BALTIC JOURNAL OF SPORT & HEALTH SCIENCES
No. 3(126); 2022; 22–34; ISSN 2351-6496 / eISSN 2538-8347
DOI: https://doi.org/10.33607/bjshs.v3i126.1278

Factors of Entrepreneurial Intentions: the Case of Sports Science Students in Novi Sad

Uglješa Janković, Radenko M. Matić, Ivana M. Milovanović, Jovan Vuković, Milka Imbronjev

University of Novi Sad, Faculty of Sports and Physical Education, Novi Sad, Serbia

ABSTRACT

Background. The concept of sports entrepreneurship is increasingly explored, both in the world and in Serbia. This paper aims to examine which factors influence the entrepreneurial intentions of sports science students at the Faculty in Novi Sad and describe their influence on entrepreneurial intentions in more detail.

Methods. For research, a survey questionnaire was conducted, which consisted of 114 respondents, that is, 40 female students and 74 male final-year students of the Faculty of Sports and Physical Education in Novi Sad. The questionnaire consists of 33 questions related to several factors: entrepreneurial skills, entrepreneurial culture, attitude toward behavior, subjective norms, and perceived behavioral control.

Results. During data analysis, descriptive indicators and factor analysis were used.

Conclusion. It was observed that the mentioned factors significantly influenced students' entrepreneurial intentions, and their mutual connection was proven.

Keywords: entrepreneurial intentions, sports science, students, entrepreneurship.

INTRODUCTION

Sports and entrepreneurship are closely related. Given the importance of this topic for both public health and social inclusion, employability, and economic development, this field requires much more research (González-Serrano, 2019). What is key to entrepreneurship is the existence of business opportunities: these are mainly the result of people's ability to find shortcomings and solutions in sports (Pellegrini, Rialti, Marzi, and Caputo, 2020). Although it is a well-known fact that the sports industry carries enormous amounts of capital, in Serbia, there is not a significant amount of study on entrepreneurship within sports. According to the Eurostat report (2020), the unemployment rate in Serbia in 2020 was 20.6%. On the other hand, considering earlier Eurostat reports from 2016 until 2020, a downward trend is noted (from 29.9% to 20.6%).

According to Lara-Bocanegra, Bohorquez, and Garcia-Fernandez (2021), entrepreneurship in sports requires innovation, capital, and the ability to take risks. A good example is Spain, where the development of the entrepreneurial spirit of students is included in the educational program at the faculties. In this way, students encounter the concept of entrepreneurship in sports at a young age and can direct their thinking in that direction. This practice is recent, and such programs must be extended to other countries and different levels of education. Thus, students could, during their student days, decide on a specific project and work on perfecting it. After leaving the education system, they would be able to start a private project, which would be beneficial to them, their city, and their country. This would solve their employment problem but also employ many other

people involved in such projects. Also, in this way, the sport itself would be greatly improved, which should be the main goal of the Faculty of Sports Sciences.

In their work on stories about the entrepreneurial activities of sports coaches, Jones, Jones, Burnett, & Ratten (2017) point out that sports coaches/ instructors were previously employed in clubs or organizations. Now, this trend is slowly changing, and more and more of them start or have the intention of starting their own private business. Considering the growing financial crisis and the unemployment rate in various countries, people are increasingly forced to do another job in addition to their primary job (if they have one). Since employment does not bring enough income for living expenses, people sometimes wonder if starting their own business would solve the problem.

In a comprehensive analysis of articles published between 1968 and 2018 on sports entrepreneurship, 123 articles on the given topic were found, written by 252 authors from 36 countries (Pellegrini et al., 2020). The analysis of these papers revealed that the largest number of papers were from the United States of America, Australia, Spain, Great Britain, and France. This can be connected to the fact that in these countries (especially in the USA), there are programs within the faculty of sports sciences that deal with the topics of sports entrepreneurship (González-Serrano, Jones, Llanos, Contrera, 2019). Therefore, students are already familiar with this topic at the University, so it is easier for them to conduct research, write articles on it and be more interested in it.

Cardella (2021) points out that entrepreneurship is a career that helps overcome economic crises, create new jobs, and strengthen the economy. The same author further states that entrepreneurship encourages economic development and stimulates creativity and innovative ideas. On the other hand, Davis (1983) sees entrepreneurship as creating and running one's own business. Further, Timmons (1987) views entrepreneurship as creating, building, and distributing from nothing to something valuable for individuals, groups, organizations, and society, while Seyed-Amiri, and Reza-Marimei (2012) explain entrepreneurship as a process of change where innovation is the most important function of the entrepreneur.

Likewise, Palaniveu and Manikandan (2015) pointed out that entrepreneurship is a complex skill resulting from many qualities and traits. It includes imagination, willingness to take risks, capital, labor, and intangible factors, such as the ability to mobilize scientific and technological advances. The same authors explained that the concept of entrepreneurship consists of entrepreneurs, companies, employees, business processes, and facilities. Two main roles are recognized within entrepreneurship. The first refers to the ability to perceive change through recognizing opportunities (which results in entrepreneurship being a process of adaptation and innovation), and the second is through different forms of action (Ratten and Jones, 2018). As Henry, Hill, and Leitch (2003) explain, entrepreneurship is no longer only important for a healthy economy but also crucial for maintaining prosperity and creating new jobs. As the author mentioned above, the increased interest in entrepreneurship resulted from various factors contributing to prosperity and the reduction of unemployment.

