ECONOMICS & Sociology

Ratković, T., Šlogar, H., & Šokčević, S. (2022). Entrepreneurial competencies of university students. *Economics and Sociology*, *15*(4), 129-145. doi:10.14254/2071-789X.2022/15-4/6

ENTREPRENEURIAL COMPETENCIES OF UNIVERSITY STUDENTS

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Received: December, 2021
1st Revision: August, 2022
Accepted: November, 2022

DOI: 10.14254/2071-789X.2022/15-4/6

ABSTRACT. Entrepreneurial competencies have become a tool that can be learned. Education encourages the entrepreneurial way of thinking at the individual level, and thus develops the societal outlook. Various EU funds and non-profit organizations support initiatives for the development of entrepreneurial competencies and educating young people as this has been recognized as an important element of building a global society. This research was conducted through an online survey at two private universities, Singidunum in Serbia and Libertas International University in Croatia, on a sample of 864 students. The aim of the research was to examine the differences and similarities in entrepreneurial competencies, as well as to consider the attitudes and factors that affect the genesis and degree of entrepreneurial competencies. The age of the students, gender, field of study and career choice after studying were chosen as the variables and examined in relation to the entrepreneurial competencies of young people. Based on our results, the age of students does not correlate with entrepreneurial competencies. There is a significant difference in entrepreneurial competencies in relation to gender and career choice after graduation, but no substantial difference in terms of the field of study. The obtained research results indicate the need for further development of entrepreneurial competencies at universities.

JEL Classification: I2, I23, A2

Keywords: age, gender, career choice, Mann-Whitney U, Kurshkal-Wallis test

Introduction

Entrepreneurship is the topic chosen by many famous researchers. High-quality educational institutions and education of the young lead to an increased appreciation and development of entrepreneurial competencies in the society. The importance of entrepreneurship among the young is seen through the desire for progress, success, economic safety, and independence. The changes brought about by globalization at the end of the last century resulted in rapid technological innovations, completely changing the requirements set for worldwide leadership to ensure higher efficiency and effectiveness of management; high level of entrepreneurial competencies is one such requirement. The main aim of the research is

to study entrepreneurial competencies and to identify the elements affecting them. Students of two private universities – Singidunum in Serbia and Libertas International University in Croatia – made up the sample. The research was conducted by an online survey from March until June 2021. The research examined the importance of entrepreneurial competencies of the young as well as the parameters that affect the existence and level of entrepreneurial competencies in relation to gender, age, study major, and choice of career after graduating. The mandate of educational institutions to train students is not only a bureaucratic, symbolic task, but also a request from the labour market to prepare the youth for the demands of real working environment.

Students' natural inclination towards entrepreneurial activities and actions should be detected early on and continuously developed throughout education through various study programmes, workshops and training.

This paper is structured as follows. First, the literature review of the recent research on entrepreneurial competencies is followed by the methodology of research. Next, there are an analysis and discussion of the results. Finally, the last section offers conclusions, including limitations, ideas for further research and recommendation for educational institutions regarding entrepreneurial competencies. The results of the demographic and self-assessment parts of the survey (which included the categories of initiative, decision-making, leadership, achievements, compassion, integrity and teamwork) provide insight into the correlation between entrepreneurial competencies and age, gender, and choice of career after graduation of the respondents. The knowledge of these relationships helps in developing entrepreneurial competencies not only within programmes targeted at entrepreneurs, but also general education.

1. Literature review

1.1. General entrepreneurial competencies

There are a few entrepreneurial competencies. According to Kurtz and Bartram (2002) entrepreneurial competencies are sets of behaviours that are instrumental in the delivery of desired outcomes and results. Competency itself can be perceived as an ability of functional usage of knowledge and skills in different contexts. It consists of technical knowledge, methodological knowledge, participatory knowledge and self-assessment. In an educational context, competency is the development of general capabilities of persons or organizations to fulfil a task or solve a problem, so when one finishes the programme, they receive a license (Mulder, 2014). Furthermore, it can be defined as evidential ability of using knowledge, skills, and personal, social and methodological abilities in work or study situations, thus contributing to personal and professional development. Entrepreneurial competency is an integrated ability of achieving lasting effective performance in a particular professional domain, job, role and organizational context. The term refers to a coherent set of knowledge, skills, attitudes, expertise and abilities used in a business environment (Ploum, 2019).

Perić, Oberman, Peterka, Getoš (2020) state that entrepreneurship is defined as one of the key life competencies. It represents an ability to turn ideas into real projects. As such, it includes creativity, initiative, taking responsibility, taking risks, planning and managing projects. Studies about entrepreneurial competencies discover that entrepreneurs have some essential traits in common. They are keen on taking risks and thus, they are capable of managing a company (Irvine, 2004). Certain traits such as leadership, optimism, perseverance, passion, resilience creativity, empathy, etc., are more easily found among entrepreneurs. Such personality traits can be strengthened and skills can be directly acquired through trainings in study programmes (Mesquite et al., 2016).

