation

**Figure 10 Carrier aspirations five years after studies by family business background (%)**

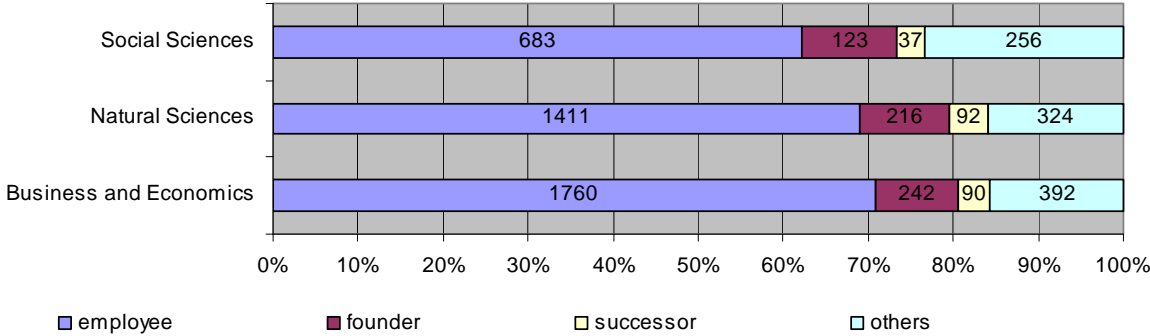
### 2.3. Differences by the field of study

Education may also play an important role in growth orientation of companies (Storey, 1994), but their direct effect on starting an enterprise is undiscovered. The relationship between the field of studies and carrier aspiration is evident. A higher proportion of students who major in business studies can be expected to start a business of their own than that of natural sciences. Besides this, availability and quality of services offered by higher institutions can influence the decision of students.

According to the literature competencies that are thought to be required to run a business successfully may be obtained in conducting real entrepreneurial activities rather than by traditional methods used at higher institutions (Szirmai, Csapó 2006). Higher institutions face great challenges when they apply new methods since these methods are not only resource-intensive but require profound knowledge and serious entrepreneurial background as well. The findings of GUESSS research show that the role of the conventional solutions (courses) remains also important (Gubik, 2013; Gubik, Farkas, 2014).

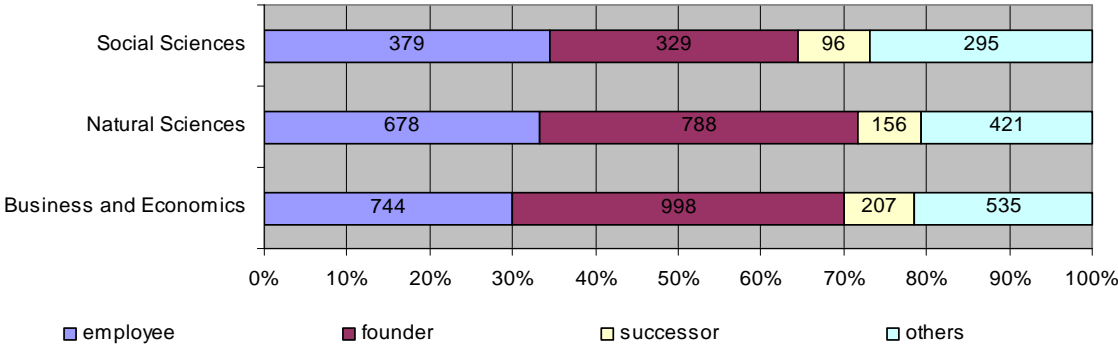
Analyzing the carrier aspirations by field of study we found that right after graduation there are no significant differences in being a founder or successor. After 5 years the ratio of students who were planning to set up a company increased in every field of study, but students from the field of business and economics become the more entrepreneurial. Independently of the time horizon, the ratio of students choosing no professional careers or the proportion of students having no clear intentions is significantly higher in social sciences compared to business and economics and well as natural sciences.

The aggregated data don't show the differences in judgement of employment status. While social science students prefer the carrier of a public servant, a higher ratio of business students would like to become an employee in a company. This difference in preferences remains even after five years.



Own calculation

**Figure 11 Carrier aspirations right after graduation by field of study (%)**



Own calculation

**Figure 12 Carrier aspirations five years after graduation by field of study (%)**

The questionnaire measured the availability and exploitation of courses (Entrepreneurship in general; Family firms; Financing entrepreneurial ventures; Technology entrepreneurship; Social entrepreneurship; Entrepreneurial marketing; Innovation and idea generation; Business planning.), services (Workshops/networking with experienced entrepreneurs; Contact platforms with potential investors; Business plan contests /workshops; Mentoring and coaching programs for entrepreneurs; Contact point for entrepreneurial issues) and resources (Technology and research resources, Seed funding/financial support) offered to students.

Table 3 summarizes the average availability and utilization of courses, services and resources offered by universities. Three new variables were created for this reason; the three indexes show the number of offered courses and services (the variables have the values 0-8 in case of courses, 0-5 in case of services and 0-2 in case of resources). The utilization of each service is expressed by the ratio of utilization measured in percentage.

**Table 3 Average number of courses and services provided by the higher education institutions**

	N	Average	Standard deviation
Number of all lectures and seminars	5677	2.77	2.07
Number of all networking and coaching offerings	5677	1.08	1.37
Number of provided resources	5677	1.07	0.75
Number of attended lectures and seminars	5677	1.58	1.70
Number of utilised networking and coaching offerings	5677	0.29	0.74
Number of utilised resources	5677	0.73	0.71
Ratio of attended lectures and seminars	4508	56.69	38.50
Ratio of utilised networking and coaching offerings	2818	26.12	38.62
Ratio of utilised resources	4260	69.98	41.89

*Own calculation*

The study of courses and services provided by institutions of higher education can be useful in understanding the start-up decision of students. The national average of business courses available for students in Hungary amounted to 2.77 (according to the students' information). The average number of attended courses was 1.58, which represents an average exploitation of 56.69 percent. The average value of networking and mentoring services accounted for 1.08, the national average of utilized services was 0.29 (26.12 percent). The provided resources' national average was 1.07, the average number of exploited resources was 0.73 and the rate of exploitation was 69.98 percent.

Table 4 shows the relationship among the carrier aspirations right after studies and in five years and courses and services provided by institutions of higher education. Except the

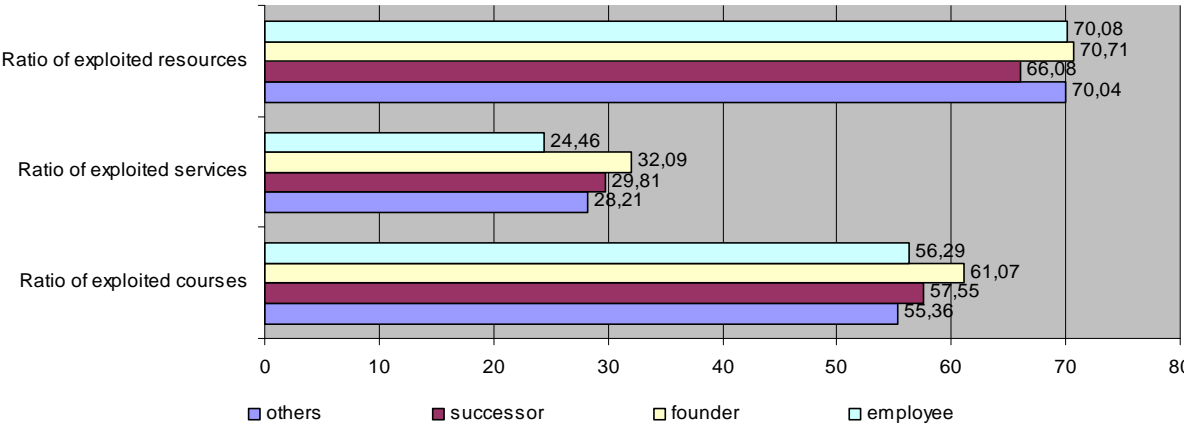
Number of all networking and coaching offerings there are significant correlations between the analysed variables. The findings show that the role of the conventional solutions (courses) and other services offered by institutions also positively affect students' entrepreneurial intentions. In both cases the role of students' participation and involvement is of utmost importance.

**Table 4 Courses and services provided by the higher education institutions by carrier aspirations of the students (average)**

	Career aspirations right after studies		Career aspirations 5 years after studies	
	Cramer V	Sig.	Cramer V	Sig.
Number of all lectures and seminars	.065	.000	.071	.000
Number of all networking and coaching offerings	.032	.273	.042	.012
Number of provided resources	.067	.000	.047	.000
Number of attended lectures and seminars	.055	.001	.069	.000
Number of utilised networking and coaching offerings	.043	.007	.055	.000
Number of utilised resources	.052	.000	.039	.009

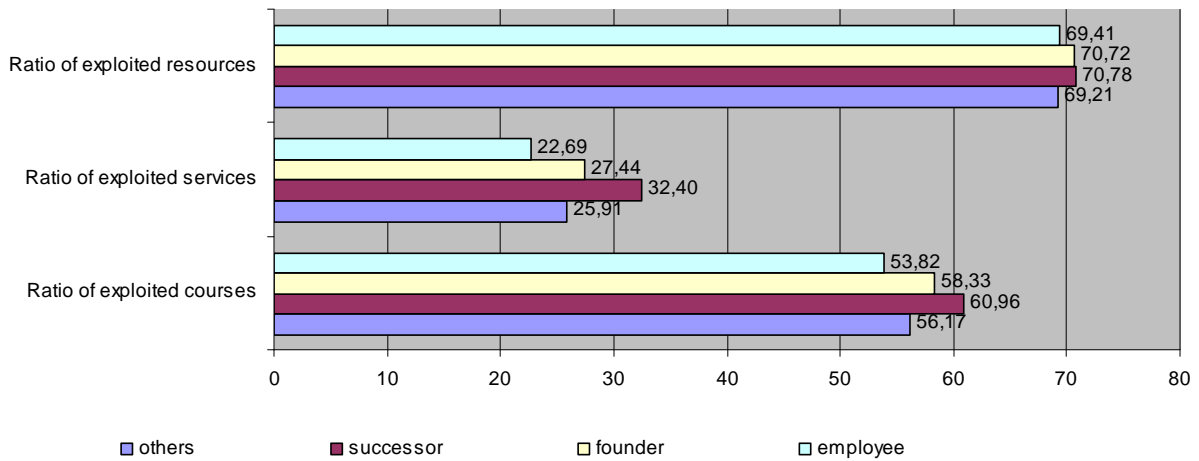
*Own calculation*

Figure 13 and 14 show the exploitation of the offered courses and services according to carrier-aspirations of students.



