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## Factors influencing students' venture creation process

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### Abstract

There is currently a strong global drive towards encouraging a greater proportion of students to consider and pursue venture creation as an alternative graduate career path (Nabi, Holden, & Walmsley, 2006; Leffel & Darling, 2009). Previous studies have shown that a small proportion of students are founding their enterprises before graduation and those enterprises are relatively small, primarily micro-enterprises with a modest turn-over (Fueglistaller *et al.*, 2009). The purpose of this article is to study students' entrepreneurship in Estonia based on the information of international survey GUESSS (Global University Entrepreneurial Spirit Students' Survey), undertaken in 2011. The comparison of the experience of Estonian students with other European countries (e.g. Hungary, Finland) will be included. The research questions answered in this study are: 1) how is venture creation process organized by students, 2) how does university support students' entrepreneurship. The conceptual framework for describing the process of new venture creation is based on Cartner (1985) that integrates four major perspectives in entrepreneurship: the characteristics of the individual(s) starting the new venture; the organization they create; the environment surrounding the new venture; and the process by which the new venture is created. The methods of linear statistical analysis are utilized with the help of the computation package SPSS 20.0. The contribution of the paper is to improve our understanding of factors influencing students' venture creation process and how the environment in universities should be developed for activating students' entrepreneurship.

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## 1. Introduction

There is currently a strong global drive towards encouraging a greater proportion of students to consider and pursue venture creation as an alternative graduate career path (Nabi, 2006; Leffel & Darling, 2009). As a result of this viewpoint, many authors have studied factors influencing students' entrepreneurial career intentions and motivations in both developed and developing countries (e.g. Kolvereid, 1996; Carter *et al.*, 2003) as well as the role of higher education institutions in the promotion of entrepreneurial initiative among students (Autio *et al.*, 1997, 2001; Fayolle, Gailly, & Lassas-Clerc, 2006).

Previous studies have shown that a small proportion of students are founding their enterprises before graduation and that those enterprises were relatively small, primarily micro-enterprises with a modest turn-over (Fueglistaller *et al.*, 2009). Although as start-up entrepreneurs the students did not assess the market share, growth rate and self-financing of their enterprise to be very high when compared with competitors, they were satisfied with their career choice and with becoming an entrepreneur (*ibid.*). This experience makes student entrepreneurship a potential and important source of competitiveness, growth and economic development. There is not enough research and analysis currently about the processes (i.e. the major steps) carried out by students when implementing their entrepreneurial intentions as well as the factors influencing this process.

The purpose of this article is to study students' entrepreneurship in European countries and the behaviour of students in the process of starting their enterprises based on the information of international survey GUESSS (Global University Entrepreneurial Spirit Students' Survey), undertaken in 2011. The comparison of the experiences of Estonian students with European countries (e.g. Hungary, Finland and European average) will be included. The analysis of the article is aimed at better understanding of the main features of student entrepreneurs, the steps for starting an enterprise as well as students' opinions of different statements connected with this process. The factors for fostering the entrepreneurial activities in universities will also be taken into account. The research questions we will answer in this study are:

- What are the main features of student entrepreneurship in European countries?
- How are students evaluating the importance of the main steps for founding an enterprise?

The survey is administered through a web-based questionnaire and is standardised for all participating countries based on a common study design. A total of 52 899 students of higher education institutions from sixteen European countries who participated in the study are included in the analysis that is being conducted in this paper. The European results are compared with the Estonian data and with average indicators of the total sample of the study – 26 countries and 93265 responses. In the current paper, Cartner's framework for describing a new venture creation is used to the extent that survey details support the characterisation of the perspectives of the four dimensions within the framework. The contribution of the study is to improve our understanding of both the similarities and differences in student entrepreneurial activities in European countries, supplementing previous analyses (such as Fueglistaller *et al.*, 2009; Sieger, Fueglistaller, & Zellweger, 2011).

As to the structure of the article, the next section consisting of the theoretical framework provides an overview of previous studies in the field. This is followed by the description of method and sample. Next, the results of the study are described and the article ends with conclusions.

