DEVELOPING STUDENT ENTREPRENEURSHIP IN THE CURRENT ECONOMIC CONTEXT

DEZVOLTAREA ANTREPRENORIATULUI STUDENTESC IN CONTEXTUL ECONOMIC ACTUAL

CZU: 334.72-057.875:378.14

DOI: https://doi.org/10.53486/isca2024.40

Simona-Maria BRÎNZARU Stefan cel Mare University of Suceava, Romania Email: <u>simona.brinzaru@usm.ro</u> ORCID: <u>https://orcid.org/0000-0003-4777-6589</u>

Veronica GROSU Stefan cel Mare University of Suceava, Romania Email: <u>veronica.grosu@usm.ro</u> ORCID: <u>https://orcid.org/0000-0003-2465-4722</u>

Cirpiana MIHAI

Stefan cel Mare University of Suceava, Romania Email: <u>cipriana.mihai80@yahoo.com</u> ORCID: https://orcid.org/ 0009-0008-8429-040X

Abstract. Student entrepreneurship has an important role to play in the current economic context as it contributes to innovation, flexibility and the potential to generate new jobs and stimulate sustainable economic growth. The main aim of the paper is to map the thematic of student entrepreneurship, focusing on identifying the future directions of the student entrepreneur. To achieve this, a keyword analysis and citation analysis was conducted to determine the most influential works on the topic under analysis. The results of the bibliometric analysis are useful for researchers as well as future entrepreneurs as they provide an in-depth understanding of the evolution of student entrepreneurship, identifying relevant trends and contributions in the field.

Keywords: student entrepreneurship, innovation, entrepreneurial education, artificial intelligence.

JEL Classification: M40, M41

Introduction

Student entrepreneurship is known as the attempt or launch of one or more students into entrepreneurship early in their academic career. Implicitly, a student entrepreneur is considered as that entrepreneur who uses academic skills in an innovative way as a springboard for his/her business. Moreover, in the context of accelerated technology development, students are increasingly undertaking IT skills that help them develop innovative behaviour and new practices in entrepreneurship, thus giving them an important advantage over their competitors. Student entrepreneurship is a significant impetus for the development of entrepreneurship at the national level, as well as for increasing the welfare of society (Scuotto & Morellato, 2013). Also, the concept of student entrepreneurship is connected to the processes of technological development, but also to economic growth, and the expansion of this type of entrepreneurship brings considerable benefits to a country.

In this context, the main aim of the paper is to map the thematic of student entrepreneurship, focusing on identifying the future directions of the student entrepreneur. In order to achieve the main purpose we opted for a keyword analysis and citation analysis to determine the most influential works on the topic under analysis. Bibliometric analysis based on keyword co-occurrence allows the delineation of research clusters that highlight the variety of research topics and identify the multidisciplinary

nature and directions (domains/subdomains) of further development of a research area (Van Eck & Waltman, 2010; Grosu et al., 2022; Mihai & Mihailă, 2023). Citation analysis helps to examine the number of citations over time and reflects the intellectual linkages of cited articles that form when one publication cites another publication (Donthu et al., 2021).

The results of the bibliometric analysis are useful for researchers as well as future entrepreneurs as they provide an in-depth understanding of the evolution of student entrepreneurship, identifying relevant trends and contributions to the field.

Research methodology

The scientific approach was based on the following steps:

1. Data collection. Articles of interest specific to the topics under analysis were selected from the international Web of Science (WOS) platform, applying the search protocol presented in Table 1 and exported using the Tab delimited and Full record and Cited references options.

Table no. 1. Research protocol on wors			
Data base	Web of Science Core Colletion		
Time interval	2000 – december 2023		
Published works	All types of documents except notes, corrections,		
	abstracts, editorial material.		
Language	English		
Topic (title, abstract, author	"student* entrepreneur*"		
keyword and keyword plus)			
Final results	1386		

Table no. 1. Research protocol on WOS

Source: author's own elaboration

Following the application of the selection criteria, 1386 entries were identical for student entrepreneurship. The exclusion criteria were for certain types of papers, thus eliminating notes, corrections, abstracts, editorial material.