*Own calculation*

**Figure 13 Exploitation of offered courses and services according to carrier aspirations of students' right after graduation (%)**



*Own calculation*

**Figure 14 Exploitation of offered courses and services according to carrier aspirations of students' five years after graduation (%)**

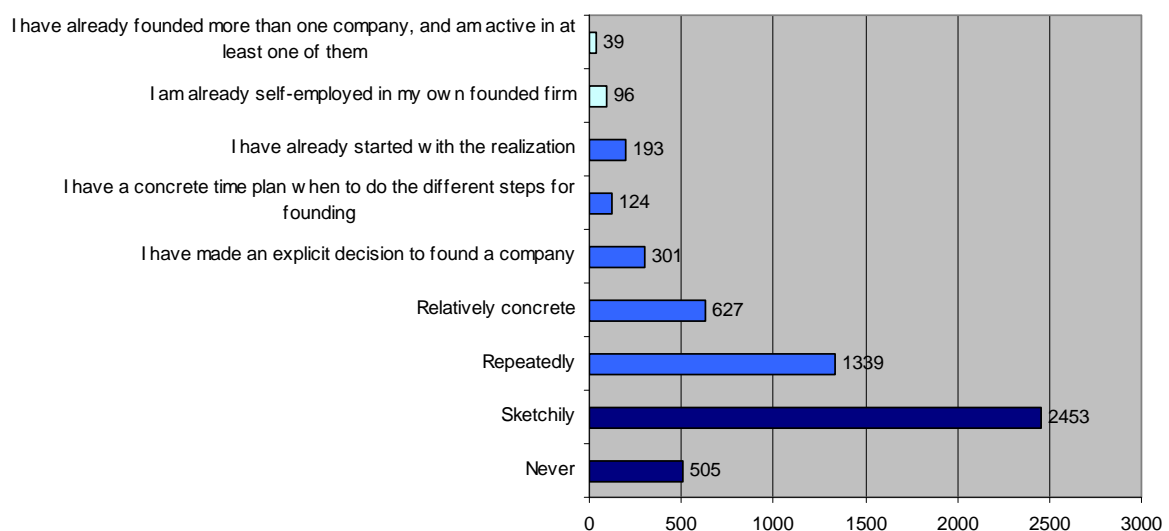
As for provided courses and services, founders and successors already utilised the available courses and services at a higher ratio than employees. Such correlation in terms of resources was not observed. The possible correlation between the exploitation of courses and services and business start-up intentions remains significant if the field of study is a control variable.

### 3. Entrepreneurial intentions

This chapter focuses on the description of the factors affecting the start-up ideas of students. It analyses the responses to question 8, which is as follows: Please indicate if and how seriously you have been thinking about founding your own company?<sup>4</sup> A new variable was also created consisting of three categories (active founder, intentional founder, non-founder).

We focused on gender, age, field of study and family business experiences as factors affecting the start-up ideas. The impact of lectures, seminars and services provided by the higher education institutions on the students' intentions and career plans were also taken into account.

Figure 15 shows that the majority of respondents did not deal with start-up ideas seriously. More than half of the respondents did not plan a business start-up (the number of responses of 'Never' and 'Sketchily'). Only 2.37 % of them were active entrepreneurs at the time of filling out the questionnaire (the ratio of 'I am already self-employed in my own founded firm', 'I have already founded more than one company, and am active in at least one of them' answers).



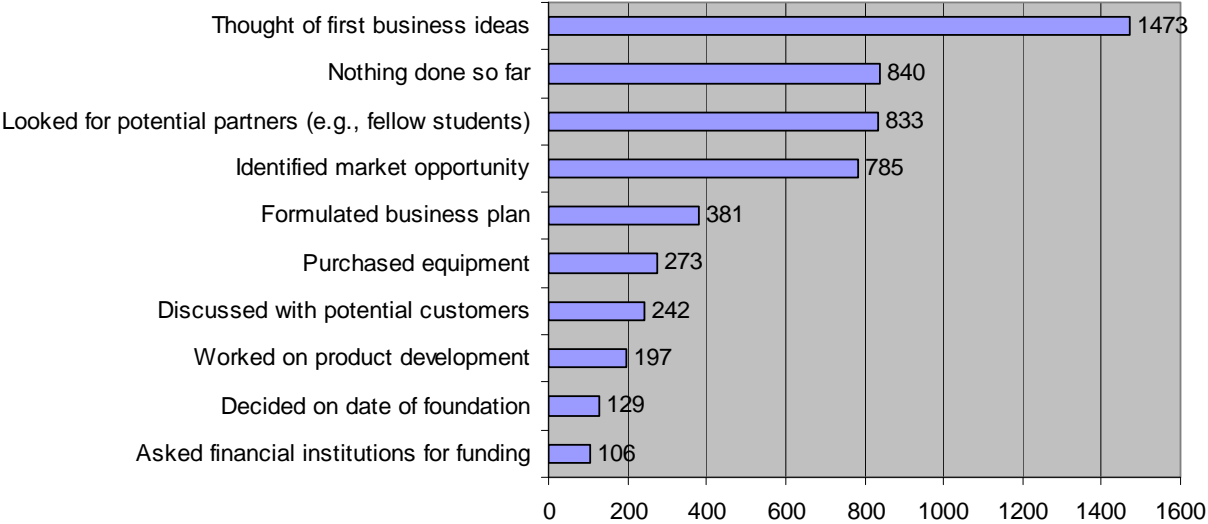
*Own calculation*

**Figure 15 Business start-up intentions of students**

The remaining students thought of a business start-up (rate of 'Repeatedly'; 'Relatively concrete'; 'I have made an explicit decision to found a company' and 'I have a concrete time plan when to do the different steps for founding' answers). However, there are large differences in the actual steps taken.

<sup>4</sup> The possible answers were as follows: 0 Never; 1 Sketchily; 2 Repeatedly; 3 Relatively concrete; 4 I have made an explicit decision to found a company; 5 I have a concrete time plan when to make different steps for founding; 6 I have already started with the realization; 7 I am already self-employed in my own founded firm; 8 I have already founded more than one company, and am active in at least one of them. Active founder (7-8); Intentional founder (2-6); Non-founder (0-1)

The analysis of the founding-steps (question 13.1) shows that there was a fairly small amount of students who had already taken actual steps to start-up their own business. Considering that this question allowed multiple answers, no clear conclusions can be drawn about the respondents. However, the results show that the rate of students who had taken no steps so far (32.5 percent of all answers) or were just ‘thinking through initial business ideas’ (57 %) was high. Only 6 percent of them had developed a business plan and slightly more than 2 percent of them had decided on the date of foundation.

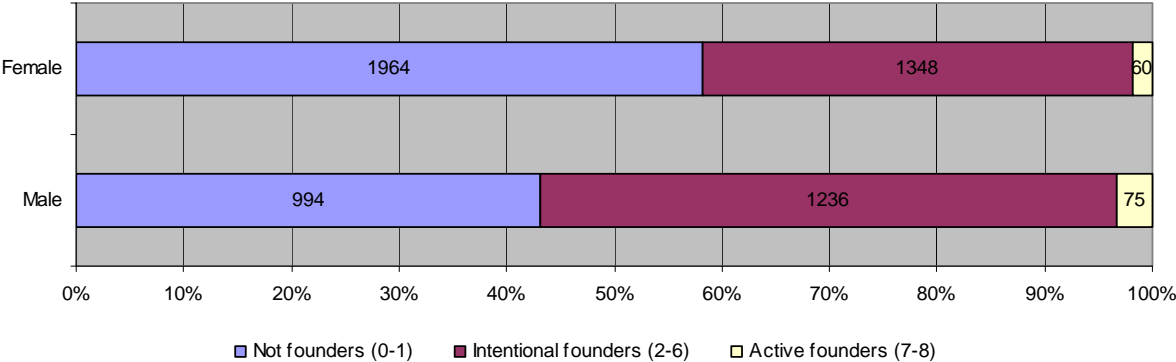


Own calculation

**Figure 16 Steps taken to found a business (Number of students)**

**3.1. Differences by age and gender**

There is a difference in business start-up by gender as illustrated in Figure 17. There are more men within both active and intentional founders.



Own calculation

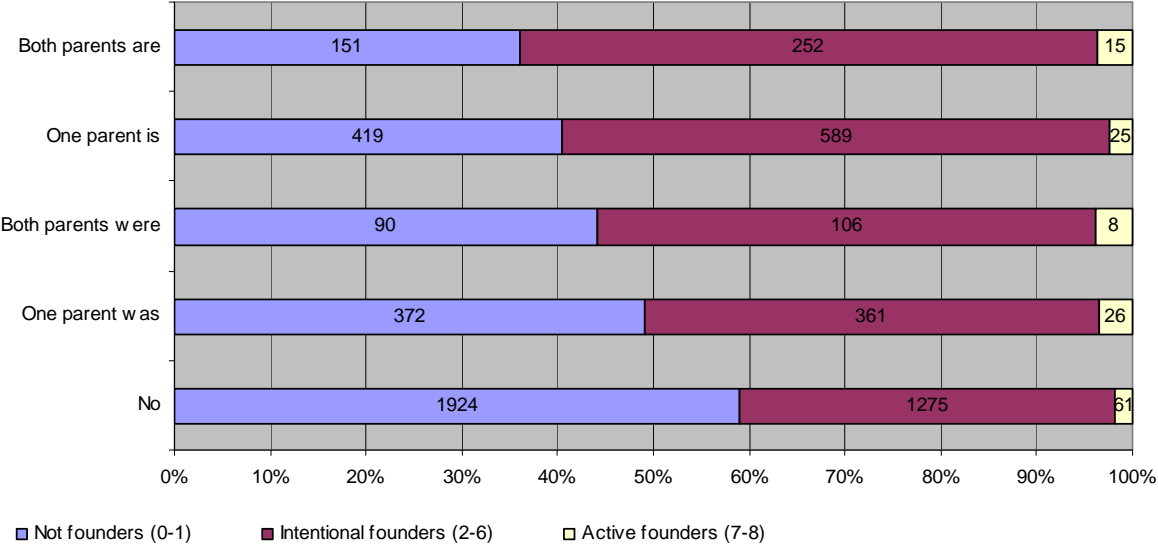
**Figure 17 Business start-up by gender (%)**

There are also significant differences in business intentions by *age group*. Older respondents are more likely to become entrepreneurs than younger ones. This correlation can be observed also in case of potential entrepreneurs. As for the steps taken to found a business, the results show that the older respondents studied the possibilities of establishing a firm of their own.

Finally, there are also differences regarding the level of education. More Master and MBA students founded a business of their own than average students (4.47 percent of Master and 7.69 percent of MBA students). This can be explained partly by the correlation between the students’ age and entrepreneurial intentions mentioned above, namely that younger students were undergraduates and older ones were graduates, MBA or PhD students.

**3.2. Family business background**

Not only the present, but also the family business experiences from the past are beneficial to the students’ business start-up plans. Children of current or former entrepreneurs were more likely to think about the possibility of founding a business. Questions regarding current (6.1) and former family business experiences (6.2) were integrated into one variable. Figure 18 shows the entrepreneurial intentions according to this new variable.



*Own calculation*

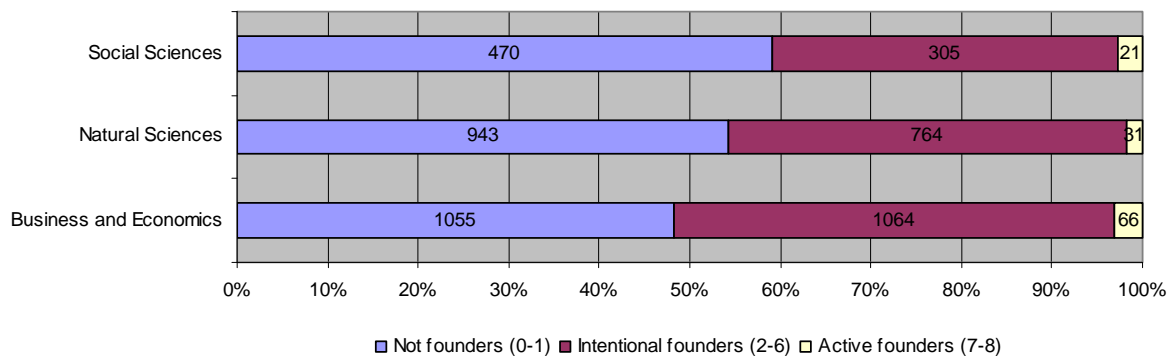
**Figure 18 Business start-ups influenced by family business background (%)**

**3.3. The effect of the field of study**

There is a significant correlation between the students’ start-up ideas and their field of study. A higher rate of business and economics students are active or intentional founders. The fields



of Engineering sciences and Computer sciences / informatics increase the average of natural sciences.