Over the years, the combination of entrepreneurship and sports became more important, so many foreign authors began to deal with this topic. Naia, Baptista, Bascaia, Januário, and Trigo (2017) see sports entrepreneurship as an innovative activity in sports. Sports entrepreneurship is "a sports-related organization that acts innovatively in a business context" (González-Serrano, et al., 2018). Entrepreneurship in sports is characterized by proactivity, innovation, and risk-taking for the discovery and exploitation of new markets, technologies, products, and human capital, which is why it can rightly be said that sports entrepreneurship focuses on creative and innovative projects/ideas and that it represents a set of values that influence the tendency to create or develop innovative activities in organizations, not limiting them only to innovative activities, but also to comprehensive processes within the organization (Lara-Bocanegra et al., 2021).

Specifically, when it comes to the sports industry, a crucial role is played by education in sports management, with a special focus on creating a plan and program aligned with changes in the market. In this sense, universities are responsible for adapting their educational offer to meet the challenges of today's world. The case of university students in the sports sector should be oriented towards entrepreneurial education and improvement of entrepreneurial competencies in the curriculum. In other words, sports educators should emphasize encouraging changes in sports

education to raise entrepreneurship education to a higher level. A good example is from practice in Europe, where the sports sector is a growing industry that employed 1,694,100 people in 2016 alone (González-Serrano et al., 2018). Grimaldi-Puyana, Galvez-Ruiz, Sánchez-Oliver, and Fernández (2019) have a similar opinion, and they emphasize the fact that entrepreneurial education is becoming increasingly important because it can improve students' employment opportunities. Consequently, due to its important role in society, the sports sector is an indicator and driver of many public policies. For this reason, education in public policy management can greatly encourage entrepreneurship among students. Ratten and Thukral (2020) state that universities should take a radical role in shaping the new socio-technical reality to remain relevant and useful. Sports educators are responsible for preparing students for the real world, emphasizing practice. In this sense, students should be given flexibility in their work to learn in various ways, which implies the inclusion of teaching methods oriented to future work environments so that students can shape their future.

Sleap and Reed (2006) had a slightly different view on the importance of education in the sports sector. They investigated the views of physical education and sports science graduates on how much they managed to develop work skills at university. On that occasion, they concluded that the university experience helped develop mostly personal and interactive skills rather than business skills (Matic, 2021). Also, unlike other industries, sports have unique characteristics, such as emotional benefits and historical connections, influencing the development of entrepreneurial ventures. Therefore, entrepreneurship in sports differs from other types of entrepreneurship due to the emotional nature of sports and the fact that it has two roles – profit and non-profit. Moreover, sport can be seen as an entrepreneurial process since innovation and change are key elements of the sport. The reason for the growing interest in sports entrepreneurship is the sports industry, which is one of the largest and the most variable due to its competitive nature. There is a need for innovation in the sports sector to efficiently and effectively deal with the increasingly turbulent market (González-Serrano et al., 2019).

Since sport is closely related to health, proper lifestyle, and taking care of one's body, its importance is high. Sport attracts enormous interest from its participants and the audience that follows it live or on TV. There is an increasing interest in various tournaments, sports events, championships, and the like. In research conducted in China on faculties related to entrepreneurship (Weiming, 2016), it was determined that the weakest links in the field of entrepreneurship education are: poorly designed school curriculum, lack of qualified professors for this type of education, monotonous design of the studied program and poor support mechanisms education of entrepreneurs. Weiming pointed out the importance of creating a new higher education model by improving university entrepreneurship. As a result, students will receive a better education and acquire the skills to become independent entrepreneurs after completing their studies. Ratten (2017) points out that sports can be seen as a form of physical activity and a global industry that affects other parts of society. According to this author, sport represents an ideology and a way of life that society uses for leisure and business purposes.

The educational system and social media should use entrepreneurial activities as much as possible. In this way, sport is connected with business and acquires a new dimension. In addition, entrepreneurship makes it possible to predict new trends and plan for the future. The government should get involved as much as possible in such programs and workshops, considering the fact that education in the field of entrepreneurship would lead to the improvement of the lives of the citizens themselves, but also the improvement of various shortcomings of the state and the creation of new jobs. Entrepreneurial sports policy should encourage attempts and experimentation with new ideas (Ratten, 2017). Therefore, in addition to training, financial resources are also needed to implement plans and ideas in reality. Sports organizations should also become more involved in entrepreneurial activities because of their curiosity and commitment to linking entrepreneurship and sport. Interest in the entrepreneurial activities of sports science students is constantly growing, mostly because students believe that starting a private business leads to financial freedom and life independence (Ratten, 2018). Until now, sports education has focused too much on sports, and entrepreneurship as a concept has been neglected or treated very slightly. Entrepreneurship education requires more practical training so students can navigate their future careers after training.