González-López, Pérez-López and, Rodríguez-Ariza (2021) reveal that competencies related to commitment, planning, organization and entrepreneurial intentions have an important and direct influence on emerging entrepreneurial behaviour. Likewise, entrepreneurial competencies can improve the relationship between entrepreneurial intentions and entrepreneurial activities. Chahar, Hatwal, and Arya (2020) focus on the role of professional education in promoting entrepreneurial skills among the students doing professional courses at various engineering and managing institutes of the state of Rajasthan. The results show a positive correlation between professional education and entrepreneurial skills.

The authors Reis, Fleury and Carvalho (2021) conducted a survey that identified a list of 98 entrepreneurial competencies. The aim of their study was identifying relevant entrepreneurial competencies, mapping the current literature and the main clusters, and going beyond toward a meta-competence framework. The sampling process was conducted in the Scopus and Web of Science databases. The recent interesting discoveries by Jumamila and collaborators (2017) established that persistence could moderately and importantly correlate with entrepreneurial competencies. Certain individuals characterised as persistent showed serious tendency to start their own business. Bolzani and Luppi (2021) assessed the impact of participating in a business model challenge considering five competency areas: positive attitude and initiative; teamwork and collaboration; critical and analytical thinking and problem solving, including risk assessment; creativity and innovation. The study found no relevant changes in those dimensions, concluding that a mere exposure to a business challenge was not a sufficient condition for encouraging development of entrepreneurial competencies in the taken sample.

Mitchelmore and Rowley (2010) undertook a literature review of research on entrepreneurial competence in order to: provide an integrated account of contributions relating to entrepreneurial competencies by different authors working in different countries and different industry sectors and at different points in time; and, develop an agenda for future research and practice in relation to entrepreneurial competencies. Although government agencies and others widely use the term of entrepreneurial competencies in their drive for economic development and business success, the conclusion suggested that the core concept of entrepreneurial competencies, its measurement and its relationship towards entrepreneurial performance and success were in need of further rigorous research and development in practice.

1.2. Students' entrepreneurial competencies

Entrepreneurship education has an increasingly important role nowadays, linking policy, businesses, education and science. However, research on entrepreneurship education programmes, especially the one about mini-companies relying on a postulate of scientific study, is still missing. The research conducted among 100 pupils in Germany (Grewe & Brahm, 2020) analysed whether the students who were trained in mini-companies developed their entrepreneurial competencies. The results showed that they developed them more than economics students did. Likewise, the students expanded their entrepreneurial competencies on an economic level. In comparison, they showed only a limited development at the personal and team level.

Entrepreneurial competencies influence the development of entrepreneurial thinking and more effective use of students' current knowledge and skills. Therefore, a group of Croatian authors (Šlogar, Stanić & Jerin, 2021) consider that one of the strategic tasks for higher education institutions should be taking responsibility for developing students' entrepreneurial competencies during all years of study. Through study programmes the teachers should help students understand the importance and need for developing competencies which are essential

for their future employment or starting their own business. What has been analysed is the relation between the students' competencies regarding their gender and their study programme, while it has been found that students' entrepreneurial competencies depend on their personal perception, new challenges, focus on innovative and creative ways of solving problems and desire for success. The survey results have showed that study programmes should include at least two obligatory subjects with regard to developing entrepreneurial competencies and more practice and teamwork projects, so that the students could directly get in touch with business activities, and thus develop necessary competencies.

The results of the research conducted among 128 students in the final year at the Faculty of Kinesiology in Poland (Buchta, 2012) showed that students, when making a decision to study kinesiology, expected to acquire direct competencies, knowledge, and skills enabling further education. Most respondents expressed desire to be employed in an education sector.

The aim of the research (Kyguoliene & Švipas, 2019) was to analyse personal entrepreneurial competencies of the students who participated in a programme of experiential entrepreneurship education. The results showed that the students attending the programme tended to have strong persistence, systematic planning and monitoring and goal setting competencies, thus they were very self-confident. Likewise, there were important correlations between the aforementioned competencies. For example, the students with higher goal setting competency tended to have higher self confidence. The study showed that the students felt weakest in the following competencies: risk taking, persuasion and networking, demand for efficiency and quality, opportunity seeking.