2. Bibliometric analysis. The processing of the data exported to WOS was carried out using the VOSviewer software and involved the following steps shown in Figure 1:



Figure no. 1. Data processing steps with VOSviewer Source: Author's own elaboration

The six steps shown in Figure 1 differentiated according to the type of analysis, i.e. bibliometric keyword linkage analysis (A) and citation analysis (B) allowed the generation of the keyword network and the cited article network that highlighted the most influential publications within the topic under analysis.

Results and discussions

Following the application of the search protocol in the WOS database we obtained 1386 papers for the period 2000 to December 2023 that deal with student entrepreneurship and their evolution is shown in the following figures.



Figure no. 2. Evolution of papers by year of publication and WOS research areas Source: Own processing based on WOS data

Figure no. 2 shows the evolution of the number of papers published between 2000 and December 2023 on student entrepreneurship. There is an oscillating trend of publications so that the number of publications increases continuously until 2013, followed by a slight decrease, to reach a maximum of 155 published papers in 2017. The peak of the trend is reached in 2022 with a number of 197 publications. Aspect, which can be attributed to the post-pandemic period when emphasis was placed on business resilience and stimulating entrepreneurship to find solutions to counteract the effects of the health crisis (Cater et al., 2022) and this conjuncture required increased attention to entrepreneurship education at the level of higher institutions that contribute to the development of future entrepreneurs. Again, in Figure 2 we see that the highest number of published papers is in the WOS category of education which is also normal given the involvement of students, followed by business with 368 papers and management with 327.

The geographical distribution in Figure no. 3 shows countries that have published between 10 and 462 papers on student entrepreneurship. China leads the top 10 countries with 462 published papers, thus highlighting the interest of Chinese researchers in student entrepreneurship, which was also noted earlier in the context of entrepreneurship education. China is followed by the USA with 103 publications, Indonesia (81), the UK (68), Malaysia (67), Spain (64), Romania (46), Italy (32) and India (18). We note the interest of researchers in our country in the subject analysed, identifying in the literature studies that explore student entrepreneurship in various fields of study such as engineering, accounting and finance, business administration, food industry, technology, etc.



Figure no. 3. Evolution of published works by geographical distribution Source: Own processing based on WOS data

Using Vosviewer software, we processed the exported data from the WOS platform and obtained 4211 keywords that were reduced to 145 after applying the minimum threshold of 10 frequencies and eliminating irrelevant words. The keyword co-occurrence network consists of five thematic clusters, where, the highest frequency is recorded by education (393) with a link intensity of 2075 and the average year of publication was 2018 and the average number of citations related to publications in which this concept appears is 12.06. Next, in descending order of frequency, are the keywords entrepreneurship (346), entrepreneurship education (340), impact (340), entrepreneurial intention (261), self-efficacy (219), students (175), business (121), innovation (113), etc. These words define the theme of student entrepreneurship because research highlights the close relationship between the impact of entrepreneurship education, innovation and entrepreneurial intentions of students, characterized by the most important entrepreneurial trait - self-efficacy. Figure no. 4 shows the keyword network specific to student entrepreneurship.



Figure no. 4. Student Entrepreneurship Keyword Network Source: Author's own processing in VOSviewer

In cluster I we find terms specific to student entrepreneurship, where innovation comes first. This cluster highlighted in red in Figure no. 4 contains 41 keywords, of which we mention the following: university, higher education, faculty, student entrepreneurs, entrepreneurial universities, leadership, performance, finance, knowledge, technology, incubators, creation, etc. These terms express the fact

that universities promote the stimulation of student innovation and creativity, leadership, and in particular, the transfer of knowledge and technology between students and the business environment through the organisation of entrepreneurial competitions or the development of business incubators. Some authors believe that business incubators organised by universities help a considerable number of students from different backgrounds to develop their business ideas in a protected and resourceful environment (Mele et al., 2024). Universities also play a significant role on encouraging students to get started in entrepreneurship by providing a protected environment where students can experiment with innovative ideas and follow their passion (Siegel & Wright, 2015). Moreover, academia can help young students by providing the resources they need to launch their own business (Alves et al., 2019). At the same time, Schimperna et al. (2021) consider that universities have four functions regarding entrepreneurship development, namely, contributing to entrepreneurship, promoting creativity and the desire of young students to launch their own business, providing adequate knowledge on how to open and develop a business, and introducing innovative entrepreneurship programs into the curriculum.