## 2. Theoretical framework

Several studies have focused on entrepreneurial behaviour, and on the processes by which the foundations of an enterprise have been laid down by the different types of entrepreneurs, the differing organisational forms through which entrepreneurial behaviour is expressed, and the importance of the external environment (Carter, Gartner & Reynolds, 1996; Lee & Venkataraman, 2006; Shane & Venkataraman, 2000). In previous studies researchers have looked at the background of entrepreneurs, their experience and attitudes, e.g. previous work experience, job satisfaction, parents' entrepreneurial tendencies, age and education. Relying on the need for studies to explain the contexts and processes associated with entrepreneurial behaviour (e.g. Low & MacMillan, 1988) this paper will

attempt to explain the characteristics of student entrepreneurs and their entrepreneurial behaviour in the process of starting an enterprise.

A conceptual framework for describing the phenomenon of new venture creation has been presented by Gartner (1985), which integrated four major perspectives in entrepreneurial activities: the characteristics of the individual(s) who are starting the new venture; the organization they create; the environment surrounding the new venture; and the process by which the new venture is created. Emphasizing the issue of venture creation as a central question of entrepreneurship research Gartner stated: „Entrepreneurship is the creation of organisations“, which involves interaction between the environment and individuals and the creation of an organisation is seen as evolutionary (Gartner, 1985). The research ought to be directed based on who the entrepreneur is and towards what he or she does in the process of enterprise emergence (Gartner, 1988, 2001).

Several studies have been undertaken characterising the dimensions and their relationships using the framework mentioned by Gartner above, and the main focus has been directed towards the investigation of the individual and the process. For example, a study of Carter, Gartner and Reynolds (1996) has focused on different types of nascent entrepreneurs and the process of organisation creation. Furthermore, studies have focused on determining the role of the individual in the process of starting a new business (e.g. Bird, 1992; Krueger, 1993; Learned, 1992; Lee & Venkataraman, 2006; Shane & Venkataraman, 2000). It can be said that many researchers have studied different components of new venture creation processes which are valuable for the better understanding of the nature of this process. Although entrepreneurship literature has provided a valuable insight into the process of new venture creation by showing it to be a complex and multidimensional phenomenon, there is still a need for a greater understanding of the features and behaviours of different types of entrepreneurs and links between the start-up activities of entrepreneurs and venture success in different countries.

Previous research has shown a positive impact of entrepreneurship education on entrepreneurial intentions, in terms of students' view of the desirability and feasibility of starting a business (Autio *et al.*, 1997; Coduras, 2010; Krueger *et al.*, 2000; Peterman & Kennedy, 2003). The causal effect of entrepreneurship education on attitudes towards entrepreneurship and start-up intentions has been verified (Souitaris *et al.*, 2007). However, there is a lack of evidence linking entrepreneurship education to different stages along the business creation process (Bechard & Gregoire, 2005).

### 3. Method and sample

This paper is based on the International survey GUESSS (Global University Entrepreneurial Spirit Student Survey) undertaken in 2011 and led by the KMU-HSG and the CFB-HSG at the University of St. Gallen. The main focus of the survey is on university students' entrepreneurial attitudes, intentions and activities on a global level. The survey is administered through a common web-based questionnaire and it is standardised for all participating countries based on a common study design. The participation in the survey was voluntary and the questionnaires were distributed via student organisations. A total of 52 899 students of higher education institutions from sixteen European countries which participated in the study are included in the analysis being conducted within the current paper. The results of analysis include the average situation in European countries as well as the main characteristics of Estonia, Finland and Hungary in comparison with European average.

When students were asked if and how seriously they have been thinking about founding their own company, in general more than half (55 per cent) of all respondents in the European countries had only sketchily thought about founding their own company<sup>1</sup>, if at all. Among the European countries, the share of these „non-founders“ was highest in Finland (71 per cent) and in Germany (61 per cent) (Sieger, Fueglistaller & Zellweger, 2011). On average, 42 per cent of respondents in Europe had thought about founding a company<sup>2</sup> quite intensively, whereas 3.0 per cent were already self-employed<sup>3</sup>. The number of „intentional founders“ was higher in the CEE countries. The target

<sup>1</sup> Includes answers "never" and "sketchily".

<sup>2</sup> Includes answers "repeatedly", "relatively concrete", "I have made an explicit decision...", "I have a concrete time plan...", and "I have already started with the realization".

<sup>3</sup> Includes answers "I am already self-employed in my own founded firm" and "I have already founded more than one company".

group for this paper is the active founders among students of universities in the European countries under study, which is 2.7 per cent of respondents (Table 1).

