

# A test of the Theory of Planned Behaviour – the cross section of the students' entrepreneurial attitude in Hungary<sup>1</sup>

**SZILVESZTER FARKAS<sup>2</sup> – ANDREA S. GUBIK<sup>3</sup>**

A country's economic performance highly depends on successful entrepreneurship. Conducting research into entrepreneurial behaviour and the processes of becoming an entrepreneur as well as developing tools of how to enhance this activity are of essential importance. The tasks of the researchers dealing with this issue would seem to be very simple if only the abundant available literature and the applied theories on behaviour were taken into account. However, there are many issues regarding the conceptual and methodological approach, which have not been dealt with so far. The present study tests Ajzen Theory of Planned Behaviour within the framework of the GUESSS research project and its database. The study attempts to provide a very detailed description of entrepreneurial intentions by using Multinomial Logistic Regression (SPSS).

**Keywords:** entrepreneurship, attitude, entrepreneurial intention, Theory of Planned Behaviour.

**JEL codes:** C31, C38, I25.

## Introduction

The international research project GUESSS (Global University Entrepreneurial Spirit Students' Survey)<sup>4</sup> investigates entrepreneurial intentions and activities of students. The first aim of this survey is to provide a deep insight into the process of starting up a business. In addition, this survey helps explore the processes and factors that may be crucial in the development of the students' positive attitude in undertaking business activities. Moreover, it provides an international platform for comparison of career intentions of students who study at

---

<sup>1</sup> The paper was prepared within the framework of OTKA project no. K109839.

<sup>2</sup> PhD, associate professor, Budapest Business School, e-mail: farkas.szilveszter@pszfb.bgf.hu.

<sup>3</sup> PhD, associate professor, University of Miskolc, e-mail: getgubik@uni-miskolc.hu.

<sup>4</sup> <http://guesssurvey.org>.

different universities and countries. The results of the survey enable the researchers to identify the type of courses and services of a particular institution, which really contributes to the students' intentions to set up a business of their own, and to determine how efficient these courses and services are in creating a business friendly atmosphere that promotes these intentions. Finally, the survey also examines the students' main individual motives that lead to a more positive attitude towards enterprise as a career option.

The project is coordinated by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG). The Institute processes the collected data. The participants in the research receive access to the database, which they can use for scientific analysis.

### **ISCE/GUESSS data and the composition of the Hungarian sample from 2011**

The survey is conducted every second year. The first survey was conducted in 2003 with the participation of two countries. Table 1 shows the growing international character of the survey and the increasing number of the participating students. The last questionnaire was published in 2011, when 26 countries joined the project.

Table 1. Countries and students participating in the research

<b>Year</b>	<b>No. of participating countries</b>	<b>No. of students filling out the questionnaire</b>	<b>Title of the research</b>
2003	2	-	START
2004	2	5 000	International Survey on Collegiate Entrepreneurship (ISCE)
2006	14	37 000	International Survey on Collegiate Entrepreneurship (ISCE)
2008	19	63 000	Global Entrepreneurial Spirit Students' Survey (GUESSS)
2011	26	93 000	Global Entrepreneurial Spirit Students' Survey (GUESSS)

*Source: <http://www.guesssurvey.org/>*

The circle of countries and universities participating in the research has been constantly expanding, mainly due to the relevance of

---

the issue. As a result of the repeated data input and the regular feedback, the research has been developing steadily. The questionnaire itself has partially deviated from the original, since time and country-specific questions have been added, while the main question categories remained unchanged. Thus, the questionnaire provides an opportunity to follow certain changes through time, and to understand the underlying factors. Moreover, because of the growing numbers of participating universities and countries, there is more room for geographical comparisons.

In 2011, in the fifth survey, 93 265 students from 502 higher education institutions participated. In Hungary, 5677 students filled the electronic questionnaire (average response rate was 8%). In the 2010/2011 academic year there were 361 347 students enrolled in Hungary, but only institutions with over 1000 students were selected for the survey. Thus, the GUESSS survey from 2011 reached 289 336 students, roughly 80% of the total number of students from Hungary. Table 2 shows the distribution of Hungarian respondents by institutions.

