

THE RELATIONSHIP OF THE SPIN-OFF PROCESS AND THE HIGHER EDUCATION IN HUNGARY

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Abstract:

If we want to analyse the elements of the economic growth in Hungary, we have to check the dynamic, innovative, knowledge based enterprises, which have bigger development potential than the industry average. These enterprises are not only the impulsive force of the Hungarian national economy. In the study we want to show these enterprises are the hope for the future and we could find these in the maze of the Hungarian Higher Education. In the focus of the study are standing the potential knowledge entrepreneurs of the future, and we want to present they are university students, who are fondling entrepreneurial career. As the member of the European Higher Education Area Hungarian higher educational institutions face the fact that the modern theoretical knowledge based practical training programmes, the various instruments of talent maintenance and the LLL are the component of competitiveness. So the university students need the intellectual capital which was accumulated in the higher education institutions, to be knowledge entrepreneurs (Honig, 2004; Bécharde & Grégoire, 2005; Edelman, Manolova & Brush, 2008; Kailer, 2009). In the study we want to analyse the entrepreneurial attitude of the university students (N=5700) in 25 Hungarian Higher Educational Institutions with the help of the (Hungarian) databases of Global University Entrepreneurial Spirit Students' Survey (GUESSS) project. We want to give a picture what kinds of role play the institutions in the field of increasing the managerial skills of students and promoting the entrepreneurial ambitions.

Keywords: career goals, higher education environment, entrepreneurial courses.

1. INTRODUCTION

Based on international analyses and national researches the factors that facilitate the prosperity of economy can be the dynamic, fast-growing, innovative knowledge-based entrepreneurship (gazelle) with development potential exceeding the industrial average. They are the hopes for the future as the engines of development at national and supranational level. Mainly young university and college graduates with entrepreneurial attitude take part in the establishment of the so called gazelles. Where are the young gazelles nowadays? According to the most obvious answer the potential knowledge entrepreneurs of the future, students who cherish entrepreneurial career dreams, should be searched in the mazes of higher education system. Based on these, it is justified to involve the tools, principles of institutional support related to the entrepreneurial career path and to apply the internationally successfully implemented practice adapted to the continental educational traditions.

2. LITERATURE REVIEW

In the rich entrepreneurial literature becoming an entrepreneur is a field, in which approaches focusing on individual, inner, personal, entrepreneurial features create a separate epoch-making part of it (Szerb, 2004). Theories, which emphasize the role of creativity and key competence, are determining parts of this theoretical trend (Kao, 1989, Bridge et al., 2003; Amabile, 1997; Fillis & Rentschler, 2005). Creativity and key competence is also an important component of innovative ability of an organisation (Akehurst et al., 2009), which can help increase the viability of small entrepreneurships. (Fillis & Rentschler, 2010). The other part of theories analysing the phenomena becoming an entrepreneur are researching the outer factors determining entrepreneurial attitude besides general attitude and personal characteristics.

During the theoretical analysis we can find several references to the connection between the entrepreneurial mode of existence and education system (Morrison, 2000). According to empirical researches, apart from other environmental factors the knowledge, which is transferred by education system, related to entrepreneurships, and the methodology of transfer are responsible for the development of entrepreneurial attitude of students and also responsible for the intensity of establishment of spin-off entrepreneurships. This study is intended to present the students' (in higher education) attitude towards establishment of entrepreneurships and factors related to entrepreneurial willingness based on a domestic online survey, which was conducted as a part of an international survey.

3. METHODOLOGY

3.1. Main characteristics of the sample

Global University Entrepreneurial Spirit Students's Survey (GUESSS) is an international research project, which analyses the students' career notions including the factors of entrepreneurial mode of existence, as a possible form of being a sole trader, and the entrepreneurial willingness and activity of university/college students. In GUESSS project surveys were conducted in 2003, 2004, 2006, 2008, and in 2011. In year 2011 from 24 higher education institutions 5677 college/university students filled in the online questionnaire.

