Conference

2nd International Danube Cup Conference on Entrepreneurship Education (IDC² E² 2023)

Editors:

Mladen Čudanov | Loretta Huszák | Sanja Marinković

DANUBE CUP

UNIVERSITY OF BELGRADE

UNIVERSITY OF BELGRADE
FACULTY OF ORGANIZATIONAL SCIENCES

Belgrade, 2023

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DANUBE CUP: IGNITING THE FLAMES OF ENTREPRENEURIAL PROFESSION [123*]

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Associate prof. Budapest University of Technology and Economic Sciences,
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Adjunct prof. Corvinus University of Budapest,

FOREWORD

Step into a world where innovation meets tradition, where academia transforms into action, and where the spirit of entrepreneurship flows through the picturesque Danube region. Welcome to the Danube Cup, a pulsating, international inter-university startup network that redefines the very essence of entrepreneurship education and professionalization.

The Danube Cup is not just another startup endeavor; it's a seductive fusion of creativity, intellect, and a secret recipe for success. In the hallowed halls of academia, a new chapter unfolds as universities come together in a symphony of education and research, embracing the captivating allure of entrepreneurship in the Danube's embrace.

Inspired by the iconic Oxford-Cambridge regatta, The Duna Kupa (Danube Cup in Hungarian) sets the stage for an enthralling competition with new business concepts. For five exhilarating years, students from the Budapest University of Technology and Economics and the Corvinus University of Budapest locked horns in a fierce battle of innovation and determination, setting the stage for a grand expansion.

But the Danube Cup is not just an academic competition; it's a vibrant community enterprise. Here, we understand that startups are not a solitary journey, but a passionate team endeavor. From competing student teams and dedicated teachers to the guiding light of mentors, generous sponsors, and enthusiastic student volunteers, this is a captivating symphony of collaboration.

Amidst our resource-poor beginnings, we epitomize entrepreneurship as defined by Howard Stevenson – the art of starting something new with limited resources.

* Cofounders of Danube Cup community

FOREWORD

Borrowing the grandeur of university halls, sponsored sandwiches, and the magic of travel, we've turned dreams into reality.

Our heartbeat is innovation, just like any other startup. We believe that true innovation blossoms at the intersection of research and business experience. Hence, our very first Danube Cup International Entrepreneurship Research Conference in 2022 at Budapest and now, in 2023, at the University of Belgrade, serves as a testament to our relentless pursuit of knowledge and the future of entrepreneurship education.

As a dynamic startup, the Danube Cup is in a perpetual state of growth. We've welcomed new partners and expanded the Danube Cup family to include the University of Viena, Johannes Kepler University Linz, University of OTH-Regensburg and University of Regensburg, and the University of Passau, the University of Belgrade, the league of entrepreneurial universities in the Danube Region. The Danube Cup is more than a competition; it's a vibrant, ever-evolving ecosystem of entrepreneurship, entrepreneurship research and education.

The journey has just begun. Our dreams encompass international training programs, collaborative teaching materials, and thrilling accelerators with interuniversity teams. The Danube Cup's success is rooted in its relevance, and we know that if there is passion, cooperation, and the thirst for innovation, the journey will continue.

Join us on this captivating voyage, where the Danube Cup redefines the boundaries of entrepreneurship, education, research, and the irresistible allure of the Danube region. With unwavering enthusiasm and a shared vision, we will forge ahead, lighting the way for the entrepreneurs of tomorrow.

2ND INTERNATIONAL DANUBE CUP CONFERENCE ON ENTREPRENEURSHIP EDUCATION (IDC²E²)

• Agile Conference for the Agile Times •

Mladen Čudanov[*1]
[1]University of Belgrade, Faculty of Organisational Sciences

FOREWORD

As society and technologies change, organisations tend to keep the old forms in structure, strategies and processes for as long as possible. Scientific communication, mainly in journals and conferences, has not changed significantly since Luis XIV and his minister Colbert encouraged French Academy of Sciences to foster the emergence of „Journal des sçavans" in France. England soon followed with the „Philosophical Transactions of the Royal Society" – the second official scientific research journal. Thus, the pattern for scientific publishing was set. That pattern was very similar for journals and later for conferences with published conference proceedings. After the research was performed, often kept in strict confidence until the very last moment, the research report was written and submitted to the desired publisher, facilitating the review process. The review was performed by qualified researchers in the same/similar rank and field as the author, i.e. „peers", hence the title „peer review". It took months, sometimes years, between the moment author(s) decided on their will to publish the research results and the moment it was published. Often, decades passed between the conception and publication of the research, with very little feedback in between. As scientific journals and conferences grew in number, scientific research increased in speed and dynamics. Novel technologies for communication and dissemination of knowledge have long overshadowed the mechanical printing press. Huge physical and intellectual resources are still invested into research which direction is not significantly discussed and adjusted prior thethe review process. Taking into account how little strategic governance and organization there is in a process, it is a sheer wonder of human creativity and ingenuity that we keep at least this modest percentage of applicable and useful research during the last three and a half centuries. Most conferences and journals still keep the old procedures designed long before the Industrial Revolution.

IDC²E² is not among those conferences. Since the entrepreneurship research field is changing too rapidly for the practice to wait months or years to receive recent research results, we are not allowed to be. We are also not allowed to be because researchers in entrepreneurship need constant feedback from the wider community instead of developing the idea in the manner of „waterfall" software engineering methodologies -

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FOREWORD

start with the grand idea/plan/project and then cascade (sometimes too costly, stubbornly and chaotic) the phases until the finish, without major input from the external parties. We strive to create a dynamic and vibrant community that will take the best from entrepreneurship and scientific research. We have kept the practice of double-blind peer review to ensure the quality of communicated results. Taking the best from the lean entrepreneurship and agile concepts, we enabled our authors to check the direction of their research before the major efforts and resources are invested. Just like entrepreneurs check the idea's viability with the proof of concept and minimum viable product (MVP), authors in the IDC²E² check their ~800 words extended abstracts before the major resources are invested in developing it into a full-scope article. Believing in the open access, with the help and support of our sponsors, we managed to charge no conference fee and give Open Access to results to everyone with an internet-connected device and willingness to read about the new ideas in entrepreneurship education. We hope to improve our dynamic and flexible approach and progress towards the practices of liquid publishing. Real-time proceedings, interactive and multimedia presentations and open peer review can supplement our current approach towards the liquid publishing.

Research methods workshop hosted by professor Elisabeth Berger and research pitch sessions in a framework developed by professor Robert Faff, hosted by professor János Vecseny, will be another parallel of our conference with the entrepreneurial world. Just like pitches of entrepreneurial ideas, research ideas can compete for resources and team members. We hope our authors will follow the concept similar to agile software development. Instead of delivering one whole value package as a large project, they can gain small victories and collect mass peer feedback on their extended abstracts. After that, it can be much more apparent which direction the research should take to provide the most value for the community. At the end of the conference, a „Meet the editors" workshop helps the authors to adjust their paper to the aims and scope of the selected journal, including, but not limited to:

- Journal of East European Management Studies (JEEMS) published by NOMOS Publishing in Germany, metrics Web of Science Impact Factor 2020 JIF: 0.821 (2019: 0,679; 2018: 0,571; 2017: 0,794) Scopus Cite Score 2019: 0,9 (2018: 0,66; 2017: 0,62), Scimago H-index: 19
- Society and Economy, metrics: Scimago Quartile Score: Economics Q3, Scopus Cite Score: 1,2, Scimago H-index: 13
- Management: Journal of Sustainable Business and Management Solutions in Emerging Economies, published by University of Belgrade, metrics ERIH+
- Information Society (in Hungarian: Információs Társadalom, abbreviated as InfTars), metrics: Scimago Quartile Score: Communication Q3, Scimago H-index: 5
- Review of Economic Theory and Policy (in Hungarian: Köz-gazdaság), metrics: category „C" according to Hungarian Academy of Sciences, class IX. (Economics and Management)

We look forward to developing our network and hope the conference will continue to facilitate value creation among the Danube Cup members for many more years to come.

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1. The Danube Cup network

The **Danube Cup** is an international network of universities alongside the river Danube. Its mission is to help improve the international success rate of new ventures founded by university students.

How can we achieve this mission?

- by bringing together the most motivated students from a cross-section of universities in an international pitch competition.
- by bringing together educators and trainers.

The **Danube Cup** network currently has eight member universities located along the banks of the Danube. The partner universities are:

- University of Belgrade - Faculty of Organizational Sciences, Serbia (organizer and host of the 2nd **Danube Cup** Conference)
- Corvinus University of Budapest, Hungary (co-organizer of the 2nd **Danube Cup** Conference)
- Johannes Kepler University Linz, Austria
- Vienna University of Economics and Business, Austria
- OTH University Regensburg, Germany
- University of Passau, Germany
- Budapest University of Technology and Economics, Hungary
- University of Regensburg, Germany
- Izmail University of Humanities, Ukraine – with an observer status

2. Brief history of the Danube Cup student competition

It all started in 2016. In the first three years of its history (2016-2018), the **Danube Cup** was a local student competition between the Corvinus University of Budapest and the Faculty of Economic and Social Sciences of the Budapest University of Technology and Economics. The first competition was organized on May 4, 2016. The trophy was awarded to the "Surgeon Simulator" team from the Budapest University of Technology and Economics. The members of the team were: László Jaksa, Gergely Horicsányi, Dávid Mallár and Hajnalka Szokol.

In 2017, when the competition was still organized locally, the winning team came from the Corvinus University of Budapest. In 2018, the cup stayed for another year at Corvinus and was won by the Drop'N'Shop team (Bálint Forgács, Dorina Klung, András Szerencse, Gergő Ujlaky and Ágnes Végert).

In 2019, the **Danube Cup** competition went international, and the University of Belgrade and the Vienna University of Technology delegated startup teams to the competition. The trophy did not stay in Hungary: CURRATEC, a team from the Vienna University of Technology with a special adhesive for industrial use, won the finals of the competition.

In 2020, the competition could not be held due to the COVID-19 pandemic. However, in 2021, the **Danube Cup** was placed on a truly international footing. An international network of seven universities from four countries was set up. The fifth cup event took place fully digitally and the final competition was organized on 21 April. Some ideas represented at the **Danube Cup** 2021 finals focused on smart homes, the promotion of mental well-being, the control of air pollution and DNA recognition. The six startup teams that reached the finals had four minutes each to convince the international jury of the viability of their enterprises.

The **Danube Cup** 2021 jury consisted of Prof. Emeritus Derek F. Abell (founder of Berlin's European School of Management, professor emeritus at ETH Zurich), Laura Egg (CEO of Austrian Angel Investors Association), István Lám (CEO of Tresorit), Prof. Dr. Mladen Cudanov (professor at the University of Belgrade, startup advisor) and Prof. Dr. Sean Sassmannshausen (professor at OTH Regensburg, director of OTH Regensburg's Startup Center).

In 2021, the competition was won by Perun Laboratory, a startup team delegated by the University of Belgrade. Perun Lab is developing a form of portable DNA recognition technology. The work of forensic police officers is often complicated and prolonged by the fact that collected DNA samples must be returned to a laboratory. Perun's solution provides an opportunity for on-the-spot DNA analysis, thus revolutionizing this field by increasing accuracy and reducing time and cost.

The runner-up was Vienna-based Caire Solutions, who presented their innovative solution for reducing indoor air pollution. The Mentalead team from Regensburg, who are working on the development of a comprehensive application for mental health and well-being, came third in the competition.

In 2022, the international final of the **Danube Cup** student competition took place in Austria at the Vienna University of Economics and Business. The Final Pitch Competition on May 31, 2022, was part of Vienna UP 2022, a decentralized community-driven festival in Vienna, shining a light on what the future of technology holds. That's why we integrated the **Danube Cup** Final Pitch Competition into an event at Vienna UP: The Conference of Entrepreneurship Avenue, Europe's largest student-focused startup event-series. The 8 finalists pitched in front of a renowned jury in the afternoon of the Conference, and not only did they gain international visibility, but they also got the chance to win amazing in-kind and cash prizes. Members of the international jury were Julia Reilinger (Portfolio Manager at B&C Group); István Lám (Co-Founder and CEO at Tresorit from Hungary); Carlota Vento (Venture Analyst at Plug & Play); Marcus Ihlenfeld (Founder and CEO at woom bikes); Ute Stadlbauer (Regional Manager at Vienna Business Agency). The winners of the **Danube Cup** Student Competition 2022: First Place: AirMate, a startup from JKU Linz, Runners Up: Signovative, a startup from OTH Regensburg and Circle One, a startup from the WU Vienna.

In 2023, the 7th **Danube Cup** Student Pitch Competition was organized by three Bavarian Universities: the University of Passau, the University of Regensburg and the OTH University of Applied Sciences.

Figure 1: Current member universities in the Danube Cup network, 2023
Source: Danube Cup, 2023

The members of the 2023 jury were Ariane Berettyán-Nikandish, the operational lead heading the Zenosyne Technologies software development company and the Hungarian startup studio Exi-tech; Ivan Luković, Full Professor in Information Systems and Databases at the University of Belgrade, Faculty of Organizational Sciences and head of M.Sc. Information Engineering study program; Johanna Wiesner, Startup Navigation & Operations Manager at Abundance Gate in Austria; and Sean Patrick Saßmannshausen, Professor of Entrepreneurship and Head of the Startup Center at OTH Regensburg, Germany.

The first prize went to Gellit from the Budapest University of Technology and Economics; the second prize went to Fit für Immer from the University of Regensburg and the third prize went to Farm it from the University of Belgrade. Please check the www.danubecup.eu history page for more details.

3. Brief history of the research pillar of the Danube Cup

The **Danube Cup** Research Pillar was launched in 2022, with the main mission of supporting the dissemination of best practices and quality research in the entrepreneurship education topic area in the Danube region. The **Danube Cup** research conference, organized by different universities every year, is set to highlight the trends in entrepreneurship & startup education, to share experience and knowledge, and point out applied measures that can also be implemented at other higher education institutions. We...

- are building an international network of higher education institutions in the Danube region to promote cross-border knowledge sharing
- welcome members of both the academic and practitioner communities to the annual conference to bridge the gap between the two expert groups
- support the dissemination of best practices and quality research in entrepreneurship through publication opportunities
- present, with the invited keynote speakers, the most up-to-date research results in the entrepreneurship topic area (keynote presentations are broadcasted in real-time)
- offer insights into the start-up and new business development activities of the host universities
- provide a memorable experience through the hospitality and conference facilities of the host universities

In 2022, the 1st **Danube Cup** Conference was dedicated to the topic "Entrepreneurship/Startup Education for Students", and it was hosted by the Corvinus University of Budapest. The event was jointly organized by the Corvinus University of Budapest and the Faculty of Economics and Social Sciences of the Budapest University of Technology and Economics.

The purpose of the conference was to shed light on the trends in entrepreneurship/startup education, share experiences and knowledge, and identify the teaching/learning techniques used that can be applied at other higher education institutions. The goal was to create an international forum where participants could take part in sessions held by entrepreneurial trainers and practitioners from the Danube region. The event was therefore an essential tool for bringing together academic professionals and practical experts to share their ideas about how to improve the learning experience of students.

At the 1st **Danube Cup** Conference, 26 English language academic presentations were given on entrepreneurship education, scheduled in 5 sections. Representatives of the highest ranked business and management universities of the region presented their research results and shared their best practices in education. Head of sections were:

- Prof. Elisabeth Berger, Johannes Kepler University Linz, head of the Entrepreneurship Institute
- Prof. Kai von Lewinski, University of Passau, Chair of Public Law, Media Law and Information Law, head of the Law Clinic (Entrepreneurship program)
- Prof. Patrick Saßmannshausen, OTH University Regensburg, professor of entrepreneurship and head of the Startup Center
- Dr. Nedeljko Milosavljevic, University of Belgrade, head of the Technology Transfer Center
- Dr. Jakob Pohlisch, Vienna University of Economics and Business, Institute for Entrepreneurship and Innovation

The conference organizers awarded a prize to the best presentation. Each section head assessed the presentations according to an evaluation form which was prepared for them. Scores were calculated and the best presenter with the highest score received a certificate. The aim here was to encourage research on entrepreneurship and startup-related topics and the sharing of best practices.

The **Danube Cup** conference 2022 Best Presentation Award went to Benjamin Monsorno from WU Vienna University of Economics and Business, Institute for

Entrepreneurship and Innovation, Austria. Benjamin Monsorno presented at the conference about the 'Industrial Business Model Innovation' course. This is one of the application-oriented project courses at the Institute at WU Vienna. The course aims to deepen and extend the students' theoretical and entrepreneurial skills through practical application to a real case. With the innovative syllabus, WU educators managed to set up a group-based course on real and relevant projects in close cooperation with project partners under the supervision of the course instructors and practical coaches. Work progress will be documented and evaluated throughout the course. **Danube Cup** conference section heads and the academic chair found that the course and the demonstration of the results, the preparation work and the academic embedding made the presentation a benchmark for all entrepreneurship educators. Congratulations to Benjamin and his colleagues!

The ' **Danube Cup** Best Educator' award went to Dr. Pál Danyi, associate professor at the Faculty of Economic and Social Sciences of the Budapest University of Technology and Economics.

Dr. Danyi has been giving lectures in the areas of Entrepreneurship, Pricing, and Information Management. As an experienced entrepreneur, he has founded several startups working in pricing-based areas and is also an expert advisor for DynamOPricing Ltd., which focuses on dynamic pricing techniques.

He is a co-founder of the **Danube Cup** initiative, which has organized startup pitch competitions for students since 2016 and he served as chief organizer of the international **Danube Cup** pitch competition final events in 2019 and 2021.

Dr. Danyi is committed to **Danube Cup** and entrepreneurship education. He is generous with his time and resources; he has been doing his best to strengthen entrepreneurship education for years. Even the Covid period could not distract Pál from his goal of putting the **Danube Cup** on an international footing. He received a beautiful statue, a reminder that hard work pays off.

4. 2nd International Danube Cup Conference on Entrepreneurship and Startup Education (IDC²E²) - Conference Aims and Subject Areas

Enterprises are drivers of innovation, economic growth, and regional development. SMEs are also generally agile, adapting quickly to market changes and serving niche markets. Overall, enterprises strengthen the economy's resilience, foster innovation, and contribute significantly to a dynamic and prosperous economy. To teach entrepreneurship, we first need to get to know businesses and their problems, which is a popular topic for research. COVID-19 also shook the world economically, including the Danube countries. COVID-19 has impacted SMEs more than large capital-intensive companies. It significantly changed the business paradigms and forced businesses to adapt quickly to the changed circumstances. One of the aims of the conference is to provide a platform for sharing studies analysing the impact of COVID-19 on entrepreneurship.

Over the past 10+ years, entrepreneurship has become increasingly central to business education. The significant growth of entrepreneurship education throughout Europe in recent decades has played an important role in developing academic infrastructure

within the discipline. At the same time, companies have transformed their HR policies to hire the most creative and innovative graduates and improve their understanding of start-up ecosystems. Innovative teaching methods are quasi–by-products of the quantitative growth of entrepreneurship in higher education institutions in a positive sense. The aim of the conference is to enable practitioners and academics to exchange experiences on trends, developments, and opportunities for improvement in high level entrepreneurship education.

The 2nd **Danube Cup** 2023 conference aims to facilitate communication between academics and practitioners and provide an international forum for sharing scientific and practical research on a variety of topics, using different scientific approaches, presenting the latest innovations and results, and outlining the causes, content, methods and impact of active entrepreneurship and entrepreneurship education. All abstracts - presenting empirical research, methodological advances and/or real case studies -were assessed in a double-blind review to ensure they meet high quality standards.

The organizers strive to publish the short version of the presentations of the **Danube Cup** annual conferences in a Book of Abstracts with an ISBN number, thus promoting networking between participants and the dissemination of subject area knowledge and best practices.

Beyond knowledge exchange, the conference also aims to support researchers in producing high-quality publications through several avenues:

- Research Methods Workshops, guided by Prof. Elisabeth Berger from Johannes Kepler University Linz, Austria, will explore research designs appropriate to study entrepreneurship education.
- The Research Elevator Pitch aims to facilitate the formation of international research teams, allowing researchers to present their ideas and seek potential collaborators.
- The „Meet the Editors" session provides an insight into the different publishing opportunities and include a Q&A session with representatives from different publishers.

The 2nd **Danube Cup** Conference 2023 is organized by the University of Belgrade – Faculty of Organizational Sciences and Corvinus University of Budapest and hosted at the Faculty of Organizational Sciences in Belgrade.

DANUBE CUP Conference ACADEMIC Sections

The Danube Cup 2023 is an interactive conference for professionals representing universities, corporations and start-ups coming together to share their knowledge and tools for facilitating entrepreneurship. Acceptable topics are all from the entire range of entrepreneurship education research, with the following sections:

SECTION 1 | Entrepreneurship education: Reasons (the "WHY"):

Motivation behind entrepreneurship education at HEIs, the WHYs: motivating, inspiring, and making students become professional entrepreneurs or co-entrepreneurs, or entrepreneurship supporters in the entrepreneurship ecosystem, and increasing the number of spinoffs etc. Top-down analysis of global, regional, local, individual needs and challenges is also welcome.

Moderator: Dr. Rudolf Dömötör
WU Vienna University of Economics and Business

Co-Moderator: Dr. Milan Okanović
University of Belgrade - Faculty of Organizational Sciences

SECTION 2 | Entrepreneurship education (the "WHY"):

Content and Teaching methods (the "HOW"): This focuses on teaching entrepreneurship at different levels with different content: theory vs practice, about what vs how, traditional vs innovative ventures, etc. Should we prepare our students for different roles or functions or just give general entrepreneurship education (the "WHY")? How should we teach entrepreneurship: learning from lectures, from case studies, from entrepreneurs' inspirational talks, from action in creating new ventures, cooperating with and working for external businesses, from teamwork, using incubators, accelerators, or from part-time jobs in the start-up ecosystem? What are the accepted best practices to develop entrepreneurial ecosystem brokered by the universities? How can we develop self-sustainable platforms and nourish start-up creation in University incubators / accelerators? Which are the best content and methods to educate the educators?

