

# From University Student to Entrepreneur – Factors Influencing the Entrepreneurial Intentions of Business Development MSc Students\*

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*This study examines the entrepreneurial inclinations of young Hungarians, focusing on university students whose education and ambitions point towards entrepreneurial life. The research questions aimed to explore the career aspirations of students, their motivations for starting a business, the factors that hinder them, and how the university creates an encouraging environment. To answer these questions, a questionnaire-based survey ensuring comparability was conducted among MSc students of business development, and the data were evaluated with descriptive statistical tools and statistical tests as well as cluster analysis. It was found that the young people whose entrepreneurial inclination is higher than the Hungarian and international average mainly differ from their peers in their drive for autonomy, courage and risk perception, along with the fact that, in relation to the scarcity of capital, which was found to be a major obstacle, they would also welcome assistance from universities in financing.*

**Journal of Economic Literature (JEL) codes:** M13, I23, I25

**Keywords:** starting a business, entrepreneurial intention, encouraging entrepreneurship at universities

## 1. Introduction

At the end of 2020, the number of economic entities registered in Hungary was close to 2 million (HCSO<sup>1</sup> 2021). On average, this figure has risen by 1 per cent annually since 2014, and interestingly 2020, though marred by the coronavirus pandemic, was no exception (HCSO 2021). The rise in the number of businesses was strongly influenced by the increasing number of sole proprietors and self-employed

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<sup>1</sup> Hungarian Central Statistical Office

entrepreneurs, as the number of partnerships gradually declined in the same period (HCSO 2020). Although the structural shift towards sole proprietorships is partly due to changes in regulations, the emergence of smaller businesses also attracts interest in business and scientific circles. This interest is motivated by the positive associations between entrepreneurial intention, job creation, sustainable economic development and economic growth (Carree – Thurik 2010; Meyer – Krüger 2021).

The present study aims to understand whether young Hungarians – in particular university students, who are the most prone to starting a business in terms of motivation and education – plan on starting a business, what motivates them and what obstacles they face. Students of economics at universities spend their day-to-day lives in an environment encouraging innovation and teeming with discussions related to running a business. They think explicitly about this subject and therefore analysing this group will probably yield richer and more robust information than focusing on a broader section of society (Borsi – Dóry 2020). Moreover, the role that universities play in the entrepreneurial ecosystem can be better understood through these students, and it can also be established how young people are assisted in their future career as entrepreneurs by university education and extracurricular services. Analysing the population of universities and the university environment is also important when examining the broadly used hypothesis that education positively affects entrepreneurial inclination, and higher education can even influence entrepreneurs' ideas (S. Gubik 2021).

The paper first reviews the main theoretical models and key findings in the research on entrepreneurial intentions, after which the lessons from Hungarian studies focusing on similar topics and the literature on encouraging entrepreneurship by universities is briefly presented. Following this, the research questions along with the methodological framework of data collection and analysis used for answering them are outlined, and the most important results derived from the research are presented and interpreted. The summary contains conclusions based on the results, the constraints of the study and potential avenues for expanding it in the future.

## 2. Theoretical background

### 2.1. Some basic models of entrepreneurial intention and behaviour

According to the theory of planned behaviour by Ajzen (1985), the intention behind various actions and forms of behaviour is influenced by three principal factors: *attitudes*, *subjective norms* and *perceived behavioural control*, with the factor of *actual behavioural control* added later. Based on the model, the main factors influencing entrepreneurial inclination are people's *personal attitude*, *social perceptions* and *perceived facilitating and hindering factors* (Ajzen 2006).

Within the framework of the social learning theory by Bandura (1977), which has a slightly broader focus, behaviour is basically the result of the dynamic and continuous

interaction between three factors, namely *personal factors*, the *environment* and *behaviour*. Similar to Bandura's model, *Shapero and Sokol (1982)* chiefly looked for the behavioural drivers in the relationship between individuals and the environment, but with a narrower interpretation, focusing in particular on the development of entrepreneurial intention. The *Model of Entrepreneurial Event* proposed by the authors focuses on examining how individuals are influenced by their social and cultural environment in pursuing a career as entrepreneurs (*Jakopec et al. 2013*). According to *Shapero and Sokol (1982)*, the three fundamental factors that influence individuals' entrepreneurial intention are *perceived desirability*, *feasibility* and the *propensity to act*.

Following similar logic, other models were also developed to structure the factors influencing entrepreneurial intention. For example, *Sánchez (2011)* emphasises the role of *self-efficacy*, *proactiveness* and *risk-taking propensity*, while *Bigos and Michalik (2020)* focus on *self-awareness*, *self-regulation*, *self-motivation*, *empathy* and *social skills*. Further approaches based on entrepreneurial personality traits will be presented in *Section 2.2*.

## 2.2. Entrepreneurial personality traits

In recent decades, researchers of entrepreneurial intention have started focusing on individual personal traits (*Yang – Ai 2019*), finding that an individual's personality is a major determinant in choosing a career (*Holland 1997*). Studies have also shown that personality can exert a huge impact on an individual's entrepreneurial spirit and on starting or ending a business, as well as on the success and profitability of businesses. *Caliendo et al. (2011)* gave a detailed account of the relationship between the five-factor personality trait model of *Goldberg (1971)* and entrepreneurship, analysing the dimensions of *extraversion*, *neuroticism/emotional stability*, *openness to experience*, *conscientiousness* and *agreeableness*.

According to *Jain and Arora (2020)*, the examination of two more internal factors is relevant to the topic. One of these is the (internal) perceived place of control (*locus of control*), which can have a massive influence on the development of a positive entrepreneurial attitude (*Baluku et al. 2018*), while the other is individuals' *risk-taking propensity*, which has a particularly large effect on entrepreneurial intention. As attested by *Yusof et al. (2007)*, entrepreneurs typically avoid situations where they perceive extreme risk, or, conversely, certainty.

## 2.3. Entrepreneurial process models

*Gartner (1985)* argues that in examining the complex and multidimensional process of starting a business, at least four important aspects need to be considered: *individual entrepreneurs*, the *organisation* created by them, the *environment* where the new business is born, and the *process and steps in starting* the entrepreneurial activities. The role of the environment and individual factors has already been outlined in the previous sections, and in terms of the process of business creation, the models of *Shane (2003)* and *Baron (2007)* are relevant. Their elements are briefly summarised in *Table 1*.