Cluster II in green consists of 36 keywords revolving around education - entrepreneurial intentions self-efficacy. Other keywords present in this cluster are culture, theory of planned behaviour, entrepreneurial attitude and behaviour, passion, creativity, entrepreneurial education, entrepreneurial motivation, student, start-up business, SME, covid-19, etc. These concepts refer to the main factors influencing students' entrepreneurial intentions but especially the impact of the crisis caused by the COVID-19 pandemic or the development of digital technology on student entrepreneurship is highlighted. Some authors argue that the COVID-19 pandemic played an important role in constraining students with regard to the implementation of business ideas, as this pandemic developed their arbitrary attitudes towards risk (Menshikov et al., 2021). In recent years, in the context of accelerated digitisation, the nature of entrepreneurship and managerial challenges have changed significantly. Digital technologies are considered to offer significant and innovative opportunities in entrepreneurship, and they play a primary role in the sustainability of entrepreneurship centres (Secundo et al., 2020). As for entrepreneurship programmes, some authors consider that they need to be updated in the new digital era, so that these programmes facilitate the improvement of digital skills in the field, but also the ability to collaborate with the new generation of student entrepreneurs dominated by digitalisation (Scuotto & Morellato, 2013).

Cluster III (blue in Figure 4) focuses on entrepreneurship education and includes terms such as students, education, curriculum, pedagogy, enterprise education, accounting education, engineering education, higher education, experiential learning, business plan, competences, skills, intentions, motivation, challenges, etc. Entrepreneurship education is not only about business, but also encompasses a complex set of skills, abilities and qualities. Moreover, if entrepreneurship is linked to other relevant disciplines as part of the curriculum, this would provide the discipline with a scientific context, increase the relevance of the entrepreneurial career and encourage the discovery of innovative solutions to complex challenges (Astuty et al., 2022). Another study also shows that a lack of pedagogical initiatives, workshops, internships and case studies, the lack of an academic entrepreneurship department and the absence of a suitable entrepreneurship education curriculum do not help to expand students' entrepreneurial mindset and skills (Adewumi & Naidoo, 2022). On the other hand, Reyad et al. (2019) argues that accounting education plays a significant role in the development of the entrepreneurial field, as the accounting curriculum provides a theoretical framework that helps to understand business management, but at the same time, provides students with the knowledge, skills, qualities and abilities needed to launch and grow a business.

Within this cluster the relationship between artificial intelligence, education and students is highlighted, although it is less represented in the literature as it is a more recent research topic. This aspect demonstrates that universities need to adapt to the new requirements regarding the development of artificial intelligence by improving the training methods of students, but also by

promoting the integration of artificial intelligence into the teaching-learning process to train young entrepreneurs adapted to the current economic environment (Yang et al., 2022). For example, one study has shown that artificial intelligence is very important in promoting entrepreneurial performance among students. The positive effect of integrating artificial intelligence in entrepreneurial performance is reflected by the trend towards entrepreneurship and strategic entrepreneurship (Khalid, 2020). Another study shows that international analysis of entrepreneurial potential among students in line with the progressive role of artificial intelligence in the economy, as well as in other fields, concluded that the use of artificial intelligence in the US and some EU countries in student entrepreneurship has the effect of economic growth (Voronov et al., 2023).

The fourth yellow cluster of 24 keywords highlights the impact of student entrepreneurship and its influencers. Here we mention the following terms gender, female, experience, family, behaviour, entrepreneurial environment, achievement, success, personality, risk-taking, opportunity identification, etc. It is shown that student entrepreneurs are influenced by various environmental factors such as culture, level of development of a country, universities and family which have a significant impact on guiding students towards an entrepreneurial career (Roman & Maxim, 2017; Teixeira et al., 2018; Camino Escolar-Llamazares et al., 2019; Chereau & Meschi, 2022). In contrast, other studies have shown that age is not a decisive factor in the financial risk entrepreneurs take, but these studies have not confirmed the impact of gender on this risk (Ramudzuli & Muzindutsi, 2018; Ololo et al., 2023). However, another study found that although there has been a significant increase in the number of women in entrepreneurial careers in recent years, the male gender is still predominant when it comes to starting their own businesses (Yordanova & Tarrazon, 2010; Romaní et al., 2013; Sanchez Torne & Perez Suarez, 2019; Dragin et al., 2022). Another important factor favouring increased entrepreneurial intentions is the level of education (Hoda et al., 2020; Zhou, 2021).