Moderator: Dr. Vecsenyi János, emeritus professor
Corvinus University of Budapest

Moderator: Dr. Andrea Gubik
University of Miskolc, Hungary

Co-Moderator: Dr. Zoran Rakićević
University of Belgrade - Faculty of Organizational Sciences

SECTION 3 | Entrepreneurship education (the "WHY"): Impact:

Analysis should be used to gain a deeper understanding of the impact of entrepreneurship education (the "WHY")in the motivation and professionalism of the new generation, to learn how much our students utilize entrepreneurship education (the "WHY") and what they have missed. Such research should primarily fill a research gap on the performance of entrepreneurship education. Longitudinal research is especially welcome, but also a multiple case-study approach based on feedback of how much previous students have utilized knowledge from their studies. Papers on approaches to expert support may be used, focusing on how for example start-up law clinics, accountancy, sales and product management experience may provids good impact.

Moderator: Thomas Stecher
University of Passau, Faculty of Law

Co-Moderator: Dr. Radul Milutinović
University of Belgrade - Faculty of Organizational Sciences

SECTION 4 | Entrepreneurship in practice – Effect of COVID-19 on entrepreneurship:

The global pandemic caused by the SARS-COV2 coronavirus in 2020 has led to general uncertainty in society and the economy. States have implemented various economic stimulus programmes to keep businesses up and running. COVID-19 affected businesses in a number of areas, which researchers can examine from several perspectives. In this session, we invite papers on the impact of COVID-19 on enterprises.

Moderator: Dr Erika Jáki
Budapest Business School, Faculty of Finance and Accountancy

Co-Moderator: Dr. Ivan Luković
University of Belgrade - Faculty of Organizational Sciences

SECTION 5 | Entrepreneurship in practice: General topics:

This section focuses on the important issues of entrepreneurship which cannot directly be categorized as the entrepreneurial education topics. Changes initiated by the COVID-19 pandemic are important, but only a part of the new research directions. Still there are many topics regarding discussion on the opportunities shift in the contemporary markets and societies, innovation, adaptability, risk, risk management, basic leadership and management skills, organizational patterns, business plans, business models and strategies, legal and regulatory framework. Also, constantly interesting topics cover interaction of entrepreneurial traits and the environment, which along with the necessary competencies describe the basic outline of the entrepreneurship education (the "WHY")goals and tasks.

Moderator: Dr. Sean Patrick Sassmannshausen
OTH Regensburg (Technical University O.A.S. Regensburg)

Co-Moderator: Dr. Ivan Todorović
University of Belgrade - Faculty of Organizational Sciences

WORKSHOP 1

Research methods

In this interactive workshop we will explore potential research designs appropriate to study entrepreneurship education. The workshop will have two parts which will be led by Prof. Elisabeth Berger, head of Institute for Entrepreneurship at JKU Linz, and co-editor of two Q1 journals.

The workshop will have two parts.

- In Part 1, prof. Elisabeth will present examples of how the entrepreneurial education context is used to advance the academic discussion.
- Part 2 will provide an opportunity for selected participants to present their current research or research ideas and to receive feedback on their research design. Duration of the presentation: max. 3 minutes, with focus on the intended research methods.

Moderator: Prof. Elisabeth Berger, PhD (Johannes Kepler University Linz, Austria)

WORKSHOP 2

Research Elevator Pitch

In response to the publisher's proposals after last year's Danube Cup conference – to generate more international publications, with a group of authors not belonging to the same institution/not representing the same country – on November 25th, we are going to organize a research pitch session (Research Elevator Pitch) where colleagues can pitch their research (ideas), with the aim of finding international collaborators for their intended research activity focusing on entrepreneurship or startup education.
3 minutes research pitch – guaranteed feedback!

WORKSHOP 3

Meet the Editors Session – How to Publish in WoS journals and with Nomos

During the conference, we will organize a "Meet the editor" session. We recommend selected research for consideration and potentially accelerated double-blind review in the following journals:

- Journal of East European Management Studies (JEEMS) published by NOMOS Publishing in Germany, metrics Web of Science Impact Factor 2020 JIF: 0.821 (2019: 0,679; 2018: 0,571; 2017: 0,794) Scopus CiteScore 2019: 0.9 (2018: 0.66; 2017: 0.62), Scimago H-index: 19
- Society and Economy, journal of the Corvinus University of Budapest, metrics: Scimago Quartile Score: Economics Q3, Scopus CiteScore: 1.2, Scimago H-index: 13
- Information Society (in Hungarian: Információs Társadalom, abbreviated as InfTars), metrics: Scimago Quartile Score: Communication Q3, Scimago H-index: 5
- Management: Journal of Sustainable Business and Management Solutions in Emerging Economies, published by University of Belgrade, metrics ERIH+
- Review of Economic Theory and Policy (in Hungarian: Köz-gazdaság), metrics: category "C" according to Hungarian Academy of Sciences, class IX. (Economics and Management)

Moderator: Prof. Thomas Steger, PhD (University of Regensburg, Germany)

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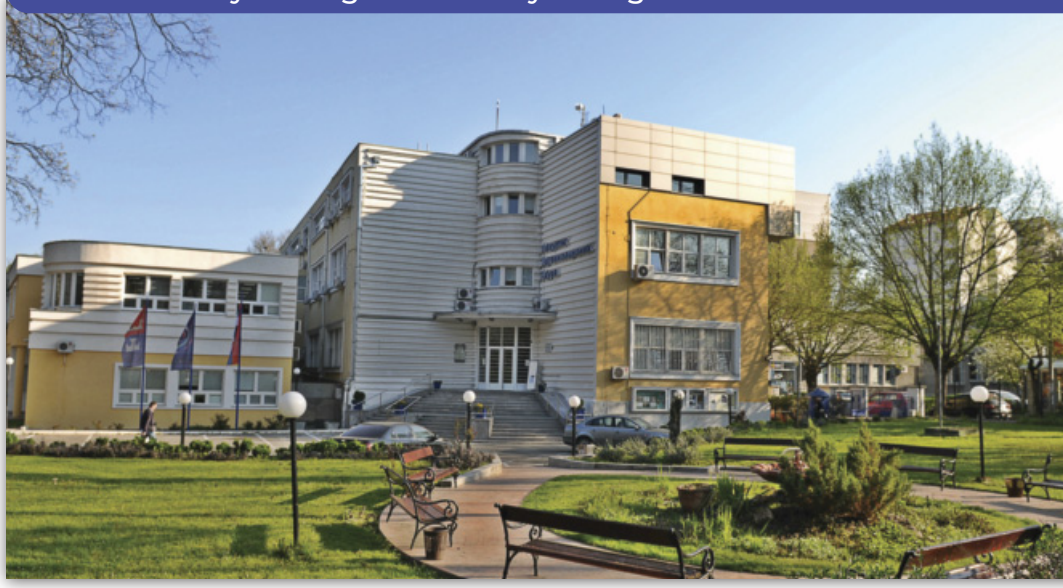
University of Belgrade Faculty of Organizational Sciences



Conference Organizer

University of Belgrade is the largest and oldest public university in Serbia with over 90 000 students. The University has 31 faculties organized in four fields: Social sciences and humanities, Medical sciences, Sciences and mathematics and Technology and engineering sciences. University of Belgrade is ranked among the best 301–400 world universities by Shanghai Ranking.

Faculty of Organizational Sciences (FON), as the youngest member of the University of Belgrade. It is a leading accredited faculty in Serbia in the field of management and organization and information systems and technology, with 7000 active students. The Faculty and all study programs on undergraduate, master academic, specialized academic and doctoral studies are accredited by The National Council for Accreditation of the Republic of Serbia.

From its founding in 1969, the Faculty of Organizational Sciences (FON) was a school with an engineering approach to management, modeled according to the Sloan School of Management from the Massachusetts Institute of Technology (MIT) in the United States. All study programs implemented at FON have a multidisciplinary approach - strong quantitative and IT background combined with management and organization knowledge and skills. In addition to study programs, research, projects, and cooperation with institutions are also priorities of FON.

The strategic aim of FON is to establish and develop cooperation, both with national higher education institutions, and international organizations and foundations. FON has been one of the first faculties of the University of Belgrade to recognize the need to inform teachers, students and staff on the possibilities of international relations and cooperation. t also has well-developed cooperation with the leading companies in Serbia, thus providing its students with the opportunity to improve their knowledge and awareness of business systems. A great number of our students actively participate in student organizations and various extracurricular activities. We are particularly proud of the numerous medals our students have received in different national and international competitions both in academic fields and sports. FON often organizes meetings and gatherings between our students and students from other national and international academic communities.

FON improves and creates study programs and teaching methods in order to keep up with European and global trends where education for innovation, entrepreneurship and startups are included as the key emerging fields closely connected to management and IT study programs.

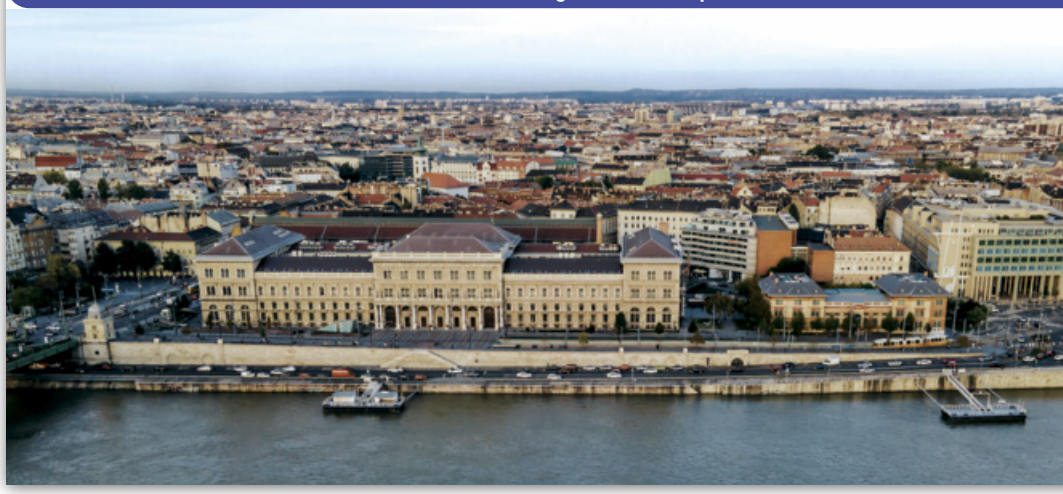
Courses in the field of entrepreneurship are offered at the Bachelor level (Entrepreneurship, Technology Entrepreneurship, Development of SMEs, Entrepreneurial management of SMEs) and Master level (Entrepreneurial Ecosystem, Human Resources and Technology Entrepreneurship, Technological Entrepreneurship and Development, Entrepreneurship and SMEs development, Entrepreneurship and Management of SMEs, Entrepreneurial Marketing and Communication).

Moreover, the Research and Development Hub of the Faculty (R&D Hub FON) was established as a place of meetings and extracurricular engagement of students and mentors in a unique, stimulating atmosphere of joint work, sharing knowledge, developing entrepreneurial initiatives and strengthening the startup community at the Faculty. The main objective of R&D Hub FON is to contribute to the competitiveness of students market inclusion and business opportunities, develop specific knowledge and skills of students through joint research and development projects of the Faculty and partner organisations, improve the conditions for employment of students, and create conditions for self-employment.

During the 2022/2023 school year, 18 projects were implemented in the R&D Hub in collaboration with partner companies of the Faculty and university, in which 827 students participated, 83 external lecturers and 55 teachers initiated, directly attended, or contributed to the realization of these projects.

FON runs „Venture an Idea" project that aims to cultivate an entrepreneurial mindset among young individuals and support their entrepreneurial endeavors. Faculty involvement in the project primarily focuses on enhancing the mentoring capabilities of teaching staff and preparing them for work with student startup teams. In the last two years, more than 80 professors and teaching assistants from two universities have engaged in the „Expert2Mentors" training program, followed by the „Route2Launch" startup mentoring program for student teams. Seventeen newly established student teams have embarked on their entrepreneurial journeys. Since 2021, the „Student Startup Week" has been organized at the Faculty, convening startups and support organizations from the ecosystem at the Faculty.

Corvinus University of Budapest



Corvinus University of Budapest (CUB) is a co-founder of the Danube Cup competition. CUB is a research driven university oriented towards business and management education. The university currently has an enrolment of approximately 14,500 students and offers educational programmes in business administration, economics, and social sciences. CUB accepts students at six faculties and offers courses leading to degrees at bachelor, master and doctoral levels in specialisations taught in Hungarian, English, French, and German.

Innovation and entrepreneurial thinking are recognised by CUB as key skills for the future. Entrepreneurship education began at the University through delivery of postgraduate courses in 1991. The Institute for Enterprise Development currently offers several courses for students interested in starting their own businesses. Since 2017, the CUBator / Corvinus Startup Corner unit has provided services as a means of preparing students for job future work. This includes devising their own businesses or working as employees for newly founded startups. At the present time CUB does not operate a dedicated entrepreneurship/innovation centre, but related subjects are taught in many degree programs and the university continues to nurture several successful student startups.

CUB offers a specialisation course in Entrepreneurship (formerly known as “Small Businesses”) in the Business and Management undergraduate program. A flagship course known as “Starting and managing small businesses” has been run since 2002 with a maximum of 500 students per semester. Very high registration numbers over the years have confirmed enormous demand from students. Instructors and guest entrepreneurs with practical experience and alumni students also take an active part in education.

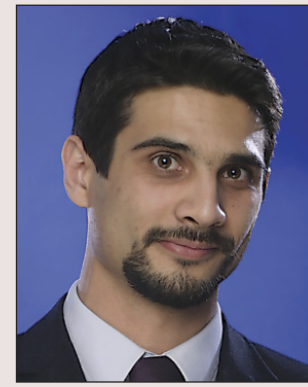
At master’s level, there are several courses in the “Entrepreneurship Development” master’s program. Subjects are designed to transfer entrepreneurship knowledge and skills with around 150 students completing the graduate major each year.

Through the CEMS Master’s in International Management programme CUB offers courses on validating business ideas, building dedicated and competent entrepreneurial teams, and financial planning. The objectives of these courses are to provide practical knowledge on starting a new business, as well as to inspire and encourage entrepreneurial thinking.

CUB is very proud of nurturing many student-founded startups and scaleups, some of which are listed below:

- Munch.hu, a food-saving application and website, which received the "Sustainable Business of the Year" award in 2020. The platform allows restaurants to sell high-quality but soon-to-expire food with a minimum discount of 40%.
- Talentuno, a company which helps job seekers find employment, and simultaneously, helps companies find to talented employees. To achieve this, Talentuno use the help of 'MatchMakers' who are anonymously registered individuals who can locate job candidates more quickly and efficiently than other recruitment agencies because they rely on the power of communities.
- PublishDrive, an all-in-one publishing platform which saves authors and book publishers time and frustration with use of some of the best publishing tools in the industry.
- BOOKR Kids, an app that makes reading a habit. BOOKR Kids inspires a love of reading whilst boosting literary, social-emotional, and cognitive skills through provision of interactive e-books.
- Neticle, an intelligent system devoted to media monitoring, analysing, and social listening. Proprietary sentiment and semantic analysis technology developed by Neticle works with an outstanding human level of precision. Neticle employs experts in gaining insights automatically from text and builds products and services by applying this technology.
- WPO, which has created digital experience since 2011 by developing code, design, and technology for nearly every device. Amongst other projects WPO has developed, the "starting business" learning platform for young startuppers.
- Engame Academy, which works with talented high school students to help them select careers and to fulfil their potential and find suitable higher education programs internationally.

SCIENTIFIC COMMITTEE OF THE CONFERENCE



Mladen ČUDANOV
University of Belgrade
SERBIA

https://www.linkedin.com/in/mladencudanov/

Mladen Cudanov is a Full Professor at the University of Belgrade, Faculty of Organizational Sciences, Serbia, where he acquired MSc and PhD degrees. He teaches Organizational theory, design, and entrepreneurship courses at all three levels of studies and was elected as one of the top five teachers at the Faculty of Organizational Sciences on twelve times in the previous twenty semesters. He has twenty years of consultant experience in organizational design, entrepreneurship, startup and change management and has collaborated on and helped assess more than 100 startup projects. He was engaged in the entrepreneurship section of a career retraining program for military personnel known as "PRISMA", organized by the Human Resources Sector of the Ministry of Defence. He has served as a judge in multiple entrepreneurship events such as the Danube Cup and has taught entrepreneurship courses on several joint programs, such as "TRAIN"- or Training and Research for Academic Newcomers. He has published more than 140 papers in research journals and conferences, and has more than 900 citations15, with roughly a quarter from Web of Science journals16. He was visiting Assistant Professor on joint programs organized by iVWA (Germany) / ZHCPT (PR China) and iVWA (Germany) / JCIT (PR China). He has also taught at Federico Caffe Institute of Business and Economy, ROMA TRE University, Italy, and at the Technical Faculty at the University of Žilina, Slovakia on the ERASMUS+ teacher exchange program. His main research interests lie in organizational design, startup management, restructuring of business systems, organizational change management, and information and communication technology development. He also works as an Associate Editor and reviewer in several journals, including the JCR indexed Amfiteatru Economic and is Editor-in-Chief of Management for the Journal of Sustainable Business and Management Solutions in Emerging Economies.

http://scholar.google.com/citations?user=aUVE66IAAAAJ&hl=en
https://publons.com/researcher/1688428/mladen-cudanov/

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Dr. Elisabeth S. C. BERGER
Johannes Kepler University Linz
AUSTRIA

Professor **Elisabeth Berger** chairs the Institute for Entrepreneurship at Johannes Kepler University Linz, Austria https://www.jku.at/en/institute-for-entrepreneurship/ She was appointed as full professor for new business venturing and innovative regions in 2021. Previously she was interim Professor at the Technical University of Munich and completed her Post-Doc and PhD degrees at the University of Hohenheim, Germany, where she was awarded the highest distinction level for her dissertation: "Toward a configurational understanding of entrepreneurship using qualitative comparative analysis."Professor Berger's research focuses on the perception as well as social evaluations of entrepreneurship. It also encompasses the role of entrepreneurship and innovations in transformation processes as well as entrepreneurial ecosystems. Her work has been published in various entrepreneurship and including the Journal of Business Venturing, the Journal of Business Research, and the European Management Journal.Professor Berger is co editor of the International Journal of Entrepreneurial Behaviour & Research13 and serves on the editorial board of the Journal of Business Research, Department of Innovation, Entrepreneurship and Knowledge14.

https://www.emeraldinsight.com/loi/ijebr
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https://www.linkedin.com/in/paldanyi/

Dr. Pál DANYI
Budapest University of Technology and Economics
HUNGARY

Dr. **Pal Danyi**, PhD, is an associate professor at the Faculty of Economic and Social Sciences of the Budapest University of Technology and Economics. His research focus is on experimenting with data driven and AI methods in pricing. He holds a degree of Candidate of Science from the Hungarian Academy of Sciences and gives lectures in the areas of Entrepreneurship, Pricing, and Information Management. As an experienced entrepreneur, he has founded several startups working in pricing based areas and is also an expert advisor for DynamO Pricing Ltd. which focuses on dynamic pricing techniques. He previously worked for 17 years with large multinational companies including EY (Ernst & Young) and Deutsche Telekom in various management positions. His other interest is in pricing history where he builds and maintains the artortenet.hu portal as a social enterprise.He is a co-founder of the Danube Cup network which has organized startup pitch competitions for students since 2016 and served as chief organizer of the international Danube Cup pitch competition final events in 2019 and 2021.

Dr. **Rudolf Dömötör** is Director of the WU Entrepreneurship Center and the ECN (Entrepreneurship Center Network), a joint initiative of 29 Austrian universities to promote interdisciplinary entrepreneurship among students and faculty. He is co-founder of Entrepreneurship Avenue, the largest entrepreneurship event series in Europe with a focus on students, and co-author of the Austrian Startup Monitor, Austria's largest annual startup study. He has been active in the Austrian start-up ecosystem for many years and has been a member of the Startup Council of the Federal Ministry of Labor and Economic Affairs since summer 2022. He studied business administration at the Vienna University of Economics and Business and the University of Technology Sydney and completed research stays lasting several months at George Washington University (USA) and the University of Canterbury (New Zealand).

Dr. Rudolf DÖMÖTÖR
Vienna University of Economics and Business
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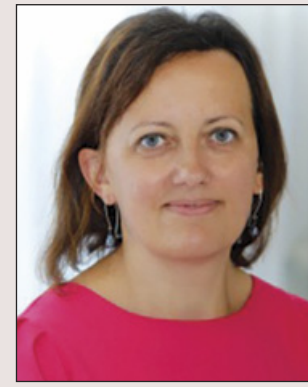
Loretta Huszák is an innovation specialist. She holds a BSc degree from ELTE University, Budapest, Hungary, and an MA and a PhD in Economic Sociology from the University of Leipzig, Germany. Prior to her university teaching career, she was a middle manager at Hungarian Intellectual Property Office for several years. As a university lecturer of management and economic sociology, she has taught and supervised BSc, MSc, and PhD students in areas of innovation and IP management, business strategy, international business, all in the context of Small and Medium Sized Enterprises (SMEs). She has published in and reviewed for a variety of internationally recognized journals on various topics including Innovation and Intellectual Property Management, International Business and SMEs. She is a member of the Hungarian Academy of Sciences. In addition to her academic activities, Loretta Huszák is co-founder and the main driving force behind the CUBator / Corvinus Startup Corner, which is an innovation lab, founded with 2017, CUBator occupies a virtual and physical space at Corvinus University of Budapest which is provided to students and others to come together to 'do' innovation.



Dr. Loretta HUSZÁK
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Dr. Kai VON LEWINSKI
University of Passau
GERMANY

Professor **Von Lewinski** is a full Professor and has held the Chair for Public Law, Media and Information Law at the Faculty of Law at the University of Passau, Bavaria, Germany since 2014. He also heads the Law Clinic on Information and Media Law at the University of Passau. He serves as Transfer Officer of the Faculty, which is part of the "Digital Technology and Entrepreneurship" (DTE) and "Passau, the Entrepreneurial Campus" (PATEC) programs of the University. He was also head of the "Privacy and Digitalisation" research training group between 2019 and 2021 and is currently vice dean of the law faculty until 2024 and serves as a member of the university's senate. Professor von Lewinski served as Research Director at the federal Data Protection Foundation in Leipzig from 2013 to 2014. Prior to working on his second scientific thesis on fiscal insolvency and state bankruptcy he conducted theoretical and practical work on lawyers' professional standards at the Lawyers Institute at Humboldt University, Berlin. From 2000 to 2004, he worked as a lawyer at the international law firm Lovells (then known as Lovells Boesebeck Droste, currently Hogan Lovells), both in their Frankfurt and Berlin offices, which included start-up support before and during the dotcom crash of the early internet era.He founded his own law firm in 2002 and was involved in his own brother's startup marketing venture and gives legal advice to enterprises on a regular basis.