Own calculation

**Figure 19 Business start-ups by field of study**

However, it should be noted, that presence or absence of family business background determines the career choice, too.

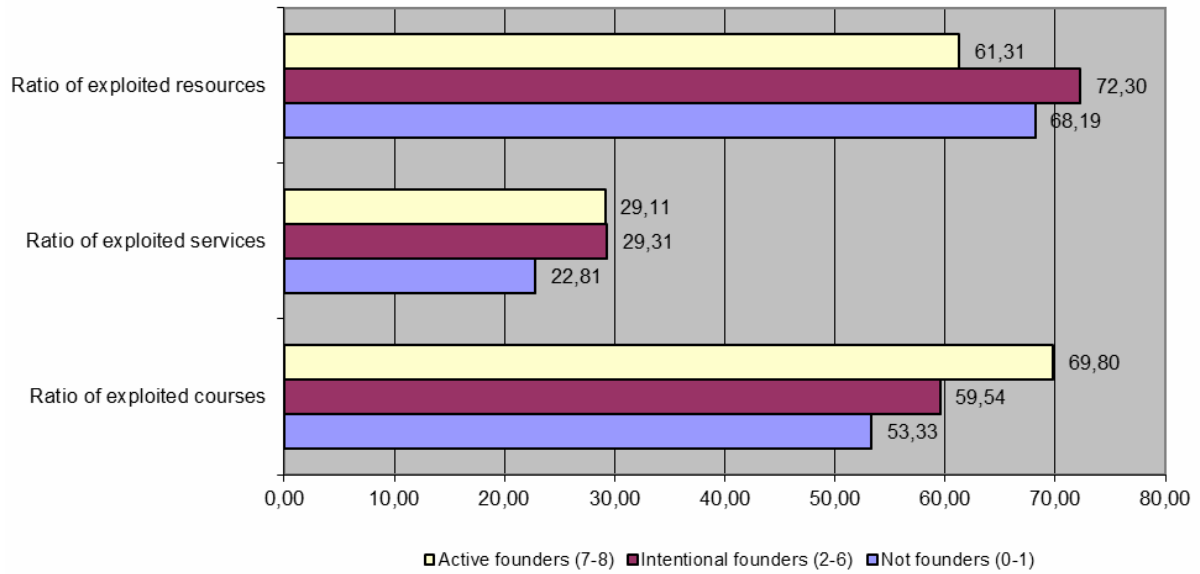
The children of entrepreneur parents are more likely to choose business and science fields of study. Thus, family business background has a major influence on the career choice, so the differences between the fields of study cannot be justified only by the profile of the fields.

### 3.4. Services provided by institutions of higher education

The study of courses and services offered by the Institutions of higher education can be useful in understanding the business founding decisions. Question 2.5 asked the students about three issues: the offered courses, the services and the resources provided by the institution of higher education. Nine new variables were created in order to understand their role in the respondents' founding intentions. Three of them contain the number of offered courses, services and resources the students are aware of. Three of them include the attended courses, the exploited services and resources. The last three contain the intensity of exploitation that is the exploitation of courses, services and resources in percentage.

The Hungarian higher education institutions have an average of 2.77 business courses (according to the students). The attended courses have an average of 1.58, which represents an average exploitation of 56.69 percent. The average value of networking and mentoring services is 1.08. The utilized services have a national average of 0.29 and the rate of exploitation is 26.12 percent. The provided sources have a national average of 1.07 percent, the exploited resources have an average of 0.73 percent and the rate of exploitation is 69.98 percent (See Table 5).

Figure 20 shows the exploitation of the offered courses and services according to the students' business start-up intentions.



*Own calculation*

**Figure 20 Exploitation of offered courses and services according to the students' business start-up intentions (%)**

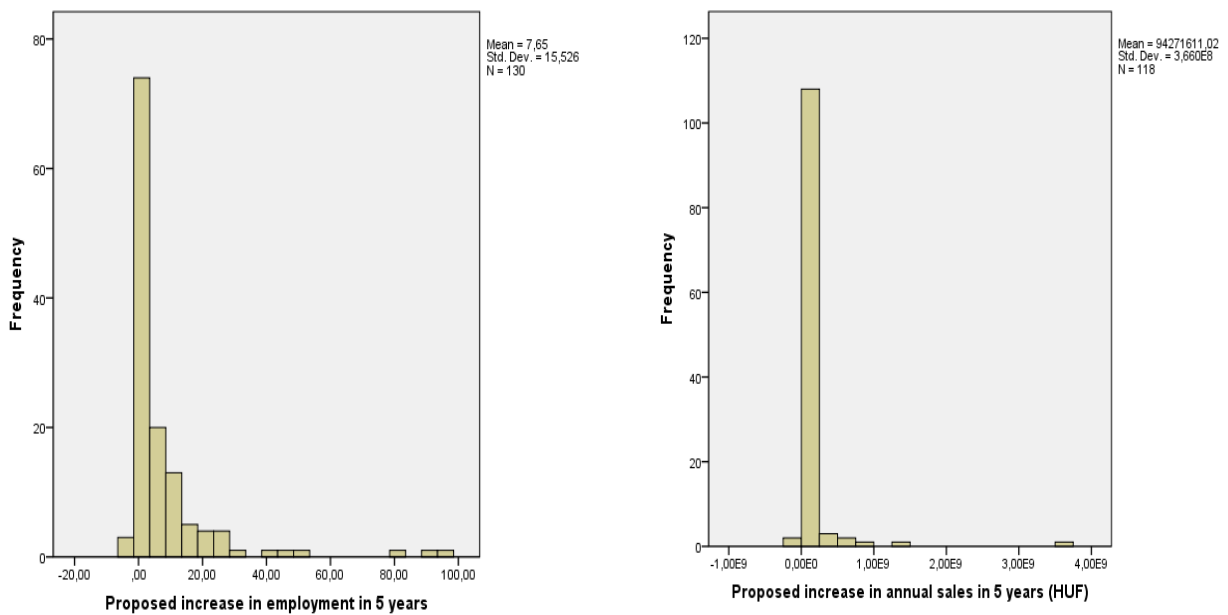
The results clearly show that as for the courses and services, the active and intentional founders exploited the available services at a higher ratio than the non-founders. There is no such correlation in terms of resources. The possible correlation between the exploitation of courses – services and the business start-up intentions remained if the field of study was a control variable.

#### 4. Active founders

The block of questions 14 analysed the entrepreneurs and their companies. This chapter presents the descriptive statistics of these questions.

Altogether 135 of the respondents had a company (companies) of their own. The businesses were founded between 1986 and 2011. One third of them were established after 2009. The students owned nearly half of the companies alone (45.2 %), another significant ratio (39.3 %) worked with one partner. Students had a 50 % share in nearly half of the companies with more than one owner. The founding-partner was mainly a relative or came from the family circle (28 answers) and from the circle of friends outside University (26 cases). The founding partner was rarely a spouse (the number of married students was low in the sample) and it was even rarer that the founding partner was an acquaintance from the university (only 10 answers).

All but 10 companies were micro companies with 1-9 employees; within this 51.1 per cent were self-employed. Figure 21 shows that the majority of students had no intention to generate a growth either in employment or in annual sales. About 3.1 per cent of them forecast a decrease in employment and 6.8 per cent a decrease in annual sales.

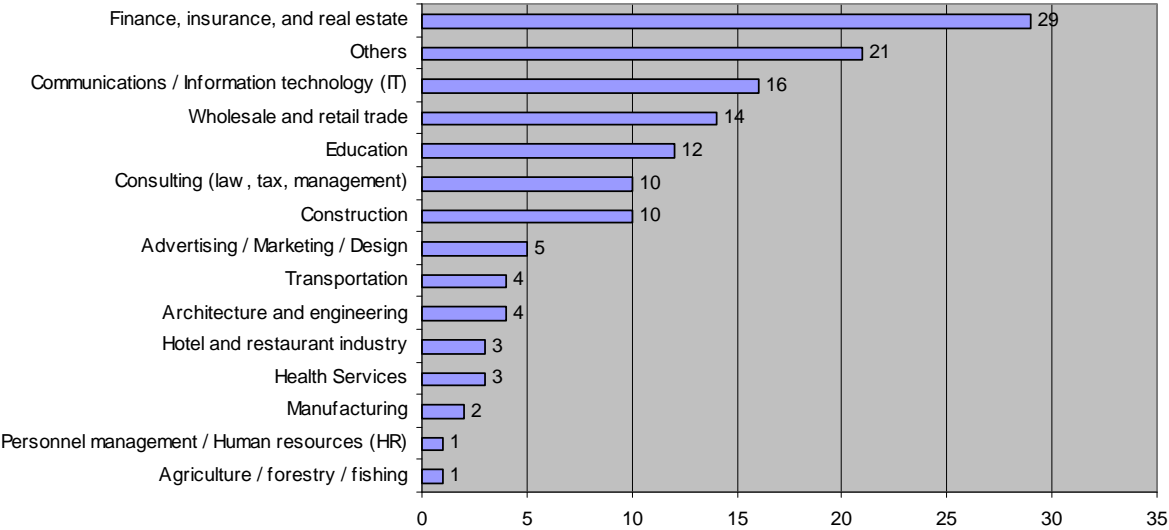


*Proposed increase in employment/annual sales – Last year's employment/annual sales  
Own calculation*

**Figure 21 The growth-orientation of companies**

Figure 22 shows the distribution of the students' companies by industry. The respondent students' companies are primary service oriented. There is a significant ratio in case of 'Finance, insurance and real estate' (29 answers), 'Communications / Information technology (IT)' (16 answers) also 'Wholesale and trade' (12 answers). The 21 responses in

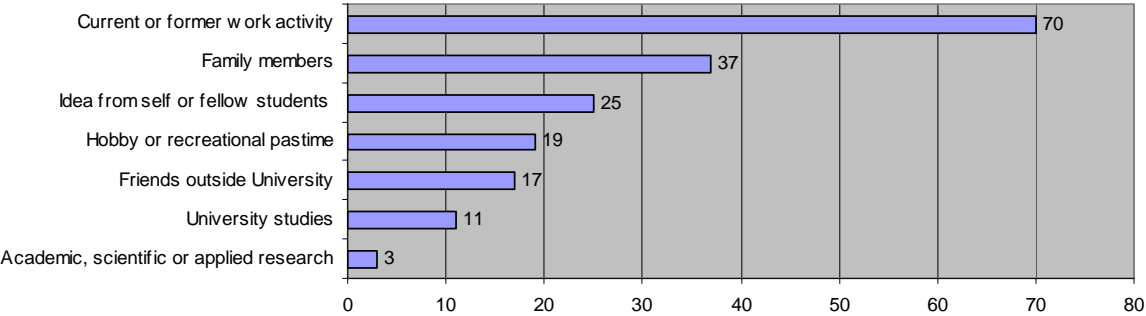
the 'Other' category also referred to services: the majority were involved in event management, marketing research and accountancy.