Compared with all respondents the active founders differ in the countries involved in the survey in terms of demographic features (age, gender, level of study and field of study and company). The active founders are younger in Finland and older in Estonia and Hungary, where around half of active founders are more than 31 years old. Looking at the distribution of students according to study levels one may conclude that in Europe on average more students are starting their business at the undergraduate level. But in Finland more than half of active founders are graduate level students. The active founders are primarily those studying business and economics and natural sciences and less those studying social sciences. The majority of student enterprises are operating in the service sector.

Table 1. Characteristics of the sample of active founders in European countries, % of respondents

Characteristics of respondents		Europe	Total average	Estonia	Finland	Hungary
Active founders	Number	1416	2324	115	50	135
	Share from respondents	2.7	2.5	6.1	3.5	2.4
Age of the respondent	up to 24 years	31.9	30.0	20.9	30.0	21.5
	25 - 30 years	36.4	30.9	32.2	42.0	27.4
	31+ years	31.7	39.1	47.0	28.0	51.1
Gender	Male	67.7	68.8	53.0	80.0	55.6
	Female	32.3	31.2	47.0	20.0	44.4
Level of studies	Undergraduate (Bachelor)	56.0	66.9	53.9	44.0	73.3
	Graduate (Master)	36.9	27.4	33.1	56.0	25.9
	PhD / doctorate	6.4	4.9	13.0	0.0	0.7
Field of study	Business and Economics	46.3	45.7	45.6	54.3	55.9
	Natural Sciences	34.3	39.4	31.6	42.9	26.3
	Social Sciences	19.4	14.9	22.8	2.9	17.8
Field of company	Agriculture	8.1	5.7	18.9	7.7	10.3
	Industry	15.6	17.5	37.8	30.8	23.0
	Services	63.0	60.7	40.5	53.8	53.8

Source: GUESS survey database

In this paper the Cartner's framework for describing the new venture creation is used to the extent that the survey data supports the characterization of the four dimensions in the framework. The process of starting an enterprise is divided into six steps: business opportunity identification, marketing products and services, producing products and services, accumulation of resources, building an organisation and responding to customers and society. In the survey the Likert scale has been used for the measurement of respondents' opinions to the different statements connected with their activities in the process of creating a new venture as well as the assessments of the entrepreneurial environment of universities. The method of linear statistical analysis is utilised with the help of the computation package SPSS 20.0 in order to ascertain whether and how the dimensions of different statements corresponding to the theoretical basis are present in the entrepreneurial activities of respondents.

## 4. Results

### 4.1. The characteristics of active founders (student entrepreneurs)

The survey shows that the average share of active founders among students in European countries stands at 3 per cent, which is still higher than the total average (2.5 per cent) of the sample of 26 countries. The highest rates of already self-employed students are in Estonia and in the UK (Sieger, Fueglistaller, & Zellweger, 2011). The external environment and cultural influences are likely to have a significant effect on the importance of different motives for starting a company, as well as the attitude and behaviour of students in different countries. There are demographic and other characteristics at play, such as work experience, family background that are being studied and the university environment and university offerings influencing student's opinions and behaviour connected with entrepreneurship.

The study shows that the motives which seem to be the most important for students are to realize their own dreams, to achieve something, to earn a higher income, and to challenge themselves. In general, the career as an entrepreneur seems to be able to satisfy these motives, and students in Finland and the CEE countries (Estonia, Hungary, Romania) find an entrepreneurial career attractive; in other country groups this was assessed lower. Less attention has been paid to the motives of being an entrepreneur connected with sustainability issues, e.g. continuing family traditions, building a business which the entrepreneur's children can inherit or following a social mission.

On average 37 per cent of students' parents in Europe were self-employed at the time of the survey or had a majority ownership in a company (Table 2). This indicator was relatively lower in Finland (26%). In most cases the father dominates as an entrepreneur in the family background.

Table 2. Are your parents currently self-employed or do they have a majority ownership in a company, % of respondents

	Europe	Total average	Estonia	Finland	Hungary
No	63.0	58.1	66.1	74.0	70.4
Yes, father	19.0	20.5	18.3	12.0	13.3
Yes, mother	5.6	6.4	6.1	2.0	5.2
Yes, father and mother	12.4	15.1	9.6	12.0	11.1

Note: Authors' calculations

The support of the family is considered to be relatively unimportant and the following statement was considered to be more relevant: Thinking of all possible resources that my family provides me. I am independent from them in deciding how to allocate and use these resources. All other statements concerning family support were rated between 1.3 and 3.5 (on a 7-point scale). The questions about family's support for entrepreneurial activity included different areas related to entrepreneurship, e.g. business networks, contacts to people, industry-related knowledge, coaching, access to a distribution network, equity capital and debt capital. The family has provided more general knowledge on how to keep the enterprise going. Students in Estonia and Hungary have ranked family support highly concerning the premises for the enterprise. In general, the people who are close to the respondents have a positive attitude towards a venture. In Finland friends' opinion is valued highly.