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Sean Patrick
Sassmannshausen
OTH Regensburg
GERMANY

Dr. **Sean Patrick** Sassmannshausen is Professor for Business Administration and Entrepreneurship and Head of the Startup Center at OTH Regensburg, Germany. His responsibilities include entrepreneurship research and development projects with nine entrepreneurship projects under management until December 2021. These include all levels of grants, ranging from European, to national (federal) German and Bavarian state level funding. His teaching focuses on acquisition of future research funding, start-up support and fostering of academic spin-offs. He is also a visiting professor at Aarhus University (Denmark), RISEBA University (Riga, Latvia), Technical University Vienna and Danube University Krems (Austria). Following receipt of his doctorate he became Interim-Professor for Business Administration, Management of SMEs and Entrepreneurship at the University of Siegen, Germany and Managing Director of the Entrepreneurship and Innovation Research Institute "IGIF" at the Schumpeter School of Business and Economics, University of Wuppertal, Germany. He was born in Wexford, Ireland and studied Intercultural Management and Evolutionary Economics at the Friedrich Schiller University and the Max Planck Institute for Evolutionary Economics in Jena, Germany, as well as Scandinavian Area Studies in Odense, Denmark. He earned his Doctorate in Entrepreneurship, Business and Economics at Schumpeter School, University of Wuppertal, Germany.

Harvard Business School where he participated in a program on entrepreneurship organized by the European Foundation for Entrepreneurship Research (EFER). He was a Visiting Professor at the Thunderbird School of Global Management in Phoenix, Arizona in 2008 and in 2010 visited the University of Colorado, Denver. He is a member of editorial boards and of review boards of several national and international journals. His scientific papers have been presented at leading international conferences including Babson and AOM and he has published in various entrepreneurship journals and in general business journals.Research Business Areas: Entrepreneurship, New Venture Creation, Opportunities for Start ups, Family Business, Spin-offs, High Growth Ventures, Gazelles, Corporate Entrepreneurship, Intrapreneurship, General Management, Entrepreneurship Education, Executive Education

Thomas Steger
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Thomas Steger is Full Professor of Leadership and Organization at the University of Regensburg. He graduated from the University of Fribourg (Switzerland) and received his doctoral degree as well as his habilitation from the Chemnitz University of Technology. Moreover, he acted as professor (ad interim) at the universities of Hohenheim and of Erfurt.His research interests focus on corporate governance (especially boards of directors) and employee-owned companies. Particular emphasis is placed on the transforming countries of Central and Eastern Europe. Since more than two decades, Thomas is intensively engaged in the area of management in Central and Eastern Europe. He was a co-founder (and currently editor-in-chief) of the Journal of East European Management Studies. Moreover, he was a guest lecturer at different universities in Central and Eastern Europe and has led and contributed to several research projects in the field, related to topics such as business elites, corporate governance, talent management, MNC subsidiaries, and business corruption.Thomas has widely published in journals such as Journal of World Business, Organization, Journal of Business Research, Global Networks, and International Journal of Emerging Markets. Moreover, he published four books and co-edited several special issues of prestigious journals and, most recently, the Oxford Handbook Central and East European Management and Organizations.

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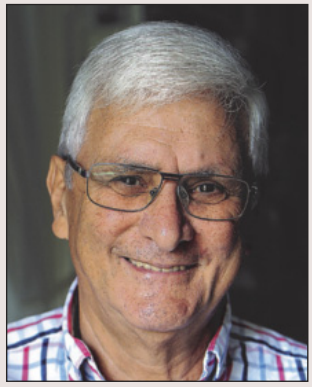
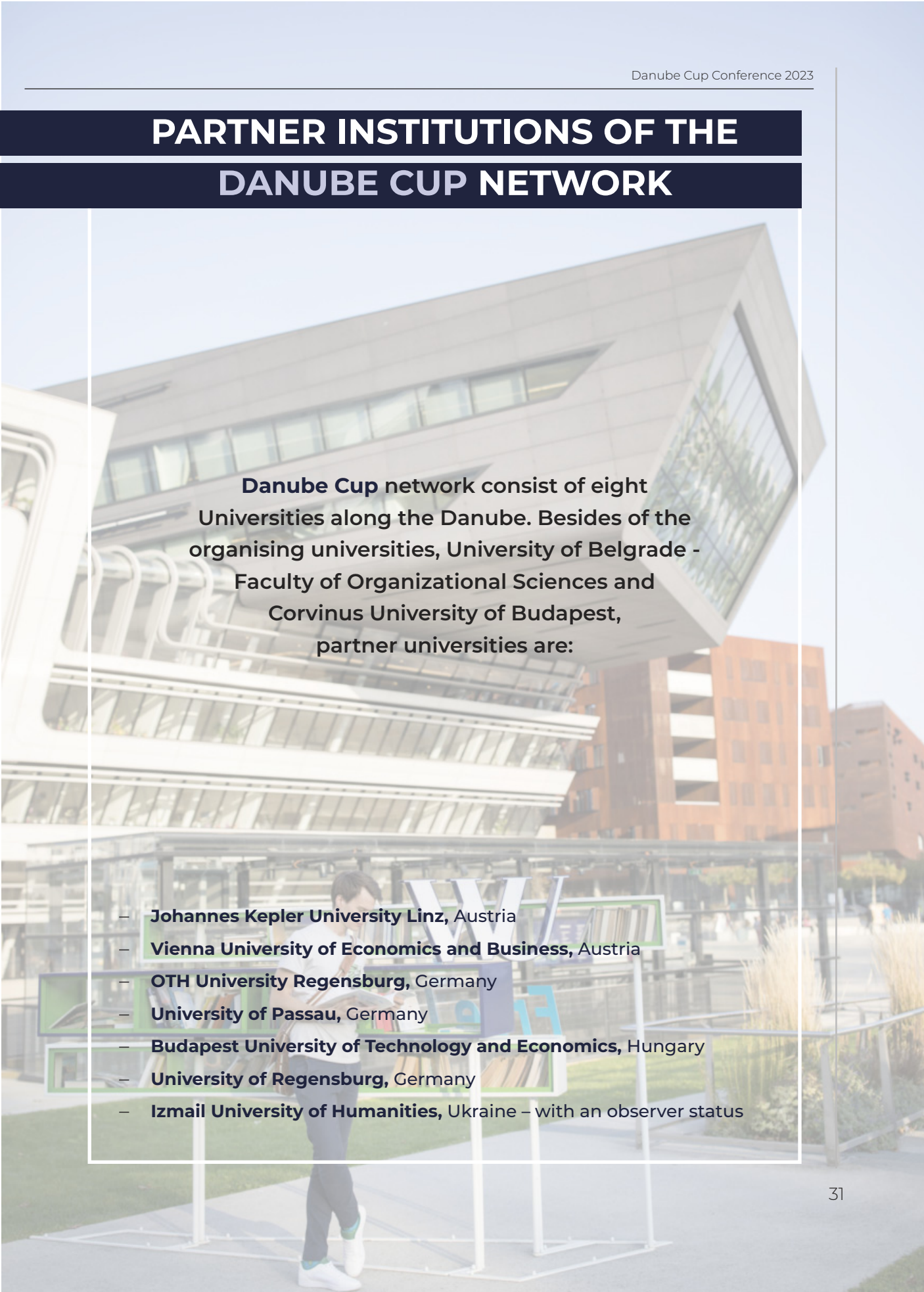


Dr. János VECSENYI
Corvinus University
of Budapest
HUNGARY

Professor **Vecsenyi** has been teaching at Corvinus University of Budapest since 1978 and at Budapest University of Technology and Economics since 2011. He is a graduate of Budapest University of Technology and Economics and holds a PhD from Corvinus University of Budapest.As a serial entrepreneurship educator, he designed and delivered several entrepreneurship courses at bachelor, master's, PhD, and MBA levels at three different higher education institutions over the past thirty years. He is also founder of the StartupVIP incubator at Budapest University of Technology and Economics. He was a visiting professor at University of Tulsa (USA), at INSEAD (France). Professor Vecsenyi extensively consulted, mentored major Hungarian firms and startups in Europe. Professor Vecsenyi has published four books on entrepreneurship related topics: Smart entrepreneurship - From idea to market entry (2017, 2023); Starting and managing new ventures (2009, 2011, 2013, 2017); Entrepreneurship - From start to restart (2002); Entrepreneurial organizations and strategies (1999). He has also developed an online start-up support tool, www.vallakozasindito.hu available in Hungarian and partly in English. Professor Vecsenyi served as managing director of the European Foundation for Entrepreneurship Research (EFER) 2014-2015 and is co-founder of the Danube Cup international student startup competition and network. Professor Vecsenyi serves as a board member for several small business development foundations.

PARTNER INSTITUTIONS OF THE DANUBE CUP NETWORK



Danube Cup network consist of eight Universities along the Danube. Besides of the organising universities, University of Belgrade - Faculty of Organizational Sciences and Corvinus University of Budapest, partner universities are:

- **Johannes Kepler University Linz,** Austria
- **Vienna University of Economics and Business,** Austria
- **OTH University Regensburg,** Germany
- **University of Passau,** Germany
- **Budapest University of Technology and Economics,** Hungary
- **University of Regensburg,** Germany
- **Izmail University of Humanities,** Ukraine – with an observer status

Johannes Kepler University Linz, Austria

Entrepreneurship is strongly rooted in the values of Johannes Kepler University Linz (JKU). In 2003 regular institute with an endowed chair for entrepreneurship was funded by the university, which was the first its kind in Austria. Since then, the Institute for Entrepreneurship has become the heart of Entrepreneurship Education at the university and acts as an essential cornerstone for diverse activities fostering Entrepreneurship at JKU and in the entrepreneurial ecosystem in Upper Austria.

The Institute of Entrepreneurship which is headed by Univ.-Prof. Dr. Elisabeth Berger embodies practice-informed research to contributes to academic discussion, insights for the entrepreneurial ecosystem, and practical evidence for teaching purposes. Research topics focus on perceptions and evaluation in entrepreneurship, entrepreneurial ecosystems, and the role of entrepreneurship in transformation processes and entrepreneurial initiatives as well as transnational entrepreneurship. The institute publishes its research results in leading academic journals and forms an active part of the scientific community.

Furthermore, the institute offers evidence-based and practice-oriented teaching methods that allows students to develop enthusiasm for entrepreneurship as a career option ranging from assuming entrepreneurial roles in established companies and in other organizational structures such as NGOs, founding a new venture and to conducting entrepreneurship research. Various entrepreneurship courses are offered in JKU's diverse faculties, thus fostering interdisciplinary formats, and offering students the opportunity to already experience entrepreneurship during their studies. The annual summer school 'Founders Week' is an integral part of Entrepreneurship Education at JKU. During this one-week creative camp, students have the opportunity to work on their ideas with experts, to use mentoring services and to get in touch with entrepreneurs.

In 2016, a new initiative was launched to foster awareness of entrepreneurship for students and staff. This is a collaboration effort between the institute, the JKU - LIT Open Innovation Center and other actors from the entrepreneurial ecosystem. JKU is an

important pillar of the Upper Austria Start-up Ecosystem and, together with incubators and other support institutions, is part of a network to support startups and spin-offs from academia. Startup support services offered by JKU are positioned in the early stages of founding, from teaching entrepreneurship, providing co-working space, organizing events, and providing access to networks. JKU has also created a hub at the JKU - LIT Open Innovation Centre designed to bring academia together with real-world practices as well as to provide space for young startups, innovative ideas and opportunities to advance circular economy technologies, and to create sustainable plastic material.

The close collaboration of different university institutes and departments related to entrepreneurship and stakeholders of the regional entrepreneurial ecosystem is a success factor for the emergence of student startups. A mixture of empirical research results, knowledge gained from teaching, and valuable insights from the startup scene provides an ideal base ground for entrepreneurship at JKU.

Vienna University of Economics and Business, Austria

WU (Wirtschaftsuniversität Wien) is a leading academic institution and one of Europe's most attractive universities in business and economics, with around 22,000 students in Bachelor, Master and PhD-programs: and around 2,400 staff. WU's triple accreditation by EQUIS, AACSB, and AMBA – the three foremost international accreditation systems for business and economics universities – is a testament to WU's high quality standards. As an international and open-minded university, WU is an important hub for global exchange, and a place where students and teachers work together.

At WU Vienna, there are several initiatives to promote entrepreneurship. In terms of entrepreneurship education, the Institute for Entrepreneurship and Innovation offers a two-semester major on Entrepreneurship & Innovation to WU undergraduate students. At the master's program level, The Strategy, Innovation and Management Control (SIMC) program forms a two-year master program. Furthermore, the MBA on Entrepreneurship provides insights on this topic to executives. Extra-curricular activities are provided by the WU Entrepreneurship Center and the Social Entrepreneurship Center.

WU Entrepreneurship Center

Since June 2015, WU Gründungszentrum (WU Entrepreneurship Center) has been the central place to go to for guidance on student entrepreneurship. It is the long-term goal of the WU Entrepreneurship Center to help increase the number and quality of entrepreneurial activities amongst WU students, alumni, and faculty. WU wishes to present Entrepreneurship as a life perspective and show what is possible when ideas are realized.

In order to foster cross-university collaboration, WU Entrepreneurship Center is part of the Entrepreneurship Center Network (ECN)[1]., a cross-university network of 25 universities across Austria, with the aim of nurturing entrepreneurial activity and thinking at respective partner universities. One initiative of the ECN, in collaboration with the SIMC master program, directed towards students is the Entrepreneurship Avenue[2]. This is Europe's largest student focused entrepreneurship series, designed to inspire and encourage young people to join the start-up scene as well as fostering cross-university collaboration.

The Sustainability Challenge[3] is another program jointly organized by six universities in Austria to foster cross-university collaboration with a focus on sustainability and impact.

Social Entrepreneurship Center

The Social Entrepreneurship Center[4] serves as an academic contact point at the Vienna University of Economics and Business for social entrepreneurs and actors within the local ecosystem. Since early 2014 the Competence Center comprises all academic activities relating to the topic of social entrepreneurship and offers services in areas of research, knowledge transfer, learning design and consultancy.

Institute for Entrepreneurship & Innovation[5]

The driving force behind company formation and the innovation process is formation of the entrepreneurial act. The goal of the Institute's teaching programs is to present students with first-class knowledge in the areas of entrepreneurship and innovation. In research activities they work on open problems relating to entrepreneurship and innovation. Both in research and teaching, the Institute orientates itself towards leading international universities and business schools and works closely with international business as well as research partners.

Strategy, Innovation & Management Control (SIMC) master program

SIMC[6] bridges the gap between qualitative aspects of management (strategy and innovation) and quantitative aspects (management control and financial management). Strategy implementation is emphasized heavily alongside strategy

[1] https://ecn.ac.at/
[2] https://www.entrepreneurshipavenue.com/
[3] https://sc.rce-vienna.at/
[4] https://www.wu.ac.at/sec
[5] https://www.wu.ac.at/entrep
[6] https://www.wu.ac.at/en/programs/masters-programs/strategy-innovation-and-management-control/overview

creation and conceptualization. After acquiring an in-depth understanding of how companies develop business strategies and translate them into action, students have the opportunity to apply their knowledge in real-life situations, either by choosing a business project in cooperation with one of the many corporate partners or by taking a garage course and developing their own start-up idea.

Entrepreneurship MBA

In an accelerating, technology-driven, global economy, a company's ability to evolve and to innovate constantly is a necessary business requirement. The Professional MBA Entrepreneurship & Innovation communicates the skills and techniques behind entrepreneurial thought and action, through imparting expertise and thought processes which enables managers and entrepreneurs to make crucial decisions and compete successfully.

Ostbayerische Technische Hochschule Regensburg, Germany

Ostbayerische Technische Hochschule Regensburg[7] (OTH Regensburg) offers its students an excellent basis for a successful career. For example, the former CEO of SIEMENS, Joe Kaeser is an alumnus of OTH Regensburg. The technical university of applied sciences has around 11,500 students, making it one of the largest and leading institutions of its kind in Germany. Fifty practice-oriented bachelor and master's degree programmes in engineering, informatics and micro systems technologies, natural sciences, business studies, design, architecture, political science, health, and social studies are used to offer high quality teaching and research. For instance, the business department includes a strong team in applied economics and forms the accredited training institution for the Deutsche Bundesbank (German Federal Central Reserve Bank). The department for International Relationship Management by educating and training future diplomatic staff has been rewarded as a NATO CIMIC School of Excellence. Modern facilities, such as 120 state-of- the-art laboratories and an award-winning library located on an attractive campus provide the basis for successful studies.

OTH Regensburg's areas of expertise lie in energy & mobility, information & communication, life sciences & ethics, production & systems, and building &

[7] www.oth-regensburg.de

infrastructure. These areas are bound together by expertise in sensor technology and digitalization. In a nation-wide ranking of entrepreneurship, OTH Regensburg was placed among the top 5 Universities and Universities of Applied Sciences in Germany.

The university is well-known for its excellence in applied research, and benefits from an active network of around 150 partners in industry. Cooperative applied research spans fields such as renewable energy, sensor technology, mechatronics, bioengineering, computer sciences, automotive engineering, medical technologies, artificial intelligence, health care, political and social science, monetary policies, and entrepreneurship. Despite the fact that by tradition OTH Regensburg is a University of Applied Science, more than 170 doctoral students currently conduct ground-breaking research in its laboratories.

OTH Regensburg has around 200 international partnerships with universities all over the world. For instance, business students from OTH Regensburg have the opportunity to obtain a double degree from OTH Regensburg and Oxford, UK. The international office offers advice to international students and information on all aspects of studying and living in Regensburg. A buddy program, mentoring, orientation weeks and a broad choice of language courses are just some examples of how OTH Regensburg makes international students feel at home on campus and in the city.

The OTH start-up centre facilitates the university's entrepreneurial ecosystem by supporting entrepreneurial culture and mindsets, entrepreneurial technology scouting and ideation or opportunity creation, entrepreneurship education and training, infrastructure through provision of office space, co-working and a makerspace with most modern equipment, networking, advice and coaching, and various financial funds. The educational program includes a master's degree in Digital Entrepreneurship. A number of fast-growing start-ups have developed from OTH Regensburg.

University of Passau, Germany

The University of Passau began supporting entrepreneurship education in 2011 with its first chair for entrepreneurship and has been growing and developing a comprehensive start-up support ever since. The promotion of start-up activities has notably been anchored as a strategic goal of the university since 2014. Nine chairs and institutes, including three chairs with a focus on entrepreneurship, as well as a central office for start-up advice and support at the Transfer Centre are now working together for this purpose.

The newest project "Passau the Entrepreneurial Campus" (PATEC) activates start-up potential throughout the university. PATEC is part of the program „EXIST Potentials" run by the German Federal Government, which aims to promote start-up culture at universities and to create the necessary conditions for innovative and high-growth start-ups from science. The prospective founders work in interdisciplinary teams. By going beyond business and economics, the University of Passau offers coaching on a wide range of topics.

PATEC's vision is to foster a start-up culture that encompasses the whole university. This requires support through services and offerings along the entire start-up journey, from awareness-raising to qualification, consulting, and support. Passau has a growing start-up community with numerous regional partners, especially the INN.KUBATOR start-up

centre. Together, they organise events on a regular basis such as the Entrepreneurship Day, competitions, and community nights.

The Institute for Applied Ethics in Business, Education and Training and the participating chairs bring together disciplines from all four faculties: the Faculty of Business, Economics, and Information Systems, the Faculty of Arts and Humanities, the Faculty of Computer Science and Mathematics and the Faculty of Law. They are organized in five specialised start-up hubs with a focus on business model, interculturality, sustainability, digitalization, and legal matters. They combine their competences to develop the certificate programmes (Honours Degree in Entrepreneurship, Entrepreneurial Pathfinder and Legal Pathfinder), to introduce an entrepreneurship module in all faculties and to offer a start-up academy for women, among others.

Additionally, startup consultants at the Transfer Centre provide competent consulting along the entire start-up journey from the first idea to the actual founding of the start-up. Students who would like to take a sabbatical to focus on their start-up idea can apply for “Gründerzeit” – a successful and popular model which has been adopted by many other universities.

Furthermore, the accelerator programme starting in 2022, pushes start-up teams towards financial solidity and market readiness. A law clinic helps with legal compliance. Among other things, they benefit from individual coaching and mentoring from industry specialists and business experts.

Budapest University of Technology and Economics

Budapest University of Technology and Economics, (BME) founded in 1782[8] is a co-founder of the Danube Cup competition. BME currently trains over 20,000 students in eight faculties in disciplines of technology, information technology, natural sciences, economics, business, and management. BME's mission is to train specialists who will possess the knowledge and skills to solve the current problems of their age but also in the next ten or twenty years.

With its regular high-ranking position at between 200 and 800 BME is placed among the top 2-6% universities globally.

The university's training portfolio is continually broadening with programs designed for new requirements posed by digitalization. As of September 2022, BME will be the first[9] university in Hungary to launch master's degree programs in Aerospace and Construction IT Engineering.

BME's foreign language programs attract an increasing number of students from around the world. There are currently nearly 2,300 international students representing over 12% of BME's enrolment with graduates from over 30 countries.

By joining the National Laboratories program of Hungary BME is now in the position to boost research in artificial intelligence, foster development of automated vehicles, and to provide renewed momentum for research on quantum information theory. Furthermore, BME's Z10[10] unique start-up incubation program offers efficient services in technology and knowledge transfer, as well as professional guidance and training opportunities for students to launch their own innovative businesses.

[8] https://xplore.bme.hu/the-brief-history-of-bme/

[9] https://www.bme.hu/news/20211125/BME_is_the_First_to_Launch_Aerospace_and_Construction_IT_Engineering_MSc_Programmes_in_Hungary?language=en

[10] https://z10.bme.hu/

* * *

At bachelor's level, BME launched an 'appetizer' course in 2013 on Starting and managing innovative new ventures for 150-200 students from any faculty in each semester. Around 80 percent of students are drawn from the Faculty of Information Technology. As a follow up program for developing startup businesses, students may work in the Startup VIP incubator program supported by mentors from the academia and the startup ecosystem.

At master's level a new MBA entrepreneurship specialization option focusing on startups was initiated in 2020. Various courses are offered, including Developing a validated startup business concept and developing a market entry strategy. This is accompanied by courses on Digital transformation, Green economy innovations and Industrial property in info-communication and SaaS.