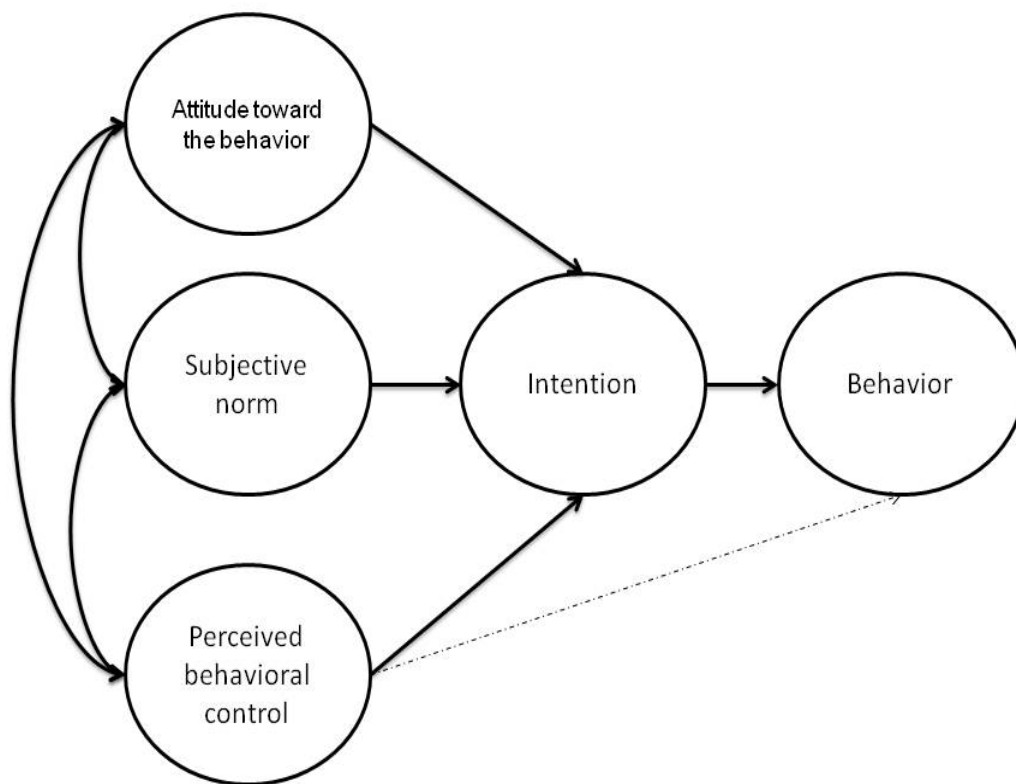
85.2 per cent of the respondents are bachelor students, 13.4 per cent are master students. PhD, MBA and post-doctoral students add up to 1.4 per cent of the respondents. 38.5 per cent of the

respondents study economics/business, 25 per cent engineer/IT, while the 46.5 per cent of the respondents are specified in the field of humanities, science and others. 40.6 per cent of the respondents are male, and 59,4 % are female students.

3.2. The theoretical framework of the GUESSS

The theoretical foundation of GUESSS is the Theory of Planned Behavior (Ajzen, 2002; Fishbein & Ajzen, 1975). According to that theory, the intention to exhibit a specific kind of behaviour is influenced by a number of factors, such as an attitude towards the behaviour, subjective norms, and perceived behavioural control. Picture 1. depicts the theory in the form of a structural diagram.

Picture 1: Theory of planned behavior



Source: Ajzen, 1991, p. 182.

4. RESULTS

4.1. Career notions of students in higher education in Hungary

As the first phase of data analysis I present my results referring to the university and college students' career notions in table 1.

Table 1: The university and college students' career notions

		Right after studies		5 years after studies	
	Career choice intentions	Respondents (%)	According to career types (%)	Respondents (%)	According to career types (%)
As an employee	...in a small or medium-sized firm (1-249 employees)	26,3	68,4	4,4	31,9
	...in a large firm (>250 employees)	24,7		16,2	
	...at a University/in Academia	5,4		4,5	
	...in public service	12,0		6,7	
As a founder	...continuance in the firm I have already founded	2,8	10,4	4,6	37,5
	...foundation of an own firm	5,0		25,9	
	...start as a freelancer	2,1		4,4	
	...foundation of a franchise company	,4		2,6	
As follower, heir	...continuance of my parents'/relatives' firm (family firm)	3,0	3,9	3,8	8,2
	...take over a firm not controlled by my family	,9		4,4	
Others	...no professional career (e.g., travelling, family, etc.)	7,1	17,4	8,5	22,5
	...do not know	7,5		9,8	
	...others	2,8		4,2	
	Total	100,0	100,0	100,0	100,0

Based on the conducted survey I came to the point that the students notions about the entrepreneurial mode of existence fell short of the notions about being an employee after the completion of studies. At the same time a shift towards entrepreneurial career goals is noticeable after a five-year-period of gaining experience and first attempts. The proportion of those dedicated to family-owned business is really low (3.0 % and 3.8 %) in both cases. It is food for thought that the proportion of uncertain respondents is relatively high (17.4 % and 22.5 %).