The GUESSS survey basically deals with four groups of questions, namely the willingness to start a venture traceable in the students' career plans, the influence of university/college environment, the entrepreneurial intention of students and the role of family businesses influencing this attitude. Each of the four question groups is made up of 16 question blocks with closed-end questions, both alternative and selective ones. The questionnaire offers an option to choose the answer „other” five times.

### **The concept of the research and its operationalizing possibilities**

As promoting entrepreneurship is a core objective of many countries, measuring its actual level and developing models to understand its substances are crucial. Several methodologies can be found in the literature. The Eurobarometer Survey on Entrepreneurship has been studying the development of entrepreneurship in EU Member States for over a decade in order to explain setting up businesses and

---

Table 2. Distribution of Hungarian students participating in GUESSS 2011

Name of Institution	No. of students enrolled in 2010/2011	Distribution of enrolled students	No. of sent inquiries (link)	No. of filled questionnaires	Response rate (No. of filled questionnaires/No. of sent inquiries)
BME - Budapest University of Technology and Economics	23 655	6.55%	0	5	
BCE - Corvinus University of Budapest	17 134	4.74%	4 800	201	4.19%
SZE - Széchenyi István University	16 978	4.70%	8 900	681	7.65%
DE - University of Debrecen	23 655	6.55%	n.a.	538	
ME - University of Miskolc	13 546	3.75%	14 055	620	4.41%
PTE - University of Pécs	27 963	7.74%	8 400	757	9.01%
SZTE - University of Szeged	27 227	7.53%	n.a.	254	
PE - University of Pannonia	9 632	2.67%	0	1	
KE - Kaposvár University	2 985	0.83%	n.a.	38	
NYME - University of West Hungary	13 590	3.76%	7 600	291	3.83%
ELTE - Eötvös Lóránd University	30 455	8.43%	n.a.	175	
SZIE - Szent István University	16 978	4.70%	n.a.	166	
BGF - Budapest Business School	17 595	4.87%	13 622	620	4.55%
BMF - Óbuda University	11 870	3.28%	0	5	
DF - College of Dunaújváros	4 085	1.13%	2 460	158	6.42%
KRF - Károly Róbert College	9 966	2.76%	8 000	97	1.21%
ÁVF - Budapest College of Management	2 820	0.78%	n.a.	147	
GDF - Dennis Gábor College	2 333	0.65%	n.a.	182	4.81%
EJF - Eötvös József College	1 425	0.39%	1 350	65	
BKF - University of Applied Sciences Budapest	5 539	1.53%	0	1	
KJF - Kodolányi János University of Applied Sciences	6 229	1.72%	n.a.	423	
MUTF - College for Modern Business Studies	1 922	0.53%	1 200	145	12.08%
SE - Semmelweis University	11 898	3.29%	330	65	19.70%
Others	61 867	17.12%	n.a.	42	
Total	361 347	100.00%	70 717	5 677	8.03%*

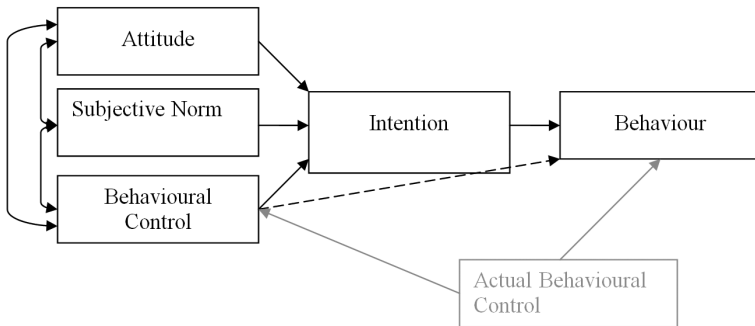
\* average

Source: GUESSS 2011 database

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

business growing (EC 2012). The GEDI index of GEM (Global Entrepreneurship and Development Index) regards entrepreneurship as a multidimensional concept where individual and environmental factors are both important and the institutional setup determines the effectiveness of individual (Szerb et al. 2012). The Entrepreneurial Event model of Shapero and Sokol (1982) and the Theory of Planned Behaviour of Ajzen (1991) also try to describe the above mentioned multidimensional nature.

The GUESSS's research concept 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 that can eventually manifest in actions. Figure 1 illustrates Ajzen's Theory of Planned Behaviour (TPB).