<b>Table 1</b>		
<b>Comparison of entrepreneurial process models</b>		
	<i>Shane (2003)</i>	<i>Baron (2007)</i>
Main stages/steps in starting a business	0. Existence of business opportunity 1. Perception of business opportunity 2. Utilising opportunities 3. Implementation	1. Pre-launch 2. Launch 3. Post-launch
Factors influencing the process	– Individual characteristics – Entrepreneurial environment	– Individual – Group-level – Social

*Source: Based on Baron (2007) and Shane (2003)*

Based on these entrepreneurial process models, a deeper understanding can only be gained if new businesses are analysed across all the stages. Potential entrepreneurs usually take similar paths, and certain steps or the main stages in the process can mostly be identified in their lives. However, the individual journeys may differ considerably in the details, depending on individual experiences (*Baron 2007*).

#### **2.4. Ecosystem models**

The past decade has seen the growing popularity of the approach that posits that if businesses and entrepreneurial intention are only analysed from an individual viewpoint, through the enterprising person, the horizon is narrowed down too much. This led to the rise of approaches focusing on the ecosystem (*Ács et al. 2018*). Entrepreneurial ecosystems can be defined as the self-organising collection of independent factors and other factors, resulting in productive entrepreneurial activities in a field (*Stam – Spigel 2016*). The entrepreneurial ecosystem is an adaptive, geographically determined community of various actors operating at different levels and in a non-linear system of relationships (*Roundy et al. 2017*). Studies focus on exploring these relationships and the reasons behind them, as well as analysing the relative importance and dynamic changes of the effects. Ecosystem models continue to be centred around individual entrepreneurs, while also taking into account interactions within the system with actors such as the government, formal institutions, the physical infrastructure, the financial sector, R&D systems, market structures and the education system (*Stam 2015; Ács et al. 2018*). In view of the importance of higher education with respect to this study, this latter element in the institutional environment has special relevance, and so the focus will be shifted to this below.

### **3. Encouraging entrepreneurship among university students in Hungary**

#### **3.1. Studies examining the entrepreneurial intention of Hungarian students**

Hungary has participated in the GUESSS (Global University Entrepreneurial Spirit Student's Survey), coordinated by the University of St. Gallen in Switzerland, since 2006. The survey seeks to understand students' plans related to starting a business

as well as any entrepreneurial activities pursued by them (S. Gubik – Farkas 2016). Besides their comparability arising from their recurrent nature, GUESSS surveys involve a large number of participating countries, which allow students' entrepreneurial spirit to be compared across countries, measured using the so-called *Entrepreneurial Intentions Index* created during the research. Based on this, the index value for Hungarian students (12.3) is only slightly below the international average (12.8) (S. Gubik – Farkas 2013). According to research results from earlier years, the share of students planning to start a business followed a rising trend until 2008, before declining. This may be attributed to the onset of the global crisis in 2008, but in the past decade, the steadily rising compensation of employees has also contributed to making entrepreneurial life less attractive, as it is more uncertain (Bauer – Endrész 2018), in addition to the long-term income prospects. For example, between 2014 and 2017, the share of employees in Hungary increased by 9.5 per cent, while the proportion of entrepreneurs declined in the longer run (HCSO 2018). At the same time, S. Gubik and Farkas (2016) argue that the Hungarian higher education and social environment has a negative (or at best neutral) effect; in other words, the absence of facilitating tools in higher education and the relatively low social prestige of entrepreneurs are also significant factors.

Furthermore, the GUESSS survey clearly showed that in the short run, most students plan to work as employees in the corporate sector after graduation (Imreh-Tóth et al. 2013). The analysis by S. Gubik and Farkas (2016) also confirms that immediately after finishing their studies, around two thirds of students envision their future as employees, mostly working at large enterprises, and only a smaller share plan to work in the small and medium-sized enterprise (SME) sector or the public sector. Around this time, only a negligible proportion of students intend to start their own business. However, entrepreneurial intention increases significantly (to 35.4 per cent) five years after graduation. Presumably, students first wish to gain the necessary experience at other companies, and later, having obtained that experience, they consider it more realistic to start their own business (S. Gubik – Farkas 2013). Respondents believed that knowledge about business, business economics and finance were the most essential for anyone planning to embark on an entrepreneurial life (Imreh-Tóth et al. 2013), but the absence or existence of experience can also strongly influence the entrepreneurial spirit of the young generation (S. Gubik – Farkas 2013). The studies also confirmed that the role model observed in the family was more important than having an entrepreneurial education (Szerb – Lukovszki 2013). This is proven, for example, by the fact that the explanatory power of having an entrepreneur in the family has been growing for years, and therefore it probably plays an increasingly important part in the decision to start a business (S. Gubik – Farkas 2016).

The search for autonomy and self-fulfilment feature prominently among entrepreneurial motivations (Westhead et al. 2005). The fundamental factor of autonomy is freedom, allowing people to be in control, while self-fulfilment is mainly

determined by utilising creativity, development and realising personal dreams (Kim *et al.* 2006). These are followed by motivations related to income, such as earning higher income or the financial security that can be achieved. Nevertheless, in terms of individual personality traits and skills, it has been shown that awareness and innovation skills positively affect students' entrepreneurial intention (S. Gubik – Farkas 2016). Out of these, innovation skills are more important, and they include all the steps from generating new ideas to product development to launching a business. Awareness and targeted planning have also been shown to be crucial, but most students believe that excessive planning is not a desirable strategy, as starting a business requires a certain degree of spontaneity and an ability to adapt quickly to handle the continuous and unexpected changes in the environment (Szerb – Lukovszki 2013).

This has led to the creation of complex models that examined university students' career choices, and in particular their entrepreneurial intention, based on a broad range of influencing factors. In the model by S. Gubik (2021), career choice is influenced by personal attitude, self-efficacy, subjective norms, the perceived entrepreneurial climate and entrepreneurial role models, which are partly derived from individual personality traits, but they are also affected by the family environment, the broader social environment and the university. These environmental factors take hold through individual assets, such as knowledge, skills and experience, and the services and resources available to individuals. In the following, the particular influence of the university environment is examined.