Pallegrini (2020) points out that athletes have certain predispositions to pursue an entrepreneurial career, given that they control stress better than the average person and can better see their real possibilities. It is important to direct athletes to successfully implement business ideas and thus solve the problem of employment after their sports career. The fact is that athletes know their sport best. As such, with proper guidance and education, they can achieve desirable results in sports entrepreneurship, benefit the club, government, and activists involved in the projects, and fulfill their wishes by staying involved in their sport after their careers. Encouraging athletes and sports science students to become entrepreneurs greatly contributes to developing sports and their branches. In this way, the entire population's health improves, and the state improves, both in health and finances. The theoretical framework of the paper is based on Ajzen's theory of behavior, on the basis of which previous researchers have mainly examined students' entrepreneurial intentions.

This theory is called the Theory of Planned Behavior (TPB), and explains the connection between beliefs and behavior. In other words, this theory indicates that beliefs form the basis of attitudes and subjective norms that influence intention, which then impacts the performance of the behavior. This means that if a person evaluates a certain behavior as positive (attitude) and, in addition, believes that people important to him want him to perform that behavior (subjective norms), it is more likely that that behavior will be performed.

The research examines the structure of entrepreneurial intentions of sports science students at the University of Novi Sad.

METHOD

The sample of respondents consists of fourth-year students of the Faculty of Sports and Physical Education in Novi Sad (N=114), of which 40 were female students and were 74 male students. All respondents were surveyed in May 2022.

The questionnaire consists of 33 different questions, and contains the following scales*:* *Entrepreneurial intentions* (EI) – 6 items (e.g., I am ready to do anything to be an entrepreneur); *Attitude towards behavior* (ATB) – 5 items (e.g., being an entrepreneur implies more advantages than disadvantages); *Subjective norms* (SN) – approval of the decision to create a company by people in the closest environment (e.g., your friends, family, etc.); *Perceived behavioral control* (PBC) – 6 items (e.g., I can manage the development process of a new company); *The climate in the country towards entrepreneurship* (CC) – 5 items (e.g., the role of entrepreneurs in the economy is not sufficiently recognized); *Entrepreneurial Skills* (ES) – 6 items (various skills related to entrepreneurship), which were drawn from Liñán (2008). All scales were measured with Likert-type scales, ranked from 1 (strongly disagree) to 7 (strongly agree).

Information collection was conducted through an online questionnaire for students of the Faculty of Sports and Physical Education. The students filled out the questionnaire in the Computer Classroom of the Faculty of Sports and Physical Education under the supervision of collaborators on the scientific research project and their previous instruction on the research's purpose, goal, and significance. Given that the purpose of the work was to discover the nature of the relationship between entrepreneurial skills and entrepreneurial culture on the one hand, and the entrepreneurial intentions of students on the other, it was necessary to adapt and choose adequate statistical procedures. Descriptive statistical parameters were calculated: arithmetic mean (AS), standard deviation (SD), skewness, and kurtosis.

Furthermore, first, it was determined whether there was justification for applying factor analysis based on the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity. After that, factors were extracted from all the analyzed variables, and the factors' assembly, structure, and intercorrelation were determined. After analyzing the intercorrelations of the singled-out factors, statistically, significant correlations between these factors were additionally analyzed by regression analysis.

RESULTS

Table 1 shows the basic descriptive statistics of the analyzed variables. As can be observed, variables v37, v38, and v39, which concern entrepreneurial skills, have the highest arithmetic means (AS). Also, the variables v63, v64, v65, and v66, i.e., questions concerning the attitude towards behavior factor, show equally high arithmetic means. Considering that the students answered the questions with an answer that is evaluated from 1 to 7, the highest values of the arithmetic mean show

Table 1. **Descriptive statistics**

	AS	SD	Skewness	Kurtosis
Entrepreneurial skills				
v36	4.73	1.761	-.377	-.904
v37	5.10	1.688	-.424	-.919
v38	5.25	1.594	-.612	-.734
v39	5.05	1.774	-.594	-.723
v40	4.61	1.748	-.387	-.718
v41	4.68	1.850	-.507	-.754
Country culture				
v74	3.49	1.965	.234	-1.129
v75	4.13	1.865	-.087	-1.033
v76	4.42	1.814	-.251	-.860
v77	4.52	1.756	-.229	-.820
v78	4.43	1.886	-.199	-1.116
Attitude toward behavior				
v63	5.02	1.814	-.651	-.513
v64	5.05	1.823	-.579	-.795
v65	5.31	1.863	-.910	-.220
v66	5.02	1.900	-.616	-.627
v67	4.90	1.955	-.535	-.868
Subjective norms				
v71	4.69	1.745	-.391	-.672
v72	4.72	1.675	-.442	-.505
v73	4.81	1.640	-.530	-.318
Perceived control behavior				
v30	4.32	1.741	-.110	-.851
v31	4.34	1.904	-.245	-.989
v32	4.20	1.924	-.201	-.978
v33	3.73	1.925	.190	-1.117
v34	3.64	1.863	.222	-.930
v35	4.61	1.846	-.317	-.871
Entrepreneurial intentions				
v43	4.01	1.989	.008	-1.190
v44	4.21	2.050	-.164	-1.253
v45	4.79	2.024	-.502	-1.038
v46	4.62	2.011	-.439	-1.074
v47	4.49	2.117	-.400	-1.214
v48	4.62	2.126	-.471	-1.140

the best results. The standard deviation (SD) tells us how, on average, the elements of a set (for example, a group of questions related to entrepreneurial skills) deviate from the arithmetic mean of that set. In Table 1, it can be seen that all sets had similar results.