Own calculation

**Figure 22 Distribution of students' companies by industry (Number of students)**

Business ideas originated most frequently from current or former work activities. The next most popular source was from family members. Similarly to the founding partner's choice, the role of the university was insignificant; just 11 answers indicated this source (see Figure 23).



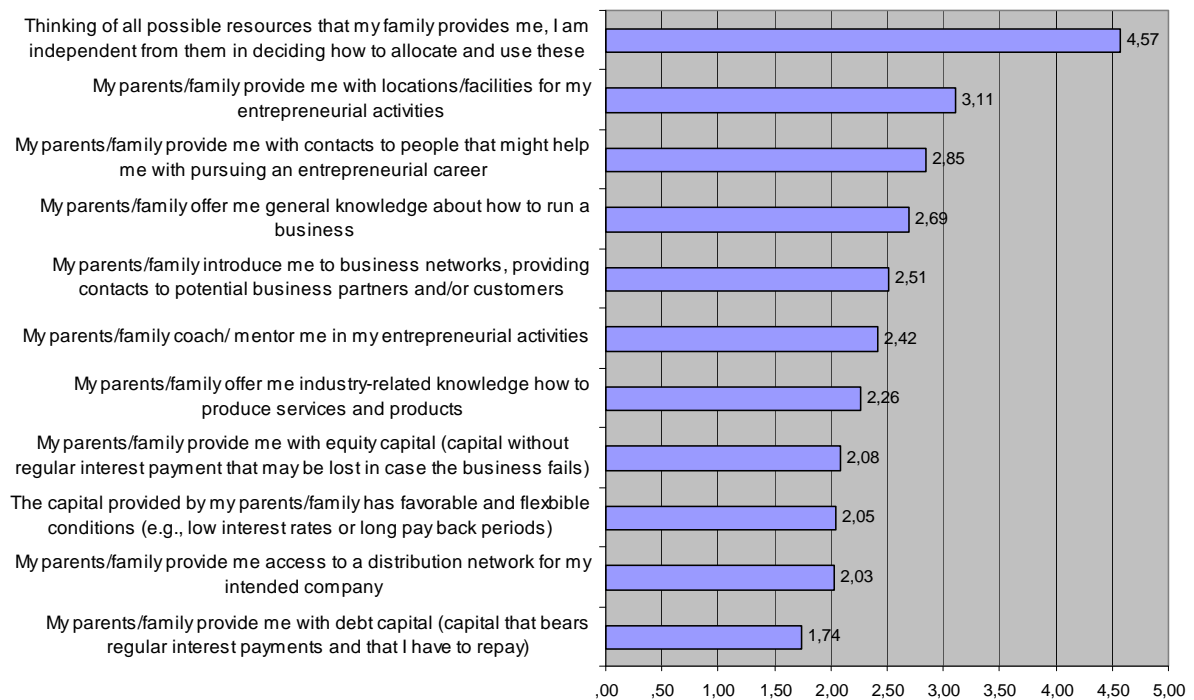
Own calculation

**Figure 23 Source of business ideas (Number of students)**

Figure 24 shows that family support played an insignificant role in the students' raising their start-up capital for their entrepreneurial activities, since each form of support received moderate or even lower than average points. The students had a great independence in using the resources. Funding from family was the most popular form of finance. The provision of location/facilities for the entrepreneurial activities received just 3.11 points in average. The

provision of contacts, networks and the offer of general knowledge were considered even less important.

The family business background played an important role in the family support of entrepreneurial activities. It was found that the family business background (in the past and at present as well) will increase the support from family, especially in terms of the non-financial support (knowledge transfer, social capital).



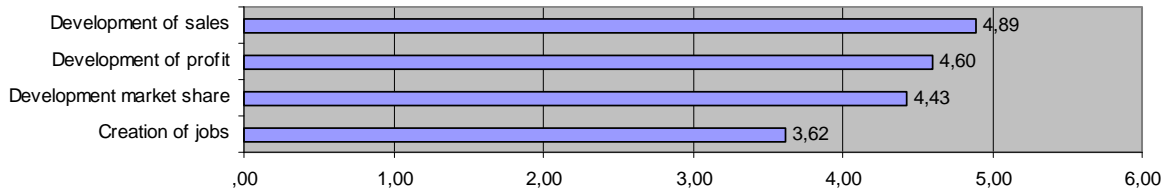
1: not at all, 7: very much  
Own calculation

**Figure 24 Family support of the entrepreneurial activity**

Altogether 60 per cent of the respondents had professional work experience, which proved to be useful at the foundation. This experience was in average longer than 7 years. There were insignificant differences in hours spent on their business activities before and after founding the business.

About 67.4 percent of the respondents used their own funds for start-up and 33 per cent of them had funding from their families and friends. However, only 4 respondents relied solely on their families' and friends' financial resources. Six respondents reported to have funding from foundations, trusts and government programs. Only one respondent had funding business competitions/idea contests and also one used equity capital from institutional investors. Only 14 respondents from the 135 used bank loans for their start-up.

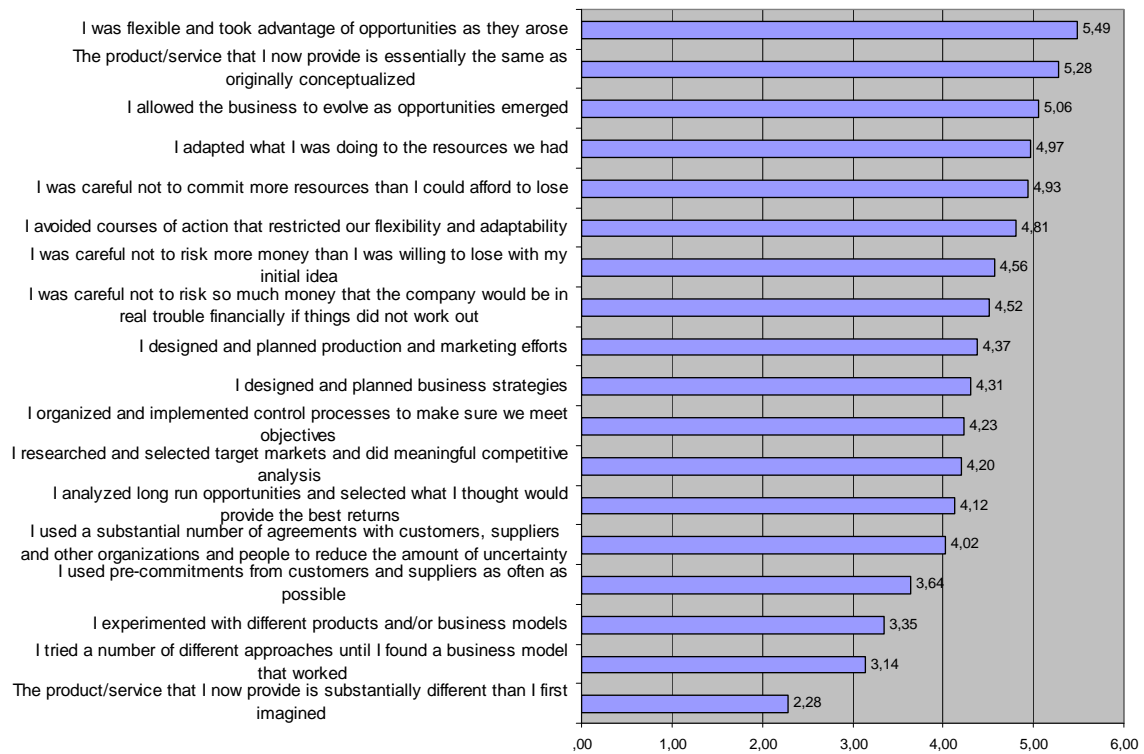
The respondents indicated that the performance of their business was almost as good as their competitors'. Sales, profit and development of market share performance indicators were slightly better than the indicator related to job creation of (Figure 25).



1: worse, 4: equal, 6: best  
Own calculation

**Figure 25 Performance of businesses**

The mean scores of the responses to question 14.8 indicate that the students made their decisions related to their start-up activities basically intuitively, or even on an ad hoc basis during the foundation process (I was flexible..., I allowed...). As for the cautiousness during the foundation process, it was experienced mainly in issues related to finance. Activities related to prudence, accuracy (I designed..., I organized..., I researched..., I analyzed...) received a slightly higher mean scores than moderate.

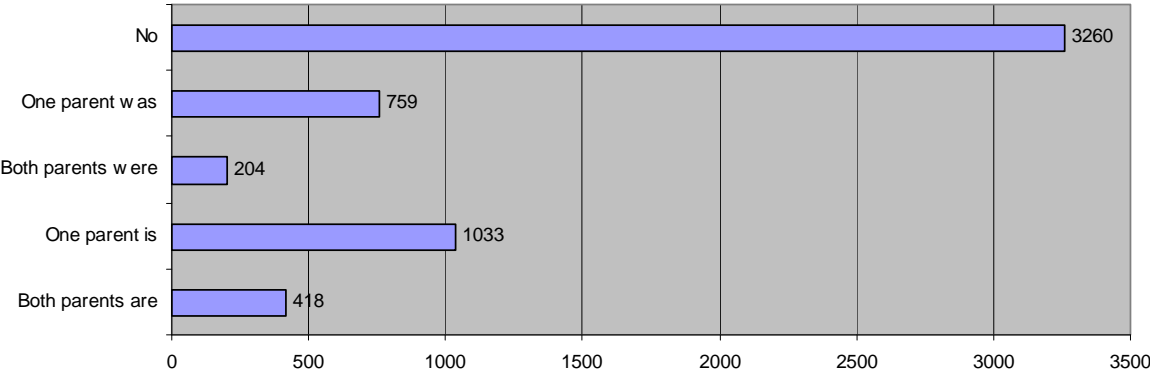


1: strongly disagree, 7: strongly agree  
Own calculation

**Figure 26 Aspects of the founding process**

## 5. Family Business Background

Altogether 57.5 percent of the responding students did not have a family business background. 17 percent reported that their parents had previously been self-employed, and the parents or one parent of 25.6 percent of the respondents were still self-employed. Figure 27 shows the number of students according to this question.



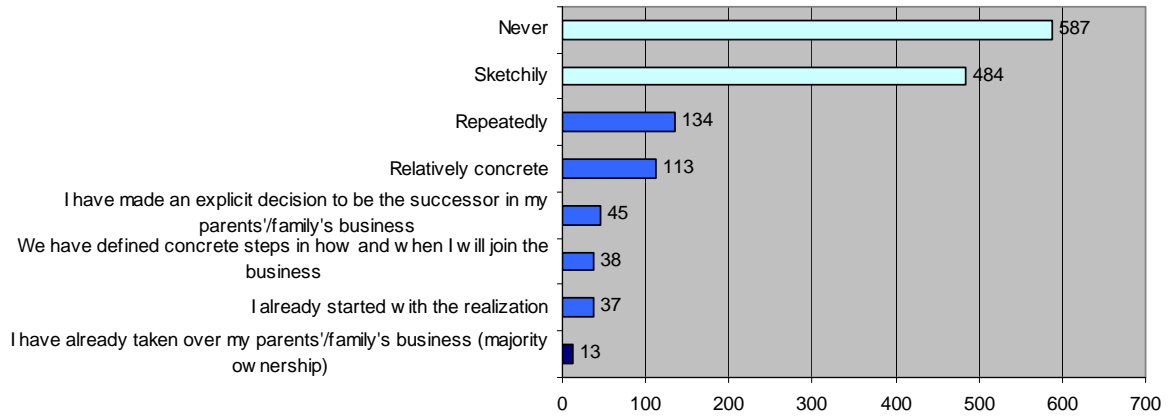
*The new variable was made from questions 6.1. and 6.2. Is or has there been an entrepreneur in the family?  
Own calculation*

**Figure 27 Family business background (Number of students)**

Family business background had a positive impact on students' entrepreneurial intentions. The children of entrepreneurs were more likely open to start their own business. They could start their business with a more significant family support and were more likely to become entrepreneurs.