### **3.2. The role of the university environment in encouraging entrepreneurship**

The surveys conducted so far have consistently confirmed and emphasised the strong influence of the institutional, higher education environment on students' entrepreneurial spirit (S. Gubik – Farkas 2016). While examining the role of education, Hungarian studies have also found that there may be significant differences between the entrepreneurial spirit of students enrolled in programmes from the main fields in higher education: those taking economics and business programmes are more likely to think about starting their own business than their peers. There may be two reasons for this: first, as they study business, they are more likely to be exposed to knowledge about businesses and business creation, which may fuel their intention to start a business. On the other hand, they may have chosen to study this field consciously, because they already had the entrepreneurial spirit when opting for a programme (Szerb – Márkus 2007). With respect to students' entrepreneurial inclination, economics programmes are followed by natural sciences, while social sciences are the least likely to produce business-minded students (S. Gubik – Farkas 2016).

The positive correlation between participation in the business courses offered by the university and entrepreneurial intention was confirmed by Szerb and Lukovszki (2013), which suggests that besides the subjects enhancing specialised knowledge, courses specifically focusing on business skills should also be taught. There is

demand among students in Hungarian higher education for business education, but they feel that the supply is unsatisfactory (Imreh-Tóth et al. 2013). This was shown by S. Gubik and Farkas (2013): Hungary is lagging behind in supplying programmes that offer innovative, practical elements when compared to Western higher education. Meanwhile, the extracurricular programmes aimed at knowledge sharing, such as coaching, workshops and trainings, have been found to potentially encourage entrepreneurship (Maresch et al. 2016; Premand et al. 2016).

However, all of these tools that mainly seek to enhance entrepreneurial knowledge and develop skills are not necessarily sufficient to improve entrepreneurial intentions (Nowiński et al. 2019). Out of the framework and systemic conditions of the entrepreneurial ecosystem (Stam 2015), universities cannot only contribute to knowledge, they may also play a significant part in other factors:

- facilitating services: such services influencing entrepreneurial aspirations may include counselling, coaching or workshops (Premand et al. 2016);
- physical infrastructure: for example in the form of incubation services that provide a workspace and digital infrastructure for enterprising students;
- financing: through the financing elements of university incubation programmes and the angel investor clubs of alumni networks (Aranyossy 2019);
- networks and demand: the corporate and institutional partnerships and the social capital of the universities can serve new businesses in a mutually beneficial manner;
- culture: referring to students’ “entrepreneurship, thinking and value system affecting the utilisation of the activities at the university and the generated knowledge” (Kuti – Bedő 2018:48).

Consistent with this, the latest Hungarian initiative encouraging universities in their conscious involvement in the entrepreneurial ecosystem is the *University Innovation Ecosystem programme*, which uses government engagement to stimulate universities to achieve goals such as “the presentation of the institutions’ intellectual and infrastructural competencies as a transparent service” and “the establishment of active, mutually beneficial relationships with a business perspective between universities and the business sector” (NKFI 2021). Between 2019 and 2021, the programme was able to deliver promising results in the number of industrial property registrations (>130), the number of university–corporate partnership agreements (>1,300) and the number of supported companies (>500).<sup>2</sup>

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<sup>2</sup> *Megszaporodtak az egyetemek és a vállalatok közötti együttműködések (Cooperation between universities and companies has intensified)*. 27 October 2021. <https://www.portfolio.hu/gazdasag/20211027/megszaporodtak-az-egyetemek-es-a-vallalatok-kozotti-egyuttmukodesek-506422>. Downloaded: 7 January 2022.

## 4. Methodology

In recent decades, universities' role in the entrepreneurial ecosystem has become increasingly clear, with numerous studies and policy recommendations published on this subject (*EESC 2013*). As illustrated above, university programmes facilitating the encouragement of entrepreneurship have started. Therefore, new snapshots should be taken of the Hungarian situation from time to time, if possible using data collection methods that make the cross-sectional analyses comparable. While business education has been a popular research topic in the disciplines of economics and education, the results have not been consistent regarding the impact mechanism, components and strength of the relationship between universities and entrepreneurial intention (*Wach – Głodowska 2019*). As emphasised by *S. Gubik (2021)*, it is still considered a novel approach in this topic if entrepreneurial intention is examined in the broader context of university students' career choices, and if intentions about starting a business are surveyed not only over the short run (right after graduation), but also over a longer horizon.

What makes the present study unique is that the authors sought to find a narrower population where many people are expected to think explicitly about starting a business, and where students may have some experience with the university environment that encourages this. Surveying this population can produce a highly reliable and rich database of students' related perceptions (*Borsi – Dőry 2020*). A large number of students start their MSc studies in business development at the Corvinus University of Budapest (CUB) with the explicit intention to prepare for their future career as entrepreneurs. The goals of the MSc programme include imparting to "students the necessary theoretical and methodological business knowledge in business development (innovation) and consciously developed leaderships skills and competencies for establishing small and medium-sized enterprises".<sup>3</sup> This makes the students in this programme perfect for the analysis. Out of the universities offering such a programme<sup>4</sup>, the CUB tops the list of scholarly excellence in business economics,<sup>5</sup> and therefore it makes sense to examine the students in this programme in more detail.

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<sup>3</sup> 18/2016. (VIII. 5.) EMMI rendelet a felsőoktatási szakképzések, az alap- és mesterképzések képzési és kimeneti követelményeiről, valamint a tanári felkészítés közös követelményeiről és az egyes tanárszakok képzési és kimeneti követelményeiről szóló 8/2013. (I. 30.) EMMI rendelet módosításáról (18/2016 (VIII. 5.) EMMI regulation on the amendment of 8/2013. (I.30.) EMMI regulation on the training and output requirements of the higher education vocational training, the basic and masters programs, and the common requirements of teacher training. (I. 30.) amendment of EMMI regulation). <https://net.jogtar.hu/jogszabaly?docid=A1600018.EMM&timeshift=20160813&txtreferer=00000001.txt>. Downloaded: 24 August 2021.

<sup>4</sup> Over the last five academic years, starting in 2017–2021, 14 universities in Hungary have launched Master's degrees in Business Development: Corvinus University of Budapest, University of Debrecen, Eszterházy Károly Catholic University, International Business School, Kodolányi János University, University of Miskolc, Budapest Metropolitan University, Óbuda University, University of Pécs, University of Sopron, University of Szeged, Budapest Business School, Hungarian University of Agriculture and Life Sciences – MATE Economy, John von Neumann University.