*Source: Ajzen, 2006*

Figure 1. Factors Shaping Entrepreneurial Intentions

One of the main ideas of Ajzen's Theory is the difference between intentions and behaviours. The occurrence of a serious entrepreneurial intention does not necessarily mean that the entrepreneurial activity will be pursued and an enterprise will be set up. Intentions depend on the attitudes towards behaviour, subjective norms and the perceived behavioural control. Actual pursued activities cannot be expected without serious intentions. Objective factors such as available financial

resources and opened-up opportunities (money, time, etc.) that are required for carrying out intentions also influence business activities. This factor is termed as actual control in the revised Ajzen's Theory model (Ajzen 2006).

According to this model, there is a direct positive relationship between the entrepreneurial attitude and the willingness to start up a business. The more favourable a person's attitude toward entrepreneurship, the stronger the intention to run an enterprise. A supporting social environment is also nourishing for entrepreneurship intentions. Thus, the more positively the individual's environment is reacting to his entrepreneurial intention, the more likely he will show willingness to start up his own business.

The third factor – perceived control over events – also directly influences the individual's intention to start up an enterprise, and can have a significant effect on the behaviour as well. The impact of the perceived behavioural control on intentions and actions is twofold. Firstly, the more an individual feels that he is in control of his surroundings, the more likely he is in favour of starting up his own venture. Secondly, self-efficacy also has a positive effect on entrepreneurial spirit. The more the person feels that he has acquired the appropriate skills and knowledge to start up an enterprise, the more likely he thinks his own business can be launched.

The factors influencing willingness are interlinked as well. The twofold nature of the perceived behavioural control consisting of susceptibility to control and self-efficacy are also positively related. The latter can be interpreted as an individual who feels he has the required skills and experience and thinks that he is in control of the events.

On the basis of this survey, the factors of Ajzen's model, as well as the most important factors influencing them can be analysed. When operationalizing these concepts, this study heavily relied on the related literature. The questionnaire in this study also contains questions applied by conventional research methods. However, as in the case of most research studies aiming at measuring qualitative factors, it is inevitable to deal with the issue of validity, whether the variables

---

---

original planned to be measured are really measured. Then, methods for measuring the factors of the model described in the related literature are investigated. Finally, the practical implementation of the method used in this study is explained.

### ***Entrepreneurial Intention***

Krueger (1993) tried to clarify the concept entrepreneurial intention by applying simple closed questions (yes/no), such as „Do you think you will ever start a business?“ Autio et al. (2001) made attempts to measure the probability of time span, notably the respondents' intentions to start a business at the time of filling in the questionnaire or five years after filling the questionnaire in. Ajzen (2002b) underlines that all items aimed to measure an intention has to measure exactly the same things, that is, the questions have to present a strong internal correlation (to realize internal consistency). He himself measured the intention on a 7-grade differential scale, but Likert-scale is also an accepted method for measuring entrepreneurial intentions.

GUESSS questionnaire measures intentions in several ways. One of them is similar to Autio's solution, but the question regarding entrepreneurial intentions is more strongly related to the respondents' studies when formulated in the following way: „Which career path do you intend to pursue right after completion of your studies, and which career path 5 years after completion of studies?“ (respondents complete a table). Another similar question is „Please indicate if and how seriously you have been thinking about founding an own company.“

### ***Attitudes***

According to Ajzen, any standard attitude scale is suitable for measuring attitudes (2002). In his methodological article he gives several examples of semantic differential scales, and he mentions the use of Likert and Thurstone scales as well. There is a possibility to measure attitudes both in a direct and indirect way. Direct measurement refers to the judgement of a person's actions as a whole. Indirect measurement tries to determine how much an individual believes in the happening of a certain event, and how important he

---

believes the event will happen. The aim of the questions is to determine why the respondents think in this or that way. Since the factors lying behind a certain attitude are ambivalent in many cases, Ajzen (2002) highlights that internal consistency does not necessarily prevail in these cases.

According to the common practice of testing (e.g. Autio et al. 2001, Krueger et al. 2000), this study conceptualised attitude as the acceptance of entrepreneurship as a career goal. However, contrary to common practices, this study measured the effects of four variables instead of one. For the measurement of attitudes, respondents evaluated the following four statements on a 7-grade Likert scale:

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

### ***Subjective Norms***

For the measurement of subjective norms, literature describes several approaches. Kolvereid (1996) applied 3 items, and used them to find out what the groups (immediate family, friends, other people with important influence), which are of determining importance to the respondent, think a potential entrepreneurial activity. Krueger et.al. (2000) also used this approach, but they weighted the responses according to how much the respondent relied on the opinion of a particular group. Autio et al. (2001) investigated an additional aspect, namely, how much the respondents felt their university environment inspiring.