BME joined the government funded Hungarian Startup University Program in order to speed up creation of students' startup ventures by providing education, training, and mentoring to develop and validate business ideas. This also helps to form teams to develop product or services going to market and to generate revenue. Students receive a monthly scholarship at the implementation phase for a four-month period.

As part of the University innovation and entrepreneurship ecosystem the Technology Transfer Office provides infrastructure, legal services, and IP counselling for university project and for managing external Business-HEI cooperation.

The University established a semi open working space known as Z10 accelerator where student teams can work on startup projects with mentoring support.

BME joined the DEMOLA accelerator network initiated in Finland and supports students working with innovative projects proposed by partner businesses.

The two following examples represent businesses embodying high technology and social awareness which have emerged from BME:

- TRESORIT, which provides an end-to-end encrypted productivity solution for ultra-secure collaboration including managing, storing, syncing, and transferring files. More than 10,000 businesses around the world use Tresorit to protect their confidential data and securely share information both within teams and with clients and partners, including Deloitte, Viessman, Deutsche Telekom and the German Red Cross.
  The Tresorit story began when Istvan Lam, at the age of 12 received his first cryptography book as a gift from his family. It sparked his interest in cybersecurity and led him to start his fight for digital privacy in his late teens and to further research cryptography. Ten years later in 2011 as a BME student, István founded Tresorit with two other students one of whom as from Corvinus, and the head of a leading IT security institution. Tresorit has since grown into a company bringing secure collaboration to teams all over the world.
  In July 2021, Tresorit as a Swiss-Hungarian cloud collaboration service announced that Swiss Post Communications Services acquired a majority stake in the company. With this acquisition, the two companies will collaborate to further develop privacy-friendly and secure digital services that enable people and businesses to easily exchange information while keeping their data secure and private.

- KIKAPCS. This is a charity organization offering monthly social programs of fun and relaxing activities in local hotels with the help of special education teachers and volunteers who spend time playing with KIKAPCS community children. Their programs help diminish fears or social discomfort between children with and those without disabilities to nurture seamless connections of tolerance and understanding. These connections help create a loving and caring community for the families of KIKAPCS which began as a university project in the BME StartupVIP Incubator. Two of the female founders could not resist following their mission to provide community support and relaxation for families in Hungary whose children suffer from chronic diseases such as autism, ADHD, or Down's Syndrome.

University of Regensburg, Germany

The University of Regensburg (UR), a relatively young public university which was founded 1962 as a regional university, has developed into the largest university in Eastern Bavaria, an internationally competitive full university with university hospital. The UR, located on a beautiful campus on the southern edge of the UNESCO World Heritage city of Regensburg, ist with its 21,000 students a cosmopolitan, internationally well-connected university, a transnational hub: International degree-seeking and exchange students and researchers from more than 100 countries are enrolled at UR, where a broad spectrum of study programs – more than 150 internationally attractive degree programs at the B.A., M.A. and PhD levels – are offered.

The UR is open to dialogue and exchange between science and industry as well as for technology and knowledge transfer in all academic fields. Collaboration with young high technology and biotechnology companies and start-ups in the direct vicinity of the campus offers promising research opportunities.

UR participates in the education program established by the Falling Walls Foundation „Young Entrepreneurs in Science" (YES) and got the certificate „Young Entrepreneurs in Science Campus" for its activities to raise the awareness and competence of young academics in the field of knowledge transfer.

In Regensburg innovative spin-off-companies find support in an excellent entrepreneurial ecosystem and well-developed networks. UR is partner of the DGO – Digitale Gründerinitiative Oberpfalz and raised with partners a funding of the program „EXIST-Potentiale" to run the project „O/HUB – Oberpfalz Start-up HUB" from 2020-2024 to go on to foster the culture of entrepreneurship and to enhance the framework for innovative and fast-growing university-based start-ups. Important to mention is the partnership with the municipal start-up and technology centers in the field of life sciences and health care „BioPark Regensburg" and IT and technology „TechBase Regensburg" on and near by the campus.

Izmail State University of Humanities, Ukraine

Izmail State University of Humanities is an educational and scientific institution of the „Lower Danube" European region.

The university has 5 buildings and a developed modern infrastructure: a library, sports halls, SMART-audiences, concert and choreography halls, halls of residents, laboratories, innovation centers, computer halls, and free space.

At present, the Izmail State University of Humanities has an observer tatus in the Danube Cup network.


Discussion Outline
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Discussion Outline

ORGANIZING COMMITTEE

Sanja Marinković

University of Belgrade - Faculty of Organizational Sciences

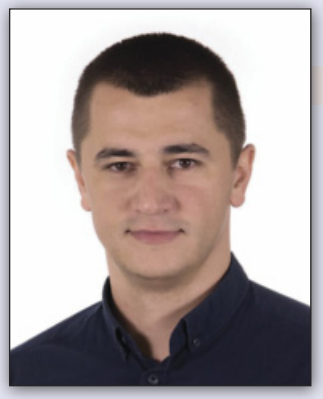
Sanja Marinković, PhD is an associate professor at Department for Management of Technology, Innovation and Sustainable Development. She is an author of a book "Innovation Management in Services" and co-author of several books in Serbian "Technology Entrepreneurship", "Management of Sustainable Development" and "Management of Innovation and Technological Development". She is co-author of book chapters published in international publications like "Entrepreneurship in Central and Eastern Europe, Development through internationalization", "Hidden Champions in CEE and Turkey - Carving Out a Global Niche" and others, author and co-author of more than 80 papers published in international and Serbian scientific journals and conference proceedings. Sanja is a lecturer at dual award master programme International Business and Management, validated by Middlesex University London. She was a vice-dean for international cooperation at the Faculty from 2015 to 2021. Sanja is a CMI approved trainer by Chartered Management Institute UK, she completed several management programs: like IMTA, Slovenia (Strategic Management and Business in the Society), and Danube Innovation Partnership Summer School, Budapest, 2015. Her research and teaching interests are in the fields of technology and innovation management, technology entrepreneurship and SMEs development.

Milan Okanović

University of Belgrade - Faculty of Organizational Sciences

Milan Okanović, PhD is an assistant professor at the Faculty. His doctoral thesis delves into the crucial role of marketing orientation in the development of technology startups. His research portfolio covers diverse areas, including the application of marketing principles in entrepreneurship, innovation and startup development, as well as corporate and digital communications. Milan has authored over thirty papers published in both national and international scientific journals and conferences. He is a co-author of the casebook „Startups in Focus – Lessons from the Domestic Startup Ecosystem." Beyond his academic pursuits, Milan is a co-founder of a startup company dedicated to enhancing the virtual user experience on mobile devices through cutting-edge technology. He is also a member of the marketing and communications team in the technology company specializing in software solutions for testing processes. His commitment to fostering entrepreneurship and innovation extends to his role as a certified

mentor for startups in their initial developmental stages. Milan also played an important role as a member of the Council during the establishment and development of the FOS Research and Development Center. In 2023, Milan Okanović was elected as the President of the Assembly of the Belgrade Science and Technology Park.



Radul Milutinović

University of Belgrade - Faculty of Organizational Sciences

Radul Milutinović, PhD is an assistant professor at the University of Belgrade - Faculty of Organizational Sciences, Serbia. He holds a PhD degree in the field of Information Systems and Management. So far, he has published over 50 articles in international and national monographs, journals and conference proceedings. He takes an active role as a mentor to student teams (1) in the development of their startup ideas and (2) in projects initiated by the faculty's R&D center in collaboration with industry practitioners. Currently, he is engaged as a team member in two projects within crucial domains of innovation and entrepreneurship. Radul is a member of the EurOMA. The fields of his interest include operations management, innovation management, innovation projects, intellectual property, new product development, open innovation platforms, idea management systems, product-service systems, etc.

Zoran Rakićević

University of Belgrade - Faculty of Organizational Sciences

Zoran Rakićević, PhD is an assistant professor at the Faculty of Organizational Sciences, University of Belgrade, within the Department of Production and Services Management. He earned his Doctor of Philosophy (Ph.D.) degree in Operations Research and Quantitative Management from the same university. Dr Rakićević academic portfolio boasts the publication of more than ten peer-reviewed scientific papers in renowned international journals, alongside thirty contributions to the proceedings of international conferences. He assumed the role of head of the Centre for Small and Medium-sized Enterprises and Entrepreneurship at the Faculty of Organizational Sciences. His academic pursuits revolve around the domains of Entrepreneurship, Small and Medium-sized Enterprise (SME) Management, and Production and Service Planning. Dr. Rakićević is known for his unwavering commitment to mentoring and guiding students in the nurturing of their entrepreneurial ideas and team projects. From a personal standpoint, he strongly advocates the socially responsible behaviour of individuals and organizations. Dr Zoran Rakićević has been a multiple-time jury member for the selection of the most innovative ideas in the field of social entrepreneurship, notably in the Social Impact Award Program.

Nemanja Backović

University of Belgrade - Faculty of Organizational Sciences

Nemanja Backović, PhD is an assistant professor at the Faculty of Organizational Sciences, University of Belgrade, Serbia. He teaches several subjects within the scientific field of „Business Economics and Macroeconomics", such as Business Economics and Planning, International Management, Cost Management, and others. He was a visiting researcher at the University of California, San Diego. He studied part of his undergraduate studies in Vienna, Austria, at the Wirtschaftsuniversität. The focus of his research is the scientific subfield of Energy Economics and on understanding what the possibilities are for improving overall energy efficiency, with an emphasis on microeconomic analysis. So far, he has published more than twenty scientific papers.

Loretta Huszák

Corvinus University of Budapest

Loretta Huszák, PhD is an innovation specialist. She holds a BSc degree from ELTE University, Budapest, Hungary, and an MA and a PhD in Economic Sociology from the University of Leipzig, Germany. Prior to her university teaching career, she was a middle manager at Hungarian Intellectual Property Office for several years. As a university lecturer of management and economic sociology, she has taught and supervised BSc, MSc, and PhD students in areas of innovation and IP management, business strategy, international business, all in the context of Small and Medium Sized Enterprises (SMEs). She has published in and reviewed for a variety of internationally recognized journals on various topics including Innovation and Intellectual Property Management, International Business and SMEs. She is a member of the Hungarian Academy of Sciences. In addition to her academic activities, Loretta Huszák is co-founder and the main driving force behind the CUBator / Corvinus Startup Corner, which is an innovation lab, founded with 2017, CUBator occupies a virtual and physical space at Corvinus University of Budapest which is provided to students and others to come together to 'do' innovation.

Sandra Jednak

University of Belgrade - Faculty of Organizational Sciences

Sandra Jednak is a Full Professor and Vice-Dean for International Cooperation at the Faculty of Organizational Sciences, University of Belgrade. Dr Jednak holds a Ph.D. from the Faculty of Organizational Sciences, University of Belgrade. She received her B.Sc. and M.Sc. degrees from Faculty of Economics, University of Belgrade. She has published scientific research papers in international and national monographs, journals, and conference proceedings. She attended different courses and trainings (LSE Summer School, UK, ECCH, UK, CEMFI Summer School, Spain, etc.). Sandra Jednak was a visiting lecturer at ISM Graduate School, Lithuania. Also, she gave guest lectures at universities in Germany, Austria and Poland. Sandra Jednak is a CMI-approved trainer. Dr Jednak is a member of the Editorial Board of the following journals: Issues and Innovative Approaches in Social Sciences, Slovenia and Economic Analysis, Serbia. She is an editor of the Domestic Department of Management: Journal of Sustainable Business and Management Solutions in Emerging Economies. She also has professional business experience. She worked as a sales and finance manager before joining academia. Her teaching areas are Introduction to Economics, Macroeconomics, Microeconomics, Economic Development and EU. Her research focus is on the economic development of South-East European countries. Besides, her research interests are Economics of ICT, Knowledge (Based) Economy, Energy Economics, International Economics and Higher Education.

Република Србија
МИНИСТАРСТВО НАУКЕ,
ТЕХНОЛОШКОГ РАЗВОЈА И ИНОВАЦИЈА

Ministry of Science, Technological Development and Innovation

The Ministry of Science, Technological Development, and Innovation is entrusted with a wide range of state administration tasks. These tasks primarily revolve around the advancement of scientific research activities to support scientific, technological, and economic development. The ministry plays a pivotal role in formulating and executing policies and strategies for the promotion of scientific and technological development. In addition, it is responsible for establishing and implementing various programs dedicated to scientific, technological, and development research. The ministry also actively supports and nurtures young talents in the scientific domain while ensuring the training of personnel for research work. Furthermore, the Ministry takes a proactive stance in shaping innovation policies and is at the forefront of formulating policies and programs related to the dynamic field of artificial intelligence. It also fosters technology entrepreneurship and facilitates the transfer of knowledge and technology into the economy. In its commitment to innovation, the Ministry works on developing and enhancing the innovation system within the Republic of Serbia. This includes improving the functioning of the scientific-technological information system and the development of essential scientific-technological infrastructure. These responsibilities collectively contribute to the Ministry's overarching mission of driving scientific progress and technological innovation for the benefit of the Republic of Serbia.

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Ananas E-commerce

Ananas E-commerce was established in 2020 by Delta Holding with the mission to bring buyers, merchants, and employees together on a single marketplace and make a unique experience for all of them. Ananas is now building an entire ecosystem that connects and supports various business areas, empowering them to increase their revenues. Its goal is to create a fair, equal, and modern market with a customer-centric focus. Ananas was built from the ground up, drawing inspiration from the world's largest marketplaces and tech giants. The company has developed multiple in-house platforms, leveraging the most innovative engineering practices. Its robust micro services facilitate seamless processes, including item search and selection, order management, payment processing, logistics, and delivery.

KEYNOTE SPEAKERS

WE ARE HONORED TO PRESENT THE ESTEEMED PROFESSORS WHO ACCEPTED TO BE THE KEYNOTE SPEAKERS:

ANDREA S. GUBIK

Associate Professor at The Faculty of Economics, University of Miskolc

Andrea S. Gubik is an Associate Professor at the University of Miskolc (Hungary). She holds a PhD in Management and Business Administration. She is a member of several scientific associations, among others, the Scientific Committee on Statistics and Futures Studies of the Hungarian Academy of Sciences, a member of the editorial board of the International Entrepreneurship Review and the Messenger of ASUE. She has been awarded the Research Fellowship of the Laky Teréz Foundation, the Young Scientist Award of the Miskolc Regional Committee of the Hungarian Academy of Sciences, the Budapest Business School Science Prize and the Excellent Researcher Award by the University of Miskolc. She deals with entrepreneurship, especially interested in the role of formal and informal institutional factors in the start-up decision. She is the Hungarian coordinator of the GUESSS (Global University Entrepreneurial Spirit Students' Survey) project.

TOPIC: *Entrepreneurial career: Factors influencing the decision of students*

JAN-PHILIPP AHRENS

Professor at the University of Passau / University of Mannheim

Jan-Philipp Ahrens is professor at the University of Passau, Chair of International Management and Social Entrepreneurship, and Head of the Interdisciplinary Research Group Family Firms at the University of Mannheim. Jan-Philipp's research group operates a super computer infrastructure dedicated to research firm and human behaviour (CEOs) with respect to justice and sustainability (UN SDGs) using big data and artificial intelligence-based approaches. His research was awarded or nominated for more than twenty research awards and is published in high impact journals, such as the Entrepreneurship Theory & Practice and the Journal of Management Studies. He serves as Associate Editor of the Journal of Family Business Strategy.

TOPIC: *Family Firms, Mittelstand, Hidden Champions – Insights from Germany*

ROBERT FAFF

Professor of Finance at University of Queensland

Robert Faff is Professor of Finance and formerly Director of Research at the UQ Business School. He has an international reputation in empirical finance research: securing 14 Australian Research Council grants (funding exceeding $4 million); >310 refereed journal publications; career citations >12,800 (Google Scholar); and a h-index of 57 (Google Scholar). His particular passion is nurturing and developing the career trajectories of early career researchers. Robert has supervised approximately 40 PhD students to successful completion and examined 50 PhD dissertations. Building on a 35-year academic career, his latest focus is "Pitching Research", now gaining great traction domestically and worldwide as exemplified by: (a) >13,600 SSRN downloads; (b) >300 pitching talks/events; (c) at 37 Australian universities; and (d) spanning 52 different countries. In addition, Robert is Editor-in-Chief of Pacific-Basin Finance Journal; formerly: Editor of Accounting and Finance (2002-2011) and Associate Editor of several journals including Abacus and Australian Journal of Management.

TOPIC: *Pitching research in entrepreneurship education*

24. NOVEMBER. 2023

DAY 1

- 09:00 - 09:30
  REGISTRATION
- 09:30 - 09:50
  OPENING CEREMONY
- 09:50 - 10:20
  KEYNOTE 1: ENTREPRENEURIAL CAREER: FACTORS INFLUENCING THE DECISION OF STUDENTS
  Prof. Andrea Gubik, PhD (University of Miskolc, Hungary)
- 10:20 - 11:15
  PANEL DISCUSSION 1: ENTREPRENEURIAL EDUCATION IN SCIENCE AND PRACTICE
  Participants:
  Prof. Andrea Gubik, PhD, University of Miskolc, Hungary
  Prof. Milan Okanović, PhD, University of Belgrade, Serbia
  Prof. Pal Danyi, PhD, Corvinus University in Budapest
  Nebojša Bjelotomić, Digitalna Srbija, Serbia
  Nevenka Rangelov, STARTIT Serbia
  Moderator: Dr. Loretta Huszak, Corvinus University of Budapest
- 11:15 - 11:30
  COFFEE BREAK
- 11:30 - 12:00
  KEYNOTE 2: FAMILY FIRMS, MITTELSTAND, HIDDEN CHAMPIONS INSIGHTS FROM GERMANY
  Prof. Jan-Philipp Ahrens, PhD (University of Mannheim/University of Passau, Germany)
- 12:00 - 13:00
  PANEL DISCUSSION 2: DEVELOPMENT OF CORPORATE ENTREPRENEURSHIP AND ENTREPRENEURSHIP EDUCATION WHY, HOW, THE IMPACT
  Participants:
  Ankica Momčilović, Head of the Group for SME financial support programs and strategic analysis, SME Sector, Ministry of Economy, Serbia (TBC)
  Ms Mónika Harsányi, Budapest Chamber of Commerce and Industry, Head of International Project Office
  Ms Tamara Dunđerović, Representative of the Chamber of Commerce in Serbia Center for Economy and MSME support
  Representative of the corporate sector - Ananas e- commerce d.o.o., Serbia
  Representative of the corporate sector (TBC...)
  Moderator: Dr. Attila Petheő, Corvinus University of Budapest
- 13:00 - 14:00
  LUNCH BREAK
- 14:00 - 14:20
  STARTAPS FROM SERBIA SUCESS STORIES
- 14:20 - 15:50
  PAPER PRESENTATIONS IN PARALLEL SESSIONS
  Sections 1, 2b and 3
- 15:50 - 16:00
  COFFEE BREAK
- 16:00 - 17:30
  PAPER PRESENTATIONS IN PARALLEL SESSIONS
  Sections 2a, 4 and 5
- 17:30
  END OF DAY 1 FORMAL ACTIVITIES
- 18:30 - 20:00
  GUIDED WALKING TOUR IN THE HISTORICAL CITY CENTER
- 20:00
  DINNER FOR THE CONFERENCE GUEST - BY INVITE ONLY

25. NOVEMBER 2023

DAY 2

- 09:00 - 09:30
  WELCOME COFFEE
- 09:30 - 10:00
  KEYNOTE 3: PITCHING RESEARCH IN ENTREPRENEURHIP EDUCATION
  Prof. Robert Faff, PhD (Bond University, Australia - online)
- 10:00 - 11:00
  RESEARCH ELEVATOR PITCH SESSION (TO FOSTER INTERNATIONAL COLLABORATION
  Moderator: Prof. emer. János Vecseny
- 11:00 - 12:30
  RESEARCH METHODS WORKSHOP
  Moderator: Prof. Elisabeth Berger, PhD (Johannes Kepler University Linz, Austria)
- 12:30 - 13:15
  LUNCH BREAK
- 13:15 - 14:15
  MEET THE EDITORS SESSION
  - Journal of East European Management Studies (JEEMS), Prof. Thomas Steger (University of Regensburg)
  - Society and Economy (Corvinus University of Budapest)
  - Information Society (Budapest University of Technology and Economics)
  - Journal of Sustainable Business and Management Solutions in Emerging Economies (University of Belgrade)
  - Review of Economic Theory and Policy, Dr. Tamás Pesuth (Corvinus University of Budapest)
- 14:15 - 14:30
  CLOSING CEREMONY
- 14:30 - 16:00
  DANUBE CUP PARTNERS MEETING
  Moderator: Dr. Pal Danyi (Budapest University of Technology and Economics)
  - by invite only -
- 16:00
  END OF EVENT

DANUBE CUP

DANUBE CUP 2023 IS A UNIQUE OPPORTUNITY TO ATTEND INTERNATIONAL EXPERT PANELS

PANEL DISCUSSION 1

Entrepreneurial education in science and practice

Participants:

Prof. **Andrea Gubik**, PhD, University of Miskolc
Prof. **Milan Okanović**, PhD, University of Belgrade
Prof. **Pal Danyi**, PhD, Corvinus University
Nebojša Bjelotomić, Digitalna Srbija
Nevenka Rangelov, STARTIT

Moderator: Dr. Loretta Huszak, Corvinus University of Budapest

PANEL DISCUSSION 2

Development of corporate entrepreneurship and entrepreneurship education

Why, How, the Impact

Participants:

Ankica Momčilović, Head of the Group for SME financial support programs and strategic analysis, Ministry of Economy
Ms **Mónika Harsányi**, Budapest Chamber of Commerce and Industry, Head of International Project Office
Ms **Tamara Dunđerović**, Representative of the Chamber of Commerce in Serbia Center for Economy and MSME support
Representative of the corporate sector - Ananas e- commerce d.o.o.

Moderator: Dr. Attila Petheő, Corvinus University of Budapest

INTREPRENEURIAL CAREER: FACTORS INFLUENCING THE DECISION OF STUDENTS

Andrea S. Gubik
associate professor, University of Miskolc

KEYNOTE SPEECH OUTLINE

OBJECTIVE

In recent decades, the role of entrepreneurship in economic growth has become increasingly accepted (Hope, 2016; Meyer & Krüger, 2021). Today's changes, such as digitalisation and the consequent drastic transformation of the economy, which entails changes in the labour market, also further increase the role of entrepreneurship (Leone & Cascio, 2020). Personality traits and skills that are significant in the business also prove to be beneficial within large corporations. The concept of intrapreneurship (or corporate entrepreneurship) refers to the aspiration of large companies to achieve higher performance by increasing their entrepreneurial spirit (Bouchard & Fayolle, 2018).