The aim of the 15<sup>th</sup> block was to find out the students' future plans about taking over the family business.

Figure 27 shows that the majority of students were not thinking about taking over the parents' business seriously. As seen in the figure 28, 73.8 percent of them had no intention to take over the family business (answers Never, Sketchily). About 22.7 percent of them considered to take over the family business (answers Repeatedly; Relatively concrete; I have made an explicit decision to be the successor in my parents'/family's business; We have defined concrete steps in how and when I will join the business; I already started with the realization) and only 0.9 percent of the respondents had already taken over the family's business (13 respondents).

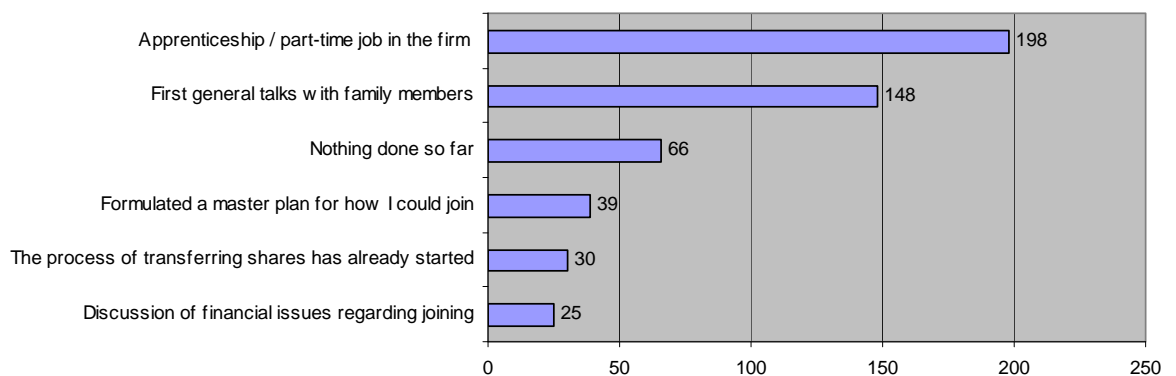


*How seriously have you been thinking about taking over your parents' business?*  
Own calculation

**Figure 28 Thinking about taking over the family business (Number of students)**

It should be noted that the vast majority of family businesses reported here were micro companies (87.2 percent), their cumulated ratio with small enterprises amounted to 97.6 percent. These enterprises are often too small to generate enough income for more owners. The field of their activities also explain the reluctance of students' involvement. The responses to the 'Other' category (e.g. sewing woman, hairdresser, and sales representative) might also explain the elicited responses, as the listed jobs were less interesting for a graduated person. The family businesses of the respondents were most active in 'Wholesale and retail trade' (213), 'Construction' (205) and Agriculture/forestry/fishing (174).

The respondents had a part-time job in the family business in order to gain experience before joining the business (198 answers). As many as 148 students reported that they had already had initial negotiations with family members regarding financial issues of joining in, but only 25 of them reported to have agreed on financial issues related to this. Figure 29 shows the steps taken by the students (multiple answers were allowed).

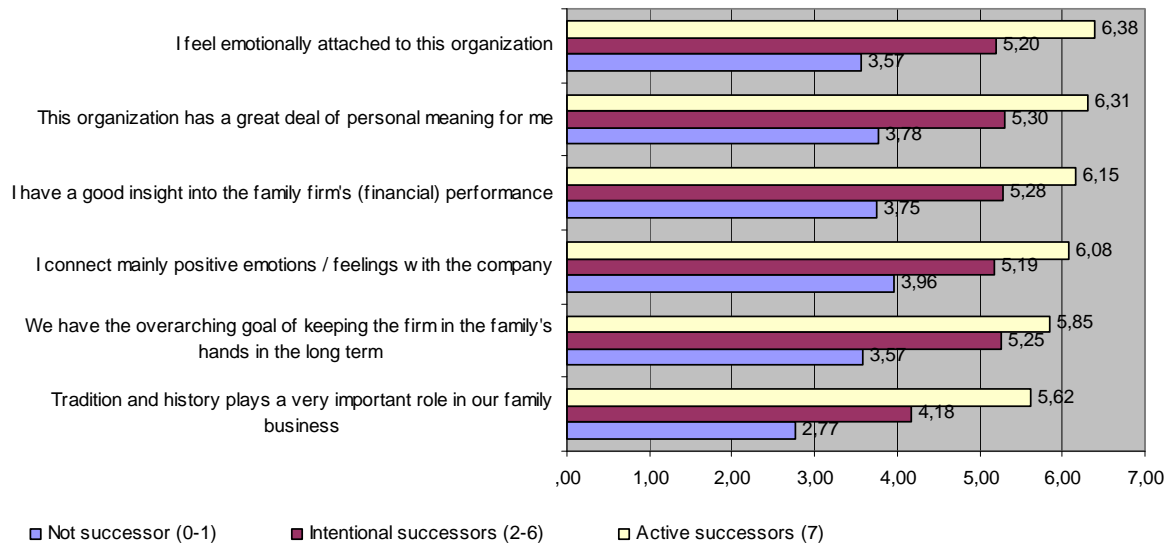


Own calculation

**Figure 29 Steps taken to join the family business (Number of students)**



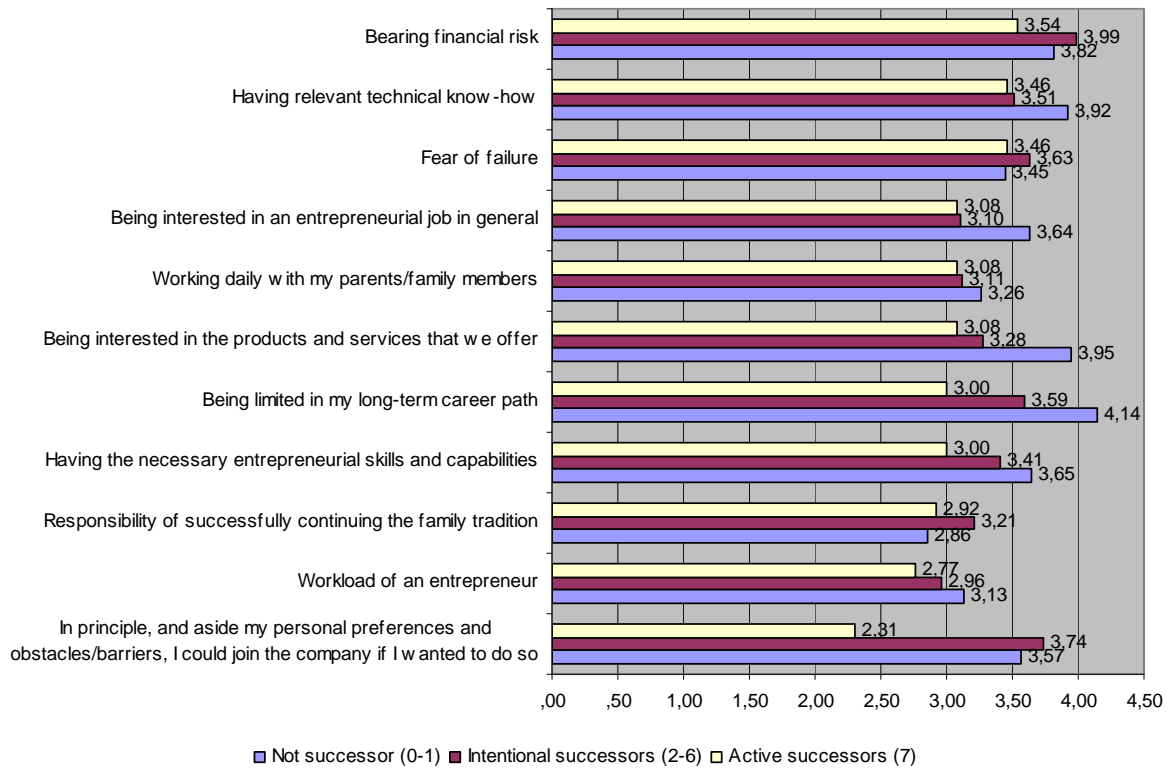
Significant differences can be found in how seriously the respondents' addressed the issue of taking over the family business. The respondents who had already taken over the family business had higher emotional commitment level to the company than other respondents. They were more interested in the company's prospects and were more updated on its performance than intentional successors. The non-successors were the least interested. Figure 30 clearly shows these differences.



1: strongly disagree, 7: strongly agree  
Own calculation

**Figure 30 Family firm orientation**

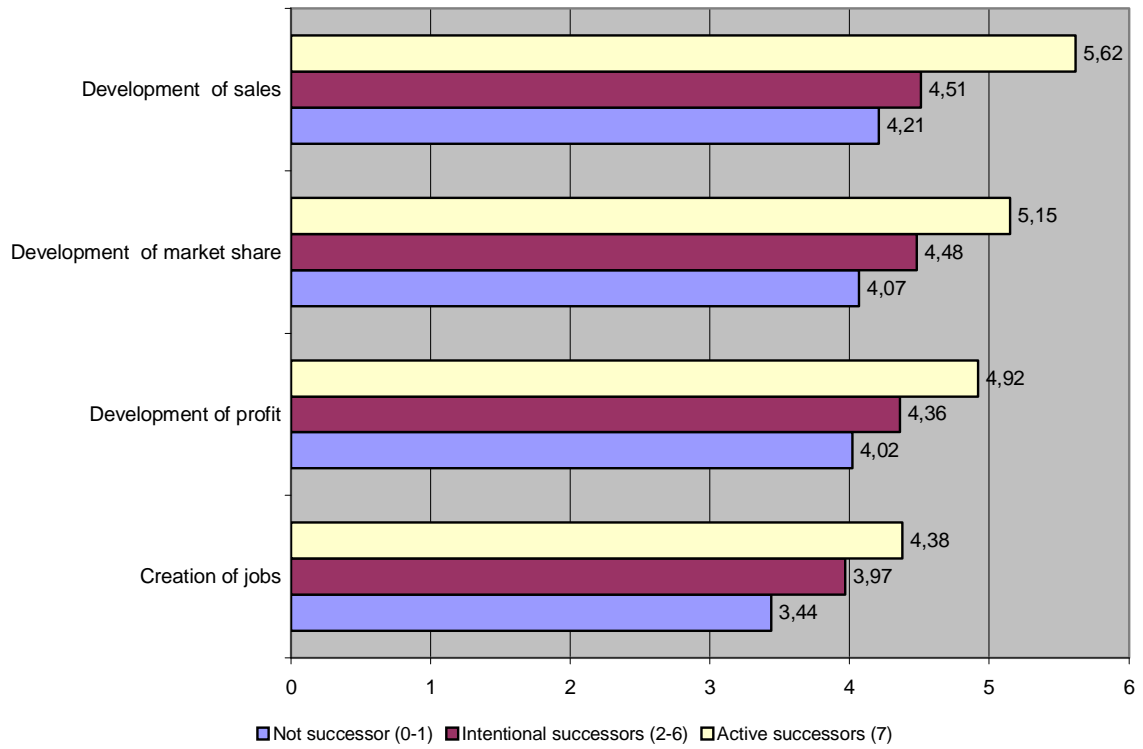
Figure 31 shows how the barriers to succession intentions differ depending on the taking-over plans. Active successors gave low scores to each barrier. The largest obstacles to founding a business were 'Bearing financial risk' and 'Fear of failure', as well as the 'responsibility of successfully continuing the family tradition'. The non-successors had serious concerns about specific barriers.