The GUESSS questionnaire gives the possibility for testing all the three approaches. In case of question 10 (If you would pursue a career as an entrepreneur, how would people in your environment react to/judge that decision?) the respondents had to judge if the reaction of their environment would be negative or positive, and to what extent. The respondents had to evaluate the opinion of parents/family

---



---

members, friends/fellow students, and other people they consider to be important. Question 11 (Please indicate how much you care about the opinion of the following persons.) shows how important for the respondent the opinion of a given group is. The supporting university atmosphere becomes clear from question 2.6 in the questionnaire. In all of the above-mentioned three questions students had to give their answers on a 7-grade Likert scale.

### ***Perceived Behavioural Control***

Most surveys measure perceived behavioural control by using a varying number of questions answered on a Likert scale. Autio et al. (2001) formulated 4 statements (I am confident that I would succeed if I started my own firm; It would be easy for me to start my own firm; To start my own firm would probably be the best way for me to take advantage of my education, I have the skills and capabilities required to succeed as an entrepreneur) that students had to evaluate on a 5-grade scale. According to Ajzen (2002), the perceived behavioural control has to measure both the person's susceptibility for external control, and his self-efficacy, and the internal consistency of these items has to be taken into account.

This study measured the perceived behavioural control by using two variables in line with Ajzen's (2002) suggestions. Question 12 in the questionnaire is suitable for measuring controllability, and question 13 is applicable for measuring self-efficacy. In both cases, the respondents had to evaluate the statements and the significance of each factor on a 7-grade Likert scale.

Question 12 (Please indicate your level of agreement with the following statements) contains nine statements that can be helpful in assessing how much the respondents feel they can control and manage the events around them, and how much they feel influenced by others in making their own decisions, etc. Factor analysis was used to describe the nine variables of controllability in terms of a smaller collection of variables. Principal component method was applied to create 3 factors (KMO=0.745, 65.834%):

---

*Offensiveness*

- When I make plans, I am almost certain to make them work.
- I can pretty much determine what will happen in my life.
- I am usually able to protect my personal interests.

*Defensiveness*

• I feel like what happens in my life is mostly determined by powerful people.

- My life is chiefly controlled by powerful others.
- In order to make my plans work, I make sure that they fit in with the desires of people who have power over me.

*Passiveness*

- When I get what I want, it is usually because I am lucky.
- I have often found that what is going to happen will happen.
- It is not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.

Question 13 measured self-efficacy with the help of the following question: Please indicate your degree of certainty in performing the following roles / tasks. In this question respondents had to evaluate 12 factors, out of which 11 measured the students' sensitivity to risk, innovative behaviour, and how consistent they were when making their decisions. The variables were grouped into 3 factors (KMO=0.745, 65.834%):

*Risk Tolerance*

- Reduce risk and uncertainty
- Take calculated risks
- Perform financial analysis
- Make decisions under uncertainty and risk

*Innovativeness*

- Start my own firm
- Lead my own firm to success
- Develop new products and services
- Generate new ideas

*Consistency*

- Take responsibility for my ideas and decisions
-

- 
- Establish and achieve goals and objectives
  - Manage my time by setting goals

### **TPB test with Multinomial Logistic Regression**

In most cases, the theory's descriptive power is assessed by the analysis of correlation coefficients, and by using multi-variable regression models. Autio et al. (2001) for instance tested this model with the participation of 3445 Finnish, Swedish and American students. Gird and Bagram (2008) investigated the model on 247 South-African, Carr and Sequeira and 308 American students.

Krueger had tested entrepreneurial intention models in his studies. In 1993 he used the data of 126, in 2000 of 97 students, and applied a very similar method in both cases. However, in 1993 he measured entrepreneurial intention with a dichotomous variable, while in 2000 he used continuous variables. As a first step, he analysed the strength of correlation between each pair of factors by using linear correlation coefficients, and in the case of dichotomous variables, biserial correlations. After this, he calculated the whole impact of the analysed independent variables on entrepreneurial intention using a path analysis. He did the same thing in 1993 despite the fact that he used dichotomous variables for the measurement of intention.