Skewness values indicate whether the distributed data is shifted to the right, left, or is normally distributed. Normal skewness values are all values between -1 and +1. Kurtosis values indicate how skewed the data distribution is. As the values of skewness and kurtosis are within normal limits, it can be concluded that the data is normally distributed (it did not happen that the results went too much to one side). Such a result could be expected, considering that all students are at a fairly similar level of knowledge (as far as entrepreneurship is concerned), considering that they did not have lectures or practice dealing with entrepreneurship. After descriptive statistics, factor analysis was performed, which proved to be justified based on the results shown in Table 2

Table 2. **KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.93
Bartlett's Test of Sphericity	Approx. Chi-Square	4394.73
	df	465
	Sig.	0.00

(Kaiser-Meyer-Olkin (KMO) =0.928 measure, and Bartlett's sphericity test was statistically significant at the p<0.00 level.

Factor extraction was performed based on the scree-criterion (Graph 1), and the obtained five factors (Table 3) explained 80.84% of the total common variability of the mentioned characteristics.

Table 3. **Total explained variance**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	17.234	55.593	55.593	17.234	55.593	55.593	14.677
2	3.395	10.950	66.543	3.395	10.950	66.543	13.321
3	2.050	6.614	73.158	2.050	6.614	73.158	11.704
4	1.287	4.153	77.310	1.287	4.153	77.310	12.147
5	1.093	3.527	80.837	1.093	3.527	80.837	4.606
6	.733	2.364	83.202				
7	.674	2.174	85.376				
8	.562	1.813	87.188				
9	.514	1.657	88.845				
10	.416	1.342	90.187				
11	.332	1.073	91.260				
12	.310	.999	92.258				
13	.294	.947	93.205				
14	.263	.848	94.054				
15	.230	.742	94.796				
16	.200	.645	95.441				
17	.179	.578	96.019				
18	.176	.567	96.586				
19	.166	.535	97.120				
20	.127	.409	97.529				
21	.118	.380	97.909				
22	.105	.340	98.249				
23	.093	.302	98.551				
24	.087	.280	98.831				
25	.075	.241	99.071				
26	.064	.207	99.279				
27	.058	.189	99.467				
28	.050	.161	99.628				
29	.045	.145	99.773				
30	.043	.137	99.911				
31	.028	.089	100.000				

Extraction Method: Principal Component Analysis.

Graph 1. **Scree criterion in the area of entrepreneurial intentions of students**

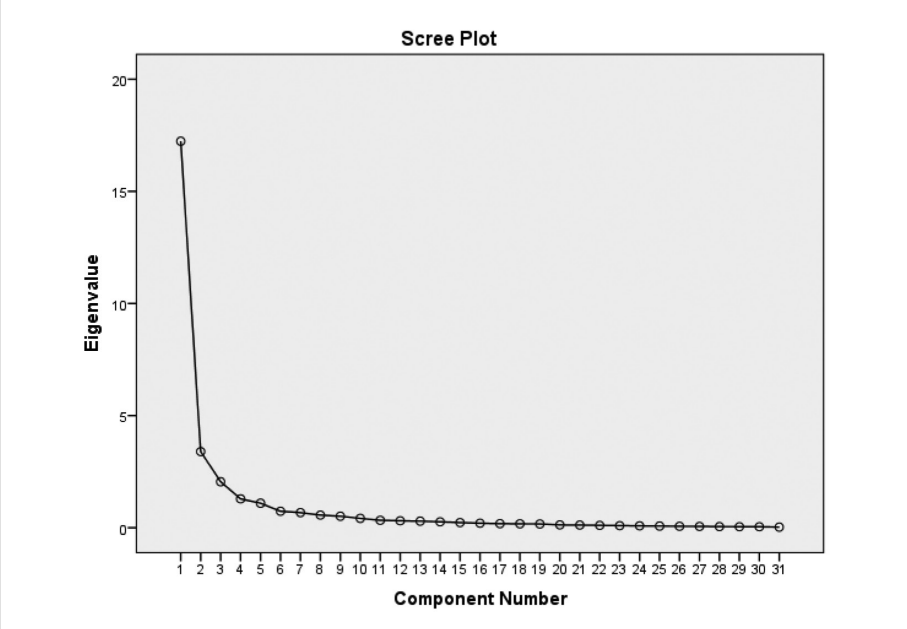

Table 4. **Structure of main components (H), communalities (h2) of students' entrepreneurial intentions**