1: not at all, 7: very much  
 Own calculation

**Figure 31 Barriers to succession by takeover plans**

Question 15.5 provided interesting information about the takeover of the family business, as it asked the respondents about the business performance in the last three years. Figure 32 shows that active successors found the performance of the family company better in all four surveyed categories, compared to intentional successors and non-successors. It was difficult to judge whether better performance resulted in the increase in succession interest, or the intentional or active successors were more emotionally attached to their family business.



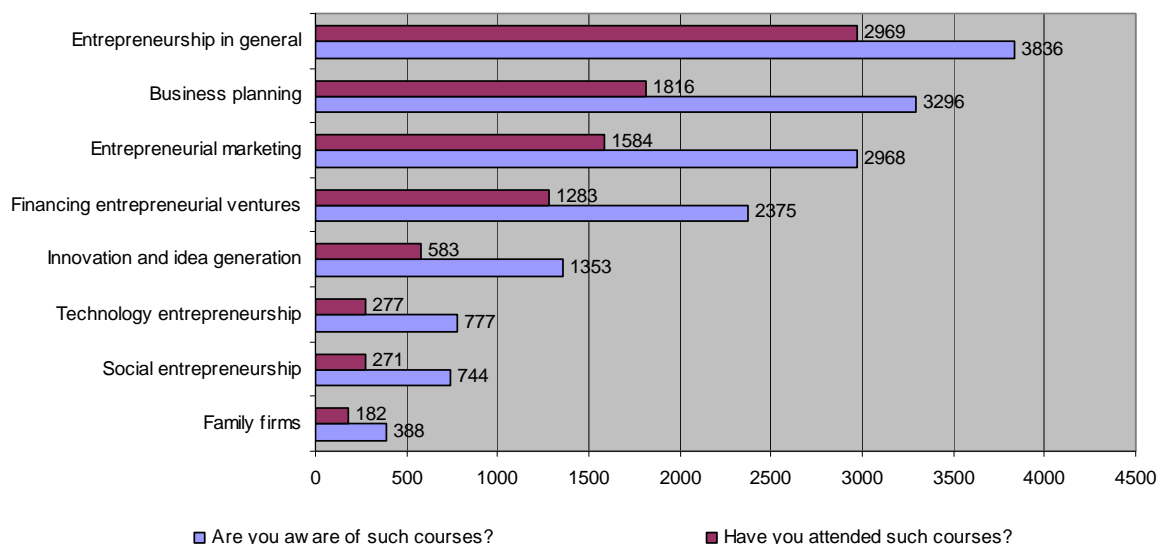
*1: worse, 4: equal, 7: better*  
*Own calculation*

**Figure 32 Evaluation of family businesses by succession intentions**

## 6. The role of higher institutions in the entrepreneurship of Hungarian Students<sup>5</sup>

The higher education courses, services, infrastructure and resources offered to students differ from institution to institution. Differences in the students' exploitation of the offered courses can also be observed. This paper analyses the institutional differences related to perception of these offerings and investigates whether there is a link between the study profiles of the institutions surveyed and the extent of differences between them.

The first question series is related to the offered courses and seminars by the universities. The students were asked whether they were aware of what was on offer at their institution and whether they attended the offered courses. Figure 33 shows that the students studied the basics of management in the frame of 'Entrepreneurship in general'. Only a few students were aware of specialised courses ('Family firms', 'Innovation and idea generation' etc.). The course 'Entrepreneurship in general' had the highest ratio of attendance (77.3%). This can be explained by the fact that this was a core and probably compulsory course in most fields of study.



*Own calculation*

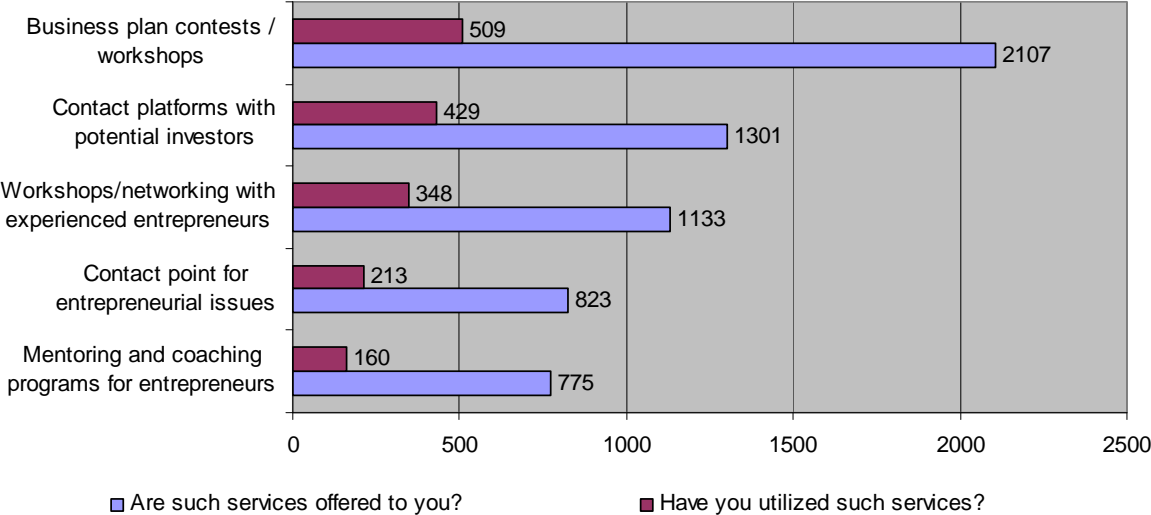
**Figure 33 Students' awareness of university offerings and their utilisation (Number of students)**

The second question was about the networking and coaching offerings (services) and their utilisation. The 'Business plan contests/workshops' were the best-known offerings of networking and coaching. Just over 20 percent of respondents were aware of 'Contact platforms with potential investors' and even fewer of them knew about 'Workshops/networking with experienced entrepreneurs' or 'Contact points for entrepreneurial issues'. It is also noteworthy that the utilisation of these services was

<sup>5</sup> This chapter is based on the following paper: Gubik, A.S. (2014) The Role of Higher Education Institutions in the Entrepreneurship of Hungarian Students THEORY METHODOLOGY PRACTICE: CLUB OF ECONOMICS IN MISKOLC 10:(1) pp. 71-79. <http://tmp.gtk.uni-miskolc.hu/index.php?i=2070>

extremely low. Only ‘Workshops/Networking with experienced entrepreneurs’ and ‘Contact platforms with potential investors’ (e.g. “business angels”) amounted to 30%. Without the high exploitation of such services, these programs increase the entrepreneurial environment of the institution but have little direct effect on students’ entrepreneurial intention.

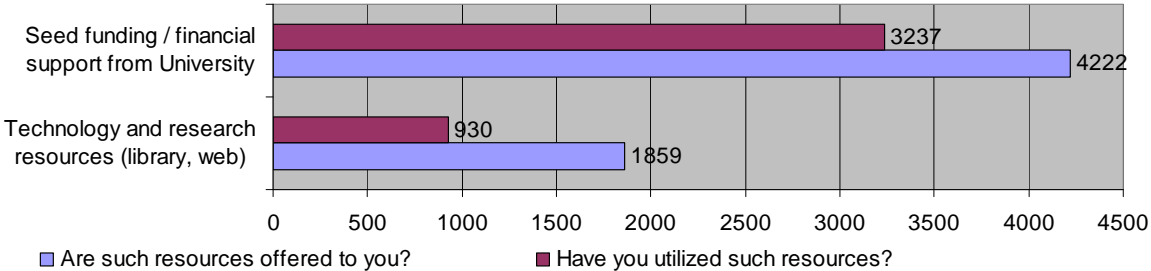
The results related to networking and advisory services are shown in Figure 34.



Own calculation

**Figure 34 Students’ awareness of university’s networking and coaching offerings and their utilisation (Number of students)**

The third question dealt with the resources institutions offered to students. Figure 35 shows the provision of higher education resources which were available and utilised by founders/entrepreneurs. A high ratio of responding students reported the availability of the resources and a large number of them utilised the resources offered by their institution.



Own calculation

**Figure 35 Resources offered by higher education institutions and their utilisation (Number of students)**

In order to compare the institutions’ supply of courses, services, infrastructure and resources, and to find the relationship between this and entrepreneurial intention, three new variables were created: the three indexes show the number of offered courses and services

(the variables have the values 0-8 in case of courses, 0-5 in case of services and 0-2 in case of resources). The utilisation of each service is expressed by the ratio of utilisation measured in percentages. Table 5 summarises the average availability and utilisation of the higher education courses, services and resources offered by universities in Hungary according to the students of our database.

**Table 5 Average number of courses and services provided by the higher education institutions**

	N	Average	Standard deviation
Number of all lectures and seminars	5677	2.77	2.07
Number of all networking and coaching offerings	5677	1.08	1.37
Number of provided resources	5677	1.07	0.75
Number of attended lectures and seminars	5677	1.58	1.70
Number of utilised networking and coaching offerings	5677	0.29	0.74
Number of utilised resources	5677	0.73	0.71
Ratio of attended lectures and seminars	4508	56.69	38.50
Ratio of utilised networking and coaching offerings	2818	26.12	38.62
Ratio of utilised resources	4260	69.98	41.89

*Own calculation*

The Hungarian higher education institutions have an average of 2.77 business courses (according to the students). The attended courses have an average of 1.58, which represents an average exploitation of 56.69 percent. The average value of networking and mentoring services is 1.08. The utilised services have a national average of 0.29 and the rate of exploitation is 26.12 percent. The provided resources have a national average of 1.07 percent, the exploited resources have an average of 0.73 percent and the rate of exploitation is 69.97 percent. This shows that students are passive as far as services' exploitation is concerned. Institutes should motivate students so that the exploitation of these services increases and their positive impact on intention can be experienced.

### **6.1. Relationship between services of higher education institutions and entrepreneurial intention**

Entrepreneurial intention could be measured by the following item on the questionnaire: *Please indicate if and how seriously you have been thinking about founding your own company.* The possible answers were as follows: 0 Never; 1 Sketchily; 2 Repeatedly; 3 Relatively concrete; 4 I have made an explicit decision to found a company; 5 I have a concrete time plan when to make different steps for founding; 6 I have already started with the realisation; 7 I am already self-employed in my own founded firm; 8 I have already founded more than one company, and am active in at least one of them. Here we use the variation of the variable consisting of three categories: active founder (7-8), intentional founder (2-6), non-founder (0-1). Table 6 shows the average values of the previously generated indexes grouped by the entrepreneurial intention of the students.