Zellweger et al. (2011), Szerb and Márkus (2007) and Gubik (2013) applied multinomial logistic regression. The advantage of this method is that it can be reliably used in case of low level measurement variables with non-normal distributions.

There are several examples of SEM (Structural Equation Modelling) models, which aim at the most accurate description of causal relationships between variables. This type of analysis can be found in the Kolveleid (1996), Plant and Ren (2010) studies.

Throughout the GUESSS survey analysis, we tested Ajzen's Theory of Planned Behaviour by multinomial logistic regression and structural equation modelling. This study presents the results of the regression model, using a low-level measurement variable for the expression of the degree of entrepreneurial intentions. Despite of its low interpretability,

---

this model can be reliably applied for identifying the most important variables for determining entrepreneurial intentions and also provides an order of importance according to their influence.

It is obvious that the regression model is in line with the original theoretical assumption (Theory of Planned Behaviour). However, the dependent variable is a variation of three categories included in one „Please indicate if and how seriously you have been thinking about founding an own company” (1: Do not plan to start a business, 2: Plan to start a business, 3: Have a business). The original variable offers 9 solutions. For the measurement of independent variables of the model (attitude, perceived behavioural control and self-efficacy) 28 variables were available. To compact the variables, a factor analysis was performed. Table 3 illustrates the most important data of the transformed variables that were finally built into the model.

Table 3. Outcomes of variable reduction

Parameter	Number of variables	Number of factors	Explaining power of variable (%)
Attitude	4	1	84.42
Subjective norms	3	1	82.91
Controllability (Perceived behavioural control)	9	3	65.83
Self-efficacy (Perceived behavioural control)	12	3	69.09

*Source: Calculations based on GUESSS 2011 database*

The next step in analysing entrepreneurial intention was the inspection of explanatory factors. Due to the peculiarities of the database mentioned above, multinomial logistic regression proved to be the best solution. The conditional odds ratio analysis is not always unambiguous, because it does not always allow accurate comparison of different effects (Bartus 2003). According to Bartus, when more complicated models are used, it occurs that a wrong direction is determined. For this reason, this study considered only the explanatory power of the model, and justified the significant impact of each individual independent variable. The outcome of the regression analysis is shown in Table 4.

The significance of the created model is justified by the Chi-square test, and its explanatory power is measured by Nagelkerke’s R<sup>2</sup> value.

The study applied the Wald statistics to check the significance of each individual independent variable, and the conditional odds ratios show the partial effect of each variable.

Table 4. The effect of endogenous variables of entrepreneurial intentions

Have you ever thought about starting up your own business	Variable	B	Std. Error	Wald	Sig.	Exp(B)
Planning own enterprise	Constant	-.265	.036	53.379	.000	
	Controllability, Defensiveness	-.177	.037	23.351	.000	.838
	Controllability, Passiveness	-.369	.038	93.185	.000	.691
	Self-efficacy, Risk Tolerance	.009	.039	.054	.816	1.009
	Self-efficacy, Innovativeness	.938	.050	356.364	.000	2.556
	Attitude	1.205	.052	536.131	.000	3.338
Already an entrepreneur	Constant	-3.840	.166	537.769	.000	
	Controllability, Defensiveness	-.369	.099	13.937	.000	.691
	Controllability, Passiveness	-.702	.090	60.947	.000	.495
	Self-efficacy, Risk Tolerance	.290	.107	7.288	.007	1.336
	Self-efficacy, Innovativeness	1.791	.160	125.857	.000	5.994
	Attitude	1.042	.147	50.449	.000	2.835

Nagelkerke's  $R^2=0.47$

*Source: Calculations based on GUESSS 2011 database*

The findings of this study show that the most important and significant factors of entrepreneurial intentions are attitudes and self-efficacy. The relationship has a positive direction in both cases, notably, the more positive the students' attitude and the more they believe they possess the necessary skills, the more likely they will show interest in starting up a business. The two variables applied for the measurement of controllability in the study are in a negative relationship with entrepreneurial intentions. This means that the more a person feels that he is capable of controlling his future, the more likely he will become an entrepreneur. The conducted analyses justified the assumptions that attitudes and perceived behavioural

controls play a significant role in the development of entrepreneurial intentions. However, the role the subjective norms play in this process could not be confirmed.