Research about social competencies of high school pupils (Tsvetkova & Ivanova, 2021) showed that, among social competencies, which were developed in high schools, the ones that stood out were ability to work with information, understand people, determine the propensity for science, independence, as well as a tolerant attitude towards people from other cultures. Over the past decade the number or students who believed that school prepared them for life significantly decreased. The study results have contributed to the development of scientific concepts of social competencies. The research is useful for the study of problems and contradictions of value self-determination of the younger generation, which later can affect their entrepreneurial competencies. Scientific interest for entrepreneurship education and pedagogy has been growing exponentially, with an increasing number of universities offering courses related to entrepreneurship (Kuratko, 2005). However, there is still no evidence supporting the assumption that experiential pedagogy has greater influence on students' studies than traditional pedagogy. Because of this fact the authors Kozlinska, Remann & Mets (2000) conducted a study the aim of which was to examine the relationship between experiential entrepreneurship pedagogy and students' entrepreneurial competencies, and thus to examine the connection between competencies and entrepreneurial employment status of the graduates. The study combined qualitative and quantitative research. The qualitative part was based on 16 semi-structured interviews with entrepreneurship teachers at eight universities in Estonia and Latvia in order to determine the predominant pedagogy in each university. The quantitative part was based on a survey of 454 recent graduates working and having been trained by the interviewing teachers. The results showed that experiential pedagogy was associated with higher entrepreneurial knowledge and skills when compared to traditional pedagogy. Simultaneously, the effect of attitudes and knowledge about entrepreneurial employment status depended on the type of pedagogy. As such, the findings highlighted that experiential pedagogy could really be more effective than traditional pedagogy for developing students' competencies, and it could affect the relationship between competencies and employment status of the graduates. The results of a survey conducted among Chinese students (Wei, Liu & Sha, 2019) showed that (1) there was a positive relationship between perception of entrepreneurship education and

perception of innovation, (2) political skills and recognizing entrepreneurial opportunities individually played a mediating role between perceived entrepreneurship education and innovation, and (3) political skills had a chain mediating effect between perceived entrepreneurship education and innovation. Entrepreneurship education is considered to be one of the essential tools for increasing entrepreneurial intentions. A lot of researchers have confirmed the positive connection between entrepreneurship education and entrepreneurial intentions (Souitaris et al., 2007; Zhang et al., 2014.; Westhead & Solesvik, 2016).

However, some previous research does not support the positive connection between entrepreneurship education and entrepreneurial intentions (Oosterbeek et al., 2010). The aim of this research was to examine the differences in entrepreneurship education and entrepreneurial intentions of students in business schools, especially those attending Creative Entrepreneurship Programme (CEP), and those not attending it. The aim was also to examine context limits or benefits for students of entrepreneurship education attending different academic disciplines of management schools. The results of the study showed that the CEP course did have positive effects on all entrepreneurial competencies and intentions, and that effect on the attitude domain was more evident than that on the knowledge or skills domains, and that academic disciplines did have a context effect on students.

The aim of the study by Rasmussen, Mosey and Wright (2011) was to better understand the development of entrepreneurial competencies for creating new ventures in non-commercial academic environment. The study observed four universities in Great Britain and Norway. Three competencies were identified for improving opportunities, leveraging, and championing that appeared crucial for the ventures to gain credibility. Although the selected competencies were characteristic of academic founders, the specific competencies for creating a venture had to be developed or acquired. Chang et al. (2018) examined students' entrepreneurial competencies attending courses in departments of electrical engineering and computer sciences at universities of technology. The authors discovered that entrepreneurial processes, entrepreneurial personality traits, communication, interpersonal skills and digital skills are entrepreneurial competencies which were emphasized throughout the study course.

Morris et al. (2013) proved that students could develop entrepreneurial competencies through international fieldwork. On the other hand, the study of authors Glackin and Phelan (2020) examined whether the same results could be achieved in a traditional classroom setting. There were few students that could afford going abroad for six weeks for an international consulting project to improve their entrepreneurial competencies. This crucial question remains to be solved for teachers working with population of low socio-economic status. The study was an integral replication of the Morris study with an addition of matched pairs. The data on 13 competencies were collected. One group was exposed to a curriculum designed specifically to teach entrepreneurial competencies, and both groups were examined at the end of the semester. The procedure was then repeated with another group a year later in order to replicate the initial study. Five competencies saw a significant increase in the first treatment group. However, only three of the mentioned competencies improved more in the treatment group than in the control one. In the replication study, only one competency was significantly higher in the treatment group, but that competency was not one of the original three. Bigos & Michalik (2020) confirmed a statistically significant correlation between students' entrepreneurial intentions and self-motivation and self-awareness on a sample of 209 students of the Cracow University of Economics. On the other hand, entrepreneurial intentions did not have a statistically significant impact on empathy, self-regulation and social skills. In the study by Wasilczuk, Chukhray, Karyy and Halkiv (2021) more than 3.6 thousand students from six technical universities in Lithuania, Ukraine, Bulgaria, Poland and Latvia were surveyed. The results indicated that the following advantages of own entrepreneurship received positive assessments: prestige, chance