In promoting entrepreneurship, special attention is paid to youth's and especially university students' entrepreneurial activity (Wach & Bilan, 2021; Loan et al., 2021), as their companies outperform the average regarding growth orientation and innovation. Another reason is that higher education can influence the entrepreneurial ideas of these young people under the right conditions. Recognising the role of young people in entrepreneurship, a broad range of reports have been published that make recommendations for modernising education (methodology and content) and the services provided to increase entrepreneurial intention and activity (EC, 2013; Council of the European Union, 2018, just to mention some).

The objective of this presentation is to investigate the career choices of Hungarian youth and to highlight some essential driving forces of students' entrepreneurial career plans.

METHODOLOGY

The analysis relies on the GUESSS (Global University Entrepreneurial Spirit Students' Survey) project 2021 database, which is one of the major international research on entrepreneurship, involving about 50 countries. Descriptive analyses and logistic regression were used for the analysis.

RESULTS AND DISCUSSION

Entrepreneurship is a complex issue, so the range of influencing factors is broad but can be grouped into three levels (individual level, social level and education). The individual level addresses demographic factors (gender, age), as well as the role of skills and abilities in entrepreneurial issues. Krueger (2000) emphasises that the individual variables alone are poor predictors, and intention models (for example Ajzen, 1991) offer opportunities to improve the explanatory power. The models consider the individual's values and attitudes important; at the same time, they also emphasise that signs from an individual's environment significantly shape these individual characteristics and entrepreneurial ideas.

In our analyses, we have followed this complex approach, analysing the role of attitudes and self-efficiency as individual aspects, and found that attitudes considerably influence students' career plans, which is consistent with the findings of the literature (see, e.g. Wach & Wojciechowski, 2016).

Self-efficacy, which is the "strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship" (Chen et al., 1998) is also a weak but significant influencing factor. Several studies have confirmed the positive effect of self-efficacy on business start-up intent (e.g. Wu et al., 2022; Gubik & Farkas, 2019).

Concerning the impact of the social environment, we found the weak negative effect of subjective norms that indicate the low social status of entrepreneurship in Hungary. We proved the decisive role of the family background but also found that the role of family background is diminishing in the development of career plans (plans right after studies and five years later). While there is no consensus in the literature on social norms, almost all analyses confirm the role of family background (Belas et al., 2017; Shamsudin, 2017).

Education's role in entrepreneurship is one of the most frequently investigated topics in entrepreneurial literature. Research findings suggest that education has a direct impact on intentions towards entrepreneurship (Kramarz et al., 2019; Karyaningsih et al., 2020). Students' involvement in entrepreneurship programs at university is positively related to start-up activities, too. At the same time, entrepreneurship education also indirectly influences student decisions. By gaining entrepreneurial knowledge, students also get an impression of their entrepreneurial aptitude (von Graevenitz et al., 2010), increase their self-efficacy (Egerová et al., 2017), and, as a result, increase their chances of running a successful business (Kolstad & Wiig, 2015; Holienka et al., 2016). Our analysis confirmed these results, but the results indicate that there is still work to be done in this area.

CONCLUSION

Understanding student opinions in the context of entrepreneurship, and in particular, the key drivers behind them makes it possible to develop policies and university practices that can increase students' entrepreneurial intention and activity. The results suggest that to make the entrepreneurial career more attractive, a complex solution is needed, which simultaneously conveys knowledge and information and also changes students' attitudes and ways of thinking. This goes beyond traditional curricula; there would be a need to develop new solutions that allow students to deepen their knowledge through experience and make it possible to try out different roles.

Unfortunately, these processes change very slowly and require many resources (both human and financial), so a serious commitment is needed from both decision-makers and university management.

We analysed only the responses of students who participated in Hungarian higher education, which is a subgroup of youth. Furthermore, the questionnaire research, by its nature, is not suitable for full-depth understanding, with many individual motives remaining hidden. These limitations must be taken into account when interpreting our conclusions.

Keywords: entrepreneurship, higher education, career

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„THE GERMAN MITTELSTAND, HIDDEN CHAMPIONS, GLOBAL PLAYERS“

Jan-Philipp Ahrens
Professor at the University of Passau / University of Mannheim

KEYNOTE SPEECH OUTLINE

This practical keynote introduces the listener to the key characteristics of the hidden success recipes of the German economy and its remarkable position on the world economy.

Key concepts and strategies like the German Mittelstand, family firms, and hidden champions are touched upon. The listener will be enabled to better understand the DNA of the German economy and how it is deeply interlinked with universities and applied universities. Based on practical family firm experience, insights are given into the typical leadership styles, the embeddedness of firm action within regional and interregional networks, and the role of responsibility and sustainability for leadership.

The listener furthermore will understand why investing into people and the retention of human capital oftentimes go along with typical firm strategies of German family firms, as well as with a stewardship approach to a local region – and how this further explains why Germany is the Nr.1 country in the world for Hidden Champions. Moreover, the concept of familiness and management for the long-term will be discussed, and how this allows family firms to arrive at a different optimization horizon and to make promises that other firms, where CEOs change more frequently, cannot make.

This keynote is based on a short version of an executive MBA format at Mannheim Business School – the Nr.1 business school in German speaking economies and #15 worldwide in the Financial Times Executive MBA ranking (2023) with the ESSEC & MANNHEIM Executive MBA. The key audience are interested practitioners who would like to know more about the German way of running a family business.

KEYNOTE SPEECH OUTLINE

PITCHING RESEARCH IN ENTREPRENEURSHIP EDUCATION

Prof. Robert Faff
University Of Queensland

"Pitching Research" (Faff, 2015; Faff, 2021, SSRN) is a research planning framework based on a small set of organizing principles – namely, to be structured, brief, simple, methodical, clear, & focused. The framework challenges a (novice) researcher to effectively communicate their research ideas to an academic field expert, respecting a total budget of 1,000 words ± 20%, to be allocated across 11 items. (A) Working Title – 10-12 words. (B) Research Question – 20-30 words (1-2 sentences). (C) Key Papers – 60-70 words (3 papers). (D) Motivation – 150-200 words (4-6 sentences or dot points). (E) Idea; (F) Data; & (G) Tools – 100-150 words each (3-6 dot points each). (H) Novelty; (I) "So What?"; & (J) Contribution – 50-100 words each (2-4 sentences each). (K) "Other Considerations" – 50-100 words (3 dot points). The pitching research framework (PRF) is designed to be an enduring compass for all researchers on the "hazardous" journey of scientific discovery. The keynote address will provide: (1) a quick primer on the PRF; (2) a brief worked example relevant to entrepreneurship education; (3) guidance on ways in which researchers can leverage "value" from using the PRF. Master Pitch Template with Cues for Pitcher is given in the table below (Faff 2021):

Pitcher's Name	Your name here	FoR category	Field of Research	Date Completed	Insert date here
(A) Working Title	Succinct/informative title here				
(B) Basic Research Question	IN one sentence, define the **key** features of the research question.				
(C) Key paper(s)	Identify the key paper(s) which most critically underpin the topic (just standard reference details). Ideally one paper, but at most 3 papers. Ideally, by "gurus" in the field, either recently published in Tier 1 journal(s) or recent working paper e.g. on SSRN.				
(D) Motivation/Puzzle	IN one short paragraph (say a max of 100 words) capture the core academic motivation – which may include identifying a "puzzle" that you hope to resolve.				
THREE	**Three** core aspects of any empirical research project i.e. the "**ID**io**T**s" guide				
(E) Idea?	Identify the "core" idea that drives the intellectual content of this research topic. If possible, articulate the central hypothesis(es). Identify the key dependent ("explained") variable and the key test/independent ("explanatory") variable(s). Is there any serious threat from endogeneity here? If so, what is the identification strategy? Is there a natural experiment or exogenous shock that can be exploited? Is there any theoretical "tension" that can be exploited?				
(F) Data?	(1) What data do you propose to use? e.g. country/setting; Why? Unit of analysis? Individuals, firms, portfolios, industries, countries ...? sample period; sampling interval? Daily, weekly, monthly, quarterly, annual, ... Type of data: firm specific vs. industry vs. macro vs. ...? (2) What sample size do you expect? Cross-sectionally? In Time-series/longitudinal? (3)Is it a panel dataset? (4) Data Sources? Are the data commercially available? Any hand-collecting required? Are the data to be created based on your own survey instrument? Or by interviews? Timeframe? Research assistance needed? Funding/grants? Are they novel new data? (5) Will there be any problem with missing data/observations? Database merge issues? Data manipulation/"cleansing" issues? (6) Will your "test" variables exhibit adequate ("meaningful") variation to give good power? Quality/reliability of data? (7) Other data obstacles? E.g. external validity? construct validity?				
(G) Tools?	Basic empirical framework and research design? Is it a regression model approach? Survey instrument issues/design? Interview design? Econometric software needed/appropriate for job? Accessible through normal channels? Knowledge of implementation of appropriate or best statistical/econometric tests? Compatibility of data with planned empirical framework? Is statistical validity an issue?				
TWO	**Two** key questions				
(H) What's New?	Is the novelty in the idea/data/tools? Which is the "driver", and are the "passengers" likely to pull their weight? Is this "Mickey Mouse" [i.e. can you draw a simple Venn diagram to depict the novelty in your proposal?]				
(I) So What?	Why is it important to know the answer? How will major decisions/behaviour/activity etc be influenced by the outcome of this research?				
ONE	**One** bottom line				
(J) Contribution?	What is the primary source of the contribution to the relevant research literature?				
(K) Other Considerations	Is **Collaboration** needed/desirable? – idea/data/tools? (either internal or external to your institution) **Target** Journal(s)? Realistic? Sufficiently ambitious? "**Risk**" assessment ["low" vs. "moderate" vs. "high": "no result" risk; "competitor" risk (ie being beaten by a competitor); risk of "obsolescence"; other risks? Are there any serious challenge(s) that you face in executing this plan? What are they? Are they related to the Idea? The Data? The Tools? Are there ethical considerations? Ethics clearance? Is the **scope** appropriate? Not too narrow, not too broad.				

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Наука

INFLUENCING FACTORS OF PARTICIPATION IN ENTREPRENEURSHIP EDUCATION – LESSONS LEARNED FROM HUNGARY

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OBJECTIVE

The literature provides a number of research findings on young people's entrepreneurial intention, the influencing factors, and the status of entrepreneurship education in higher education. These results are mainly based on data from the Global University Entrepreneurial Spirit Students' Survey (GUESSS) project, a global research which collects data on students participating in higher education (Gubik, 2021; Sieger et al., 2021; Huszák & Jáki, 2022). At the same time, our knowledge is incomplete on whether a relationship can be demonstrated between the choice of an entrepreneurial lifestyle and participation in entrepreneurship education, as well as on the demographic factors influencing participation in entrepreneurship education. This is despite the fact that entrepreneurship education is a key element of entrepreneurial ecosystems and one of the strategic tools for regional development (GEM, 2023; Galvão et al., 2017).

The purpose of the study is to investigate whether, in the adult population, there is a relationship between entrepreneurship education and becoming an entrepreneur, and which demographic factors are associated with participation in entrepreneurship education. The following hypotheses are tested in the analysis:

H1: There is a positive relationship between becoming an entrepreneur and participating in entrepreneurship education.
H2: Men are more likely to participate in entrepreneurship education than women.
H3: It is more typical for younger people to participate in entrepreneurship education.
H4: Participation in entrepreneurship education is more common among those with higher education.
H5: Participation in entrepreneurship education is more typical for those with entrepreneurial parents.
H6: Place of residence does not affect participation in entrepreneurship education.

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METHODOLOGY

The analysis is based on the Global Entrepreneurship Monitor (GEM) 2022 representative survey of the Hungarian adult population aged 18-64 (Csákné Filep et al., 2023). The basic questionnaire of the GEM 2022 survey of the adult population, conducted in 49 countries worldwide in 2022, was supplemented in the Hungarian sample with questions on entrepreneurship education. The sample (N=2015) is analyzed using descriptive statistics and Chi-square test.

RESULTS AND DISCUSSION

Our results show that there is a significant positive relationship between becoming an entrepreneur and participation in entrepreneurship education. The direction of the relationship, i.e. that someone becomes an entrepreneur as a result of participating in entrepreneurship education, or that entrepreneurs may feel the need to increase their knowledge of entrepreneurship, however, cannot be determined. Similarly, we can find a significant relationship between participation in entrepreneurship education and (1) age, (2) education, and (3) the presence of an entrepreneurial role model in the family, while there is no such correlation in the case of (1) gender, and (2) education.

CONCLUSION

The results contribute to the knowledge of entrepreneurship education in an East-Central European context. Testing hypotheses on a representative sample of the population is a strength of the research.

The limitation of the research is that it refers to a single country and does not include an international comparison.

A prospective future research direction is to expand the range of data on participation in entrepreneurship education and to fit it into a complex model.

The results of the research are useful for entrepreneurship development professionals, both in confirming the importance of entrepreneurship education in the entrepreneurial lifestyle, and in providing guidelines for determining the target group of training programs that help to become an entrepreneur, and for identifying groups that are less open to or have less access to training.

Keywords: entrepreneurship education, Hungary, GEM

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THE BIRTH OF STUDENT ENTERPRISES – EXPERIENCES OF THE HUNGARIAN STARTUP UNIVERSITY PROGRAM

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OBJECTIVE

University entrepreneurship education has proven to be a powerful tool for the creation of new innovative businesses. Our research is the first comprehensive analysis of the national Hungarian Startup University Program (HSUP) that examines the characteristics of university project teams involved in entrepreneurship education through this program. The results of our analysis show that the participating students pursue learning rather than business start-up objectives during their training. It is widely accepted that entrepreneurship education promotes the creation of enterprises, both qualitatively and quantitatively (Martin et al., 2013). University start-ups usually draw from the research and educational activities of universities, especially if the students who found the start-up are also involved in entrepreneurship education (Knudsen, Frederiksen, & Goduscheit, 2021). The entrepreneurial education consists of learning activities that enable learners to acquire the entrepreneurial knowledge, skills and attitudes needed to set up and run a business (Chen, Ifenthaler, & Yau, 2021).

However, the recent OECD policy brief on entrepreneurial universities sees the role of the state governments as being limited to indirect and coordinated support for entrepreneurship education activities (OECD, 2022), therefore the Hungarian Startup University Program (HSUP) is rather unique of its kind. The HSUP allows universities to integrate real-life entrepreneurial experiences into their classroom methods, strengthening their role in the ecosystem (Åmo et al., 2020).

In this context the study explores the following two research questions:

1) What are the characteristics of student entrepreneurial projects and teams born in Hungarian universities?

2) How can entrepreneurship education help the creation of successful (student) enterprises?

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METHODOLOGY

The HSUP program has been providing a common online platform and a standardized format for university students to acquire theoretical knowledge and practical skills on start-ups and the market implementation of innovative ideas. The study of the characteristics and activities of the entrepreneurial projects and teams created during the training program provides a good insight into the functioning and processes of early-stage enterprises.

In order to answer the above research questions, we analyzed data from the HSUP program based upon information collected from progress reports on a total of 187 student startup projects through content analysis. These is the total number of projects that were founded at 27 Hungarian universities participating in the HSUP in the academic year 2021-2022.

RESULTS AND DISCUSSION

In line with Csákné et al. (2020), the main findings of our research include that the success of student start-up projects is facilitated by diversity, as teams with a heterogeneous institutional composition, i.e. composed of students from several universities, are more likely to continue the work they have started. The presence of engineering competence is generally low in the teams investigated in the study. Teams with such a team member are more likely to produce a MVP (minimum viable product) and plan to continue with the project.

We found that an important indicator of the success of a startup project can be whether the team has achieved the MVP in the course of its implementation. Of the 187 project teams in our analysis, around 30% of teams produced some kind of prototype. We also looked at which team characteristics factors might have the most influence on prototyping. We found that engineering competence in the team is significantly related to MVP creation. Teams with at least one person with engineering competencies reached 42% of the MVP creation, compared to only 25.7% of teams without such competencies. Interestingly, no similar correlation was found for the IT development competence.

CONCLUSION

A key strength of the investigated HSUP program is that it draws on a wide range of university students, so it can ignite the spark in those who are not basically preparing for a career in entrepreneurship, who have not gained entrepreneurial experience so far. The HSUP allows universities to integrate real-life entrepreneurial learning experiences into their classroom methods, thus strengthening their role in the ecosystem.

The analysis of the progress reports of the HSUP start-up year is a snapshot and does not allow longer-term conclusions to be drawn. Also, the level of detail of the progress reports used in the content analysis varied considerably. While these are considered to be important limitations, the experience of the research and the feedback of the results highlight important points for both the HSUP program management and the academics of the universities that have joined the program.

Keywords: entrepreneurship education, student enterprise, startup, Hungarian Startup University Program.

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WHY DOES INTRAPRENEURSHIP RARELY BECOME ENTREPRENEURSHIP?

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OBJECTIVE

The aim of this abstract is to lay the theoretical foundation for future empirical research in the field of entrepreneurship. Entrepreneurship and innovation in any organizational or legal form are drivers of economic and social development (Zacharakis, Corbett, & Bygrave, 2019; Mazzarol & Reboud, 2019). This is why it is important in further research to determine the entrepreneurial potential of those who still haven't stepped into that world, but also what factors lead to them not yet deciding to take that step.

METHODOLOGY

The paper will present certain views and facts related to entrepreneurship and intrapreneurship obtained through review of available relevant literature, based on which we will ask research questions that should be the basis for future research.

RESULTS AND DISCUSSION

In the mid-20th century, the American economy was dominated by large corporations, and probably that dominance led to certain attitudes that innovations are almost exclusively the domain of large companies. Such claims are further explained by the fact that most cheap and small innovations have already been made, and only large corporations have money to conduct expensive research and invent new products (Galbraith, 1954). Situation began to change at the beginning of the 70s when technological development created conditions for development of entrepreneurship, and in the following decades, made entrepreneurs key factors of the American economy, those who create new jobs, markets and products (Zacharakis, Corbett, & Bygrave, 2019). Today, many largest companies in the world, predominantly technological, were created as entrepreneurial ventures of one or fewer people several decades or even years ago.

Of the 500 most successful companies in America in 1955, even 90% of them did not exist on the same list in 2019. Some have ceased to exist in that form over time due to mergers

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and acquisitions or more often went bankrupt or were overrun by competition, through innovations in various fields (Perry, 2019). In the EU, small and medium-sized enterprises, which we can justifiably assume originated as entrepreneurial ventures, represent a pillar of the economy, they make up 98% of all enterprises, and are „responsible" for 67% of total employment and 58% of GDP in 2012 (Karadag, 2015). Innovativeness, which according to some authors is the main characteristic of entrepreneurship, is key to the economic development of any country (Zacharakis, Corbett, & Bygrave, 2019; Mazzarol & Reboud, 2019).

In order to further develop and retain competitive advantages, large corporations must cultivate entrepreneurship, for which the term intrapreneurship was coined. Intrapreneurship, or corporate entrepreneurship, is a process in which an individual or a group of individuals within an existing organization creates an innovation (Sharma & Chrisman, 1999). Innovation can refer to new products, processes, business ventures, or new forms of cooperation (Covin & Miles, 1999), but in any case to the realization of an individual's or group's idea, which inevitably carries certain risks with it (Chung & Gibbons, 1997).

In recent publication, Deloitte highlights intrapreneurship through 5 aspects (Deloitte Digital, 2015):

- Intrapreneurship describes a people-centric, bottom-up approach to developing radical innovations in-house;
- Intrapreneurship pays of many times over in terms of company growth, culture and talent;
- It's not about creating intrapreneurs, it's about finding and recognizing them;
- Intrapreneurs know the rules and break them effectively;
- Intrapreneurship requires a different management approach.

Entrepreneurship has been introduced into educational systems, and entrepreneurial skills are taught today in educational institutions around the world (Wiklund & Shepherd, 2005). Based on the number of innovations coming from large corporations, it can be assumed that the number of people with good entrepreneurial ideas is huge, and that in addition to the large number of entrepreneurs, there are many who have this potential, but do not use it outside the organizations they are employed.

CONCLUSION

Almost everyone has the capacity and potential for entrepreneurship, but frequently the right conditions and motivation are lacking (Mazzarol & Reboud, 2019). The basis for future research would be question, what prevents intrapreneurs from becoming entrepreneurs? Through empirical research, they should be identified, examined why they don't test their proven entrepreneurial skills on the market, what is the cause of the lack of motivation? Is it risk aversion? Although it cannot be said that they don't take risks within their organizations. Is it an unwillingness to fully commit and take responsibility for the success of an entrepreneurial venture? The results would be particularly significant considering that previous research has shown that entrepreneurs with previous work experience in the industry have significantly higher chance of success in their entrepreneurial venture (Stuetzer, Obschonka, & Davidsson, 2013), and that's what intrapreneurs definitely are.

Keywords: intrapreneurship, entrepreneurship, innovations

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THE POSSIBILITIES OF INVOLVING ENTREPRENEURIAL ECOSYSTEM IN A HANDS-ON ENTREPRENEURSHIP EDUCATION PROGRAMME

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OBJECTIVE

This academic paper aims to explore the potential for collaboration between entrepreneurial ecosystem stakeholders and higher education institutions (HEIs) in fostering entrepreneurship education. Specifically, it focuses on the methods employed in Business Enterprise Development programmes at Aston University, spanning both undergraduate and postgraduate levels. Additionally, insights from other HEIs within the global network of Team Academies are incorporated to provide a broader perspective (Luukas, 2019; Jones, 2022).

METHODOLOGY

This descriptive study utilizes a mixed-methods approach, combining qualitative and quantitative data collection techniques. The primary data sources include surveys, interviews, and case studies conducted among students, faculty members, and entrepreneurial ecosystem actors. Comparative analysis with similar programmes in the Team Academies' network supplements the research findings.

RESULTS AND DISCUSSION

The results reveal the multifaceted benefits of integrating entrepreneurial ecosystem actors into entrepreneurship education programmes. Collaborations with entrepreneurs, investors, mentors, and industry experts enhance the practical relevance of curriculum content, provide valuable networking opportunities, and foster a culture of innovation and entrepreneurial thinking among students (Hase and Kenyon 2007). Insights from Team Academies worldwide demonstrate the adaptability and scalability of these methods across different HEIs and cultural contexts.