**Table 6 Courses and services provided by the higher education institutions by entrepreneurial intention of the students (average)**

	Not founders	Intentional founders	Active founders	Average	Cramer V	Sig.
Number of all lectures and seminars	2.56	3.00	3.07	2.77	.090	.000
Number of all networking and coaching offerings	1.01	1.17	1.04	1.08	.050	.001
Number of provided resources	1.07	1.09	0.77	1.07	.059	.000
Number of attended lectures and seminars	1.37	1.80	2.08	1.58	.101	.000
Number of utilised networking and coaching offerings	0.24	0.35	0.27	0.29	.074	.000
Number of utilised resources	0.72	0.77	0.46	0.73	.057	.000
Ratio of attended lectures and seminars	53.33	59.54	69.80	56.69	.093	.001
Ratio of utilised networking and coaching offerings	22.81	29.31	29.11	26.12	.073	.066
Ratio of utilised resources	68.19	72.30	61.31	69.98	.044	.003

*Own calculation, \*p=0.000*

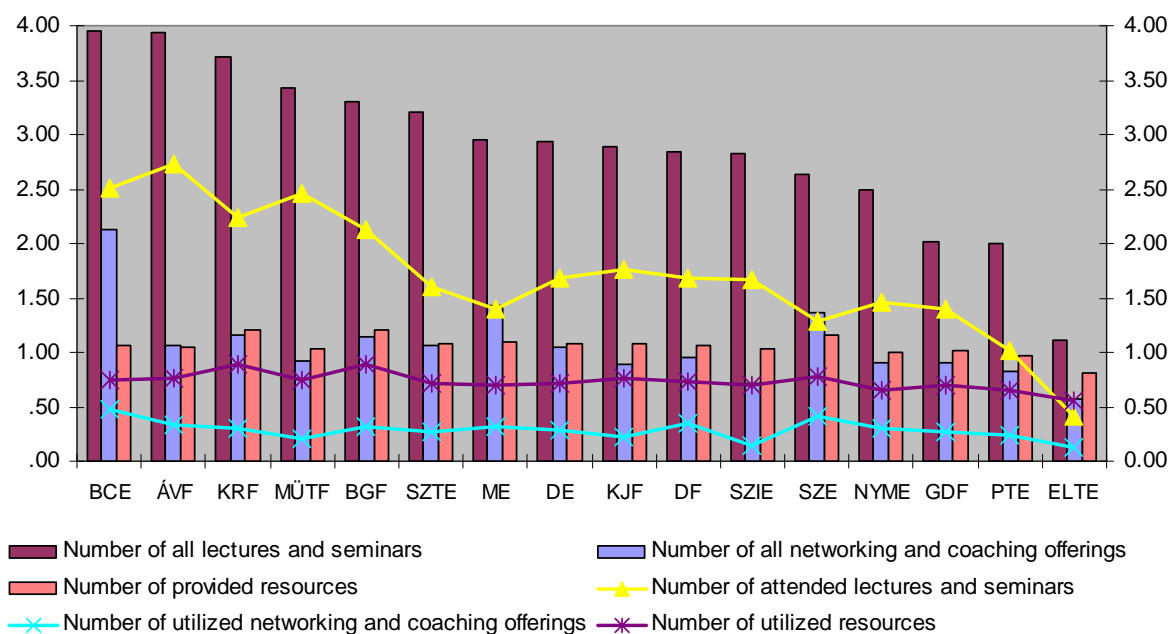
The results clearly show that as for the courses and services, the active and intentional founders have a better knowledge about the opportunities provided by their institutions and in the same time they exploited the available services at a higher ratio than the non-founders. Every relationship is significant, but the correlation is stronger for exploitation than for having information about the possibilities.

The correlation between the exploitation of courses – services and the business start-up intentions remained if the field of study – business/economics, natural sciences (including engineering), social sciences (including humanities) – was a control variable.

The conclusion to be drawn is that higher education institutions' services play a significant role in students' entrepreneurial intention. Traditional methods (courses, seminars) and new ways (e.g. mentoring, coaching, networking with entrepreneurs) also significantly contribute to the entrepreneurial intention of students, but the effect of traditional methods seems to be higher.

## **6.2. Differences by higher education institution**

Significant differences can be observed in the above analysed fields from institution to institution. Figure 36 lists the 16 higher education institutions whose students returned at least 70 completed questionnaires. The vertical axis shows the number of seminars, services and resources.



*Own calculation*

**Figure 36 Types of services of higher education institutions and their utilisation**

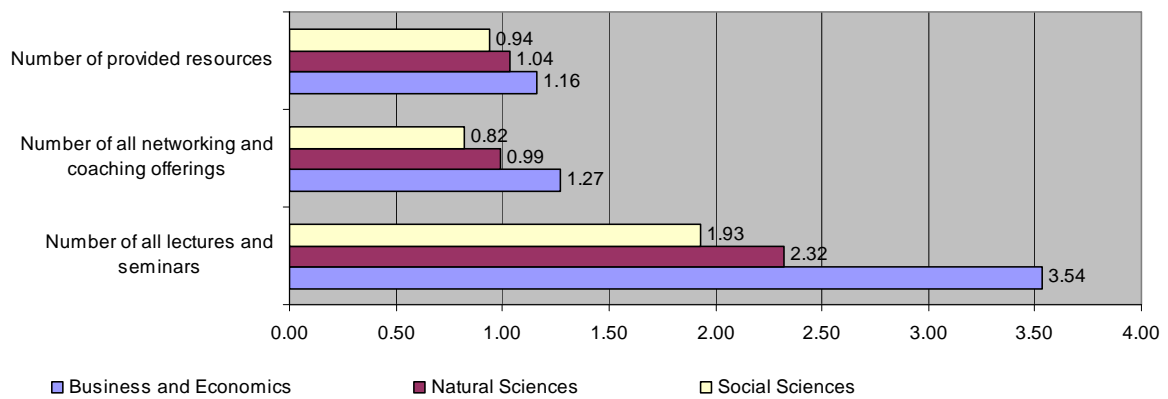
Corvinus University of Budapest (3.95), the Budapest College of Management (3.94) and Károly Róbert College (3.72) lead the list in terms of the number of offered courses and seminars. The average number of attended courses is 1.58 in Hungary, which represents an average utilisation of 56.69 percent. There are also differences between the institutions in terms of utilisation of the offered courses and seminars. Students at the Dennis Gabor College (72.40 percent utilisation, 1.39 attended courses) and the College for Modern Business Studies (72.10 percent, 2.46 attended courses) were the most active. The highest number of networking and coaching services were offered by Corvinus University of Budapest (2.13), the University of Miskolc (1.43) and Széchenyi István University (1.37). The utilised networking and coaching offerings accounted for an average of 0.29 in Hungary, the average rate of utilisation amounted to 26.11 percent.

No significant differences could be detected in provided resources and their utilisation at the higher education institutions. This is partly due to the fact that only two response possibilities were offered in the questionnaire, so the new variable could only have three values. The national average in terms of provided resources is 1.07 while the average of utilisation is 0.73.

### 6.3. Differences by fields of study

All three groups of questions showed significant differences by field of study. Figure 37 shows the national average for the fields of study considering number of provided courses, services and resources. Figure 7 represents the average national utilisation by fields of study.

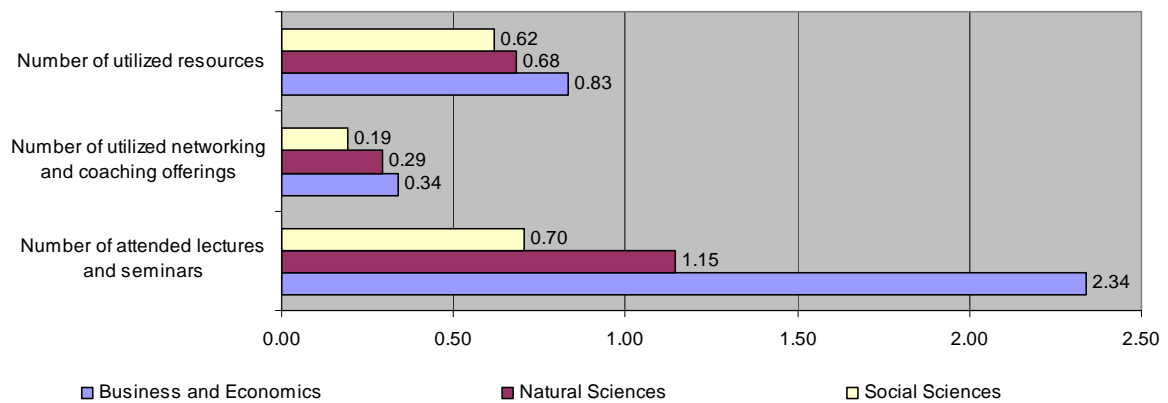




Own calculation, N=5677

**Figure 37 The number of courses, services and resources of higher education institutions by fields of study**

Students at the field of business/ economics have the widest choice of entrepreneurial lectures and seminars. The exploitation is also high, with an average of 2.34. They were either offered the highest number of networking and coaching services and resources or were the most aware of them. Students of the field business/ economics utilised the offered services at the highest ratio, as well. Students of the field social sciences utilised the least these services.



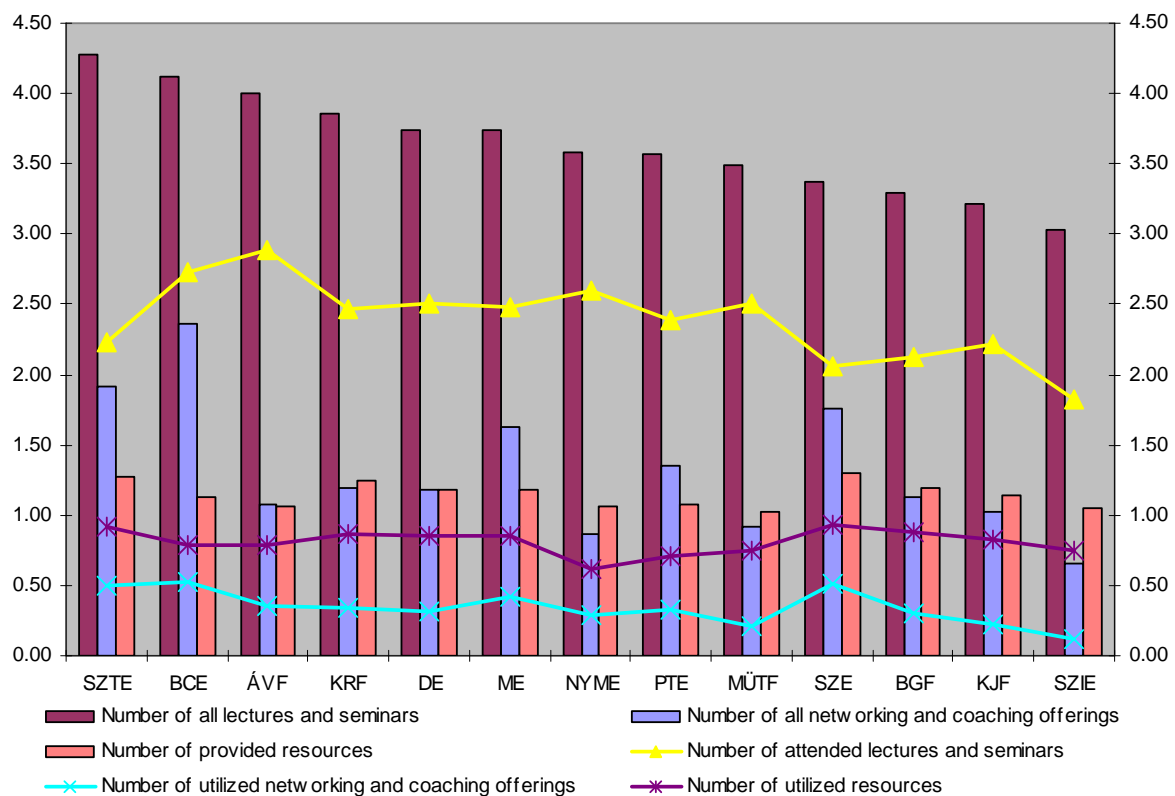
Own calculation, N=5677

**Figure 38 Number of attended courses, utilised services and resources by fields of study**

Figure 39 shows that the business/economics students had almost the same opportunities in terms of offered courses and available resources. According to the students' responses, the best performing institution offered only one course more than the worst performing one. There is only a slight difference in ranking of institutions between the current and the previous combined results. The best performing institution was the University of Szeged (4.28), followed by Corvinus University of Budapest (4.12), and the Budapest College of Management (4.00). The ranking of the institutions is slightly different if the utilisation of

courses was taken into account. The Budapest College of Management (2.89) and Budapest Corvinus University (2.73) remained leaders, but the performance of the University of Szeged (2.24) was lower.