to be realized and the ability to create jobs. Chaker & Jarray (2021) explored how entrepreneurship was taught at the Faculty of Economics and Management of Tunisia and what effects it might have on the development of students' entrepreneurial competencies. Ferreras-Garcia, Sales-Zaguirre & Serradell-López (2021) carried out a study on a sample of 337 students enrolled in business administration and management study programme at the Universitat Oberta de Catalunya. They found a statistically significant relationships between entrepreneurial competencies, professional and systemic competencies. Furthermore, the age and gender variables have no influence on the development of entrepreneurial competencies. Melnikova and Zaščerinska (2022) explored the competencies that students in educational sciences from Lithuanian and Latvian universities would like to have acquired in order to be able to start a new business in the marketplace. Costin, O'Brien & Hynes (2022) analysed the effects of entrepreneurship education on aptitude, entrepreneurial confidence, self-efficacy, students' belief in their motivation and ability to start an entrepreneurial venture. In the study by Chen, Tang & Han (2022) it was confirmed the entrepreneurship education significantly moderated the effects of self-efficacy on higher education students' entrepreneurial competencies. Cognitive flexibility, self-efficacy, and knowledge transfer mediate this relationship.

On the ground of the conducted thesis, the following hypotheses are defined:

H1: There is no correlation between respondent's age and entrepreneurial competencies.

H2: There is a significant difference in entrepreneurial competencies regarding gender.

H3: There is a significant difference in entrepreneurial competencies regarding field of study.

H4: There is a significant difference in entrepreneurial competencies regarding choice of field of occupation.

2. Methodological approach

The questionnaire part involves three parts. The first part refers to basic information (independent variables) about a respondent (gender, residence, age, graduation from high school, grade average, parents' education, reason for enrolling, educational institution, name and year of studies, degree studies). In the second part the respondents answered the simple questions and multiple-choice questions using Likert 1-5-point scale (1- strongly disagree, 2-disagree, 3 - neutral, 4 - agree, 5 - strongly agree). Multiple-choice questions are related to the career choice of postgraduate studies and information about entrepreneurship education acquired during the studies. The Likert scale questions involve information about how much the students are ready to take risks; how much the studies contributed to understanding entrepreneurs, activities necessary for starting one's own business, improving their skills for starting their own business, increasing their networking capability and identifying opportunities; as well as how much they are ready and willing to become entrepreneurs. The third part refers to entrepreneurial competencies. In this part the respondents have evaluated their own entrepreneurial competencies to improve and develop themselves. They have evaluated competencies based on 48 statements which are estimated on scale 0 - 5 (0 - person behaves completely opposite, 1 - person does not behave in such a manner, 2 - person usually does not behave in such a manner, 3 - person behaves in such a manner, but there is space for improvement, 4 - person generally behaves in such a manner, 5 - person generally behaves in such a manner and encourages others to do so). Entrepreneurial competencies analysed in the research: decision-making, initiative, achieving results, leadership, empathy, teamwork, integrity, beliefs, great enthusiasm, conflict resolution, temper, and wit. Temperament and wit

do not belong directly to entrepreneurial competencies, but as human traits they can be considered as interesting and closely related to entrepreneurial competencies. It was interesting to take them into consideration during the examination of entrepreneurial competences and observe how the results of statistical processing refer to them as already researched and confirmed entrepreneurial competencies. Precisely, all statements are grouped into 12 segments (I1-I4 decision-making; I5-I8 initiative; I9-I12 achieving results; I13-I16 leadership; I17-I20 empathy; I21-I24 teamwork; I25-I28 integrity; I29-I32 beliefs; I33-I36 great enthusiasm; I37-I40 conflict resolution; I41-I44 temper; I45-I48 wit) and this is shown in Table 1. In data analysis, internal compatibility and reliability of statement scale belonging to one of the examined competencies are examined. Indicator of internal consistency and statement scale is Cronbach alpha coefficient. Since all obtained values by Cronbach alpha coefficient for scale arrangement and reliability are over 0.7, evidently, the arrangement and reliability condition is fulfilled. Consistency and reliability scale enabled forming of new variables, such as decision making = (I1 + I2 + I3 + I4) / 4. In this manner 12 new variables are formed, which are derived as an arithmetic mean of assessment statement describing examined competency. Ultimately, total competency is formed as an arithmetic mean of previous formed variables. All formed variables are numerical continuous and none of obtained variables have a normal distribution. This statement is based on the results of Kolmogorov-Smirnov Test for Normality. Regarding this test p-values (Sig.) = 0.000 for all values of analysed variables, it ensues the mentioned statement. What is used in the process are descriptive statistics, correlation, Mann-Whitney U and Kurshkal-Wallis test by using statistical software IBM SPSS 20. The analyses are conducted with probability of 95% (p-values≤0.05).