	H1	H2	H3	H4	H5	h^2
v47	.895	-.129	-.153	.015	-.290	0.92
v48	.880	-.068	-.185	.014	-.322	0.92
v45	.873	-.132	-.103	-.009	-.351	0,91
v46	.870	-.123	-.110	.014	-.365	0.91
v67	.856	-.016	-.260	-.135	.025	0.82
v64	.855	-.046	-.271	-.133	.063	0.83
v66	.845	-.053	-.311	-.202	.086	0.86
v65	.843	-.018	-.206	-.187	.049	0.79
v44	.839	-.152	-.190	-.023	-.301	0.85
v31	.817	-.247	.099	.292	.100	0.83
v32	.813	-.303	.043	.308	.138	0.87
v43	.812	-.098	-.161	.140	-.252	0.78
v35	.812	-.189	.233	.095	.128	0.77
v40	.804	-.103	.308	-.172	.079	0.79
v63	.800	.001	-.266	-.248	.231	0.82
v39	.790	.036	.421	-.226	.074	0.86
v36	.787	-.068	.289	-.332	.054	0.82
v37	.755	-.047	.354	-.231	.064	0.75
v38	.755	-.026	.418	-.260	.065	0.82
v34	.750	-.282	.134	.391	.178	0.84
v41	.747	-.049	.394	-.160	.024	0.74
v33	.736	-.289	.146	.386	.179	0.83
v30	.725	-.221	.158	.380	.076	0.75
v71	.687	.389	-.420	.069	.156	0.83
v73	.663	.397	-.363	.009	.346	0.85
v72	.646	.413	-.349	.036	.276	0.79
v77	.386	.779	.056	.059	.002	0.76
v76	.462	.730	.157	.070	-.082	0.78
v78	.368	.656	.202	.061	-.045	0.61
v74	.338	.646	.162	.314	-.111	0.67
v75	.323	.641	.304	.060	-.220	0.66

In Table 4, which shows the structure of the main components of students' entrepreneurial intentions, it can be seen that five main components were obtained. By rotating the main components using the Promax procedure, the assembly and structure of the factors of entrepreneurial intentions of sports science students were analyzed (Tables 5 and 6).

Table 5. **Composition of factors (A) of students' entrepreneurial intentions**

	Sklop				
	A1	**A2**	**A3**	**A4**	**A5**
Entrepreneurial intentions					
v46	**.998**	.013	.024	-.117	.068
v45	**.974**	.052	.010	-.106	.049
v48	**.961**	-.049	.008	.017	.075
v44	**.933**	-.013	-.006	.011	-.024
v47	**.910**	.004	.061	.003	.024
v43	**.814**	-.149	.203	.011	.075
Entrepreneurial skills					
v38	-.050	**.944**	.023	-.071	.075
v39	-.067	**.919**	.055	-.039	.143
v36	.060	**.897**	-.087	.042	-.027
v37	-.008	**.850**	.046	-.029	.046
v41	.032	**.801**	.122	-.127	.099
v40	.024	**.766**	.145	.004	.004
Perceived control behavior					
v34	-.025	.039	**.889**	.047	-.035
v33	-.036	.053	**.886**	.033	-.040
v30	.105	.026	**.798**	-.061	.054
v32	.118	.041	**.760**	.114	-.098
v31	.138	.096	**.717**	.051	-.022
v35	.006	.440	**.508**	.027	-.010
Subjective norms and Attitudes toward behavior					
v73	-.213	-.096	.095	**.996**	.163
v72	-.119	-.141	.084	**.907**	.214
v71	.136	-.276	.055	**.839**	.226
v63	.062	.307	-.075	**.733**	-.189
v66	.349	.181	-.082	**.603**	-.181
v64	.367	.144	.000	**.533**	-.126
v67	.417	.141	-.030	**.495**	-.083
v65	.345	.255	-.067	**.480**	-.095
Country culture					
v74	.067	-.164	.208	-.007	**.802**
v75	.164	.203	-.122	-.194	**.788**
v76	.050	.124	-.078	.148	**.782**
v77	-.070	.036	-.111	.328	**.749**
v78	-.053	.172	-.050	.097	**.709**
Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.					

Table 6. **Factor structure (F) of students' entrepreneurial intentions**

	Structure				
	F1	F2	F3	F4	F5
v47	**.961**	.698	.689	.678	.178
v48	**.955**	.666	.648	.685	.223
v46	**.953**	.686	.660	.619	.196
v45	**.952**	.701	.659	.622	.184
v44	**.924**	.648	.625	.643	.125
v43	**.867**	.585	.677	.619	.197
v67	**.828**	.687	.589	**.826**	.165
v39	.619	**.916**	.597	.520	.333
v36	.664	**.902**	.550	.553	.189
v38	.600	**.899**	.569	.478	.261
v40	.671	**.880**	.657	.541	.198
v37	.615	**.867**	.578	.497	.233
v41	.612	**.851**	.605	.454	.259
v34	.636	.613	**.918**	.497	.083
v32	.729	.658	**.914**	.579	.050
v33	.622	.608	**.908**	.480	.074
v31	.727	.680	**.896**	.563	.117
v30	.634	.591	**.861**	.453	.146
v35	.683	.785	**.809**	.545	.155
v73	.503	.429	.417	**.891**	.427
v71	.597	.395	.425	**.871**	.452
v63	.710	.687	.520	**.858**	.109
v66	.814	.687	.562	**.854**	.094
v72	.504	.404	.401	**.852**	.454
v64	.821	.687	.602	**.833**	.131
v65	.800	.715	.568	**.805**	.159
v76	.312	.371	.198	.457	**.855**
v77	.227	.274	.116	.476	**.835**
v74	.215	.194	.233	.300	**.797**
v75	.216	.307	.109	.221	**.786**
v78	.216	.319	.154	.355	**.764**
Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.					