Significant differences can be observed in terms of offered services. The best service providers offered almost four times as many services to its students as the worst performing ones. The three best service providers were the University of Szeged (2.36), Corvinus University of Budapest (1.92) and Széchenyi István University (1.75), and the ratio of utilisation was also the highest in these three institutions. There is no notable difference between the institutions in providing resources considering the reasons described above.



Own calculation

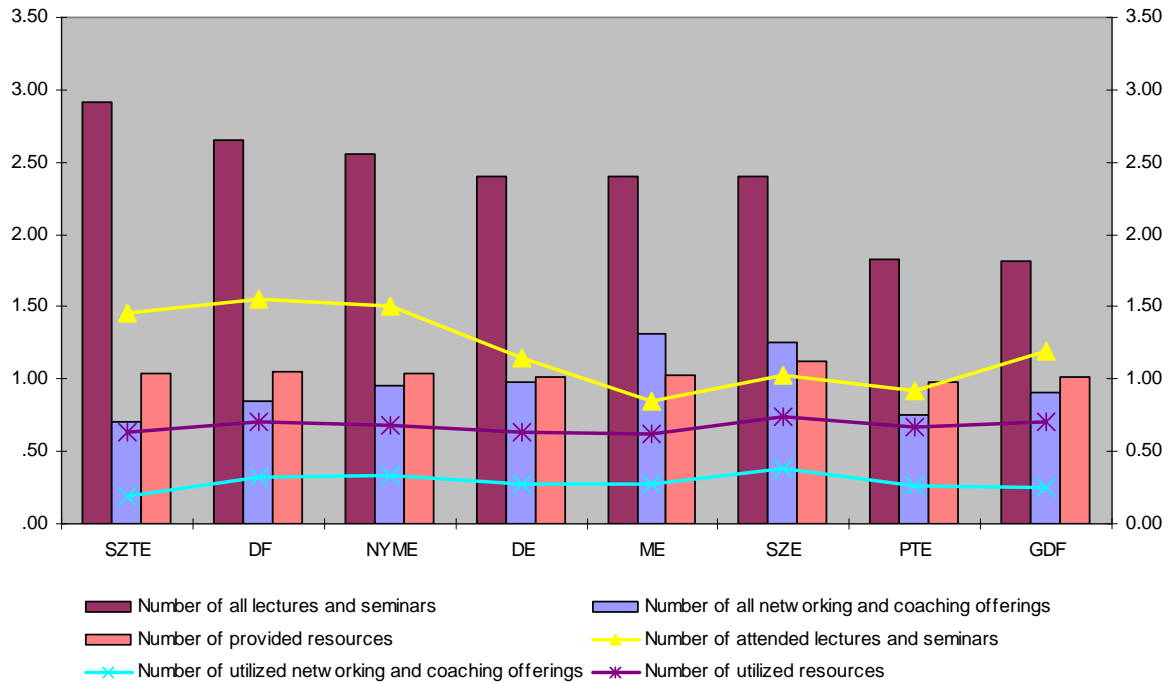
**Figure 39 Provided services and their utilisation at the field of business/economics**

Figure 40 shows the responses of natural science students. The University of Szeged (2.91), offered the highest number of courses followed by the College of Dunaújváros (2.66), and the University of West Hungary (2.55). Considering the rate of course attendance these three institutions are also leaders. It is clearly seen that the utilisation of offerings is lower in almost all institutions than in the field of business/ economics.

There are striking differences in terms of networking and coaching offerings. The difference between the highest and lowest service providing institutions is nearly twice as much.

The University of Miskolc (1.32) leads the chart. It is followed by Széchenyi István University (1.26) and the University of Debrecen (0.98). All in all, the utilisation is low and

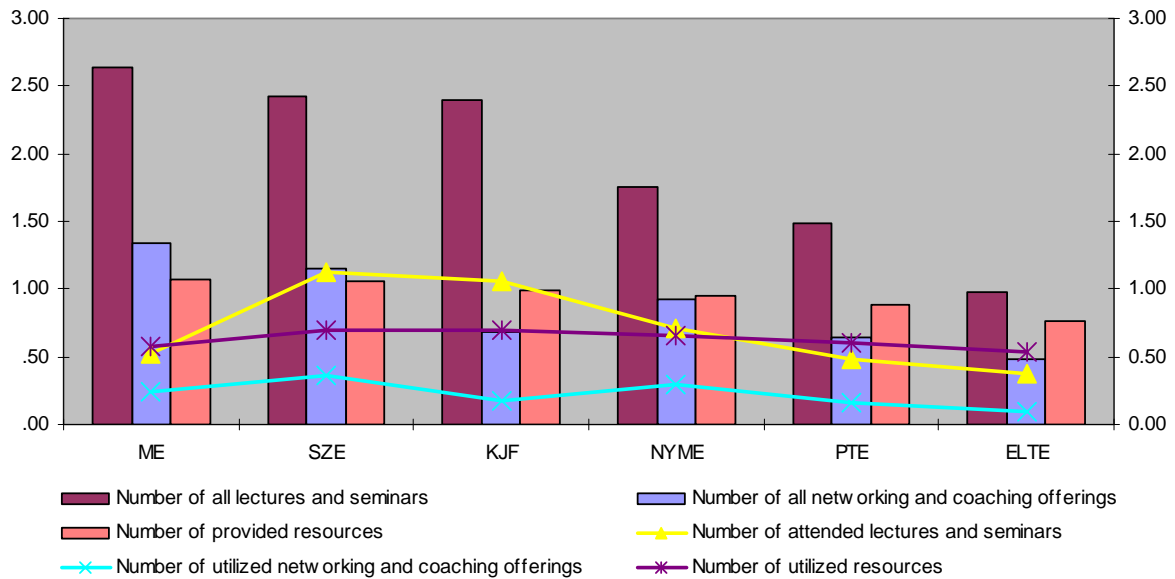
shows no significant differences between the institutions. Considering the provision of resources and their utilisation in the surveyed institutions, only a slight difference can be observed.



*Own calculation*

**Figure 40 Services offered by higher education institutions of natural sciences and their utilisation**

Figure 41 contains the responses of social science and humanities students. There are significant differences in terms of offered courses. The University of Miskolc (2.63) offered the highest number of courses, followed by Széchenyi István University (2.43), and Kodolányi János University of Applied Sciences (2.40). Considering the number of utilised lectures and seminars, the performance of the University of Miskolc (0.52) is less prominent. The students at Széchenyi István University (1.12) and Kodolányi János University of Applied Sciences (1.05) proved to be the most active.



*Own calculation*

**Figure 41 Services offered by higher education institutions of social sciences and their utilisation**

In terms of provided services the University of Miskolc (1.34) is ranked the first again, followed by Szent István University (1.15) and the University of West Hungary (0.92). However, there are no significant differences between the institutions considering the offered resources.

The analyses by field of study show that ranking entire higher education institutions without taking their profile into consideration is impossible, mainly because this would pose the institutions offering programs only in business and economics in a more positive light. However, it can be stated that these institutions – due to their clear profile – offer better access to business/ economics services than the institutions with a wider training profile.

At the same time the wide profile of institutions, namely the existence of business programs, helps also students in the fields of natural sciences and social sciences to meet the adequate number of courses and services. As was stated previously, such courses and services are essential in the evolution of entrepreneurial intentions.

## 7. Summary

Fostering entrepreneurship has become a priority for economic policy makers. It is of essential importance to identify the factors that shape the students' entrepreneurial intentions. Both social variables and family business background influence the intention of students:

- The women's intention of founding a business of their own or taking over a firm is lagging behind men's.
- The older the respondents are, the higher the probability of starting an enterprise is.
- The survey shows that a family business background increases the probability of becoming an entrepreneur either as a founder or as a successor independently of the time horizon.

Higher institutions can also contribute to the decision. Up-to-date information about how to start and run a business (e.g. courses, seminars) and direct practical entrepreneurial experience (e.g. mentoring, coaching, networking with entrepreneurs) can contribute to the increase of entrepreneurial intention.

The social status of entrepreneurs is low and entrepreneurship as a career is less accepted in Hungary than would be desirable (EC 2007). That is why informative, opinion-shaping programs would be as important as the professional programs, since they contribute to the creation of an entrepreneurial environment. Here again, higher education institutions can play a leading role. :

- The proportion of business students who want to start a business of their own or plan to do it in the future is higher than that of natural sciences.
- Courses and services provided by higher institutions play a crucial role in students' decisions.
- In both cases the role of students' participation and involvement is of utmost importance. The students who actively attend courses and events are not only aware of them, are more entrepreneurial. The aim is not to widen the choice of services and courses, but to increase students' participation in them.

Understanding the factors and their characteristics influence the decision-making process of students (Can we influence the decision at all? If yes, what is the time requirement?) can help to design business practices which shift the entrepreneurial activity to positive directions for individuals, societies and e economies.

## Literature

- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- EC (2007). *Entrepreneurship Survey of the EU (25 Member States), United States, Iceland and Norway*. Analytical Report. Flash EB No 192 – Entrepreneurship European Commission, Directorate-General for Enterprise and Industry, Brussels.
- Gubik, A.S. (2014) Hungarian Students' Career Aspirations. *Marketing and Management of Innovations* 2014:(2) pp. 196-207.
- Gubik, S.A. (2013). A magyar hallgatók vállalkozásindító szándékát befolyásoló tényezők modellje: Ajzen tervezett magatartás elméletének kiterjesztése. (Model of the Hungarian students' business start-up intention influencing factors – Extending of Ajzen's Theory of Planned Behavior) *Vezetéstudomány* (Budapest Management Review ) 44(7-8), 18-29.
- 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) pp. 71-79.
- Gubik, S.A., & Farkas, Sz. (2014). Entrepreneurial Activity of Hungarian Students. In: Alexandra Vécsey (szerk.) *Management, Enterprise and Benchmarking – In the 21st Century: Volume of Management*. Konferencia helye, ideje: Budapest, Magyarország, 2014.05.30-2014.05.31. Budapest: Keleti Károly Faculty of Business and Management, Óbuda University, pp. 125-140
- Sieger, P., Fueglistaller, U. & Zellweger, T. (2011). Entrepreneurial Intentions and Activities of Students across the World. International Report of the GUESSS Project 2011. St.Gallen: Swiss Research Institute of Small Business and Entrepreneurship at the University of St.Gallen (KMU-HSG)
- Storey, D.J. (1994): *Understanding the Small Business Sector*. London: Routledge
- Szirmai, P., & Csapó, K. (2006). Gyakorlati vállalkozásoktatás - Diákvállalkozások támogatása a Budapesti Corvinus Egyetemen (Entrepreneurship education – promoting of students' enterprises at the University of Corvinus). *Új pedagógiai szemle* (New Pedagogical Review), 56(4), 72-83.