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CONCLUSION

Incorporating the entrepreneurial ecosystem into hands-on entrepreneurship education programmes can significantly enrich the learning experience for students and enhance their preparedness for real-world entrepreneurial endeavors. The success of such collaborations is evident at Aston University and resonates with the experiences of other Team Academies (Tosey, Dhaliwal & Hassinen, 2014). The findings underscore the importance of fostering stronger ties between HEIs and the entrepreneurial ecosystem to bridge the gap between academic theory and entrepreneurial practice. As the educational landscape continues to evolve, this study advocates for the widespread adoption of similar models to empower future entrepreneurs and drive economic innovation.

Keywords: entrepreneurial ecosystem, entrepreneurship education, co-operation, real-life challenge,

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INTERNATIONALIZATION AND ENTREPRENEURSHIP EDUCATION IN BULGARIA

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OBJECTIVE

Entrepreneurship education plays an essential role in cultivating an entrepreneurial mindset and in shaping a set of knowledge, skills, and behaviors necessary to compete successfully. SMEs and entrepreneurs in the Bulgarian small and open economy are forced to face staggering competition of thriving global brands, entrepreneurs, and companies. Globalization is seen as a major driver of collaboration between the academic and private sectors (Lis, 2021). The mobility of employees, scientists, teachers, and students and the re-localization of business activities intensifies competition to attract top performers. International orientation of business and higher education institutions also becomes not only a determinant, but even a requirement for success. This paper contributes to extant research by summarizing and updating the main features of a pioneering model of entrepreneurship education, training, and research from a small country with a strategic location in Eastern Europe.

METHODOLOGY

Entrepreneurship education is dependent on the effectiveness of science-business relations and ability to connect the 'isolated islands' (Todorov & Papazov, 2009). The practically oriented model is based on the seminal work of the engine of entrepreneurship education in Bulgaria, the original initiator and author of a triple-sided model of entrepreneurship education, training, and research in Bulgaria – prof. Kiril Todorov. It was formally recognized as a best practice in entrepreneurship education in Europe by the European Foundation for Management Development (EFMD, 2008).

This conceptual paper is mainly laid upon the postulates of entrepreneurship and internationalization theory, as well as strategic management, and their reflections in education, research, and practice. Entrepreneurship is a relatively young field (Fayolle & Todorov, 2011) recognized as the business discipline of the 21st century. Internationalization is also a relevant and significant topic worldwide (Ivanova, Dentchev, & Todorov, 2015).

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RESULTS AND DISCUSSION

The model summarizes the core building blocks of an international network for cooperation aimed at expanding the horizon and strengthening the entrepreneurial potential, mindset, and competencies of beneficiaries of research, training, and education products. It incorporates an entrepreneurship association, institute, and chair, originally founded and managed by the author of the model and undergoing further development by his successors.

Networking with external partners is essential to develop research and education, grow skills and knowledge, and foster entrepreneurial behavior. The impact of entrepreneurship education is linked to the status and development prospects of research and training and the smooth (co)operation of all components in the model as well as external finance and policy support.

The model demonstrates that encouraging entrepreneurial behavior and image is dependent on the introduction of innovative, practically relevant courses, majors, chairs, institutes, and international networking events.

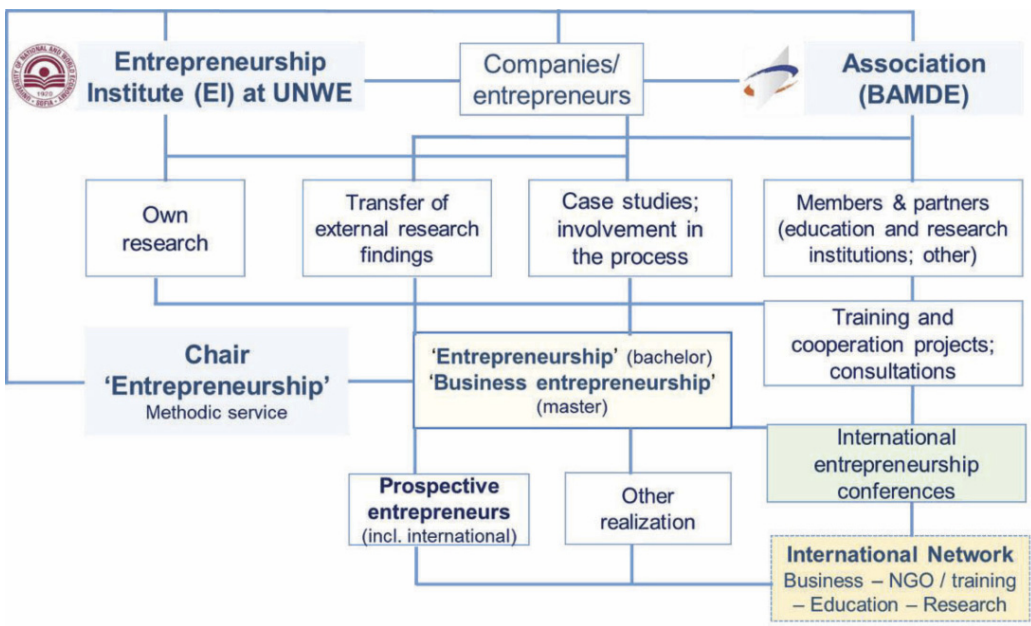

Figure 1: Model of Interrelations 'Entrepreneurship Education – Research – Business' (updated)

*BAMDE – Bulgarian Association for Management Development and Entrepreneurship
*UNWE – University of National and World Economy, Bulgaria

CONCLUSION

Extant research reveals a bi-directional link between internationalization and performance in a business context (Ivanova & Todorov, 2019). Getting back to the scope of this study, some researchers may find it practically relevant and useful to explore the link between internationalization and performance in the context of research and education institutions. There are some limitations regarding putting the model into action. First, it has to be constantly developed and updated/ upgraded to match the ever-evolving needs and new developments in business, society, and research. Second, the outcome of applying the model is dependent on various external factors among which are financial support and policy initiatives aimed at entrepreneurship education, training, and research. To be more effective, it is recommended that existing entrepreneurship policies should be implemented focusing on how to contribute to improving the well-being and quality of life of society in general and disadvantaged groups in particular (OECD, 2017).

Keywords: entrepreneurship; triple-based model; science-business links

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DEVELOPMENT OF THE INNOVATION ECOSYSTEM IN SERBIA: THE CASE OF THE SCIENCE AND TECHNOLOGY PARK BELGRADE

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OBJECTIVE

According to the group of authors Faria et al. (2019), innovation environments known as technology parks, science parks or university parks, represent „agents for promoting scientific and technological development and consequently, economic and social development."

The inception of the Science and Technology Park Belgrade (STPB) in 2015 marked a pioneering effort in the Western Balkans. This innovative endeavor was a product of a collaborative partnership between the Government of Serbia the City and the University of Belgrade. STPB is envisioned as a critical catalyst in molding Serbia's innovation ecosystem (Kutlača & Živković, 2022).

STPB significantly contributes to driving economic growth, which is essential for the analysis of the local and national economy. Beyond its economic impact, STPB also serves as a bridge between Serbia and the global tech community, facilitating international opportunities for local businesses, promoting collaboration between academia and industry and offering mentoring support, legal assistance, networking etc. to startups and entrepreneurs on their path to success.

METHODOLOGY

STPB was selected for this study because the author, who is employed at STPB, has been working within the department responsible for providing business support to companies for the past two years. This position is closely related to STP's essential role as a moderator of the Triple Helix (TH) model, thereby offering insights into the actual state of affairs. The table below will display data collected through the annual evaluation of members. The paper will also touch upon the conclusions drawn by the authors

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regarding the analysis of indicators of scientific and technological development, aiming to highlight the shortcomings identified by the European Investment Bank during the feasibility study for expanding the capacities of STPB.

RESULTS AND DISCUSSION

In the study by Pique et al. (2018), it is emphasized that, as per the TH model, innovation ecosystems are comprised of three key actors: universities, industry, and government. STPs are typically designed to foster collaboration among academia, industry and government, creating an ecosystem that supports research and development activities. These parks provide physical infrastructure and access to funding, networking opportunities and other resources necessary for the development of new technologies and businesses.

According to that, programs and services of STPB are developed to be tailored to the specific needs of companies at different stages of development, through international partnerships and new initiatives that foster technology-business synergy. Nearly 200 companies have been supported in various ways to date and the aim is for this number to be even greater. To achieve it, expanding capacity and human resources are also necessary.

The table below illustrates how the STPB's commitment has evolved over the years.

Table 1: STP Belgrade indicators

Year	Revenue (in million EUR)	Growth rate	Export as % of revenue	Exports (in million EUR)	Return to the state
2016	10		55%	5.5	2.5
2017	16.4	64%	50%	8.2	2.7
2018	24	46.34%	60%	14.4	2.9
2019	28	16.67%	58%	16.1	3.
2020	35	25%	55%	19.25	3.2
2021	46	31.43%	60%	27.6	3.5
2022	52.9	15%	60%	31.74	3.6
2023	60.8	15%	60%	36.5	4

Milenković & Petković (2022) highlight Serbia's distinct position compared to neighboring countries when considering specific indices that reflect the facets of the TH model. They note that while there have been positive shifts, these developments are not sufficient. To achieve greater success, a heightened emphasis on collaboration among the three pillars is essential.

CONCLUSION

As the first STP in Serbia, STPB has been working on the development of the innovation ecosystem for eight years. In the meantime, several new organizations have emerged, and the ecosystem has started to grow, but there is still plenty of room for improvement. STPB offers essential assistance and resources to entrepreneurs and startups,

encompassing funding access, mentorship, and specialized facilities. Without such backing, numerous promising ideas and innovations might not realize their full potential, potentially impeding economic growth and progress.

Keywords: Science and technology park, innovation, development

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SUSTAINABLE ENTREPRENEURSHIP LAW CLINICS AS A TOOL FOR SUSTAINABLE ENTREPRENEURSHIP EDUCATION

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OBJECTIVE

In light of the climate crisis, the success of any company will depend on how it deals with the current environmental and economic challenges (Sihn-Weber & Fischler, 2019). This cannot remain inconsequential for Entrepreneurship Education: Many new questions will arise, which also and especially concern legal topics.

This paper deals with the question of how the necessary change in Entrepreneurship Education can succeed regarding the teaching of legal topics. A suitable tool for building up the relevant knowledge can be so-called Sustainable Entrepreneurship Law Clinis („SELCs"), in which law students advise startups with sustainable business models.

METHODOLOGY

In a first step, a literature review is used to conduct a needs assessment of sustainable startups. In a second step, it is illuminated whether existing university startup ecosystems already address these needs around legal service learning through law clinics. To this end, the range of existing law clinics in German-speaking countries and the USA was comprehensively investigated. At the same time, a first field trial has already been undertaken at the University of Passau.

RESULTS AND DISCUSSION

University startup ecosystems often provide the best environment to gain initial experience as an entrepreneur (Kollmann et al., 2023). Entrepreneurs with sustainable business ideas have a particular need for support and advice here, which a SELC can address.

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The special need for support of sustainable startups is due to three factors (for the following: Fichter et al., 2023). Almost half of German startups count themselves as part of the Green Economy. University Entrepreneurship Education cannot ignore this fact and must provide specific offerings. Second, green startups receive less capital, experience less support from business angels, and expect a much later exit than conventional startups. Third, green startups are confronted with special legal issues and have an increased need for advice. For example, because the state is an important stakeholder for a sustainable economic order, they have to complete administrative procedures particularly frequently.

Especially regarding the last factor, there is great potential for interfacing with the most widely used tool of university service learning at law schools, the law clinics. In a law clinic, students advise legal laypersons free of charge. The law clinics have very different orientations and advise people who either have a special need for advice and/or cannot afford conventional legal advice.

The special consulting needs of green startups remain unmet in German-speaking countries and at the most important U.S. law schools; this is the result of a comprehensive study undertaken as part of this work. While most law schools offer an Entrepreneurial Law Clinic („ELC") and increasingly a Sustainable/Environmental Law Clinic ("SLC"), there is a void at the intersection of the two fields that particularly affects sustainable entrepreneurship.

The Passau Startup Law Clinic at the Chair of Public Law, Media and Information Law is trying to close the gap in a first practical test. The key point is the selection process of potential clients, in which sustainable business ideas are now given preference. The trial began in the summer semester of 2023 and the consultations with the startups are currently still ongoing; the results of the qualitative evaluation will be available at the start of the conference in Belgrade.

CONCLUSION

Entrepreneurship Education must address the challenges of climate change and the needs of green founders. In university startup ecosystems, SELCs can provide some of this necessary support. In this way, law students also gain entrepreneurship experience (Platts-Mills, 2023) and can fill gaps that law school has left around climate issues (Mehling et al., 2020). However, more work is needed to lay the foundation for a new sustainable entrepreneurship in Entrepreneurship Education.

Keywords: law clinic, sustainable entrepreneurship law clinic, sustainability, entrepreneurship, climate change

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EXPLORING PEDAGOGICAL PATHWAYS: HACKATHON AND PROJECT-BASED LEARNING (PBL) IN ENTREPRENEURSHIP EDUCATION

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OBJECTIVE

The academy increasingly recognizes the importance of open innovation, especially in Education 4.0. Universities have traditionally established separate innovation centers, but there is a need for more effective methods to connect teaching and open innovation [1]. This link is closely related to entrepreneurial learning in academia, encouraging students to develop entrepreneurial mindsets and skills by actively participating in innovation processes within the classroom and through extracurricular activities. This paper analyses how two approaches to learning, project-based learning (PBL) and hackathon contribute to entrepreneurial education. Both methods were implemented within the educational process of the Department for Electronic Business at the Faculty of Organizational Sciences (FON). Research questions: How do participants perceive the impact of hackathons and PBL on entrepreneurial behavior? How do teachers evaluate the effectiveness and preference between these learning methods? What are participants' perspectives on the significance of motivational drivers?

METHODOLOGY

The PBL approach has been applied to various faculty courses at FON, including IoT, digital marketing and e-business risk management. Students formed interdisciplinary teams with roles such as scrum masters, product developers, software developers and testers. They actively engaged in classes and practical exercises, worked on concrete projects for final exams, and integrated into the exam conditions without additional rewards. The PBL approach was implemented over two years, 2021-22 and 2022-23. Data were collected through participant surveys of PBL and the implemented WEB 3.0 Hackathon held in April 2023, examining indicators related to learning, project value, career development, professional networks, after-work experiences and perceived gaps[2][3][4][5].

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RESULTS AND DISCUSSION

How do participants perceive the impact of hackathons and PBL on entrepreneurial behavior? Participants in both PBL and Hackathon recognized the following aspects and values of these learning approaches based on their ratings (1 very bad, 5 excellent):

- Both approaches were highly rated for contributing to knowledge and skill acquisition.
- PBL participants expressed a high level of satisfaction with the value gained from projects (4.48), hackathon participants rated it positively (4.12).
- PBL positively influenced professional reputation and employment (4.33). Hackathon provides practical, entrepreneurial, and employment-related experience (4.26, 4.60, 4.07).
- PBL students found value in expanding professional networks (4.13). Hackathon participants felt a stronger connection to the professional community (4.57).
- Both participants expressed the intent to continue proposing project ideas.
- PBL students were less likely to believe that teamwork led to idea loss or imitation contrasting with hackathon participants.

How do teachers evaluate the effectiveness and preference between these learning methods? Experienced teachers in both approaches find: Hackathons promote creativity, problem-solving and entrepreneurial spirit, bringing quality solutions. PBL focuses on concrete knowledge and the development of soft skills.

What are participants' perspectives on motivational drivers' significance? This research examined students' motivations for hackathon re-participation, ranking the top drivers as idea validation, rewards and project funding, Rewards matter, but not at the level commonly assumed.

CONCLUSION

Despite the limited dataset, the research highlights the differences between two learning approaches at FON: Hackathons nurture creativity, problem-solving, and entrepreneurial skills, providing vital employment prospects and connections with the professional community. PBL enhances concrete knowledge, soft skills, and professional reputation, with students motivated to collaborate with domain experts and propose new ideas. Students invest more effort in hackathons for personal promotion, while PBL participation may be driven by necessity, resulting in less dedication. Motivations for hackathon involvement include validation, rewards, and project funding, where cash and merchandise prizes, while important, are not central. Teachers emphasize that PBL is integral and mandatory, while hackathons are non-binding in which participants are motivated by achievements that are not related to exam obligations and grades. Education is increasingly adopting time-limited collaborative events, fostering creativity, problem-solving, and teamwork, aligning with broader efforts to drive innovation and digital transformation in education [3].

Keywords: project-based learning, hackathon, entrepreneurial education, abstract, Danube Cup 2023

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BRINGING STANDARDISATION CLOSER TO ENTREPRENEURIAL RESEARCHERS

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OBJECTIVE

Standardisation is an important tool for global technological leadership. The new European Union (EU) Strategy on Standardisation (EC, 2022a) and the United States (US) Government National Standards Strategy for Critical and Emerging Technology (United States Government, 2023) underlined the strategic importance of standardisation and called for more education and training about standardisation. At the European level, standardisation is recognised as a knowledge transfer channel (EC, 2022b) and standards as a tool for the valorisation, commercialisation, and subsequent use of research results (Blind et al., 2018). The EU's research and innovation (R&I) framework programme Horizon Europe (HE) has more calls than ever in which one of the requirements for submissions is a contribution to existing standards or the development of new ones.

Many R&I projects' results did not reach their full potential in industry, markets, and society. There are many reasons for that. Some research results are not suitable for standardisation, some have not been elaborated enough, and some projects did not have access to standardisation processes that would make their solutions available to interested parties and the industry (EC, 2013). In such situations, everyone loses, including researchers whose results did not reach interested parties who might be interested in applying the developed solution(s). To be able to participate in the standardisation process, research consortia (involved in HE and Horizon 2020 (H2020)) must have a certain level of knowledge, skills, competence, and experience in standardisation.

This study aims to elaborate on the process of building the HSbooster.eu Training Academy (TA) with a focus on content and training methods. The main goal of the HSbooster.eu TA is to bring standardisation closer to the researchers involved in HE and H2020. However, the target audience for training activities is not homogeneous. Researchers usually come from many different institutions (e.g., academia, industry,

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entrepreneurs and startups) and different disciplines, and have different motives for standardisation. How to address all training needs?

METHODOLOGY

This is a qualitative case study. We will explain the theoretical background, the analysis of the training needs of the entrepreneurial researchers, the developed model of the HSbooster.eu TA, and the design of the training platform.

RESULTS AND DISCUSSION

Generally, the HSbooster.eu TA addresses the educational dimension of standardisation by providing an efficient mechanism and accessible hub to acquire the knowledge, skills, and competencies in standardisation. Specifically, the TA offers a wide range of educational resources that have been carefully selected and developed by standardisation experts, professionals, and academic researchers. These resources cover three different levels (beginner, intermediate, and advanced) and are available with no access restrictions at the following link: https://hsbooster.eu/training-academy (Figure 1).

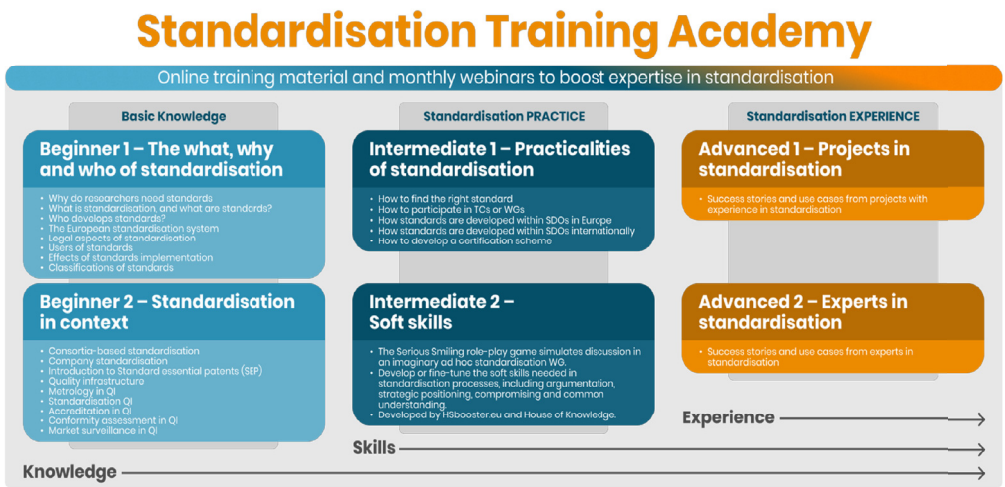

Figure 1: The HSbooster.eu Training Academy: Structure

The beginner level consists of several basic easy-to-follow resources which are intended to be used by either seasoned professionals looking to expand their knowledge or beginners starting their professional careers. The intermediate level consists of carefully crafted resources which are intended to be used by either seasoned professionals or newcomers to the field to gain practical insights and strategies they can apply to their work. Finally, the advanced-level course consists of in-depth case studies and practical examples from industry experts. Users can use the search feature and the advanced filters to browse the training material catalogue or can go directly to the selected starter packs and choose the most suitable one for their skills (Figure 2).

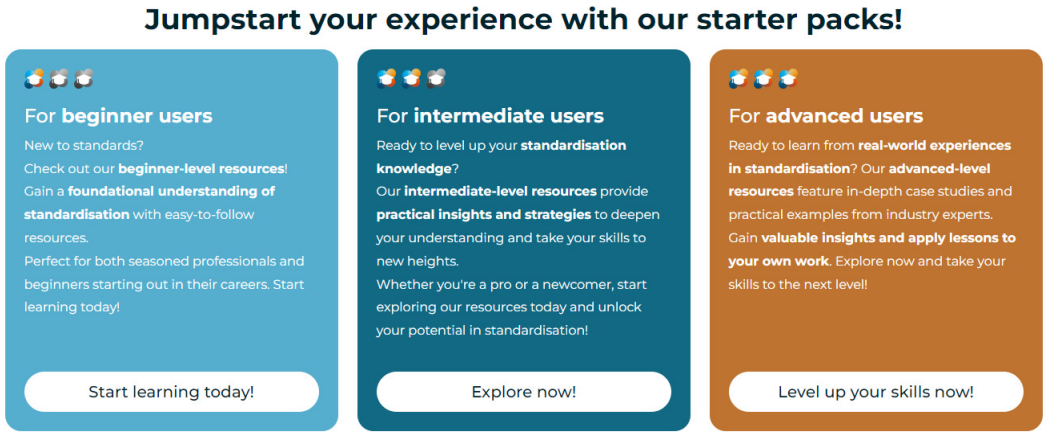

Figure 2: The HSbooster.eu Training Academy: Starter Packs

CONCLUSION

In the following years, the feedback received from evaluators and users will be used to continuously measure the impact and improve the quality of written materials. Based on the experience with target audiences (beginner, intermediate, and advanced users), materials for new topics will be developed in collaboration with standard professionals. By providing resources that align with the highest standards of quality and excellence within education about standardisation, the TA will support the development of a skilled, and competent workforce that can effectively engage with standardisation processes and promote their adoption in the industry.