By rotating the main components using the Promax procedure, five factors from the space of students' entrepreneurial intentions were extracted, and they can be interpreted as:

- The first factor is – Entrepreneurial intentions of students,
- The second factor – entrepreneurial skills of students,
- The third factor – Perceived behavioral control,
- The fourth factor – Subjective norms and attitude toward behavior,
- Fifth factor – Entrepreneurial culture.

After extracting five factors from the entrepreneurial intentions of sports science students, the relationship between the extracted factors was determined based on Pearson's correlation coefficients, shown in Table 7.

Based on Table 7, which shows the intercorrelations of the selected factors, we can conclude:

1. That there is a statistically positive significant connection between the entrepreneurial intentions of students and all other factors, except for the entrepreneurial culture factor;
2. Entrepreneurial skills have a positive, statisti-

Table 7. **Pearson's intercorrelation coefficients (r) of the entrepreneurial intentions factor of students**

	Factors	1	2	3	4	5
1.	Entrepreneurial intentions of students	1.00				
2.	Entrepreneurial skills of students	0.71**	1.00			
3.	Perceived behavioral control	0.68**	.64**	1.00		
4.	Subjective norms and Attitudes toward behavior	0.70**	.581**	0.51**	1.00	
5.	Entrepreneurial culture	0.16	.23**	0.11	0.31**	1.00
	Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.					

cally significant correlation with all other factors;

3. Perceived control of behavior has a positive, statistically significant correlation with all other factors (except the entrepreneurial culture factor);
4. Subjective norms and attitude towards behavior are in a positive, statistically significant correlation with all other factors;
5. Entrepreneurial culture has a positive, statistically significant correlation with entrepreneurial skills and subjective norms and attitudes towards behavior, while it is not correlated with other factors.

As positive, statistically significant correlations were found between many factors within students' entrepreneurial intentions, the influence of entrepreneurial skills and culture on students' entrepreneurial intentions was examined by regression analysis.

After the factor analysis, the attitude towards behavior factor (ATB) and the subjective norm factor (SN) were combined into one factor. Although previous research relied on the theoretical model of Ajzen's planned behavior with three components (attitude towards the behavior, subjective norms, and perceived behavioral control), the obtained results of the factor analysis model were modified so that the new model consists of 2 factors, where the factors are attitude according to behavior (ATB), and subjective norms (SN) combined into one factor.

DISCUSSION

The main goal of this research was to examine which factors influence the entrepreneurial intentions of sports science students.

Pehar and Biruški (2018) define subjective norms as common understandings of typical and acceptable attitudes, rules, and behavior of members of different social groups with which individuals identify or are relevant. Those attitudes, rules, and behaviors are accepted or changed through direct and indirect interaction with members of those groups. Thus, subjective norms represent a certain type of social pressure, which forces a person to a certain extent to carry out a certain behavior as expected by the environment.

From the introductory part, it is known that unemployment in Serbia is high (source: Eurostat 2020), so it is clear what kind of environment and advice students of sports sciences encounter daily. In this case, if the student is in an environment that views entrepreneurial endeavors as something foreign and therefore avoids them, over time the student will accept such a way of thinking and will probably never even think about starting his or her own business. If the student tries to talk about it with someone, the environment will convince him quickly that his or her ideas are unrealistic or too risky and that it would be better to follow a well-known path rather than investigate something new. In most cases, the interlocutor who responds to a student with entrepreneurial ideas does not have bad intentions; even wishing the student well with his or her advice. Still, such dissuasive advice is given due to the lack of teaching to think in that direction. Attitude toward behavior (ATB), or Ajzen's theory of planned behavior (TPP), is a model of planned behavior established by Ajzen (1985). Attitude towards the behavior refers to the degree to which the performance of the behavior is evaluated positively or negatively. This theory explains the connection between different beliefs and behaviors. This proves that there is a strong connection between the intention to act and the actual performance of that action. The intention is the best indicator of the willingness and decision to perform the behavior and directly influences the

behavior. In Ajzen's planned behavior model, the intention is determined by three factors (attitude toward behavior, subjective norms, and perceived behavioral control). Perceived behavioral control refers to beliefs about an attitude or behavior (Ajzen, 1991). Therefore, if a student intends to start his or her own business, they will succeed, but under the condition that their environment understands them in these intentions and is open to helping them. On the other hand, if the student is constantly exposed to pressure, resentment, and mistrust, they will most likely give in over time and think that their idea is not as good as it may have seemed at first.

Pearson's correlation coefficient measures any linear trend between two variables, that is, what happens to one dimension if the scores of the other dimension increase. Table 7 shows how well all factors are interrelated (with almost every factor). Values above 0.6 indicate a high correlation between factors, and values below 0.4 indicate a weak correlation. The obtained data tell us that if the results of one factor were to improve, the results of all (or at least most) other factors would also increase due to their high intercorrelation. For example, if there was a college program that develops students' entrepreneurial skills, all other factors would improve (except the entrepreneurial culture factor in this case). One small example, only one factor, has just been described. We should not forget that the model consists of 5 factors, so we should imagine what kind of impact could be made in the entrepreneurial field if the faculty of sports sciences understood the advantages of this discussion and started to build a plan and program to improve these aspects.