The smallest cluster highlighted by the purple colour is not as well delineated as the others but we encounter the following terms: barriers, intentions, student business, self-employment, start-up, entrepreneurial learning, etc. The most important factor that leads students to start a start-up company is entrepreneurial knowledge (Scuotto & Morellato, 2013). Also, business ideas are born in entrepreneurship labs that inspire students to implement a start-up, and in this case universities play an important role in supporting and ensuring their continuity as entrepreneurs (Jansen et al., 2015). Moreover, experiment-based teaching methods implemented in practical labs are a determinant of students' inclination towards starting a start-up, stimulating students' desire to engage in entrepreneurial activities already during their academic career (Mutalimov et al., 2022). Therefore, student entrepreneurship plays a major role on the economic growth of a country because young students are aware of the importance of this field and undertake entrepreneurial skills and qualities already during their academic career. Universities also give young future entrepreneurs a boost and inspire them to develop innovative ideas into their own businesses.

Figura nr. 5 ilustrează cartografierea articolor publicate pe tematica analizată în funcție de numărul de citări ale acestora și a legăturilor create.



Figure no. 5. Network of published papers by number of citations Source: Author's own processing in VOSviewer

The network in the figure above is made up of 14 clusters containing scientific papers with more than 30 citations. Cluster I and II (red and green colours in Figure 2.13) are the most developed with 14 papers each. Cluster I groups studies that address the role of entrepreneurship education on the development of future student-entrepreneurs, while cluster II concentrates papers on factors influencing students' entrepreneurial intentions. The most cited studies (Mueller & Thomas, 2001; Oosterbeek et al., 2010) are found in cluster VI, recording the most links created, both within the cluster and with the other clusters. Table 2 also includes information on the top 10 most cited studies.

Authors	Title	No. of citations	No. of links
mueller (2001)	Culture and entrepreneurial potential: a nine country study of locus of control and innovativeness	847	7
oosterbeek (2010)	The impact of entrepreneurship education on entrepreneurship skills and motivation	691	21
zhang (2014)	The role of entrepreneurship education as a predictor of university students' entrepreneurial intention	288	12
maresch (2016)	The impact of entrepreneurship education on the entrepreneurial intention of students in science and engineering versus business studies	266	10
shirokova (2016)	Exploring the intention-behavior link in student entrepreneurship: moderating effects of individual and environmental characteristics	247	9
hmieleski (2006)	Proclivity for improvisation as a predictor of entrepreneurial intentions	236	3
karimi (2016)	The impact of entrepreneurship education: a study of iranian students' entrepreneurial intentions and opportunity identification	222	11
wu (2008)	The impact of higher education on entrepreneurial intentions of university students in china	218	7
schwarz (2009)	The effects of attitudes and perceived environment conditions on students' entrepreneurial intent an austrian perspective	187	9
kassean (2015)	Does entrepreneurship education in the first year of higher education develop entrepreneurial intentions? The role of learning and inspiration	179	3

 Table no. 2. Top 10 most cited works on student entrepreneurship

Source: Author's own processing in VOSviewer

The study by Mueller & Thomas (2001) has the highest number of citations, making it an important landmark in the thematic framework. Results from a survey of students in 15 countries show that entrepreneurial potential is conditioned by national culture, generating differences across national borders. Thus, a "supportive" national culture will cultivate the mind and character of the future entrepreneur and the entrepreneurial potential of a country will increase. It should be noted that two entrepreneurial traits should be encouraged in such a culture, namely innovation and internal locus of control, as potential entrepreneurs should perceive themselves as psychologically capable and prepared to face the challenges of a competitive market. In addition, in individualistic cultures there is a higher likelihood of entrepreneurial orientation than in collectivist ones. At the same time, the authors mentioned that education plays a key role in the formation of future entrepreneurs, which has developed future research directions. As a result, it is observed that 6 out of 10 studies, examine the impact of entrepreneurship education on students' entrepreneurial intentions, and the results highlight the positive influence of introducing this type of education at university level.