The survey shows that 70 per cent of students in Finland have had professional work experience relevant to the venture before its founding and 14 per cent of respondents have had work experience more than 10 years; the average in Europe is 5 per cent. The lowest share of students with previous work experience is among students in Western Europe (Table 3).

Table 3. Years of professional work experiences relevant to the venture before founding, %

Work experiences and family background	Europe	Total average	Estonia	Finland	Hungary
No specific experience	51.5	42.6	40.4	30.0	40.3
1 - 3 years of experience	23.2	23.3	18.4	28.0	21.6
3 - 5 years of experience	11.0	12.2	23.6	16.0	13.5
5 - 10 years of experience	9.2	12.9	9.6	12.0	13.4
> 10 years of experience	5.0	9.1	7.9	14.0	11.2
No family business background	48.0	40.6	53.9	48.0	45.2
Family business background, yes	52.0	59.4	46.1	52.0	54.8

Note: Authors' calculations

Students' previous work experience may influence the finding of a business idea, finding contacts and resources necessary for the venture, but also the level of knowledge and skills as well as attitude and activities while setting up the company.

#### 4.2. The characteristics of enterprises (organizations)

One may say that current or former work activity has contributed most to finding a business idea for students in European universities (Table 4). In Estonia the hobby and recreational pastime are equally important. In Finland, finding a business idea oneself or from one's fellow students predominate, thus indicating strong trends towards individuality. The sources of finding a business idea may indicate the underlying disposition in the society, e.g. Finland is considered to be an individualistic society. This means there is a high preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only (Hofstede, 1980).

Business ideas are least frequently obtained from academic, scientific or applied research areas. By looking at young people who have grown up in families with business background there is no indication that compared to other young people their business idea originates more often from their family. However, those active founders who have a family business background in Finland have ranked highly the possibility of finding a business idea in academic, scientific or applied research (6% in the population, 12% among those with family business background). Therefore, the influence of the family may constitute in supporting and valuing of the acquisition of academic knowledge.

A substantial share of enterprises has been founded on one's own or with a partner (71-83% of respondents). Nevertheless, compared to other regions, there is a slightly greater (6%) proportion of those who have answered "with more than 3" in Estonia (this figure stands at 4-5% in other regions). A business partner is mostly (in half of the cases) found either in the university (Finland) or among friends (Estonia and European average).

Table 4. Starting entrepreneurship – the origin of idea and characteristics of founding partners, % of respondents

	European average	Total average	Estonia	Finland	Hungary
The origin of business idea					
Current or former work activity	41.5	43.5	40.9	28.0	51.9
Hobby or recreational pastime	37.4	29.3	42.6	32.0	14.1
University studies	23.8	22.8	20.9	28.0	8.1
Academic, scientific or applied research	5.6	6.2	7.0	6.0	2.2
Self or fellow students	23.7	21.1	11.3	38.0	18.5
Friends outside university	13.3	12.1	18.3	10.0	12.6
Family members	16.7	21.6	14.8	20.0	27.4
Number of founding partners					
0	36.2	35.2	20.2	37.1	28.7
1-3	65.1	61.7	74.3	59.6	66.5
More	3.0	3.2	5.5	3.3	4.8
Partners from					
University	33.8	27.4	17.6	50.0	13.5
Circle of friends outside university	50.3	44.4	60.8	28.6	35.1
Relatives/family circle	23.9	31.0	20.3	28.6	37.8
Spouse	15.0	18.5	28.4	10.7	25.7

Note: Authors' calculations

Looking at the sources of finance used for founding students' enterprises, self-financing applies to over 70% of the cases. Capital acquired from family and friends comes second. Bank loans are more used in Finland (7%) and less in Estonia and Hungary (4.7% and 4.6% respectively); this indicator accounts on average 5.5% of capital for student enterprises in European countries. Money obtained from business competitions/idea contests and equity capital from external investors is used the least frequently. This result is also in accordance with what the university should offer: more financial support and meeting different supporters/investors should be more frequent. However, if the university does not offer this, the use of these sources as capital is also minimal.