Fu (2021) states that the essence of education related to entrepreneurship and innovation is to enable faculty professors to explain to students in a high-quality way all the advantages and disadvantages of entrepreneurship. So, with a high sense of entrepreneurship and good ideas, the professors would form whole generations capable of thinking in this direction. After the lecture, students will discuss with each other the new ideas they heard from the professors, but also what they came up with themselves, so it will be much easier to think about starting their own business if they have interlocutors who understand them and can help them. Considering the fact that nowadays it is very easy to transfer information, students only need to be directed into entrepreneurship, and those who become interested in it will continue to research. One can easily refer to websites that deal with the topic of entrepreneurship, to people who have already achieved success in it during their careers, to books by successful people, to entrepreneurship conferences and seminars held in the city.

Regarding the fact that the intercorrelation of the five factors from the previously given model has been proven by data processing, it is essential to make an effort to develop the entrepreneurial spirit as a whole. As stated by Stam (2015), entrepreneurship should be viewed as an ecosystem consisting of interdependent participants and factors managed to achieve productivity. Stam developed ten vital elements for an entrepreneurial ecosystem, divided into three categories (institutions, resources, and creation of new values). These elements are formal institutions, informal institutions, social networks, physical resources, financial resources, leadership, human capital, knowledge, means of consumption, producer services, and productive entrepreneurship. These elements and their connection are key to the success of the entire entrepreneurial ecosystem. This shows how broad this topic is and how important it is to involve as many different branches of society as possible.

CONCLUSION

Through a large sample of sports science students in Novi Sad (90% of final year students), with data obtained using modern research methodology, the result was that the entrepreneurial intentions of students are largely influenced by all the factors presented earlier in the model, i.e., entrepreneurial skills, entrepreneurial culture, perceived behavioral control, attitude towards behavior and subjective norms. Some of these factors influence entrepreneurial intentions directly, some through mediators, and some both directly and indirectly. All in all, the importance of developing each factor to develop students' entrepreneurial intentions is clear.

Faculties in Serbia do not deal with this type of teaching or completely omit it, not realizing its importance and the consequences of not using it. From the first days of college, students should be introduced to different entrepreneurial ideas and personal stories of people who have succeeded in becoming entrepreneurs and achieving success in their field.

This way, students would be familiar with the problems and advantages that entrepreneurship brings with itself from their early student days,

and based on this information, they would be able to decide more easily whether they want to be entrepreneurs and which area of entrepreneurship they want to be in. They would also be able to develop and supplement their ideas during the four years of study. After completing their studies, students would have a plan for their career and the path they want to take, and they would have support from the faculty, government, or sports organization.

With this knowledge, the sport would be able to develop more creatively, thanks to students' new ideas. Likewise, the problem of unemployment of academic citizens, as well as other people who would be involved in such projects, would be reduced. Entrepreneurship teaching would positively impact students' entrepreneurial thinking, intentions, employment, sports development, and economy. Developing sports in the right way would improve the health status of the entire population. For this reason, the state and local self-government should incentivize entrepreneurs, especially students, who intend to start their businesses after college. On the other hand, the inclusion of the university in the creation of new curricula which would implement education on entrepreneurship in sports is also of key importance.

Acknowledgments

The manuscript has been part of the project conducted by the Faculty of Sport and Physical education, University of Novi Sad, Serbia, entitled "Developing Future Sports Entrepreneurs in Europe: University Education to Promote Entrepreneurial Intentions in Sports Science Students" (Reg. No: 142-451-2596/2021), financed by the Provincial Secretariat for Higher Education and Scientific research.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior, *Organization Behavior and Human Decision Processes, 50(2)*, 179–211. doi: https://doi.org/10.1016/0749-5978(91)90020-T

Cardella, G. M., Sánchez, G., Sánchez, H., Raquel, B., Carlos, J. (2021). Entrepreneurship and Sport: A Strategy for Social Inclusion and Change. *International Journal of Environmental Research and Public Health, 18(9)*. doi: https://doi.org/10.3390/ijerph18094720

Davis, C. H. (1983). Education's Role in Developing Instincts for Entrepreneurship and Small Business Management. In *Business Education Forum*, *37*(7), pp. 29–30.

Eurostat (2020). Youth unemployment. Retrieved from: https://ec.europa.eu/eurostat/statistics-explained/index.php/Youth_unemployment

Fu, Q. (2021). *Research on Educational Evaluation System Related to Innovation and Entrepreneurship in Sports Colleges*. Paper presented at the 2021 2nd Asia-Pacific Conference on Image Processing, Electronics and Computers, Dalian, China. doi: https://doi.org/10.1145/3452446.3452649

González-Serrano, M., Calabuig Moreno, F., Crespo Hervás, J. (2018). Sport management education through an entrepreneurial perspective: Analysing its impact on Spanish sports science students. *The International Journal of Management Education 1(1),* 1–14.