The exception is the results of Oosterbeek et al. (2010) who show that introducing a single entrepreneurship programme in schools and colleges to help young people translate theory into practice is not sufficient to develop entrepreneurial skills and has zero effect on entrepreneurial intentions. The recommendations would be that universities should invest in the development of complex educational programmes with an entrepreneurial character as well as in the promotion of a long-term entrepreneurial culture among students. At the same time, we note that half of the studies in this top 10 were published between the years 2014 - 2016 when there was a significant increase in publications which highlights the relevance of the research results from this period on the topic of student entrepreneurship. Moreover, the majority of the studies in the top 10 focus on entrepreneurship education and its impact.

Conclusions

Student entrepreneurship is currently undergoing a period of rapid expansion and is increasingly seen as an important source of innovation and economic development. Students from various fields are trying their creativity and entrepreneurship in a variety of start-up initiatives and entrepreneurial projects. Universities and higher education institutions are encouraging this trend through dedicated programmes, business incubators and financial support to turn ideas into reality. The impact of student entrepreneurship is evident in the economy through job creation, technological and social innovation, and significant contributions to local and global economic growth. In addition, this phenomenon is also fuelled by globalisation and digitisation, which facilitates access to international resources and markets, and an increased concern for sustainability and social responsibility.

The results of the bibliometric analysis highlight a growing collaboration between different academic disciplines, promoting interdisciplinary innovation and complex solutions to contemporary challenges. Student-led start-ups will play a vital role in bringing sustainable solutions to social and environmental problems, thereby strengthening the position of student entrepreneurs in the global economic landscape. Moreover, the digitisation of the economy is significantly influencing the development directions of future entrepreneurs, regardless of the field.

In conclusion, student entrepreneurship is an opportunity for students from all fields to develop their entrepreneurial skills and explore passions that can later become successful businesses contributing to the economic development of a country. Supporting and encouraging entrepreneurial initiatives among students will continue to play a key role in shaping the economic and social future of our society.