### **Conclusions**

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. It has also become crucial to analyse the areas that considerably contribute to developing these intentions.

Ajzen's Theory of Planned Behaviour provides a detailed description of entrepreneurial intentions, which is relevant in the Hungarian context as well. The findings of this study clearly illustrate that the more positive attitude the students express in terms of starting a business of their own, and the more they believe that they possess the skills and competencies necessary for implementing this, the more stimulating intentions they have to do so. The controllability of the events is of determining importance as well. The more students feel that they are capable of influencing their future, the more likely they become entrepreneurs.

Education, training and a supportive atmosphere can considerably contribute to shifting these factors in a positive direction. Students' openness towards entrepreneurship will increase if they receive appropriate knowledge and higher education institutions offer more practice-oriented programmes.

### **References**

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.

Ajzen, I. (2002). Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior. *Journal of Applied Social Psychology*, 32( 4), 665–683.

Ajzen, I. (2002b). *Constructing a TpB Questionnaire: Conceptual and Methodological Considerations*. <http://www.uni-bielefeld.de/ikg/zick/ajzen%20construction%20a%20tpb%20questionnaire.pdf>, down-

---

---

loaded at 04.10.2013.

Ajzen, I. (2006). *Constructing a Theory of Planned Behavior Questionnaire - Brief Description of the Theory of Planned Behavior*. <http://people.umass.edu/aizen/pdf/tpb.measurement.pdf>, downloaded at 04.10.2013.

Autio, E., Keeley, R. H., Klofsten, M., Parker, G. C. and Hay, M. (2001). Entrepreneurial Intent among Students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, 2(2), 145-160.

Bartus, T. (2003). Interpretation of Logistic Regression Outcomes, *Statistical Review*, 81(4), 328-347.

Carr, J. C. and Sequeira, J. M. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A Theory of Planned Behavior approach. *Journal of Business Research*, 60(10), 1090–1098.

EC (2012). *Flash Eurobarometer 354. Entrepreneurship in the EU and Beyond*. European Commission, Directorate-General for Enterprise and Industry.

Gird, A. and Bagraim, J. J. (2008). The theory of planned behaviour as predictor of entrepreneurial intent amongst final-year university students. *South African Journal of Psychology*, 38(4), 711-724.

Gubik, S. A. (2013). Model of the Hungarian students' business start-up intention influencing factors – Extending of Ajzen's Theory of Planned Behavior. *Vezetéstudomány*, 44, 18-30.

Kolvareid, L. (1996). Prediction of Employment Status Choice Intentions. Entrepreneurs. *Entrepreneurship: Theory and Practice*, 1994 Fall.

Krueger, N., Reilly, M. D. and Carsrud, A. L. (2000). Competing Models of Entrepreneurial Intentions. *Journal of Business Venturing*, 15, 411–432.

Krueger, N. F. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship Theory and Practice*, 5, 5–21.

Plant, R. and Ren, J. (2010). A comparative study of motivation and Entrepreneurial intentionality: chinese and american perspectives. *Journal of Developmental Entrepreneurship*, 15(2), 187–204.

Shapero, A. and Sokol, L. (1982). The social dimensions of

---

entrepreneurship. In Kent, C.A., Sexton, D. L. and Vesper, K. H. (eds): *Encyclopedia of entrepreneurship*. New Jersey: Prentice-Hall, pp. 72-90.

Szerb, L., Aidis, R. and Ács, Z. J. (2012). *The comparison of the Global Entrepreneurship Monitor and the Global Entrepreneurship and Development Index methodologies: The case of Hungary*. [http://www.gemconsortium.org/assets/uploads/1337684852GEM\\_GEDI\\_Hungary\\_2006-2010\\_Report.pdf](http://www.gemconsortium.org/assets/uploads/1337684852GEM_GEDI_Hungary_2006-2010_Report.pdf), downloaded at 04.10.2013.

Szerb, L. and Márkus, G. (2007). The effects of higher education environment on the choice of an entrepreneurial career. International comparative study. *Közgazdasági Szemle*, LIV(március), 248-273.

Zellweger, T., Sieger, P. and Halter, F. (2011). Should I stay or should I go? Career choice intentions of students with family business background. *Journal of Business Venturing*, 26(5), 521–536.

---