Table 1. Statements grouped into 12 segments of entrepreneurial competencies

Decision-making (I1-I4)
I1: I make decisions on time.
I2: I use information from different sources to draw conclusions and make appropriate solutions.
I3: I change decisions based on new information when necessary.
I4: I take responsibility for the decisions I make.
Initiative (I5-I8)
I5: When the situation requires, I notice what needs to be done and take action before I am asked.
I6: I take timely actions to accomplish tasks and achieve goals beyond expectations.
I7: I look for others involved in the situation to see their perspectives and their point of view.
I8: I take independent actions to change the course of events.
Achieving results (I9-I12)
I9: I show an interest in finance and I show knowledge of modern financial approaches.
I10: When necessary, I am ready to make difficult decisions and take responsibility for them. .
I11: I am able to coordinate and synchronize the use of all resources (time, people, money, equipment...)
I12: I have the ability to manage business risks.
Leadership (I13-I16)
I13: I stand for open communication in business.
I14: I understand other people, their values, needs, desires and ambitions.
I15: I encourage enthusiasm in others to embrace ideas and achieve goals.
I16: I need my work to be meaningful, interesting and challenging.
Empathy (I17-I20)
I17: I can sense if someone needs personal contact or a conversation.
I18: I notice signs of tension among others and I try to make it a point of discussion.
I19: I encourage team members to behave/communicate in a way that is acceptable to all.

I20: I have a sense of my position in the group and I don't cross my bounderies.
Team work (I21-I24)
I21: I notice talents and I use people differences.
I22: I create realistic plans with adequate resources (taking into account time, people, money, equipment...)
I23: I know how to deal with conflict - disagreement between team members.
I24: I have a clear vision of team development.
Integrity (I25-I28)
I25: I communicate openly and honestly.
I26: I adhere to values and principles that create an environment of trust and integrity.
I27: I am a valuable role model for others.
I28: I keep my promises.
Beliefs (I29-I32)
I29: I prefer to accept the opinions, attitudes and ideas of my colleagues rather than imposing my own.
I30: I have clear beliefs, but I react to certain proposals and ideas by changing my opinion.
I31: When ideas, opinions or attitudes differ from mine, then I am committed to finding a possible mutual solution.
I32: I agree with the opinions, attitudes and ideas of my colleagues and I avoid taking sides.
Great enthusiasm (I33-I36)
I33: I have just as much enthusiasm as I need.
I34: I know what I want and I pressure others to accept my views.
I35: I put all my energy into my work and others respond with enthusiasm.
I36: I support and encourage others in their efforts.
Conflict resolution (I37-I40)
I37: When there is a conflict, I try to position myself in a fair way and come up with the best solution.
I38: When a conflict occurs, I try to identify the reason for its occurrence and solve its causes.
I39: When conflict occurs, I remain neutral and I stand aside.
I40: I try to avoid causing conflict, but when it does, I try to calm feelings and keep people together.
Temper (I41-I44)
I41: When things don't go my way, I defend myself with counterarguments.
I42: Because of the restlessness that can be coused by tension, I react in a friendly way.
I43: When I get upset, I can control myself even though my impatience is visible.
I44: I remain neutral and that way Irarely get upset.
Wit (I45-I48)
I45: My wit is aimed at maintaining friendly relations.When there is a tension, it distracts from serious matters.
I46: My wit is aimed at believability in order to achieve acceptance of both myself and my views.
I47: Others often judge my wit as pointless.
I48: I keep my wit even when I am under pressure.

Source: *own compilation*

3. Conducting research and results

An internet survey was conducted from March until June 2021. In this period a total of 846 students participated in the survey and they represented the study population. The study population included students that voluntarily participated in the study, that fully completed the questionnaires and were current students of the aforementioned two universities. More specifically, 435 students were from Libertas International University in Zagreb (51.4%) and 411 students were from Singidunum University in Belgrade (48.6%). In the survey there were 40.1% male and 59.9% female students. The respondents were mainly students of the second

year 38.2% and the third 24%, followed by the first 19.7%, fourth 12.2%, fifth 5.8%, and sixth year 0.1%.

The distribution of the study population, according to their field of study, included students of business economics (58.5%), tourism and hospitality (21.5%), sports management and marketing (7.8%), social and human sciences (5.4%) and medicine (2.2%), arts/human sciences (0.1%), and others (4.4%) (Figure 1). The age of the respondents ranged from 19 to 50 years of age, with an average age of 24. It is important to note that the older students were students who enrolled at university at an older age seeking better education, and not the students who did not finish university programme on time. The older group of students included mainly students that required further education to advance their professional career and students that required additional education as part of their job re-training.

The first part of research refers to correlation study between respondents' age and their entrepreneurial competencies. Spearman correlation coefficient values are analysed and obtained values are shown in Table 2.