<sup>5</sup> *Friss felsőoktatási rangsor: itt van a legjobb gazdasági egyetemek listája (The latest higher education rankings: The list of the best universities in economics)*. [https://eduline.hu/felsooktatasi/20201128\\_gazdasagi\\_egyetemek\\_hvg\\_rangsor](https://eduline.hu/felsooktatasi/20201128_gazdasagi_egyetemek_hvg_rangsor). Downloaded: 16 February 2021.



In the study, the following research questions were analysed:

Q1: Do business development MSc students at CUB differ from the more general population surveyed in Hungarian studies in terms of the following aspects:

(a) Do their plans include an entrepreneurial career path right after graduation?

(b) Do their plans include an entrepreneurial career path in the longer run?

(c) What do they perceive as obstacles to starting a business?

(d) What areas of knowledge do they consider important for starting a business, and how much support do they receive in acquiring this knowledge in the MSc programme?

(e) What other support do they receive from the university environment?

Q2: What distinguishes business development MSc students at CUB, who have a strong entrepreneurial inclination, from their peers who are not preparing for a career as entrepreneurs, in terms of the aspects in points (a)–(e)?

The data were collected using a questionnaire-based survey, mainly including questions from earlier studies, which were sometimes supplemented with new questions aligned with the special focus of the analysis. The most important points of reference were *Szerb – Márkus (2007)*, *S. Gubik (2013)*, *Imreh-Tóth et al. (2013)* and *S. Gubik – Farkas (2016)*. The inclusion of the questions already present in the literature not only ensured the comparability of the results, but also guaranteed that the wording of the questions had already been tried and tested. The survey can be found, with references to the sources from which the questions were taken, in *Table 4 of the Appendix*. To ensure comparability, the answer options were aligned with the scales of previous surveys: thus, respondents gave their answers for the different questions using Likert scales with a varying number of points (4, 5, 6 or 7). This means that, placing more significance on Hungarian and international comparability, the clarity ensured by a harmonised, uniform scale was sacrificed, but of course only one type of scale was used for each question's answer options.

The survey was conducted in the spring of 2021, not involving teachers and not related to any subject or assessment, and in an anonymous manner, thereby reducing the distortion arising from data collection in a university environment. The questionnaire reached the entire population through electronic channels. During the time of the data collection, the number of students in the business development MSc programme of CUB was estimated to be 247 based on admissions data, out of whom 65 people participated in the survey, resulting in a coverage of over 25 per cent overall. Although the sample size may seem small at first glance, it does represent a large share compared to the entire population, and the statistical analysis methods employed can also be used well for such a sample size. The average age of the 65 respondents

was 24 years, with 55.6 per cent of them being female. 41.3 per cent of the students in the sample were from Budapest, 17.5 per cent were from other large cities, while the rest were from smaller rural towns and communities. Subsequently, statistical indicators, tests (e.g. ANOVA), correlation coefficients (Pearson's  $r$ , Spearman's rho and Kendall's tau) and hierarchical cluster analysis were used to examine the research questions. Although the ANOVA test analysing the significant differences in group averages assumes variables measured at an interval or ratio scale, if the Likert scale is symmetrical and equidistant, it can be presumed that it behaves as an interval scale (Carifio – Perla 2007), making it suitable for the present analysis.

## 5. Results

### 5.1. Career plans and entrepreneurial intention

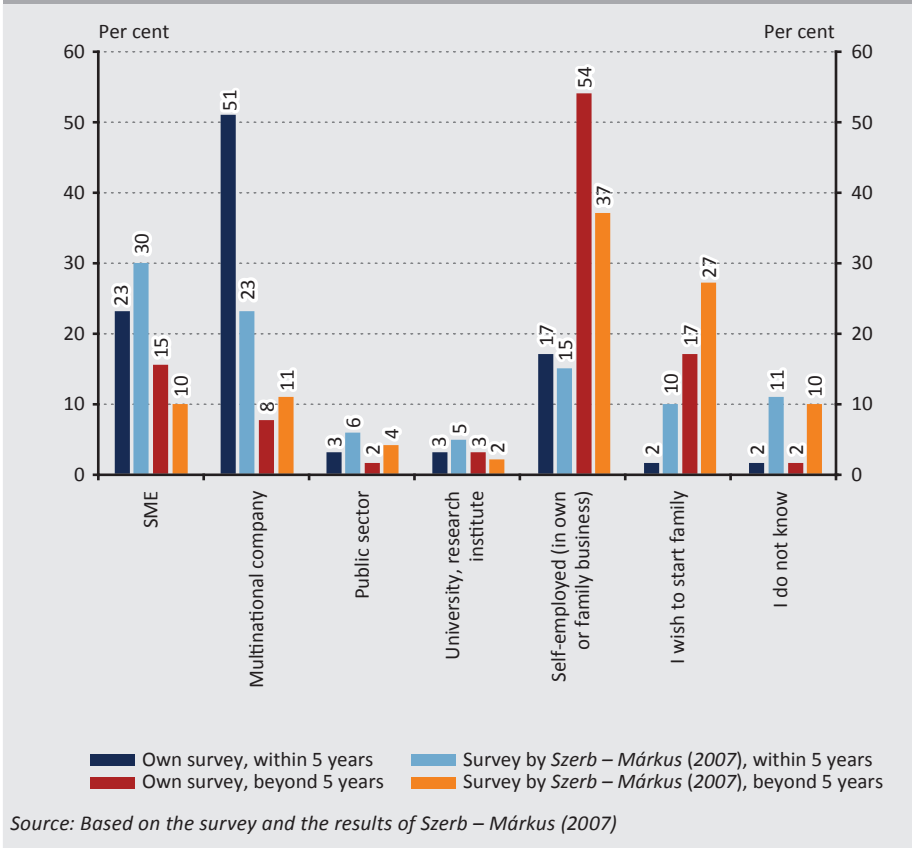
Students' career plans should be examined at various points along a horizon, as there may naturally be large variation, depending on whether the focus is on the period right after graduation or a longer term. The study shows (*Figure 1*) that most students of business development wish to be employed by a large enterprise after graduation (51 per cent), followed by SMEs (23 per cent). Then, within five years of graduation, the third most popular option is to work independently, in a family- or self-owned business (17 per cent). The public sector, research fields and starting a family is planned by a very small share of students over this horizon (3, 3 and 2 per cent, respectively). Although students do gain some experience during their internship while studying at the university, it is understandable that most of them do not dare to start a business as fresh graduates, right after finishing their studies, even if they know the necessary theoretical basics and have an intention to do so, as they have no real market experience. This is also confirmed by the data: the shares realign considerably in the plans beyond the 5-year mark. At this point, an independent career path is ranked first, with more than half of business development students wishing to pursue some kind of entrepreneurial activity (54 per cent). Accordingly, the popularity of working at large enterprises (8 per cent) or SMEs (15 per cent) declines by that time.