Student enterprises are generally young. The enterprises were mostly active between 2005 and 2011. Because most of the respondents were bachelor students, the active running of the enterprises falls between 2010 and 2011 in over 50% of the cases. This result has been obtained by analysing the various indicators for the following questions: when have you made your first financial expenses for the company, when have you generated your first sale, when did your revenues cover the expenses for the first time.

Table 5. Source of finance used for founding students' enterprise, % of respondents

Sources of finance	Europe	Total average	Estonia	Finland	Hungary
Own funds	76.5	72.5	71.4	78.9	80.3
Capital (debt and equity) from family and friends	12.1	14.5	16.3	9.5	12.6
Business competitions/idea contests etc.	1.1	1.5	0.0	0.0	0.0
Subsidies from foundations, trusts, government programs. etc.	3.0	2.7	7.1	5.4	2.2
Equity capital from external investors (e.g. business angels)	1.7	1.9	0.6	0.0	0.2
Bank loans	5.5	7.0	4.7	6.2	4.6

Note: authors' calculations

The greater part of enterprises founded by students operate in the service sector (e.g. hotels, restaurants, education, trade, finance, insurance and real estate, ICT, consulting, architecture, advertising, marketing, personal management, media services). Students in Finland and Western Europe are active in similar activities such as info-technology and advertising. Info-technology and the retail trade are also the most popular businesses in the CEE countries. The greater part of student enterprises in the Southern European countries have concentrated on the area of consulting and architecture. The latter activities are barely mentioned in the remaining countries. At the same time, info-technology as a business field is rare among students in the Southern European countries. A minority of the enterprises are active in agriculture and industry (e.g. construction, manufacturing and transport).

The analysis also yields a separate category for the CEE countries – agricultural enterprises. These enterprises were started mostly before 1999. Another difference that should be pointed out is that in addition to self-financing the enterprises in the agricultural field, debt and equity from family and friends is also used. This indicates a long agricultural tradition in the CEE countries which the younger generation is likely to continue.

Enterprises are usually founded on one's own, using self-financing as a start-up capital. This indicates a growing individuality and large amount of micro enterprises in all societies since no significant differences can be pointed out among different regions. An enterprise is most frequently set up during bachelor studies. This may be backed up by the active running of the company mostly in 2010-2011 for the bachelor level and 2005-2009 for the master's level. This is why it is necessary to start teaching entrepreneurship already at the bachelor level.

The existence of previous working experience impacts evaluations about the success of one's enterprise in different aspects. One may point out that respondents with previous work experience in Western Europe evaluate the development of their companies the most positively, i.e. the best in terms of all indicators compared to those who have no previous work experience. However, this tendency cannot be seen in Southern Europe since those with work experience are rather modest in their evaluations. Nevertheless, the differences are rather small. The dispersion of evaluations is smaller for those with earlier work experience compared to those without and there are more above average (higher than 4) evaluations.

In terms of the overall assessment, the respondents in Estonia and Hungary are more optimistic about their success. The indicators rated highly include development of sales, development of market share, development of profit, and creation of jobs. Students from Estonia and Finland rated themselves lowest compared to competitors – their average stood between 2.6 and 3.9 (scale 1-lower, 4-equal, 7-higher), which is rather below the average (Table 6). Evaluations from Hungary are above the European average.

Table 6. How would you rate your firm's performance compared to that of your competitors?

Firm's performance/ mean	Europe	Total average	Estonia	Finland	Hungary
Development of sales	4.16	4.38	3.89	3.70	4.89
Development of market share	3.88	4.11	3.38	3.43	4.43
Development of profit	4.20	4.37	3.88	3.84	4.60
Creation of jobs	3.14	3.38	2.61	2.78	3.62

Note: authors' calculations; scale: 1 – lower; 4 – equal; 7 – higher.

The development of profit is generally rated higher than the development of market share. Only Hungarian students give higher evaluations to sales. The creation of jobs received the lowest evaluations in all given countries (between 2.8 and 3.6) and was the highest among Hungarian students. Students in Finland evaluated the activities of their enterprises the highest and this was especially true for agricultural and industrial enterprises.