Table 2. Correlation coefficient between respondents' age and their entrepreneurial competencies

	Age **Correlation coefficient**	**p-value**	**N**
Total entrepreneurial competencies	0.056	0.103	846
Decision-making	0.129	**0.000**	846
Initiative	0.137	**0.000**	846
Achieving results	0.107	**0.002**	846
Leadership	0.063	0.068	846
Empathy	0.022	0.519	846
Teamwork	0.053	0.123	846
Integrity	0.094	**0.006**	846
Beliefs	0.008	0.864	846
Enthusiasm	0.005	0.883	846
Conflict resolution	0.000	0.991	846
Temper	-0.062	0.069	846
Wit	-0.052	0.128	846

Source: Authors' calculations

Evidently, the only statistically important correlations are the following: correlation coefficient for decision-making ($p=0.000<0.05$), initiative ($p=0.000<0.05$), achieving results ($p=0,002<0.05$), and integrity ($p=0.006<0.05$). Important correlation coefficient values are low and near zero. Likewise, it can be noted that values of the rest of the correlation coefficient are equal to or near zero. Therefore, as all correlation coefficient values are near zero, it can be discerned that there is a total absence of linear relationship between respondents age and entrepreneurial competencies. At the same time, this proves the first hypothesis saying there is no correlation between respondents' age and entrepreneurial competencies. Therefore, it cannot be concluded that respondents' entrepreneurial competencies increase or reduce with age.

Considering that the research included mainly students of a similar age (excluding the outliers previously mentioned) and had a low standard deviation, it is presumed that the results would be different if the research was conducted with a different sample of population. Surely, there is no connection between age and entrepreneurial competencies during research. The research results, which rely on its first part, enable examining relation between gender and entrepreneurial competencies. In order to determine whether women and men differ in

entrepreneurial competencies, a Mann-Whitney U test was used. The research results are shown in Table 3.

Table 3. Entrepreneurial competencies regarding gender

	Male	Female			
	Mean Rank	Mean Rank	U	Z	p-value
Total entrepreneurial competencies	416.81	427.97	83669.0	-0.651	0.515
Decision-making	408.92	433.25	80994.0	-1.428	0.153
Initiative	414.64	429.43	82931.5	-0.867	0.386
Achieving results	431.17	418.37	83335.0	-0.75	0.453
Leadership	385.51	448.90	73059.0	-3.73	**0.000**
Empathy	376.63	454.84	70046.5	-4.588	**0.000**
Teamwork	411.15	431.76	81748.5	-1.208	0.227
Integrity	373.20	457.13	68886.0	-4.938	**0.000**
Beliefs	437.47	414.16	81199.5	-1.366	0.172
Enthusiasm	412.33	430.97	82151.0	-1.092	0.275
Conflict resolution	428.47	420.18	84251.0	-0.486	0.627
Temper	449.34	406.22	77178.0	-2.524	**0.012**
Wit	467.83	393.86	70910.0	-4.327	**0.000**

Source: Authors' calculations

The results in Table 3 show that there is significant difference between genders regarding leadership (p-value=0.000<0.05), empathy (p-value=0.000<0.05), integrity (p-value=0.000<0.05), temper (p-value=0.012<0.05) and wit (p-value=0.000<0.05). Evidently, certain entrepreneurial competencies are more expressed in female rather than male respondents, such as leadership (MR=448.9), empathy (MR=454.84) and integrity (MR=457.13). On the other hand, temper (MR=449.34) and wit (MR=467.83) are more expressed in male respondents. Therefore, this proves the second hypothesis saying there is a significant difference in entrepreneurial competencies regarding gender.

In order to examine whether there is a significant difference in entrepreneurial competencies (in total and each competency separately) regarding field of study of respondents, we used the Kruskal-Wallis test. The results are shown in Table 4.

Table 4. Entrepreneurial competencies regarding the field of study

	Chi-Square	Df	p-value
Total entrepreneurial competencies	4.243	7	.751
Decision-making	8.529	7	.288
Initiative	5.186	7	.637
Achieving results	8.100	7	.324
Leadership	5.427	7	.608
Empathy	5.765	7	.567
Teamwork	7.909	7	.341
Integrity	5.447	7	.606
Beliefs	4.956	7	.665
Enthusiasm	3.174	7	.868
Conflict resolution	2.691	7	.912
Temper	3.347	7	.851
Wit	7.448	7	.384

Source: Authors' calculations

The results show that there is no difference in entrepreneurial competencies regarding field of study. This can be concluded based on p-value (>0.05) given in Table 4. The statement is not surprising due to the fact that the research did not involve students of the Faculty of Natural Sciences. This disapproves the third hypothesis saying there is a significant difference in entrepreneurial competencies regarding the field of study. The number of respondents by their field of study are shown in Figure 1.