Four of the respondents (6 per cent) had already established their own business and were working in it, another 13 MSc students had a concrete business idea, five were working on obtaining the necessary resources, while three of them were engaged in marketing their product/service.

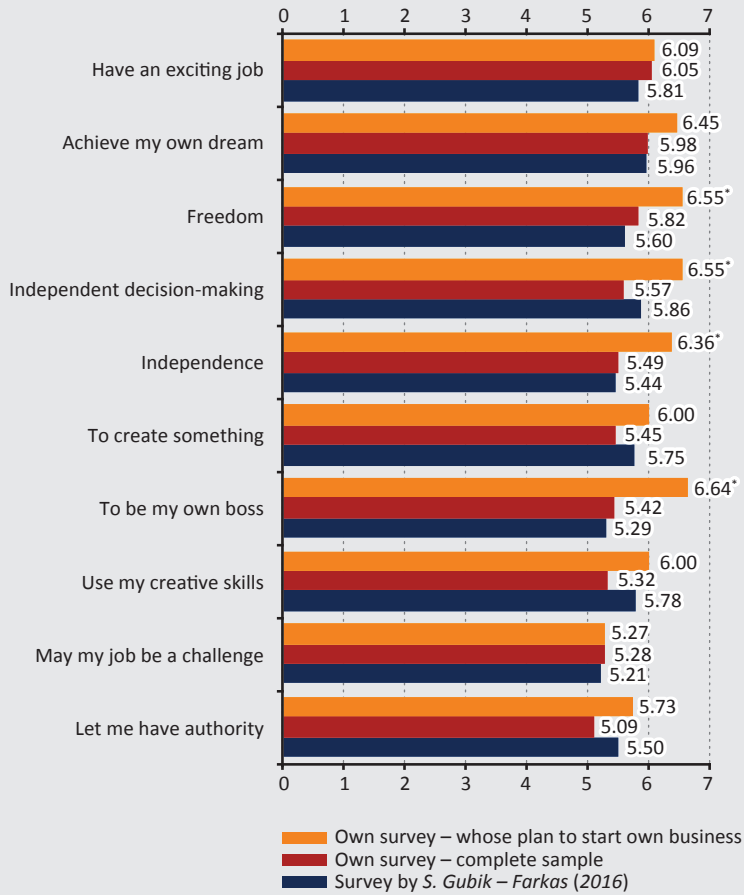
*Figure 1* shows the results compared to the findings of Szerb and Márkus (2007), indicating that even in the short run an entrepreneurial life is slightly more popular among MSc students of business development, and in the long run the positive difference grows even larger. Even though the option of making it on their own is also ranked first among the students of general economics programmes five years after graduation, the share of such students is much smaller (37 per cent) than those

at the business development programme of CUB (54 per cent). According to the latest international study measuring the results with the same scale (Fueglistaller *et al.* 2006), the international share of students who become independent in the five years following graduation is 17.6 per cent, while in the period beyond those five years 48.1 per cent of students plan their future in a family- or self-run business. In other words, the entrepreneurial spirit of the MSc students under review (with 54 per cent planning to start a business) surpasses even the international average based on their long-term plans. This confirms the hypothesis that among business development students the share of those preparing for an entrepreneurial career is higher than average, and the analysis below can utilise this information. The special nature of the sample is also supported by the fact that 32 per cent of the respondents chose the business development MSc programme during application entirely because of their future entrepreneurial intentions, while 27 per cent did so partly for this reason.

**Figure 1**  
Students' general career plans and changes in those plans (% of respondents)



**Figure 2**  
**Importance of the aspects considered by students while planning their future career**



Note: Averages on a 7-point Likert scale; \* denotes values differing from the global average of the present study at a significance level of  $p < 5\%$ .

Source: Based on the survey and the results of S. Gubik – Farkas (2016)

Taking a glance at the factors MSc students base their decisions on regarding their career plans, it was examined whether there was any meaningful difference between those choosing an entrepreneurial career path and those avoiding it. *Figure 2* illustrates that the motivational factors of the entire sample are similar to the more general results of *S. Gubik and Farkas (2016)*, but the respondents with an entrepreneurial spirit differ considerably from this overall trend. Based on the results of the ANOVA test evaluating the identical nature of the averages ( $p < 0.05$ ), there was no significant difference between the groups of students planning different career paths in terms of realising dreams, creating something, having an exciting job with challenges and the desire for gaining authority, but there was significant variation in how they rated the importance of the following motivational factors (shown together with the importance score on a seven-point scale measured among those with entrepreneurial intentions and the global averages in brackets):