Generally, success in the creation of jobs is not valued as highly as growth of sales, profit or market share. However, the respondents foresaw a substantial growth in the number of employees during the coming 5 years. During the time of the survey, 60% of respondents had 0 (zero) employees in Finland and Western Europe. Over a half of respondents in CEE countries (Estonia, Hungary and Romania) had 1 employee. Nevertheless, a substantial growth was expected for the coming 5 years - a third of student enterprises in Finland hoped to increase its number of employees to 3-5 in the coming 5 years. Students in Greece and Portugal, who accounted for as much as 23% of the respondents, were the most optimistic in terms of employee numbers – they planned to increase the number of employees to 6-10 in the coming 5 years.

To summarize, one may say that most entrepreneurial students studied business and economics and had no previous work experience. The majority had no family business background either, which is why they had decided to create a job for themselves and to start an enterprise.

#### *4.3. The process of starting students' enterprises*

The process of starting student enterprises is analysed on the basis of student opinions consisting of their level of agreement with different statements connected with the process of how they laid the foundations for their own enterprise. This analysis of the process of starting an enterprise helps us to understand the strengths and weaknesses as well as the similarities and differences between student behaviour during different steps of the process and among students with different characteristics. In order to simplify the analysis, the process of starting student enterprise is divided into five steps: business opportunity identification, marketing products and services, providing the products/services, accumulation of resources, building an organisation, responses to customers and society (Table 7).

A general country by country overview shows that among six steps of enterprise building processes, building an organisation has been assessed most highly in all country groups. Some statements of the activities under „Producing products and services“ and „Marketing products and services“ have received lower assessments in all countries. But students in Hungary have assessed the activities such as business opportunity identification, marketing products and services, producing the products and services higher than in Estonia and Finland. The activities connected with accumulation of resources are assessed much higher by students in Finland than in Estonia and Hungary. At the same time, the opinions of students in Finland and in the European countries on average show that they pay less attention to business opportunity identification, provision of products and services as well as relations with customers. These differences can be explained by the abilities (e.g. skills, aptitudes, education) of student entrepreneurs going through the processes and by the circumstances of external environment.

The differences can be noticed in the organisation of enterprise foundation processes in different industries. For example, in manufacturing enterprises, business opportunity identification and marketing activities were more highly rated than in other sectors. At the same time, as to service enterprises, the accumulation of resources was most highly rated. Students in business and economics have rated highly business opportunity identification, marketing and customer relations, and building an organization (enterprise). The processes of providing products/services and accumulation of resources were less valued. Accumulation of resources is more valued by students studying social sciences.

When examining the Pearson correlation, the most influential factors causing the differences in country groups are students' gender, their study level and the type of industry the student enterprise is operating in. There is a strong correlation between different countries and enterprise foundation process in terms of business opportunity creation and resource accumulation. The professional work experiences have a strong correlation with business opportunity identification, and weak relations with the accumulation of resources. The correlation also shows the positive influence of students' family backgrounds for the business opportunity identification and marketing efforts.



Table 7. The agreement of students with different statements in the process of how they have laid the foundations their own enterprise (mean)

	Europe	Total average	Estonia	Finland	Hungary
<b>Business opportunity identification</b>					
I analysed long run opportunities and selected what I thought would provide the best returns.	3.73	4.25	3.98	3.80	4.12
I designed and planned business strategies.	4.11	4.50	3.69	3.71	4.31
I organized and implemented control processes to make sure we meet objectives.	3.61	4.18	3.35	3.08	4.23
<b>Marketing products and services</b>					
I researched and selected target markets and did meaningful competitive analysis.	3.84	4.28	3.56	3.45	4.20
I designed and planned production and marketing efforts.	3.94	4.26	3.77	3.77	4.37
I experimented with different products and/or business models.	3.54	3.86	3.23	3.63	3.35
<b>Providing products/ services</b>					
The product/service that I now provide is essentially the same as originally conceptualized.	4.94	4.92	5.09	4.98	5.28
The product/service that I now provide is substantially different than I first imagined.	2.77	3.23	2.67	2.67	2.28
I tried a number of different approaches until I found a business model that worked.	2.94	3.48	3.06	3.02	3.14
<b>Accumulation of resources</b>					
I was careful not to commit more resources than I could afford to lose.	5.00	5.04	4.27	4.67	4.93
I was careful not to risk more money than I was willing to lose with my initial idea.	4.91	4.94	4.23	5.08	4.56
I was careful not to risk so much money that the company would be in real trouble financially if things did not work out.	5.06	5.08	4.57	5.44	4.52
<b>Building an organisation</b>					
I allowed the business to evolve as opportunities emerged.	5.19	5.37	5.22	5.49	5.06
I adapted what I was doing to the resources we had.	5.32	5.43	5.56	5.13	4.97
I was flexible and took advantage of opportunities as they arose.	5.65	5.69	5.44	5.47	5.49
I avoided courses of action that restricted our flexibility and adaptability.	4.90	4.93	4.77	4.47	4.81
<b>Responses to customers and society</b>					
I used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty.	4.02	4.42	3.75	2.84	4.02
I used pre-commitments from customers and suppliers as often as possible.	4.09	4.42	3.93	2.76	3.64