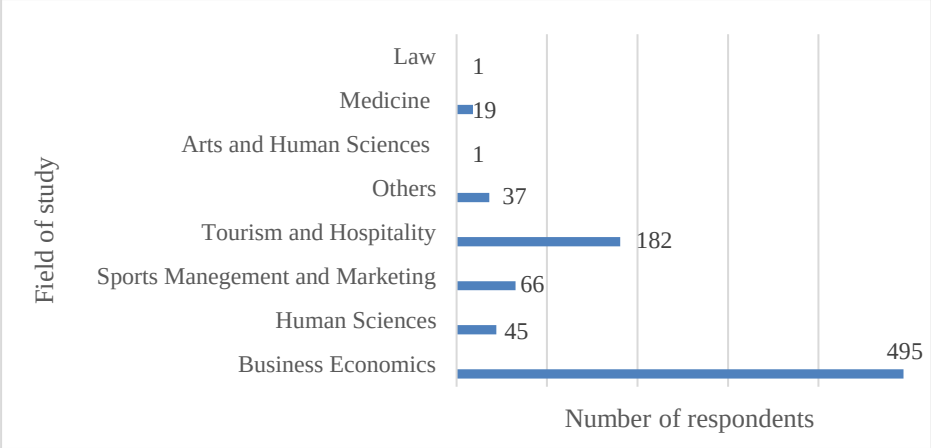

Figure 1. Number of respondents by their field of study
Source: Authors' calculations

No students participated in the research whose major fields of study are: computers and information technology, mathematics, natural sciences, and design science. Majority of students studied business economics and tourism and hospitality, amounting to 80% of all respondents. Among the respondents there were mostly students studying human sciences, so it can be asserted that there are no differences in entrepreneurial competencies regarding the field of study. This leaves some space for further research and engaging more natural science students.

As done previously, Kruskal-Wallis test is used for examining differences in entrepreneurial competencies regarding choice of career after graduating. The test results are shown in Table 5.

Table 5. Entrepreneurial competencies regarding choice of career after graduating

	Chi-Square	df	p-value
Total entrepreneurial competencies	30.496	9	.000
Decision-making	23.886	9	.004
Initiative	23.342	9	.005
Achieving results	29.491	9	.001
Leadership	26.729	9	.002
Empathy	20.153	9	.017
Teamwork	26.794	9	.002
Integrity	28.603	9	.001
Beliefs	12.651	9	.179
Enthusiasm	20.943	9	.013
Conflict resolution	18.880	9	.026
Temper	18.036	9	.035
Wit	16.598	9	.055

Source: Authors' calculations

There are some noted differences in total entrepreneurial competencies (p-value = 0.000), decision-making (p-value = 0.004), initiative (p- value = 0.005), achieving results (p-value = 0.001), leadership (p-value = 0.002), empathy (p-value = 0.017), teamwork (p-value = 0.002), integrity (p-value = 0.001), enthusiasm (p-value = 0.013), conflict resolution (p-value = 0.026), temper (p-value = 0.035), and all of them in relation to intentions after graduating.

Table 6. Mean rank for entrepreneurial competencies regarding choice of career after graduating

Entrepreneurial competencies	Intentions after graduating		Mean Rank
Total Entrepreneurial competencies	Employed in a non-profit organization	max	553.13
	Employed in a small-sized company (1-49 employees)	min	329.79
Decision-making	Employed in a non-profit organization	max	583.63
	Employed in a small-sized company (1-49 employees)	min	322.14
Initiative	Employed in a non-profit organization	max	537.75
	Other/not know	min	369.45
Achievement of results	Employed in a non-profit organization	max	668.63
	Employed in a small-sized company (1-49 employees)	min	357
Leadership	Employed in a non-profit organization	max	636.25
	Successor in a family business	min	362.99
Empathy	Employed in a non-profit organization	max	590.88
	Employed in a small-sized company (1-49 employees)	min	354.78
Teamwork	Employed in a non-profit organization	max	538.25
	Other/not know	min	366.39
Integrity	Employed in science (achieve academic career)	max	509.59
	Employed in a small-sized company (1-49 employees)	min	332.47
Enthusiasm	Employed in a non-profit organization	max	479.97
	Employed in a small -sized company (1-49 employees)	min	330.24
Conflict resolution	Employed in a medium-sized company (50-249 employees)	max	454.73
	Employed in a small-sized company (1-49 employees)	min	329.27
Temper	Employed in a medium-sized company (50-249 employees)	max	456.04
	Employed in a small-sized company (1-49 employees)	min	349.12

Source: Authors' calculations

Based on the obtained parameters, it can be concluded that respondents with the highest entrepreneurial competencies intend to work for non-profit organizations, while the ones with the lowest competencies intend to work for small-sized organizations. This can be seen in values of max Mean Rank for decision-making, empathy, teamwork, enthusiasm, leadership, achieving results of respondents who want to be employed with non-profit organizations. The lowest entrepreneurial competencies are noted to be obtained by respondents who want to be employed in small-sized companies. The obtained values, as shown in former Table, for min Mean Rank for decision-making, achieving results, empathy, integrity, enthusiasm, and temper lead to the conclusion. This part proves the fourth hypothesis saying there is a significant difference in entrepreneurial competencies regarding choice of career after graduating.