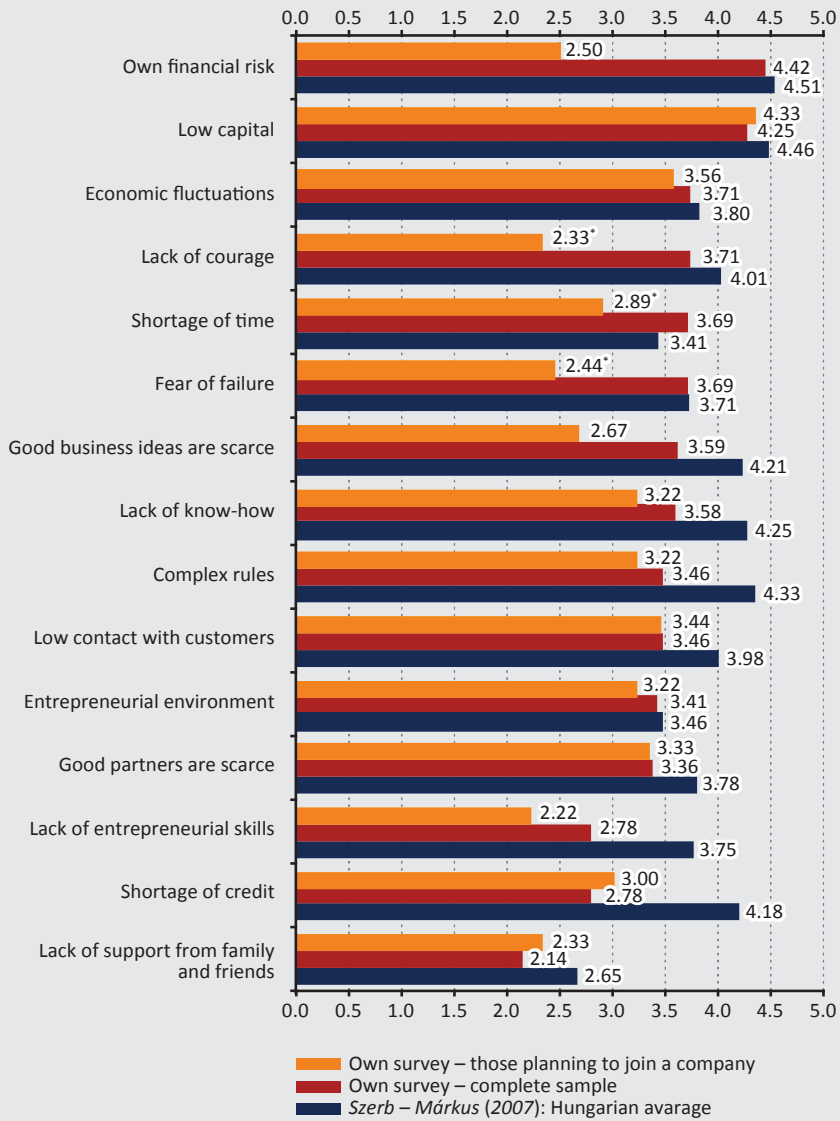
- autonomy: 6.64 (5.42)
- freedom: 6.55 (5.82)
- independent decision-making: 6.55 (5.57)
- independence: 6.36 (5.49)

It seems clear that the main motivation of the students planning to start a business is their drive for autonomy, while they differ less from their peers in their efforts at self-fulfilment.

## **5.2. Perceived obstacles to starting a business**

The studies analysing this topic pay special attention to the factors that represent the biggest obstacle for individuals in truly embarking on a journey of business creation. *Figure 3* shows the present paper's results visually distinguishing students already engaged in a business from those not yet pursuing an entrepreneurial career, and also including the results of *Szerb – Márkus (2007)* as a point of reference.

**Figure 3**  
**Factors hindering students in launching a business**



Note: Averages on a 5-point Likert scale; \* denotes values differing from the global average of the present study at a significance level of  $p < 5\%$ .

Source: Based on the survey and the results of Szerb – Márkus (2007)

As shown in *Figure 3*, the students in the present sample perceive the hindering effect of the above-listed factors less than the international average. One of the explanatory factors behind this may be that, thanks to their studies, they may feel that they have an adequate overview of economic and market developments, which increases their perceived behavioural control known from the theory of planned behaviour by *Ajzen (1985)*. Therefore, even though they also experience the effect of certain hindering factors, this is less pronounced than in the case of others. It is interesting to observe that while too few good business ideas, the lack of know-how and the complicated regulatory framework have a much larger impact for most people, these factors are ranked somewhat lower by students of business development. It can be assumed then that the students enrolled in this programme are more prepared from a business perspective and they are better informed about the conditions in the environment, therefore they do not see them as hindrances. Compared to the Hungarian average, but also to the results of the international study using the same question (*Fueglistaller et al. 2006*), they perceive the lack of ideas (3.59 vs the international 4.21) and know-how (3.58 vs 3.95) to be much less of an issue. Nonetheless, they also view the lack of capital as the biggest obstacle, which was ranked first in the international survey as well (4.46), along with financial risk-taking (4.51) (*Fueglistaller et al. 2006*). This is understandable as most people have limited capital at this age and in such a situation, and there is a great risk of losing it all when starting a business.

Shortage of capital is the obstacle that is ranked similarly high by the smaller group of those planning to start a business as by the global average of the sample, but there are significant differences in their perception of other hindrances. Based on the results of the ANOVA test evaluating the identical nature of the averages ( $p < 0.05$ ), students with entrepreneurial plans are more courageous, meaning that they consider the fear of failure or too little courage to be a significantly smaller hindrance. This represents an important difference in the perception of, and tolerance for, risks. Furthermore, they do not consider the lack of time a hindrance, which suggests that they are happy to devote time to something that is important to them. These are the factors that truly set apart the young people embarking on an entrepreneurial life from their peers. This means that encouraging entrepreneurship by building on knowledge and skills may not be enough, young people's deeper motivations, uncertainty and their attitude towards devoting time to something should also be influenced to exert an impact.

In order to explore deeper correlations, correlation coefficients and exploratory cluster analysis were used to analyse the covariance in the perception of individual obstacles. As evident from the wording of the reasons, the strongest statistically significant correlation ( $p < 0.01$ ; based on the Pearson correlation and the non-parametric correlation coefficients) was seen between the lack of courage and the

fear of failure (Pearson correlation: 0.771). Nevertheless, even more interestingly, less courageous students also considered the continuous change in the business environment to be a hindrance (Pearson correlation: 0.677), which was closely correlated with the hindering nature of the business environment, and using somewhat lower correlation coefficients that were nonetheless over 0.5, this was in covariance with the perception of the shortage of loans and capital as well as financial risk. In other words, risk-averse students saw these financing factors as major obstacles. These findings are reflected in the results of the cluster analysis. Based on the exploratory, hierarchical cluster analysis of the factors hindering business creation (see *Figure 3*) as variables employing the average-distance chain method, the variable groups most closely correlated with each other are as follows:

- Too little courage; Fear of failure
- Too little contact with buyers; Lack of know-how; Too few good partners
- Complicated rules; Economic fluctuations; Business environment
- Too few options for borrowing; Lack of entrepreneurial skills
- Own financial risk; Too little capital

The perceptions related to entrepreneurial courage, the business environment and financial constraints are clearly clustered together.