Bibliography

- 1. Adewumi, S. A., & Naidoo, L. D. (2022). Student entrepreneurship mindset and social entrepreneurship pedagogy in a global health pandemic in Lagos State University, Nigeria. *Entrepreneurship and Sustainability Issues*, 10(1), 200–213. https://doi.org/10.9770/jesi.2022.10.1(10)
- Alves, A. C., Fischer, B., Schaeffer, P. R., & Queiroz, S. (2019). Determinants of student entrepreneurship: An assessment on higher education institutions in Brazil. *Innovation & Management Review*, 16(2), 96–117. https://doi.org/10.1108/INMR-02-2018-0002
- 3. Astuty, E., Yustian, O. R., & Ratnapuri, C. I. (2022). Building Student Entrepreneurship Activities Through the Synergy of the University Entrepreneurship Ecosystem. *Frontiers in Education*, 7, 757012. https://doi.org/10.3389/feduc.2022.757012
- Camino Escolar-Llamazares, M., Luis-Rico, I., de la Torre-Cruz, T., Herrero, A., Jimenez, A., Palmero-Camara, C., & Jimenez-Eguizabal, A. (2019). The Socio-educational, Psychological and Family-Related Antecedents of Entrepreneurial Intentions among Spanish Youth. *SUSTAINABILITY*, 11(5), 1252. https://doi.org/10.3390/su11051252
- Cater, J. J., Young, M., Al-Shammari, M., & James, K. (2022). Re-exploring entrepreneurial intentions and personality attributes during a pandemic. *Journal Of International Education In Business*, 15(2), 311–330. https://doi.org/10.1108/JIEB-04-2021-0050
- 6. Chereau, P., & Meschi, P.-X. (2022). Deliberate practice of entrepreneurial learning and self-efficacy: The moderating effect of entrepreneurial parental environment as role modeling. *Journal Of Small Business And Enterprise Development*, *29*(3), 461–483. https://doi.org/10.1108/JSBED-07-2021-0277
- 7. Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070
- Dragin, A. S., Mijatov, M. B., Ivanovic, O. M., Vukovic, A. J., Dzigurski, A. I., Kosic, K., Knezevic, M. N., Tomic, S., Stankov, U., Vujicic, M. D., Stojanovic, V., Bibic, L. I., Dercan, B., & Stoiljkovic, A. (2022). Entrepreneurial Intention of Students (Managers in Training): Personal and Family Characteristics. *SUSTAINABILITY*, 14(12), 7345. https://doi.org/10.3390/su14127345
- Grosu, V., Botez, D., Melega, A., Kicsi, R., Mihaila, S., & Macovei, A. G. (2022). Bibliometric analysis of the transformative synergies between blockchain and accounting in the uprooting of economic criminality. *Entrepreneurship and Sustainability Issues*, 9(4), 77–105. https://doi.org/10.9770/jesi.2022.9.4(4)
- 10. Hoda, N., Ahmad, N., Ahmad, M., Kinsara, A., Mushtaq, A. T., Hakeem, M., & Al-Hakami, M. (2020). Validating the Entrepreneurial Intention Model on the University Students in Saudi Arabia. *Journal Of Asian Finance Economics And Business*, 7(11), 469–477. https://doi.org/10.13106/jafeb.2020.vol7.no11.469
- 11. Hota, P. K., Subramanian, B., & Narayanamurthy, G. (2020). Mapping the Intellectual Structure of Social Entrepreneurship Research: A Citation/Co-citation Analysis. *Journal of Business Ethics*, 166(1), 89–114. https://doi.org/10.1007/s10551-019-04129-4
- 12. Jansen, S., Van De Zande, T., Brinkkemper, S., Stam, E., & Varma, V. (2015). How education, stimulation, and incubation encourage student entrepreneurship: Observations from MIT, IIIT, and Utrecht University. *The International Journal of Management Education*, *13*(2), 170–181. https://doi.org/10.1016/j.ijme.2015.03.001
- 13. Khalid, N. (2020). Artificial intelligence learning and entrepreneurial performance among university students: Evidence from malaysian higher educational institutions. *Journal of Intelligent & Fuzzy Systems*, 39(4), 5417–5435. https://doi.org/10.3233/JIFS-189026
- Mele, G., Sansone, G., Secundo, G., & Paolucci, E. (2024). Speeding Up Student Entrepreneurship: The Role of University Business Idea Incubators. *IEEE Transactions on Engineering Management*, 71, 2364– 2378. https://doi.org/10.1109/TEM.2022.3175655
- 15. Menshikov, V., Bedianashvili, G., Ruza, O., & Kokina, I. (2021). Mobility in the context of entrepreneurial potential of students under the conditions of the COVID-19 pandemic (Latvia, Georgia). *Entrepreneurship and Sustainability Issues*, 9(1), 574–589.