Continuing the analysis of the students' career choices I focused on the sex-based relationships and used a cross-table analysis and its statistical methodology. On the basis of the results it was found that the sex as a variable indicator is at very low level, the value of Lambda is 1.4 per cent, the Goodman and Kruskal tau is 3.9 per cent and the uncertainty factor is 3 per cent. On the basis of the cross-table analysis it can be stated that female students show a stronger interest towards employment career path especially at firms with the staff of under 250 or at universities, research institutions as well as in the public sector.

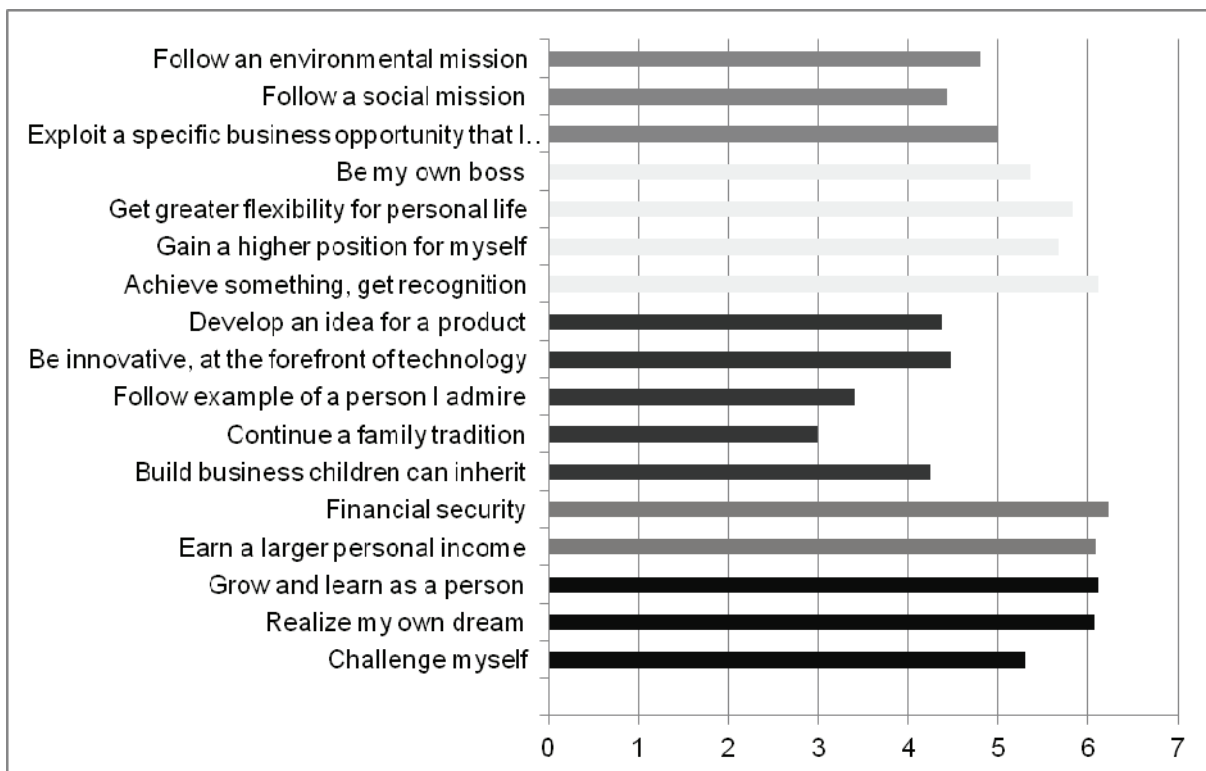
4.2. Analysis of the motivation factors towards entrepreneurial career path

The motivation for establishing business enterprises show a diversified picture, where the main factors are mostly autonomy and independence (Shane et al., 2003; Kolvereid, 1996, Jansen & Van Gelderen, 2006), thirst for power, personal financial interest and gaining a fortune (Hessels et al., 2008), as well as compulsion and the lack of other job opportunities and other factors rooted in creation of tradition and sustainable development.

On GUESS database the personal motivation factors of the students in connection with setting up an enterprise- measured on semantically differential scales- were analysed. The following motivation factors could be found, which are most typical for the respondents:

- financial well-being, exploiting of wealth-gaining opportunities,
- independence, individuality as well as
- self-fulfilment, taking the chance for personal development.