### **5.3. The role of the higher education environment in entrepreneurial career plans**

The constraining role of the business environment was discussed in the previous section. After this, a deeper examination was conducted to see the potential effect of the higher education environment on entrepreneurial plans. First, similar to other studies (*Imreh-Tóth et al. 2013*), it was evaluated what knowledge students considered essential for starting their own business, and to what extent the present education covers this according to their own perception. This is summarised in *Table 2*, showing a comparison of their answers on a 4-point Likert scale and the results of *Imreh-Tóth et al.*

As evident from the averages, students considered almost every listed skill important to some extent, with only innovation management standing out. According to the respondents, entrepreneurial and business plan creation skills are (understandably) the most crucial in starting a business, and they are followed by financial and marketing skills. This differs only marginally from the results of the survey conducted by *Imreh-Tóth et al. (2013)*. When adding to this how much students believe the university education covers these skills, the ranking slightly differs. Fortunately, respondents claim that their education in business skills is good. They also feel that education is efficient in financial competencies (financial and business planning



skills), which clearly reflects the typical focus of the programme development at Corvinus University. The relevance of this strong financial focus is attested by students' feedback, namely that out of the five MSc subjects considered the most useful, three deal with finance (Venture Capital Financing, Corporate Financing and Financial Strategy, Financial Analysis and Default Forecasting). The course considered to be the most useful by students is Company Law (48 mentions), which is directly related to the first, practical steps in business creation. At the same time, marketing skills were seen as less significant based on the responses. Interestingly, marketing education is the only field where the opinion of enterprising students is statistically significantly ( $p < 0.05$ ) different: the students planning to start a business within five years rated the level of marketing skills acquired at the university 3.09, which is higher than the global average of the sample (2.52). The students planning to start a business either better utilised the opportunities offered by the university's education portfolio, or they are simply more optimistic about their preparedness.

	Survey by <i>Imreh-Tóth et al. (2013)</i>	Authors' survey: How important is it?	Authors' survey: To what extent is it covered by the education?
Entrepreneurial skills	3.69	3.75	3.33
Marketing skills	3.56	3.20	2.45
Financial skills	3.68	3.23	2.93
Business plan creation skills	3.53	3.53	2.9
Innovation management skills	3.37	2.43	2.58
Tendering and project management skills	3.56	3.13	2.53

*Note: Averages on a 4-point Likert scale*

*Source: Compiled based on the present survey and the results of Imreh-Tóth et al. (2013)*

The university environment can support entrepreneurial careers not only through classes, imparting knowledge and skills development. *Table 3* summarises the opinion of the students asked about this. There was no significant difference in the perception of the various environmental factors between the people planning different career paths. The respondents considered the teachers in the MSc programme to be the biggest asset, but they are only moderately sure that the subjects taught at the university cover the skills necessary for starting a business. This unsatisfactory feeling related to skills has already been discussed in detail. At the same time, students consider that the functions of the university, as an important element in the entrepreneurial ecosystem, going beyond imparting

knowledge is, or would be, found useful by students. Facilitating services and the provision of networking opportunities can be realised at universities in either a formal setting (university incubator, accelerator) or with grassroots methods (e.g. student organisations or the loosely structured matching of supply and demand). Students are generally satisfied with the opportunities offered by CUB in this regard. Beyond this, an important new expectation in connection with the university environment is that students would find it most useful if universities provided an opportunity that helped find financing for their business. This tallies with the earlier finding that the respondents planning to start their own business considered the shortage of capital to be the biggest obstacle, even though they examine the opportunities offered by the venture capital market and crowdfunding in class (Bethlendi – Végh 2014). The fact that students feel that this is realised the least within universities' walls may point out the way forward to decision-makers with respect to the development of the entrepreneurial ecosystem. Accordingly, if the factors influencing business creation are considered from the perspective of the university students concerned, the university should not only have a knowledge imparting, networking and service function, it may also engage in, or facilitate, financing in the ecosystem. A model for this which is efficient and aligned with universities' goals should be examined going forward.

**Table 3**  
**Perception of the university as an environment facilitating business**

Statement	How important is it? (number of respondents ranking the given factor the most important, n=65)	How supportive is the university in this regard? (averages on a 6-point Likert scale)	Cluster
Guest lecturers in the classes offer an adequate glimpse into entrepreneurial life.	4	5.08	1
Teachers are credible when teaching about businesses.	7	4.50	2
The university environment offers an opportunity to forge corporate and business relationships.	9	4.23	1
In the university environment, I have access to adequate professional support and advice related to my business (e.g. financial planning, legal issues surrounding business creation).	8	4.15	1
The knowledge acquired at university covers the skills necessary for starting a business.	17	3.70	2
The university provides opportunities that help me find financing for my business.	18	3.58	1

It should be noted, however, that although most respondents ranked business skills and financing opportunities first, the hierarchical cluster analysis of the variables shows that respondents' perception is fundamentally divided when it comes to the university's business-facilitating factors under review. Based on the exploratory, hierarchical cluster analysis of the factors facilitating business creation (see *Table 3*) as variables employing the average-distance chain method, some students consider imparting knowledge and the credible teachers representing it to be important (Cluster 2), while others focus on other factors outside the purview of traditional university education (Cluster 1).

## **6. Summary and outlook**

The study sought to contribute to the empirical evidence exploring the entrepreneurial spirit and motivation of young Hungarians, and to paint a more nuanced picture about the overall Hungarian situation by examining university students whose ambitions and education clearly point towards entrepreneurial life.

The questionnaire-based survey aimed at ensuring comparability with similar Hungarian studies confirmed the assumption that students in the business development MSc programme are much more inclined to start a business than the average. Although they would typically like to gain experience at large enterprises in the first years after graduation, regarding their plans for the period beginning five years after graduation half of the students claimed that starting an independent (family- or self-run) business was their career plan. These enterprising students are looking for exciting jobs and self-fulfilment, just like their peers, but they are significantly more interested in autonomy and independent decision-making. The entrepreneurs of the near future also perceive obstacles somewhat differently: they are more courageous and do not believe that a lack of time is such an issue. In other words, the most distinguishing features of the determined students in this programme who plan to start their own business are their drive for autonomy, risk perception and attitude to time sacrifice. This also suggests that the traditional tools of universities for facilitating business creation based on imparting knowledge, with which the respondents in the sample were generally satisfied, may prove to be insufficient for creating effective motivation, as they can hardly shape students' attitude towards risks and investments. Yet entrepreneurial role models and mentors could play a bigger role in shaping these attitudes in the future, if they can credibly represent the entrepreneurial mindset.