- 16. Mihai, C., & Mihailă, S. (2023). Analiza bibliometrica a conceptului de contabilitate blockchain. In: International scientific conference on accounting, ISCA 2023, Ed. XII Edition, 6-7 aprilie 2023, Chişinău. Chişinău: Departamentul Editorial-Poligrafic al ASEM, Ediția XII, pp. 82-90. DOI: https://doi.org/10.53486/isca2023.10
- 17. Mueller, S. L., & Thomas, A. S. (2001). Culture and entrepreneurial potential. *Journal of Business Venturing*, 16(1), 51–75. https://doi.org/10.1016/S0883-9026(99)00039-7
- Mutalimov, V., Volkovitckaia, G., Buymov, A., & Syzdykov, S. (2022). Professional Entrepreneurial Competencies and Creativity Skills Formation Under the Influence of Educational Practices of Start-Up Projects Development. *Journal of Technical Education and Training*, 13(4). https://doi.org/10.30880/jtet.2021.13.04.004
- Ololo, K., Eseadi, C., Nwali, A. C., Onuorah, A. R., Abonor, L. B., Kanu, C. C., Okwuwa, C. O., Eneogu, N., Umaru, M. E., Ogbueghu, S. N., Nnachi, R. A., Ohia, N. C., Okoro, L. U., Modum, I. C., & Nnamani, C. (2023). Rational Emotive and Cognitive Behavior Coaching Intervention for Promoting College Students' Financial Risk Tolerance and Attitudes Towards Financial Risk. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*. https://doi.org/10.1007/s10942-023-00523-0
- 20. Oosterbeek, H., Van Praag, M., & Ijsselstein, A. (2010). The impact of entrepreneurship education on entrepreneurship skills and motivation. *European Economic Review*, 54(3), 442–454. https://doi.org/10.1016/j.euroecorev.2009.08.002
- Ramudzuli, P. M., & Muzindutsi, P.-F. (2018). Determinants of Financial and Non-Financial Risk Tolerance among Students at Selected South African Universities. *Foundations of Management*, 10(1), 293–302. https://doi.org/10.2478/fman-2018-0023
- 22. Reyad, S. M. R., Al-Sartawi, A. M., Badawi, S., & Hamdan, A. (2019). Do entrepreneurial skills affect entrepreneurship attitudes in accounting education? *Higher Education Skills and Work-Based Learning*, 9(4), 739–757. https://doi.org/10.1108/HESWBL-01-2019-0013
- 23. Roman, T., & Maxim, A. (2017). National culture and higher education as pre-determining factors of student entrepreneurship. *Studies In Higher EducatioN*, 42(6), 993–1014. https://doi.org/10.1080/03075079.2015.1074671
- 24. Romaní, G., Didonet, S., Contuliano, S.-H., & Portilla, R. (2013). Propensity of University Students in the Region of Antofagasta, Chile to Create Enterprise. *Journal of Education for Business*, 88(5), 253–264. https://doi.org/10.1080/08832323.2012.690353
- 25. Sanchez Torne, I., & Perez Suarez, M. (2019). The Impact of Education on the Entrepreneurial Intention of Students in the Bachelor of Economics. *Revista De Estudios Empresariales-Segunda Epoca*, *1*, 22–40. https://doi.org/10.17561/ree.v2019n1.2
- 26. Schimperna, F., Nappo, F., & Marsigalia, B. (2021). Student Entrepreneurship in Universities: The Stateof-the-Art. *Administrative Sciences*, 12(1), 5. https://doi.org/10.3390/admsci12010005
- 27. Scuotto, V., & Morellato, M. (2013). Entrepreneurial Knowledge and Digital Competence: Keys for a Success of Student Entrepreneurship. *Journal of the Knowledge Economy*, 4(3), 293–303. https://doi.org/10.1007/s13132-013-0155-6
- 28. Secundo, G., Rippa, P., & Meoli, M. (2020). Digital transformation in entrepreneurship education centres: Preliminary evidence from the Italian Contamination Labs network. *International Journal of Entrepreneurial Behavior & Research*, 26(7), 1589–1605. https://doi.org/10.1108/IJEBR-11-2019-0618
- 29. Siegel, D. S., & Wright, M. (2015). Academic Entrepreneurship: Time for a Rethink? *British Journal of Management*, 26(4), 582–595. https://doi.org/10.1111/1467-8551.12116
- 30. Teixeira, S. J., Lopes Casteleiro, C. M., Rodrigues, R. G., & Guerra, M. D. (2018). Entrepreneurial intentions and entrepreneurship in European countries. *International Journal Of Innovation Science*, *10*(1), 22–42. https://doi.org/10.1108/IJIS-07-2017-0062
- 31. Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, *84*(2), 523–538. https://doi.org/10.1007/s11192-009-0146-3
- Voronov, V. V., Menshikov, V. V., & Ruza, O. P. (2023). Artificial Intelligence: A catalyst for entrepreneurship education in the Baltics. *Baltic Region*, 15(3), 45–65. https://doi.org/10.5922/2079-8555-2023-3-3

- 33. Yang, C., Lin, C., & Fan, X. (2022). Cultivation Model of Entrepreneurship From the Perspective of Artificial Intelligence Ethics. *Frontiers in Psychology*, 13, 885376. https://doi.org/10.3389/fpsyg.2022.885376
- 34. Yordanova, D. I., & Tarrazon, M.-A. (2010). Gender Differences in Entrepreneurial Intentions: Evidence from Bulgaria. Journal Of Developmental Entrepreneurship, 15(3), 245–261. https://doi.org/10.1142/S1084946710001543
- 35. Zhou, Q. (2021). The Impact of Cross-Cultural Adaptation on Entrepreneurial Psychological Factors and Innovation Ability for New Entrepreneurs. *Frontiers In Psychology*, *12*, 724544. https://doi.org/10.3389/fpsyg.2021.724544