Note: authors' calculations; Scale: 1- strongly disagree, 7- strongly agree

The analysis shows in general rather low ratings from students regarding the statements related to the enterprise foundation process, which may refer to their need for stronger promotion by universities (e.g. consulting, training, financing). Active founders are somewhat more aware of entrepreneurship courses on offer at their universities. There were some differences in the satisfaction with the university offerings, e.g. students in Finland were satisfied with financial support from universities, but this was assessed the lowest by students from other European countries, which may demonstrate that these opportunities are provided and used less in these countries. Active founders have evaluated highly the knowledge and skills they received from the universities, but they have rated in all regions the environment of universities for activating students entrepreneurship rather low (Table 8).

To summarize, this analysis of the process of starting an enterprise shows that students in all country groups value building an organisation and accumulating resources as the most important compared with other parts of the process. The most influential factors in causing the differences in country groups are students' gender, their study level and the type of industry the student enterprise is operating in.

Table 8. The level of agreement with the statements about university environment

Country groups - Europe	Europe	Total average	Estonia	Finland	Hungary
The University offerings I attended increased my understanding of the attitudes, values and motivations of entrepreneurs.	4.15	4.33	4.21	4.08	4.16
The University offerings I attended increased my understanding of the actions someone has to take in order to start a business.	4.07	4.22	4.36	3.84	4.11
The University offerings I attended enhanced my practical management skills in order to start a business.	3.94	4.14	4.04	4.06	4.01
The University offerings I attended enhanced my ability to develop networks.	4.02	4.19	3.89	4.28	4.44
The University offerings I attended enhanced my ability to identify an opportunity.	4.09	4.28	4.21	4.21	4.43
There is a favourable climate and premises for becoming an entrepreneur at my University.	3.79	3.86	3.98	3.88	3.46
At my University I found many entrepreneurial-minded classmates.	3.80	3.99	4.07	4.12	3.65
Thinking about any classes or training in entrepreneurship that you have had, were they mainly imparting knowledge (1) or could you work on own entrepreneurial ideas (7)?	3.58	3.81	3.68	3.67	3.54

Note: Authors' calculations; Scale: 1- strongly disagree, 7- strongly agree

## 5. Conclusions

Based on the international survey GUESSS (Global University Entrepreneurial Spirit Student Survey) undertaken in 2011, the current article aims at providing a better understanding of the main features of student entrepreneurs (i.e. active founders), the steps undertaken in starting their enterprises, and their opinions of various statements that are connected with this process. The main target group in the paper are students of higher education institutions from sixteen European countries. The results of analysis are representing countries that participated in the survey and are bringing out some differences in the entrepreneurial behaviour of students in European countries influenced by the different cultural environments, where student enterprises have been established and developed.

Compared with all respondents the active founders differ by country groups involved in the survey in terms of demographic features (age, gender, level of study and field of study and company). The active founders are younger in Finland and older in Estonia and Hungary. Looking at the characteristics of students in different study levels one may conclude that in Europe on average more students are starting their business at the undergraduate level. Active founders are primarily those studying business and economics and natural sciences and less those studying social sciences. The majority have no family business background, which is why they have decided to create a job for themselves and start an enterprise.

Enterprises are usually founded on one's own, using self-financing as start-up capital. This accounts for the growing individuality and the large amount of micro enterprises in all countries. The study shows the importance of family background and professional work experience for students. Students' previous work experience influences the finding of a business idea, finding contacts and resources necessary for the venture, but also the level of knowledge and skills as well as attitudes and activities while setting up the company. The greater part of enterprises founded by students is operating in the service sector.