What makes business development MSc students and particularly those with entrepreneurial ambitions similar to their peers graduating from other universities is that they see the lack of capital and the extent of their own financial risk as the greatest obstacles to business creation. It is no coincidence that they believe

that the facilitating nature of the university environment could be best enhanced through the provision of financing opportunities. Such services are not uncommon at American and Western European universities, implemented either through university incubators or the involvement of investors in the alumni community. There are also examples of university programmes providing funding in Hungary as well, but Hungarian higher education institutions still have a long way to go in this regard. In this context, various solutions can be used in practice. To name but a few:

- the university gives advice or process support in financing questions;
- the university utilises its existing financing partnerships for the benefit of students' businesses;
- the university operates a formalised incubator, the service portfolio of which also includes financing elements;
- the university and university stakeholders (alumni, corporate and institutional partners) operate an investment fund.

The Hungarian University Innovation Ecosystem programme already encourages corporate partnerships, with banks and investors, and the Hungarian Startup University Program<sup>6</sup> also includes financing elements (albeit only in the form of a few individual scholarships) that may contribute to the early-stage financing of innovative start-ups with huge growth potential (Fazekas 2016). But there is still much to be learned from the international examples, such as the alumni business angel network of the ESADE university in Barcelona, ESADE BAN, which has provided funds to over 235 firms, investing over EUR 35 million (ESADE 2021). The Hungarian entrepreneurial spirit, which lags behind the international average, could be lifted by universities by going beyond their traditional roles in the ecosystem and being engaged more actively in business financing as intermediaries, organisers or even investors. This not only eliminates the obstacles to business creation faced by current university students, it would create new opportunities for other university citizens, such as teachers, researchers and alumni members as well.

In order to gain a better understanding of the overall Hungarian situation and provide more support to institutional and policy decisions, the present research should be expanded in two directions in the future. First, the motivations and perceptions of students studying at other universities' programmes focusing on entrepreneurship should also be assessed to gain a more representative picture of the young generation most open to this idea. Second, examining the young entrepreneurs at more mature stages in their entrepreneurial life would allow

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<sup>6</sup> *Introduction*. Hungarian Startup University Program. <https://hsup.nkfi.gov.hu/>. Downloaded: 10 January 2022.

conclusions to be drawn in an area where the present sample offered very little information, namely how motivations and perceived obstacles change while implementing entrepreneurial plans.

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## Appendix

<b>Table 4</b>		
<b>Structure of the questionnaire</b>		
<b>Group of questions</b>	<b>Question (source) *required answer</b>	<b>Response type</b>
<b>1. Target group filtering</b>	Do you currently study in the business development programme of the Corvinus University of Budapest?* ( <i>authors' question</i> ) – Yes (→ go to Section 2) – No (→ end of questionnaire)	Multiple choice
<b>2. Career plans</b>	Where do you plan to pursue a career in the five years after graduation?* ( <i>Szerb – Márkus 2007</i> )	Multiple choice
	Where do you plan to pursue a career in more than five years after graduation?* ( <i>Szerb – Márkus 2007</i> )	Multiple choice
	Rate the importance of the below factors when considering your own career.* ( <i>S. Gubik – Farkas 2016</i> )	Likert scale (1=not important at all; 7=very important)
	Does your family have a business?* ( <i>authors' question</i> )	Multiple choice
	Have you ever considered starting your own business?* ( <i>S. Gubik 2013</i> )	Multiple choice
<b>3. Planning business creation</b> (for those who do not have a business yet)	Where are you currently at in the entrepreneurial process?* ( <i>authors' question</i> )	Multiple choice
	Have you taken any steps to create your own business?* ( <i>S. Gubik 2013</i> )	Multiple answer
	When would you start your business?* ( <i>Szerb – Márkus 2007</i> )	Multiple choice
	Where would you start your business?* ( <i>authors' question</i> )	Multiple choice
	In your view, how much do the following factors hinder you in starting your business?* ( <i>Szerb – Márkus 2007</i> )	Likert scale (1=not at all; 6=very much)
	Did your entrepreneurial intention play a part in your application to the MSc programme?* ( <i>authors' question</i> )(→ go to Section 5)	Multiple choice
<b>4. Entrepreneurial activity</b> (for those already in business)	When did you start your business?* ( <i>authors' question</i> )	Multiple choice
	If you started your business during your BSc studies, did this play a part in your application to the MSc programme? ( <i>authors' question</i> )	Multiple choice
	How did you start your business? ( <i>authors' question</i> )	Multiple choice
	If you started it with others, how many of you are there in the business? ( <i>authors' question</i> )	Free response
	What is your business engaged in?* ( <i>authors' question</i> )	Free response
	Where did you start your business?* ( <i>authors' question</i> )	Multiple choice
	In your view, how much did the following factors hinder you before starting your business?* ( <i>Szerb – Márkus 2007</i> ) (→ go to Section 5)	Likert scale (1=not at all; 6=very much)

**Table 4**  
**Structure of the questionnaire**

Group of questions	Question (source) *required answer	Response type
<b>5. Business and education</b>	How important do you think the following skills are in starting a business?* ( <i>Imreh-Tóth et al. 2013</i> )	Likert scale (1=not important at all; 4=very important)
	With respect to the below skills, how adequately do you think the MSc programme teaches them to you?*( <i>authors' question</i> )	Likert scale (1=not important at all; 4=very important)
	In your view, what does education in the programme focus more on in its present form?*( <i>authors' question</i> )	Multiple choice
	Rate the following statements.* ( <i>authors' question</i> )	Likert scale (1=completely disagree; 6=completely agree)
	Rank the below factors according to their importance.* ( <i>authors' question</i> )	Ranking (1=most important; 6=least important)
	Which are the classes in the MSc programme that you believe offer concrete knowledge that can be utilised when starting a business?*( <i>authors' question</i> )	Multiple answer
	Are there any specific classes related to business that you miss from the current curriculum? ( <i>authors' question</i> )	Free response
	What extra opportunities are you aware of at the university that help students who plan to start their own business beyond classes? ( <i>authors' question</i> )	Free response
	Do you have any other ideas (either about teaching or regarding extracurricular activities) on how the university could better support those with entrepreneurial ambitions? ( <i>authors' question</i> ) (→ go to Section 6)	Free response
<b>6. Demography</b>	Sex* ( <i>authors' question</i> )	Multiple choice
	Age* ( <i>authors' question</i> )	Free response
	Where do you live?* ( <i>authors' question</i> ) (→ end of questionnaire)	Multiple choice