González-Serrano, M., Calabuig Moreno, F., Valantine, I., Hervás, J. (2019). How to detect potential sport intrapreneurs? Validation of the intrapreneurial intention scale with sport science students. *Journal of Entrepreneurship and Public Policy, 8(1),* 40–61. https://www.emerald.com/insight/content/doi/10.1108/JEPP-D-18-00093/full/html

González-Serrano, M.H, Jones, P., LlanosContrera, O. (2019). An overview of sport entrepreneurship field: a bibliometric analysis of the articles published in the Web of Science. *Cronfa, 1(1),* 1–33. https://cronfa.swan.ac.uk/Record/cronfa50567

Grimaldi-Puyana, M., Galvez-Ruiz, P., Sánchez-Oliver, A., Fernández, J. (2019). Intentions of entrepreneurship in sports science higher education: gender the moderator effect. *Journal of Entrepreneurship and Public Policy, 8*(1)*,* 147–162.

Henry, C., Hill, F., Leitch, C. (2003). Developing a Coherent Enterprise Support Policy: A new challenge for Governments. *Environment and Planning C: Government and Policy, 21(1),* 3–19. doi: https://doi.org/10.1068/c0220

Jones, P., Jones, J., Burnett, N. W., Ratten, V. (2017). Let's get physical: Stories of entrepreneurial activity from sports coaches/instructors. *The international journal of entrepreneurship and innovation, 18(4)*, 219–230.

Lara-Bocanegra, A., Bohorquez, R., Garcia-Fernandez, J. (2021). Innovation from sport's entrepreneurship and intrapreneurship: opportunities from a systematic review. *International Journal of Sports Marketing and Sponsorsh, 1*(1)*,* 1–18. https://www.emerald.com/insight/content/doi/10.1108/IJSMS-12-2020-0212/full/html

Matić, R.M. (2021). The importance of the promotion of sports entrepreneurship: an analysis of the entrepreneurial intentions of sports science students at University of Novi Sad. *Abstracts from International Scientific*

Conference „Novelties in Sport Sciences“, Novi Sad, Serbia, 11 September 2021 (pp. 13). *BMC Proceedings, 15*(Suppl 14): *A16.* doi: https://doi.org/10.1186/s12919-021-00227-2

Naia, A., Baptista, A., Bascaia, R., Januário, C., Trigo, V. (2017). Entrepreneurial intentions of Sport Sciences students And Theory of Planned Behavior. *Motriz, Rio Claro, 23*(1). doi: https://doi.org/10.1590/s1980-6574201700010003

Palanivelu, V. R., Manikandan, D. (2015). Concept of Entrepreneurship. *Cognitive Discourese. International Multidisciplinary Journal NAS Publication, 3(3), 8–13.*

Pehar, L., Biruški, D. Č. (2018). (Zanemarena) uloga i važnost društvenih normi u poticanju međugrupnog kontakta: Pregled dosadašnjih nalaza i istraživački izazovi. *Psychological topics, 27(2),* 221–244.

Pellegrini, M. M., Rialti, R., Marzi, G., Caputo, A. (2020). Sport entrepreneurship: A synthesis of existing literature and future perspectives. *International Entrepreneurship and Management Journal,* 16. doi: https://doi.org/10.1007/s11365-020-00650-5

Ratten, V. (2018). Sport Entrepreneurship: Developing and Sustaining an Entrepreneurial Sports Culture. *Springer.*

Ratten, V., Ferreira, J. (2017). Entrepreneurship, innovation and sport policy: implications for future research. *International Journal of Sport Policy and Politics, 9(4),* 575–577. doi: https://doi.org/10.1080/19406940.2017.1380683

Ratten, V., Jones, P. (2018). Future research directions for sport education: toward an entrepreneurial learning approach. *Education & Training, 60(5),* 490-499. doi: https://doi.org/10.1108/ET-02-2018-0028

Ratten, V., Thukral, E. (2020). Sport Entrepreneurship Education. *Sport Entrepreneurship, 1*(1)*,* 151–160.

Seyed-Amiri, N., Reza-Marimaei, M. (2012). Concept of Entrepreneurship and Entrepreneurs Traits and Characteristics. *Scholarly Journal of Business Administration, 2(7),* 150–155.

Sleap, M., Reed, H. (2006). Views of sport science graduates regarding work skills developed at University. *Teaching in Higher Education, 11*, 47-61. doi: https://doi.org/10.1080/13562510500400123

Stam, E. (2015). Entrepreneurial ecosystems and regional policy: A sympathetic critique. *European Planning Studies, 23*(9)*,* 1759–1769. doi: https://doi.org/10.1080/09654313.2015.1061484

Tsitsikari, E., Goudas, M., Tsalouchou, E., Mishalopoulou, M. (2017). Employers' expectations of the employability skills needed in the sport and recreation environment. *Journal of Hospitality, Leisure, Sport & Tourism Education, 20*(17)*,* 1–9. doi: https://doi.org/10.1016/j.jhlste.2016.11.002

Weiming, L., Chunyan, L., Xiaohua, D. (2016). Ten Years of Entrepreneurship Education at Chinese Universities: Evolution, Problems, and System Building. *Chinese Education & Society, 49*(3)*,* 198-216. doi: https://doi.org/10.1080/10611932.2016.1218250

Received on September 07, 2022
Accepted on October 11, 2022