The differences in student enterprises by countries are connected with the process how the foundation activities are organised, the sources used for finance, and the opinions of respondents about the different statements connected with their activities. The analysis shows that students in all given countries value building an organisation and accumulation of resources as the most important in the process of starting an enterprise compared with other parts of the process. The most influential factors causing the differences in the process of enterprise foundation in Europe are students' gender, their study level and the type of industry the student enterprise is operating in. Student entrepreneurs are evaluating the knowledge and skills they receive from the universities, but they have in all regions rated the environment of universities for activating student entrepreneurship as rather low.

The contribution of current analysis is to improve our understanding of both the similarities and differences in student entrepreneurial activities in European countries, supplementing previous studies (such as Fueglistaller *et al.*, 2009; Sieger, Fueglistaller, & Zellweger, 2011).

## References

- Autio, E., Keeley, R., Klofsten, M., & Ulfstedt, T. (1997). Entrepreneurial intent among students: testing an intent model in Asia, Scandinavia and USA. In Sexton, D.L., Kasarda, J.D. (Eds), *Frontiers of Entrepreneurial Research*. Babson College Publications (pp.133–147). Wellesley, MA.
- Bird, B. J. (1992). The operation of Intentions in Time: The emergence of the New Venture. *Entrepreneurship Theory and Practice*, 17(1), 11–20.
- Carter, N. M., Gartner, W. B., Shaver, K. G., & Gatewood, E. J. (2003). The career reasons of nascent entrepreneurs. *Journal of Business Venturing*, 18, 13–39. [http://dx.doi.org/10.1016/S0883-9026\(02\)00078-2](http://dx.doi.org/10.1016/S0883-9026(02)00078-2)
- Carter, N. M., Gartner, W. B., & Reynolds, P. D. (1996). Exploring Start-up Event Sequences. *Journal of Business Venturing*, 11, 151–166. [http://dx.doi.org/10.1016/0883-9026\(95\)00129-8](http://dx.doi.org/10.1016/0883-9026(95)00129-8)
- Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European Industrial Training*, 30(9). <http://dx.doi.org/10.1108/03090590610715022>
- Fueglistaller, U., Klandt, H., Halter, F., & Müller, C. (2009). An International Comparison of Entrepreneurship among Students. *International report of the Global Entrepreneurial Spirit Students' Survey project* (GUESS 2008), 44p.
- Gartner, W. B. (1985). A Conceptual Framework for Describing the Phenomenon of New venture Creation. *Academy of Management Review*, 10(4), 696–706.
- Gartner, W.B. (1988). “Who is an entrepreneur” is the wrong question. *American Small Business Journal*, 13(Spring), 11–31.
- Gartner, W.B. (2001). Is There an Elephant in Entrepreneurship Research? Blind Assumptions in Theory Development. *Entrepreneurship Theory and Practice*, 25(4), 27–39.
- Hofstede, G. (1980). Motivation, Leadership and Organization: Do American Theories Apply Abroad? *Organizational Dynamics*, 9(1), 42–63. [http://dx.doi.org/10.1016/0090-2616\(80\)90013-3](http://dx.doi.org/10.1016/0090-2616(80)90013-3)
- Krueger, N. (1993). The Impact of prior Entrepreneurial Exposure on Perceptions of New venture Feasibility and Desirability. *Entrepreneurship Theory and Practice*, 18(1), 5–21.
- Learned, K. E. (1992). What Happened Before the Organisation? A Model of Organisation Formation. *Entrepreneurship Theory and Practice*, 17(1), 39–48.
- Lee, J-H., & Venkataraman, S. (2006). Aspirations, Market Offerings and the Pursuit of Entrepreneurial Opportunities. *Journal of Business Venturing*, 21, 107–123. <http://dx.doi.org/10.1016/j.jbusvent.2005.01.002>
- Leffel, A., & Darling, J. (2009). Entrepreneurial versus organisational employment preferences: a comparative study of European and American respondents. *Journal of Entrepreneurship Education*, 12, 79–93.
- Kolvereid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship Theory & Practice*, Fall, 47–57.
- Nabi, G., Holden, R., & Walmsley, A. (2006). Graduate Career-making and business start-up: a literature review. *Education + Training*, 48, 5, 373–385. <http://dx.doi.org/10.1108/00400910610677072>
- Shane, S., & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, 25, 217–226.
- Sieger, P., Fueglistaller, U., & Zellweger, T. (2011). Entrepreneurial Intentions and Activities of Students across the World. *International Report of the GUESS Project 2011*. St.Gallen: Swiss Research Institute of Small Business and Entrepreneurship at the University of St.Gallen (KMU-HSG).