Keywords: entrepreneurial researchers, education about standardisation, training academy, HSbooster.eu

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ENTREPRENEURSHIP EDUCATION BY THE CHAMBER OF COMMERCE AND INDUSTRY OF SERBIA

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OBJECTIVE

The objective of this study is to assess the impact and effectiveness of entrepreneurship education programs implemented by the Chamber of Commerce and Industry of Serbia (CCIS). We aim to examine how these programs contribute to the development of entrepreneurial skills, the growth of new businesses, and the overall economic prosperity of Serbia.

METHODOLOGY

This study employs a mixed-methods approach, combining both quantitative and qualitative research methods. We will gather data through surveys and articles on entrepreneurship education programs provided by the Chamber of Commerce and Industry of Serbia (CCIS). Results will be synthesized to provide a holistic understanding of the effectiveness of CCIS's entrepreneurship education initiatives.

RESULTS AND DISCUSSION

Seminars and Workshops

CCIS regularly organizes seminars and workshops on various topics such as human resource management, marketing, finance, and other relevant areas of business. These workshops for entrepreneurs are free and essential for their businesses. Education is organized both at CCIS and in the Regional Chambers of Commerce, which are integral parts of the chamber system, with the direct participation of renowned lecturers and experts with significant practical experience in their respective fields, including through online platforms.

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All educational events and workshops are announced on the CCIS website and through social media for maximum information dissemination. In 2022, a total of 52 educational activities were conducted, with over 4000 participants. In the first 8 months of 2023, 17 workshops were held with over 2700 participants, including entrepreneurs.

Topics covered:

- „How to Start Your Business"
- „Digitalization in Business and Introduction of Modern Business Tools,"
- „Sources of Financing for Women Entrepreneurship Development with Non-Repayable Funds,"
- „Project Management - Managing Projects," and others.

Information Resources

CCIS provides substantial information resources to entrepreneurs, including statistical data, market research, and analyses of the business climate in the country. These resources help entrepreneurs better understand the market and make informed business decisions. (Jaško et al., 2023).

CCIS databases include domestic databases (Statistical Office of the Republic of Serbia, Business Registers Agency...) and foreign databases (Eurostat, World Bank...) as well as other analytical teams such as for monitoring dynamics in international commodity and financial markets.

Specialized analyses and reports are available upon request, enabling entrepreneurs to identify domestic and foreign supply and demand for specific raw materials/materials, semi-finished products, and products, find companies on the supply and demand side, provide information on the availability of labor and investment potential, and other factors. The result is a detailed analysis of the economic environment for conducting business activities, both domestically and internationally.

Entrepreneur Support

Entrepreneur Support Desks collaborate with local governments and the CCIS to facilitate entrepreneurship. They offer:

- Information on credit and support programs
- Help in preparing business plans and market analysis
- Identifying domestic and international market opportunities
- Support for business registration and choice of legal structure and more

International Cooperation

In order to better represent the interests of the private sector, CCIS offers its members assistance through the representative office. Representations in Austria, Belgium, Italy, Germany, Russian Federation, Israel, China, UAE work to facilitate and improve the economic activities of Serbian companies and to provide support and relevant information to the Serbian business representatives. (Krasavac et al., 2019).

CONCLUSION

The CCIS actively contributes to the education of entrepreneurs in Serbia by organizing seminars, training sessions, providing information, certification programs and many more. Through Entrepreneur Support Desks, the Chamber of Commerce facilitates compliance with legal and tax regulations, provides essential information on financial support, and guides entrepreneurs in crafting successful business plans. This holistic approach, combined with its efforts to connect Serbian entrepreneurs with international markets, positions the Chamber of Commerce of Serbia as a vital catalyst for entrepreneurship education and the economic progress of Serbia.

Keywords: Chamber of Commerce and Industry of Serbia, entrepreneurship, education

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ROADMAP FOR COMPETENCY DEVELOPMENT IN ENTREPRENEURSHIP EDUCATION

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OBJECTIVE

Human resource management has a rising importance in creating sustainable organization and a great potential for developing entrepreneurial mindset and competencies (Castrogiovanni et al, 2011). Entrepreneurial education can enhance the capabilities and skills of students, leading to greater self-reliance and enabling them to establish new businesses more effectively (Galvão et al, 2020).

The objective of this paper is to provide multidisciplinary approach to competency development in entrepreneurship education, by: 1) identifying targeted entrepreneurial competencies, 2) implementing tools for developing entrepreneurship competencies, 3) assessing students' performance, and 4) identifying possible improvements of the approach. The paper proposes a roadmap for developing entrepreneurship competencies in higher education with a special emphasis on human resource skills: teamwork, leadership, conflict resolution, understanding and using benefits of diversity, as well as presentation and communication skills.

METHODOLOGY

Entrepreneurial skills, competences, and orientation highly affect performance of both established companies and startups (Moustaghfir et al, 2020; Galvão et al, 2020). Entrepreneurial education has an important role in developing entrepreneurial mindset and skills (Coyle, 2022; Aly et al, 2021; Boocock et al, 2009). European Commission provides a comprehensive framework of entrepreneurship competences (Figure 1) (Bacigalupo et al, 2016). Further, Duening et al. (2015) list 5 crucial skills of entrepreneurial expertise:

Creating value,

- Lean startup method,
- Consumer discovery and product validation,
- Business model canvas,
- Entrepreneurial method.

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Soft skills play a great role in entrepreneurship, as 6 of 20 reasons for startup failure are people related (CBInsights, 2021): burnout, lack of passion, poor networking skills, unsuitable team, lack of focus, poor team management skills.

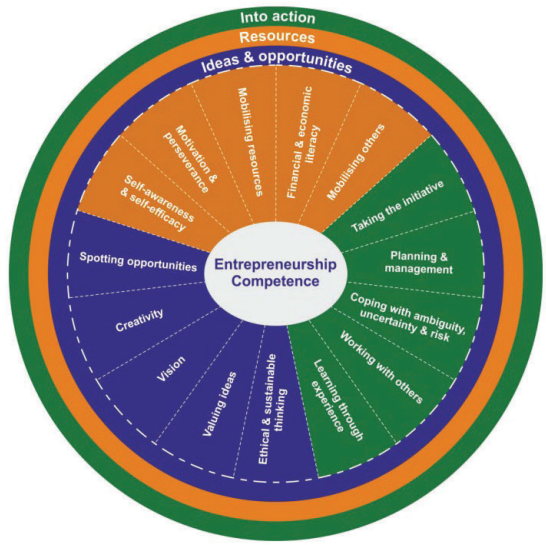

Figure 1: Entrepreneurship Competence Framework (Bacigalupo et al, 2016)

The authors designed and implemented a multidisciplinary approach to developing entrepreneurial skills by combining human resource management and technology entrepreneurship tools. Figure 2 illustrates the proposed model with emphasis on skills in both disciplines.

1. Technology startup proposal:
   - Problem that is addressed
   - Sustainability goal tackled
2. Lean startup development:
   - MVP development (BUILD)
   - Performance indicators proposal (MEASURE)
   - Constructing reports (LEARN)
3. Lean canvas development:
   - Unique value proposition
   - Target market and early adopters
   - Brief financial analysis
4. Team canvas development
   - Assigning roles
   - Defining values
   - Defining purpose and goals
   - Establishing team rules and expectations
   - Evaluating team weaknesses and strengths
5. Team presentation of the solution

Figure 2: Roadmap for entrepreneurship competency development

The model was implemented in February 2023 for master level postgraduate students in subject Human resources and Technology Entrepreneurship for 43 students grouped into 11 teams.

four academic years in a row – from 2019/20 to 2022/23.

RESULTS AND DISCUSSION

Table 1: Results of the students' performance

Team	Lean startup	Lean canvas	Team canvas	Presentation	TOTAL
	[0-4]	[0-8]	[0-10]	[0-8]	[0-30]
Team 1	4	8	9	6	21
Team 2	3	7	10	8	20
Team 3	4	7	9	8	20
Team 4	4	8	7	8	19
Team 5	2	9	10	8	21
Team 6	4	8	10	8	22
Team 7	4	8	10	8	22
Team 8	3	7	7	6	17
Team 9	1	6	6	6	13
Team 10	4	8	9	8	21
Team 11	1	6	8	7	15
Average	3.09	7.45	8.64	7.36	26.55
Percentage	77.27%	93.18%	86.36%	92.05%	88.48%

Table 1 shows the results of evaluated teams and gives a comprehensive overview of their developed skills and could serve as a base for possible interventions for curricula improvement (for example, lean startup method requires more attention and interventions). Furthermore, a new cohort of postgraduate students will provide additional insights for the roadmap improvement and evaluation of developed competencies.

CONCLUSION

This paper presented an effective, holistic pedagogical strategy for entrepreneurship competency development, in response to emerging trends in the entrepreneurial landscape. Further implementation of the roadmap should provide improvements and better insights that will nurture future entrepreneurs and cultivate intrapreneurial qualities, fostering a culture of innovation within organizations.

Keywords: entrepreneurial education, entrepreneurial competencies, human resource management, technology entrepreneurship

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THE CHALLENGE OF EDTECH FIRMS ON HIGHER EDUCATION

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OBJECTIVE

Novel, technology-based solutions have recently emerged to challenge the higher education market. These EdTech companies bring the digital solutions traditional universities need to be faster to adopt. However, it still needs to be clarified what the characteristics of demand and the drivers of success are in this developing competitive landscape.

The purpose of this research is twofold: first, to explore the landscape and the environmental factors that shape EdTechs and universities' opportunities, and second, to explore how different digital technologies and business models contribute to international success in this changing competitive environment. As EdTechs and universities use different business models, it is crucial to understand what each player sees about the future of the competitive landscape.

Given the current unclarity of the industry's perspectives, this research can provide more comprehensive insights into the challenges and opportunities of the sector and the digital business models expected to proliferate in education. The research results can be used for both universities and EdTechs to make more informed long-term strategic decisions and understand the competitive dynamics shaping this market.

THEORETICAL BACKGROUND

Two major emerging technologies shape the higher education sector today. First, Artificial Intelligence (AI) creates insight from data. In today's higher education sector, the less advanced technologies are more present, while the ones that require more advanced capabilities are yet to be adapted (Ouyang, Zheng and Jiao, 2020). Second, Virtual Reality and Augmented Reality technologies have the potential to bring

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innovation into higher education mainly on the student side, by making classes more interactive and hands-on, providing an enhanced learning experience (Alhabibi and Lytras, 2019).

Three business models are represented in our research. Comparing these business models is essential, as they are different in their essence and, as a result, have different levels of readiness for the digital economy. The first one is the most traditional: the university model, which includes most higher education institutions. Universities are mostly locally focused and physical, and as a result, are difficult to scale. Most universities have two functions: research and teaching. With their teaching, these institutions fulfil the demands of the local job market (Anastasiu et al., 2017), by supplying graduates with the relevant skills that the market needs.

The second one is EdTech: companies that shape the teaching practice with the help of digital technologies. EdTech companies are digitally mature companies that offer services for the education sector. These companies make a foundational impact on the education sector, further fuelled by COVID-19, when both students and institutions adopted digital education practices (Laufer et al., 2021). EdTech companies are also successful in giving access to students not served by the education sector, including up- and reskilling for the concurrent job market (Fairlie and Loyalka, 2020).

The third one is the microcredential model, which includes a particular subset of EdTech companies and some vocational schools. Microcredentials are new skill badges that are increasingly popular in today's job market. These programs are more focused than traditional learning programs and can be acquired more quickly than a traditional degree (Rumaksari, 2021).

METHODOLOGY

The research methodology we applied is an exploratory qualitative case study research, with three cases examined: a university with high growth aspirations in the CEE region, an EdTech company based in Canada that serves universities, companies, and students, and another EdTech firm based in Hungary that serves companies and students. As part of the cases, three semi-structured interviews have been conducted with the leaders of each focal organisation. In addition, industry experts have been interviewed to gain insight into the competitive landscape from a different view. Analytical generalizability will be applied at the end of the research to derive broader conclusions from the interviews. The limitations of the methodology include the relatively small sample size and the moderate opportunity we have found for validating the responses of the interviewees from alternative sources. A larger pool of interviews and cross-checking data with secondary sources will support the validity and reliability of results at a later stage of our research.

CONCLUSIONS

The preliminary findings of our research suggest that higher education's dynamics are more complex than initially propositioned. The interviews indicate that the pace of technology developments is higher than the speed at which students and universities can adapt to new trends. Universities remain the players with the broadest access to students, and they are yet to face disruptive demand-side factors that would necessitate

them to innovate their business model abruptly. Universities have different and more complex stakeholder maps than EdTech companies do. As a result, technology adoption becomes relevant later, when purpose, mission, and vision are updated and ranking-improving decisions.

EdTechs, on the other hand, already have a push to serve today's market with their technologies, can adapt quickly and can employ different business and monetisation models. However, they need traction and "distribution channels" for students. Different expectations are present from the students, corporations, and universities as clients. EdTech companies can mainly rely on their extensive data and provide value for students and employers by measuring, analysing, and making informed decisions. This strengthens EdTechs' relevance to the market of today.

Keywords: EdTech, university, business model, digital technology, case study

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COMBINING INTRA- AND ENTREPRENEURSHIP FOR MBA STUDENTS – LESSONS OF A COURSE

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OBJECTIVE

Three years ago, entrepreneurship education was introduced for MBA students at Budapest University of Technology and Economics (BME), and since then, the course has gained increasing popularity. This paper aims to document the most important success criteria of such a course, where the primary focus is always on the students. The identified success factors suggest that the age group of MBA students in their middle age ideal for starting a new venture or initiate and implement intrapreneurial venture (Azoulay et al., 2018). Learning by doing approach where students teams working on their selected business idea increases their motivation to learn specific entrepreneurial knowledge and skills (Vecsenyi & Petheő, 2023; Aulet, 2013; Maurya, 2016) in addition to their educational and working experience. Inviting Alumni as mentors and composing an Advisory board representing the startup ecosystem such as start-uppers, investors, C-level corporate managers, or even policy makers to follow up the progress of the teams and give them feedback bring the projects closer to the real life.

METHODOLOGY

This paper adopts a case-study approach, summarizing our three-year experience. Comparing the curricula of the three consecutive years, identifying the changes, obtaining feedback surveys from the students, and analyzing the impact of the teaching methodology on the project results created a platform for identifying key success factors and areas for improvement.

The findings are primarily presented from the perspective of the lecturers, but indirectly reflect the student perspective, as our insights were regularly refined by student feedback.

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RESULTS AND DISCUSSION

We have concluded that a „learning by doing" approach is optimal when teaching practical subjects such as entrepreneurship. Project-based education involving teamwork is at its core. The course's popularity can be attributed to the approach in which projects based on students' ideas are not separated in a lab environment, but integrated into the startup ecosystem of the university, and even into the ecosystem of Budapest: mentors, alumni, experts, inspirational entrepreneurs are involved, and a close partnership with the university incubator means a plus. Pitch competitions like the Danube Cup have proven effective in enhancing students' communication skills. An advisory board dedicated to the course has also emerged as a key differentiator.

Our results indicate that many elements of entrepreneurship education can be applied to intrapreneurship education as well. For MBA students, these two approaches, intrapreneurship, and entrepreneurship, are not mutually exclusive but can be simultaneously applied. Additionally, we have experimented with various curricular and teaching methodological approaches, identifying the most successful ones.

CONCLUSION

Entrepreneurship education for MBA students should be tailored differently than for regular BA or MA/MS students. They are more motivated to study and apply entrepreneurship to start something new in their life. Furthermore, the integration of intrapreneurship into the curriculum is highly beneficial. We have identified key success factors that can be adapted to other MBA programs on an international level.

Keywords: entrepreneurship education, MBA, intrapreneurship, success factors

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ROLE AND TEACHING METHODS OF A CORPORATE ENTREPRENEURSHIP COURSE

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OBJECTIVE

The University of National and World Economy (UNWE) in Bulgaria has been developing entrepreneurship education since 1991. A bachelor's speciality "Entrepreneurship" was introduced in 2007 followed by the development of several master's and one doctoral entrepreneurship programmes. The subject "Corporate Entrepreneurship" (CE) is taught to bachelor students in their last semester of study. This aligns with the recognition of the diversity of entrepreneurship in education and training programmes in the beginning of the 21st century, allowing for the greater appreciation of its different forms – from new start-up ventures to corporate and social entrepreneurship (Mitra, 2020). Moreover, entrepreneurship has recently become a desirable carrier for many people – not only as creators and managers of their own businesses but also as innovative and respected employees of large organisations. As G. Pinchot claims "you don't have to leave the corporation to become an entrepreneur" (Pinchot, 1985). Such opportunities for work and development within the organisation are provided by CE.

The purpose of this paper is to present and analyse years of experience in teaching Corporate Entrepreneurship to students in Entrepreneurship specialty, which could be used as a good practice in similar conditions. The novelty of the study can be found in the teaching methods used, as well as in the subjects of the course (mainly large companies) which is an exception, considering the usual focus of entrepreneurship education (SMEs). Besides, the theory-practice connection in this course is very close.

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METHODOLOGY

The data, analyses, and conclusions are based on the authors' involvement in the CE course's syllabus elaboration and education process. Research methods include expert observations grounded in research and teaching experience, as well as in constant feedback from the students.

RESULTS AND DISCUSSION

The course's objective is the students to get knowledge and to acquire skills for realization of entrepreneurial projects in a corporate environment, as well as to develop further their entrepreneurial competencies.

During seminar classes, each student is assigned an individual task related to researching literature, preparing (with the consulting help of the teacher) an essay on a predetermined topic from the field of CE, presenting it to the class and initiating discussion (Vasilska, 2014). Another interesting task involves analyzing case studies assigned by the teacher.

The main outputs of the educational process in the CE course are projects with subjects – particular Bulgarian large or medium-sized enterprises – developed by the students in teams of up to three people, under the professors' mentoring. While working on these projects, students apply the new knowledge and skills they have gained. Additionally, young people have the opportunity to practice in a real organisational environment, solving specific problems of companies and advising them towards CE intensification. All teachers and students involved in the course are audience for the final defence of the projects.

CONCLUSION

In 2018 the Council of the European Union highlighted the entrepreneurship competence as one of the eight key competences for lifelong learning, essential to citizens for personal fulfilment, a healthy and sustainable lifestyle, employability, active citizenship and social inclusion (European Commission, 2019). Entrepreneurship competence is important not only for people starting businesses but also for everyone who wants to succeed in the labour market because, according to studies on the future of the workforce, companies will increasingly seek to hire employees with the soft skills characteristic of entrepreneurs (Tzvetkova, 2023).

CE is an integral part of entrepreneurship education. It develops key knowledge and skills preparing students to become entrepreneurs, who encourage their staff to be proactive, or to become entrepreneurially oriented employees of large companies, helping them to be innovative and competitive. Individuals at all levels of a company play important roles in entrepreneurial efforts, regardless of the form of the entrepreneurial initiative. Therefore, it is crucial CE to be studied more widely, bearing in mind that not all students in entrepreneurship specialities will start their own business. Many of them will build successful careers in large organisations, promoting and further developing the idea of CE.

Keywords: entrepreneurship education, higher education, corporate entrepreneurship, teaching methods, students` projects

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AN EFFECTIVE APPROACH TO PROJECT-BASED LEARNING IN TECHNOLOGY ENTREPRENEURSHIP

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OBJECTIVE

The primary objective of this paper is to introduce a novel approach to project-based learning in the domain of technology entrepreneurship, designed to inspire and empower higher education students to proactively form and nurture technology startup teams. Motivation for developing this approach stems from the authors' conviction that introducing technology entrepreneurship learning in higher education serves as a catalyst for fostering a vibrant national entrepreneurial ecosystem.

METHODOLOGY

National cultural characteristics highly affect entrepreneurial activity within a country [2,5]. Power distance, risk orientation (uncertainty avoidance), individualism, and indulgence are highly correlated with entrepreneurial performance. Nevertheless, the value of four dimensions in the Republic of Serbia negatively affect entrepreneurial mindset. Figure 1 illustrates values of all six dimensions in comparison to the values of entrepreneurially oriented Finland and Switzerland. High power distance (86), low individualism (25), high uncertainty avoidance (92), low indulgence (28) negatively affect entrepreneurial orientation within the Republic of Serbia. Additionally, Startup Genome report clearly states that Serbia has "high-quality engineering talent, which ranks among the top five in the world", but low startup output in comparison to other countries in the activation phase. Their research shows that low proportion of Belgrade and Novi Sad founders have high ambition as compared to the global average [6]. Entrepreneurial education has shown a great potential for overcoming the Valley of Death and improve the mindset of youth [1,3].