The second part of the survey deals with the intentions of respondents regarding choice of career, entrepreneurship education, development, improvement of entrepreneurial competencies throughout education, and also taking risks when it comes to the choice of career,

taking risks in a future job position, and desires and determination for starting their own business. By using the results of a descriptive analysis of statements 1, 2, and 3, some fascinating discoveries and data are found.

Statement 1. I am ready to take a risk in choice of career

	1	2	3	4	5
All respondents	5.1%	8.5%	31.1%	35.9%	19.4%

Arithmetic mean of all answers for the statement is 3.56.

Statement 2. I prefer having my job secure

	1	2	3	4	5
All respondents	3.2%	10.4%	30.4%	31.2%	24.8%

Arithmetic mean of all answers for the statement is 3.64

Statement 3. I tend to avoid risks at any cost

	1	2	3	4	5
All respondents	12.9%	23.9%	31.8%	18.7%	12.8%

Arithmetic mean of all answers for the statement is 2.95
Source: Authors' calculations

The research shows that 55.3% of respondents are ready to take a risk, and 56% is keen on having a secure job. Therefore, the young show the tendency not to be against security, and they are equally ready to take a risk, which suits entrepreneurs well. Interestingly, high percentage of respondents is indifferent to taking a risk (31.5%), and to having a secure job (31.8). More than half of respondents are ready to do everything to become entrepreneurs, to start and manage their own company. They are thinking seriously about starting a business and they are determined to start their own company. However, 30% of respondents are indifferent to such attitudes. Only 19.4% of the examined students are determined – ready to take a risk in their choice of career, and 24.8% find job security as an advantage, 12.8% want to avoid risk at work, which can correlate with former research in the field of entrepreneurial competencies, indicating that students are not generally ready to take a risk. Risk taking is the lowest competency among the students, which is confirmed by the research by Bautiste, Barlisa and Nazario (2007). Based on the survey results it can be noted that approximately 15% (more or less 5%) of the respondents have no intention to become an entrepreneur and start their own company. From 23.4% to 31.3% of the respondents are indecisive about the statements. Ultimately, there is an interesting fact that, although most respondents are in the first or second year of studies, 46% up to 66.5% of them are determined to become entrepreneurs, to do everything to start their own company. They are thinking seriously about starting a business in future. The previous research by Jumamila et al. (2017) confirms that only the persistent can express an earnest intention to manage their own business and take a risk.

5. Conclusion

The primary aim of the research has been to examine self-assessment of students' entrepreneurial competencies and to establish if there are any differences in entrepreneurial competencies regarding gender, age, chosen field of study and choice of career after graduating. Mitchelmore & Rowley (2013) and Kyndt & Baert (2015) discussed in their studies the importance of entrepreneurial competencies and pointed out their importance and contribution to the growth and development of society as a whole through the growth and development of

an individual or a company. Since entrepreneurial competencies depend on personal development, knowledge, skills, attitudes, and capabilities necessary to become a successful entrepreneur, it is essential that entrepreneurial competencies are included in an educational system right from the beginning. The rising need for developing entrepreneurial competencies in educational profiles of different academic studies leads to creating a new profile of young people who are fully aware of the importance to taking initiative, entrepreneurship, taking responsibility, and achieving goals, which makes it easier for companies by providing them with a better choice of employees. Due to a greater interest for developing entrepreneurial competencies, their research presents the base for creating educational programmes in different academic studies. This can be the scientific research base for assessment of entrepreneurial competencies of an individual or a group, which outlines the fields where additional education and improvement are needed. The fact that there are great differences in students' entrepreneurial competencies regarding choice of career, indicates that investing in education and development of entrepreneurial competencies is strategically essential for forming and guiding development of the society.

Our study has not found a correlation between the respondents' age and entrepreneurial competencies and therefore, we could not conclude if the respondents' entrepreneurial competencies increase or reduce with age. On the other hand, we have found a significant difference in entrepreneurial competencies regarding gender, where we have found that women have higher entrepreneurial competencies than men. In our study there has been a significant difference in entrepreneurial competencies regarding choice of field of occupation. Furthermore, our study has not linked entrepreneurial competencies with the field of the student's study. This is probably the result of one of the study limitations, which is the fact that we included mainly students of human sciences. Another limitation of the study is probably that the study population included only students, and thus, could not estimate entrepreneurial competencies in other populations. Only students were involved in the research, which provides an opportunity for employees of industry sector to be involved in further research in order to perceive possible deviations from former research based only on students. Lastly, a limitation to the study could be the actual accuracy of respondents during self-assessment in the questionnaire, that is, objectivity during self-assessment, which can be questionable. Since the participants were mainly students of human sciences, there is room for further analysis and examination on a larger sample, which would involve also natural science students. The obtained research results indicate the need for further expanding, application, and development of entrepreneurial competencies at universities.

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