Picture 2: Motivation factors



4.3. The main influencers of the entrepreneurial attitude of the students: institutional and family background

Continuing the research the attitude of the students towards entrepreneurial lifestyle was analysed according to their institutions and their educational areas. A new variable was introduced which can be defined as an average of the metrical variables measured on four semantic differential scales.

This variable is based on these four entrepreneurial attitude analyses:

1. Being an entrepreneur implies more advantages than disadvantages to me.
2. A career as entrepreneur is attractive for me.
3. If I had the opportunity and resources, I would become an entrepreneur.
4. Being an entrepreneur would entail great satisfactions for me.

Table 2: ANOVA table

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	297,716	23	12,944	5,201	,000
Within Groups	13924,110	5595	2,489		
Total	14221,826	5618			

On the basis of the table it can be stated that proportion of squared differences between the groups and in the groups is 5.201. The level of significance belonging to F-test is less than 0.05, so we can conclude that the level entrepreneurial mode of existence is significantly different based on the universities.

The last question in the research was to analyse how family background (it is self-employed parents) influence the career notions of their children. It was also evaluated if the entrepreneurial attitude of the parents has a positive or negative impact on the children's future entrepreneurial attitude. 13.23 per cent of the respondents have a self-employed father, 4.97 per cent has a self-employed mother, and in 7.36 per cent of the cases both parents are self-employed. My first assumption was that there is a connection between the professional notion of the parents and their children. It was analysed by cross-table analysis and the following result could be found:

Table 3: Chi-Square Tests table

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	290,836 ^a	36	,000
Likelihood Ratio	250,655	36	,000
Linear-by-Linear Association	17,442	1	,000
N of Valid Cases	5677		

a. 5 cells (9,6%) have expected count less than 5. The minimum expected count is 1,04.

A table shows a significant relationship, it means there is a close relation between future notions and entrepreneurial family backgrounds. This relation is weaker than medium, Phi (0,226), a Cramer V (0,131) and a contingency equivalent (0,221) show it.

My last analysis tested my assumption that the entrepreneurial willingness of the parents, the entrepreneurial environment in which they bring up their children and educating them in this attitude has a great impact on the entrepreneurial attitude. In my opinion in most cases it is true if both parents are self-employed, the student has an entrepreneurial family background. To test it I used analysis of variance, the results are the following:

Table 4: ANOVA table

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	196,476	3	65,492	26,219	,000
Within Groups	14025,350	5615	2,498		
Total	14221,826	5618			

There is a significant relationship between the analysed variables according to ANOVA table. The family background has the strongest impact on the entrepreneurial ambition of the child if the example of the self-employed parents influences the potential entrepreneur.

I think besides transmitting family entrepreneurial attitude it is the parents responsibility that should be more emphasized in higher education and it would be reasonable to teach family-enterprise management and it would be useful in the interest of increasing the success chances of the Hungarian enterprises to plan succession and by integrating the elements of parallel planning processes could be integrated into strategy management as well as business planning.

5. SUMMARY

According to the Central Statistical offices there are more than 1.73 million registered enterprises in Hungary. It is worth mentioning that the number of registered and really functioning enterprises is different. Less than half of the registered enterprise carries out real business activities. In the background you can find a lot of forced enterprises. The competitive environment of the SMEs is very weak in Hungary. Their role in employing people is determining but their development has slowed down because of the unfavourable economic affairs and their disadvantage is bigger and bigger towards big companies. SMEs operate mainly in service sector, significant part of them suppliers of multinational companies but because of their aggressive policy it is harder and harder for SMEs to remain on the market. A general characteristic of the Hungarian SMEs is that even nowadays there is a frequent lack of innovative and entrepreneurial knowledge. The responsibility of the education system is huge in supporting the potential knowledge entrepreneurs of the future to help students set up businesses, to exploit intellectual potential of the universities.

Based on the survey I came to the point that,

- the students notions about the entrepreneurial mode of existence fell short of the notions about being an employee after the completion of studies;

- female students show a stronger interest towards employment career path especially at firms with the staff of under 250 or at universities, research institutions as well as in the public sector;
- the most typical entrepreneur motivation factors are:
 - financial well-being, exploiting of wealth-gaining opportunities,
 - independence, individuality as well as
 - self-fulfilment, taking the chance for personal development.

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