Starting from that viewpoint, the authors designed and implemented a project-based approach to learning technology entrepreneurship for the second-year undergraduate students within the course Management of technology and development at the University of Belgrade, Faculty of Organizational Sciences. Figure 2 presents the flow

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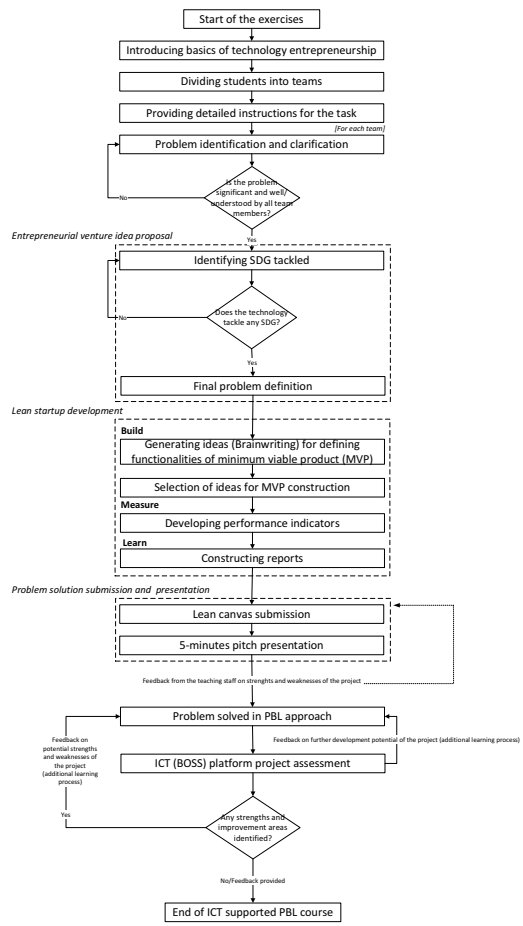
chart of the designed approach, with three key steps: (1) entrepreneurial venture idea proposal; (2) lean startup development; and (3) project solution submission and pitch presentation. Solutions are graded according to the criteria: Pitch presentation; Unique value of the project; Identified problem and its importance; Solution; Minimum viable product (MVP) functionality; Early adopters; Originality; Implementation possibility; and Indicators used for measuring MVP success.

Figure 1: Cross-cultural comparison. Source: Hofstede (2023)

The effect of introducing this approach is based on the primary data collected within the mentioned course for four academic years in a row – from 2019/20 to 2022/23.

Figure 2: Flow chart of the proposed project-based learning approach in technology entrepreneurship



RESULTS AND DISCUSSION

Each year, approximately 700 students, grouped into teams of four to five members, develop and present their startup projects. Table 1 shows that over 60% of students opt for technology entrepreneurship projects each year, which results in over 140 student startup teams each school year. A slightly declining trend in the number of teams during 2020/21 and 2021/2022 results from online classes caused by COVID-19. However, this learning approach which incorporates hands-on experiential learning results in around 150 student startup ideas each year. This causes a change in the students' mindset and activation in the field of technology entrepreneurship at the faculty, cultivates entrepreneurial mindset and equips students with the skills and enthusiasm necessary for successful technology ventures.

Table 1: Effects of introducing technology entrepreneurship project-based learning

School year	Students enrolled at the course	Students who opted for technology entrepreneurship project		Established student startup teams	Average grade per startup team
	[n]	[n]	[%]	[n]	[0-50]
2019/20	925	681	73.6%	145	42.86
2020/21	1040	691	66.4%	157	47.07
2021/22	1076	626	58.2%	140	49.46
2022/23	1263	760	60.2%	162	48.36

CONCLUSION

Introducing project-based learning for technology startup teams in higher education offers a multitude of practical benefits. It empowers students with hands-on experience, nurtures problem-solving skills, teamwork, and adaptability – critical attributes for success in the dynamic technology entrepreneurship landscape. Project-based learning encourages an entrepreneurial mindset, fostering innovation and creativity, ultimately contributing to the development of a skilled workforce that can drive technological advancements and economic growth in the ever-evolving technology sector.

Keywords: technology entrepreneurship, project-based learning, technology startups, higher education

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DEVELOPING ENTREPRENEURIAL AI COMPETENCES FRAMEWORK TO PROMOTE ENTREPRENEURIAL EDUCATION

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OBJECTIVE

In the context of the rapid technological changes brought by the widespread adoption of AI that affects every industry and every aspect of our everyday life, it is necessary to revolutionize entrepreneurial competencies and existing business models. Entrepreneurship, in particular, faces a formidable challenge in light of the evolving market landscape that demands not only the realignment of business models but also the cultivation of competencies that encompass different perspectives including legal, economic, technical, social, and philosophical dimensions of AI integration into business operations. Thus, one of the main objectives of this paper is to analyze the specifics of AI entrepreneurship and to develop the Entrepreneurial Artificial Intelligence (EAI) competencies framework to help students to better understand the AI systems and to support their involvement in the field of AI.

METHODOLOGY

We critically analyze a considerable number of different scientific papers dealing with the characteristics of AI (Popkova, Sergi, 2020; Krivokapić, Živković, Nikolić, 2022) and entrepreneurial competences (Kruger, Steyn, 2021; Bacigalupo, 2022; Alqahtani, 2023) to better understand which competences students need to develop during studies in order to be ready for entrepreneurship in the field of AI. Firstly, they need to understand the social impact of AI, more specifically challenges of working in constantly changing environment influenced by everyday technical innovations. Secondly, they need to understand ethical challenges and to be able to deal with ethical dilemmas related to use of AI in business. Thirdly, students should have at least a basic legal background that would encompass the existing AI set of rules and standards for developing, deploying, and using trustworthy AI. Fourthly, students should understand the economic

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implications of the use of AI. Finally, they should be aware of all technical aspects which need to be in accordance with the legal framework. For example, EU is in the process of adopting the AI Act, while many countries developed their national strategies, including Serbia that adopted the Strategy for the Development of AI for the period of 2020-2025. On the other side, there are general entrepreneurial competencies defined by The European Entrepreneurship Competence Framework (EntreComp) that should be adapted to AI characteristics. Given the absence of a comprehensive competence framework that integrates the existing EntreComp and the required AI competencies, we developed the Entrepreneurial Artificial Intelligence competences framework.

RESULTS AND DISCUSSION

Based on the literature review, we developed conceptual framework of entrepreneurial AI required competences that encompass social, ethical, legal, technical, and economical aspects (Table 1).

Table 1: EAI Competences Framework

EAI COMPETENCES FRAMEWORK	Social Competences	Ethical Competences	Legal Competences	Technical Competences	Economical Competences
	Spotting opportunities regarding the of AI technology	Knowledge of ethical theories	Knowledge about legal framework regulating AI	Recognizing content generated by AI	Financial and economic literacy characteristic for AI industry
	Interdisciplinary collaboration among different stakeholders in AI filed	Implementation of ethical guidelines for trustworthy AI	Application of national laws regulating AI and other adopted specific AI standards	Utilization of AI systems in everyday duties and tasks	Mobilizing different type of resources for AI entrepreneurship
	Awareness and adaptability to social changes influenced by AI	Identification of ethical issues in entrepreneurship	Identification and evaluation of AI risks	Exploring the possibilities of using AI systems	Recognizing opportunities for financing and development

CONCLUSION

We believe that development of EAI competences would support students to better deal with challenges that AI brings in the field of entrepreneurship. This paper offers theoretical framework, while future research will be focused on evaluating the framework in the AI entrepreneurial environment and to develop and organize methods for competences development.

Keywords: AI entrepreneurship; AI competences; entrepreneurial competences; competences framework.

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ENTREPRENEURSHIP EDUCATION AT UNIVERSITY: TOWARDS A REVIEW OF EFFECTIVE LEARNING MODELS

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OBJECTIVE

This paper analyzes different approaches to entrepreneurship education at university-level studies, intending to identify effective learning models and provide a new classification and understanding of best practices. The authors of the paper believe that effective teaching and learning models of entrepreneurship are of great importance for building the entrepreneurial economies of today. The main research question is how students should learn entrepreneurship during their higher education across various study fields to improve the educational process at university and to contribute to the future research of academics.

METHODOLOGY

The research conducted in this paper is based on a systematic literature review (SLR). After exploring diverse approaches to SLR, the authors opted for the one depicted in Figure 1, which was adapted from [15].

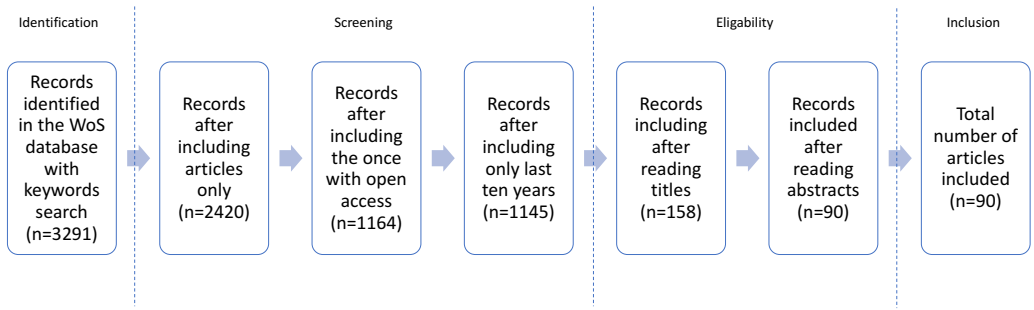

Figure 1: Systematical Literature Review Flow

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RESULTS AND DISCUSSION

Considering the work of the group of authors [1], [6] and [12], the following types of entrepreneurship education are identified among papers included in the research: generalized, motivational, augmented entrepreneurial education, as well as training-based on real projects. An excerpt from the obtained results is provided in Table 1 due to the abstract length limitation.

Table 1: Entrepreneurship Education Models Analysis (excerpt from the full table to present the idea)

Short model description	Field of studies	Type of entrepreneurship education
Entrepreneurial program designed and based on studio work [3].	Business Universal	Generalized
Integrated Model - "Education about, for and through entrepreneurship" [9].		
The NETMIB incubation platform which operates online and aims to support individuals in launching new ventures [14].		
Game theory applied to analyze and enhance innovation and entrepreneurship education (IEE) [16].		
Virtual Reality-Interactive Learning Model (VR-ILM)-based is a Smart Space, that serves as a multi-user interactive learning environment [11].	Mining and Technology Music Accounting, Economics, Management and Marketing	Augmented
CAI (Computer-Assisted Instruction) introduces multimedia and technology, making learning more engaging and interactive [2].		
Hackathon as a new model of approaching entrepreneurship education [13].		
The organization of a live case, namely a limited liability company managed by students [4].	Business and Engineering Universal Medicine Technology	Training
British-Based Model – based on start-up process simulation [9].		
Student-founded startups emerge because of entrepreneurship education and the practical application of skills related to identifying and capitalizing on new opportunities [10].		
Entrepreneurship initiative known as "Gruendungsgarage." [5].		
Presence of alumni members from the market and the transfer of acquired knowledge through lecture [8].	Agriculture Technology	Motivational
Gamified Entrepreneurship Courses introduced interactive and immersive experiences to enhance the effectiveness of college-level entrepreneurship teaching [7].		

CONCLUSION

The results of this paper underline the importance of combining numerous theoretical models with those applied in business practice to encourage the development of entrepreneurial skills among students. The modern age labour market demands holistic capacities for entrepreneurship to be developed. Future research directions should be focused on examining the impact of these models on student satisfaction, motivation and their influence on subsequent entrepreneurial endeavours and their success.

Keywords: entrepreneurship education, systematic literature review, learning models, students

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INTERACTIONS IN ENTREPRENEURIAL SPACES

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OBJECTIVE

Entrepreneurial Spaces (ES), encompassing coworking spaces, makerspaces, accelerators, and incubators, have gained significant attention in the literature for their association with a multitude of positive attributes, including the creation of new relationships, networks, knowledge sharing, and vibrant communities (Aslam et al., 2021; Beltagui et al., 2021; Howard et al., 2019). These spaces are recognized as hubs of innovation and collaboration, with interaction among users being a central element (Gerdenitsch et al., 2016). However, limited research has been conducted questioning the predominantly positive narrative surrounding ES, shedding light on the challenges and drawbacks, including privacy concerns (Aslam et al., 2021), excessive noise (Bouncken et al., 2020), lack of support (Amann et al., 2022), free exploitation of ideas (Aryan et al., 2021), and the fear of idea theft (Beltagui et al., 2021).

This study aims to question the underlying mechanism of personal interaction among members of physical, entrepreneurial spaces providing benefits to individuals. More specifically, we ask: To what degree does the level of interaction within entrepreneurial spaces explain how individuals profit from being engaged in entrepreneurial spaces?

METHODOLOGY

To answer the research question, we will combine quantitative data tracking interaction with self-reported perceived benefits of ES members. New members in a university entrepreneurial space will be observed over their first four weeks. Tracking technology will be employed to measure frequency, duration, location, and type of interactions. We will first conduct a pilot study to identify the most appropriate technology among bluetooth beacons (Al-Madani et al., 2019), Wi-Fi analytics (Dardari et al., 2015), RFID-based indoor location tracking (Kim et al., 2013), wearables, and sensor technology to measure movements, interactions, and even physiological responses. Social Network Analysis (Kothari et al., 2014) will be used to analyze interactions and relationships, offering insights not previously explored in ES research.

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RESULTS AND DISCUSSION

We expect the results to highlight the relevance of interactions on sharing, networking, and the formation of communities within ES. However, we anticipate that the number of interactions, especially with new users, may be relatively low, as many individuals spend a substantial portion of their time at their workstations. Contrary to the predominantly positive portrayal in the literature, the findings will shed light on the challenges and critical interaction hotspots within ES.

CONCLUSION

The theoretical contributions of this research extend to the realm of social interaction theory, offering new insights into how spatial factors influence social interactions and potentially refining existing theories. Furthermore, this study deepens our understanding of work behavior in entrepreneurial spaces by highlighting the impact of interactions on productivity and performance. This research offers a unique and comprehensive perspective on ES, filling a gap in the existing literature and providing valuable insights for practitioners, policymakers, and scholars alike. Ultimately, the findings serve to enhance the overall effectiveness and functionality of Entrepreneurial Spaces.

Keywords: Entrepreneurial spaces, interactions, social network analysis, tracking technology

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EXPLORING STUDENT ENTREPRENEURSHIP IN CENTRAL AND EASTERN EUROPE: A CROSS-COUNTRY COMPARATIVE STUDY OF ENTREPRENEURIAL MINDSETS

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OBJECTIVE

The concept of an entrepreneurial mindset has gained increasing attention from researchers recently (Daspit, Fox & Findley, 2023; Kuratko, Fisher & Audretsch, 2021; Larsen, 2022). Of particular significance is the entrepreneurial mindset of students, as numerous initiatives are dedicated to fostering youth entrepreneurship. Researchers have increasingly focused on the influence of entrepreneurship education on shaping this mindset (Colombelli et al., 2022; Cui & Bell, 2022; Handayati et al., 2020; Wardana et al., 2020). This research pursues three primary objectives: 1) to conduct a comparative analysis of the entrepreneurial mindsets of students across three countries; 2) to explore the correlation between students' entrepreneurial mindsets and their predominant fields of study (information technology or management); and 3) to investigate whether specific personal attributes and behaviors influence students' entrepreneurial mindsets.

METHODOLOGY

To measure students' entrepreneurial mindsets, we adapted a three-dimensional scale comprising 24 items developed by Mathisen and Arnulf (2014). This scale assesses elaborating mindset, implementing mindset, and compulsiveness related to business ideas, and provides a comprehensive assessment of the various aspects that contribute to a well-rounded entrepreneurial mindset. Our sample encompasses over 300 students in the final year of undergraduate or master's studies at three universities situated in

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distinct Central and Eastern European countries: Slovenia, Croatia and Serbia. All respondents are affiliated with faculties of organizational sciences, focusing on informatics and management. Various quantitative statistical methods will be used to analyze the gathered data.

RESULTS AND DISCUSSION

The forthcoming results promise valuable insights into the factors shaping students' entrepreneurial mindsets. Furthermore, they will unveil both similarities and disparities in relation to the regional context, given the study's execution across three countries. Entrepreneurial curiosity holds paramount importance throughout all stages of entrepreneurial activities and exerts a positive influence on business outcomes (Jeraj et al., 2015), emphasizing the need for its cultivation from a young age. Entrepreneurs wield a direct impact on GDP growth and employment (Wennekers & Thurik, 1999) and entrepreneurship serves as an accelerator of economic activity, generating new employment opportunities (Balabanis & Katsikea, 2003; Thurik et al., 2008). However, nurturing entrepreneurship's development requires more than just imparting knowledge to the younger generation. Economic performance hinges not solely on the creation of new knowledge but also on the ability and willingness of innovative entrepreneurs to craft novel products and processes grounded in newfound knowledge (Audretsch, Bonte & Keilbach, 2008). Entrepreneurs need a conduit to translate their personal attributes and ambitions into tangible actions (Carree & Thurik, 2010).

CONCLUSION

The findings of this study lay a robust foundation for the reformulation of university curricula and the enhancement of extracurricular activities, fostering entrepreneurship as a key driver of economic progress. Subsequent research avenues should encompass various dimensions. Firstly, expanding the sample size by incorporating additional countries, universities, and fields of study is imperative. Second, incorporating more variables that correlate with students' entrepreneurial mindsets warrants exploration. Lastly, interventions in the form of curriculum updates or the introduction of entrepreneurship-related extracurricular activities should be implemented, and their influence on students' entrepreneurial mindsets meticulously assessed and analyzed.

Keywords: student entrepreneurship, entrepreneurial mindset, Slovenia, Croatia, Serbia

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THE ROLE OF IP AUDIT IN STARTUPS

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OBJECTIVE

This paper explores the practical application of intellectual property audit (IP Audit) and diagnostics approaches and intellectual property protection strategies within startups and small and medium-sized enterprises (SMEs).

Key issues addressed in this paper encompass methods by which companies can perform audit and diagnostics of their intangible assets and strategies for companies to safeguard themselves from potential infringements by third parties, through the establishment and management of intellectual property portfolios. Furthermore, the paper aims to provide valuable insights into the strategic management of intellectual property in today's dynamic business environment.

METHODOLOGY

Examination of diverse sources, including research papers, peer-reviewed literature, legislation pertaining to intellectual property, web content and guidance manuals from relevant institutions, such as the Intellectual Property Office of the Republic of Serbia, WIPO, WTO, EUIPO, and INPI.

RESULTS AND DISCUSSION

Intellectual capital is usually the most important element of a company's business, and intellectual property is an integral part of structural capital (Stošić & Milutinović, 2022). The average value of intangible assets in relation to the total value of the company in the 1970s was only 18%, while today it is more than 90% (Ocean Tomo, 2020). Various forms of intellectual property rights - IPR, such as patents, trademarks, copyrights and industrial designs protect the inventions and works of creators, thereby encouraging further innovation and creativity.

The IP Audit assesses the state of procedures adopted by companies in order to ensure the protection of intangible assets. In the diagnostics process, tools and additional processes are proposed to minimize risks associated with third parties that may threaten intellectual property rights (Meyer & Patel, 2005).

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At the "WIPO IP Diagnostics Going Global" event held in November 2021, WIPO IP diagnostics free software tool for self-assessment of intellectual property was presented. This tool is developed for smaller businesses looking to increase their commercial opportunities through identifying intellectual property assets (WIPO, 2023).

An interesting example might be an impact study of INPI France pre-diagnosis using the AIDA approach that speaks about the importance of diagnostics in this type of company. INPI France and the Regional Council of Lorraine conducted research using the AIDA method in 71 SMEs that performed a pre-diagnosis. The findings confirmed relatively good level of knowledge about forms of IP protection in this form of companies (Enjolras et al., 2015).

As for Serbia, there are numerous initiatives that provide support for the development of the startup ecosystem. Accordingly, there is a National Program for the Development of the Startup Ecosystem, which aims to encourage the development of new businesses and innovations in the country. Illustrative is the case of the Serbian startup "MyFitWorld", since it speaks of the importance of good timing and timely diagnosis of intellectual property. It is a unique platform that connects trainers and exercisers, enabling trainers to work at a higher level and exercisers to receive customized training. Thanks to the submitted application for trademark registration, this startup managed to upload its platform to the Apple Store, although there was already a platform on the store with a similar name and purpose but without IPR. This provided opportunities for further business development on the foreign market (WIPO, 2021).

CONCLUSION

Intellectual property strategy that incorporates an IP audit and diagnostics should be considered as inevitable part of innovation and business strategy. Startups and SMEs are advised to select the diagnostics and protective methods that best align with their company's characteristics. It is essential to emphasize that diagnostics should not be seen as an expense but as an element in the prosperity model for these companies. To enhance this model, it should be important to establish better IT support.

Furthermore, there is a noticeable increase in initiatives that bring together experts in this field. In future the role of intellectual property and its specific components and tools will quite possibly serve as a key driver of the success of companies' operations.

Keywords: Intellectual Property, IP Audit, Diagnostic tools, Startups, SMEs

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STARTUPS AND INTERNAL COMMUNICATION: DOES TEAMWORK MAKE THE DREAM WORK?

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OBJECTIVE

It has been a debate about whether the idea or the team is the stronger factor of a success of a startup. There is an approach which says that great internal communication and organizational structure – so the team – is a key factor in the success of startups (Radácsi & Filep, 2021). I was curious if the startupers and the mentors, investors are thinking the same, so the team is important and whether they pay attention to the development of the team. It is crucial that take the startups unique characteristics (newness, smallness, owner centricity, rapid growth, necessity of investment) into consideration (Kollmann et al., 2016; Churchill & Lewis, 1983; Weisenberg et al., 2020). To become successful, they must overcome obstacles connected to these factors, in which the strategic use of internal communication can help in any development stages. Despite its relevance, the literature focuses mostly on large enterprises and multinational companies, a focus on the communication activities of startups has so far been limited, so this research would add to this under-researched field.

METHODOLOGY

I conducted an exploratory research where a heterogeneous sample of 14 actors from the Hungarian startup ecosystem (with purposeful sampling) were interviewed. The sample consisted of 6 entrepreneurs, all of them are in a leading position (4 CEOs and co-founders, 1 CTO and co-founder, 1 CFO), 4 incubation experts, 1 acceleration expert, 1 venture capitalist and 2 angel investors. During the study, I wanted to explore in general the organizational and team obstacles Hungarian startups most often face according to themselves and external actors. In specifics I tried to explore whether they have a shared, stated value, mission, vision on which the organizational culture, the corporate identity is based. I also inquired into team hierarchy, as well as habits regarding hiring new colleagues.

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RESULTS AND DISCUSSION

All the interviewees, except one, said that the team is essential for success and startups face great challenges connected to these topics. The key findings from the interviews are the following. The biggest issue according to the stakeholders is that entrepreneurs "don't know that they don't know" their own flows in the field of organization and communication. Conflicts arise mostly around finances or regarding emotional connection to the product or to the expected roles in the company. The financials as a key conflict were mentioned by a startuper (co-founder and CEO) and an angel investor as well. In most cases, the delimitation of roles is a pain point for all the actors, which causes a flat hierarchy, resulting that everyone is doing everything. "Here comes the first problem, when they introduce themselves and I ask who the boss is, and they just look at each other like that... This is already a message to me" (a renowned figure in the ecosystem). This sentence has been said almost the exact same way by several investors and incubation experts as well. These point to the suboptimality of internal communications as a general phenomenon. The vision, the mission, a stated core value is missing in most of the time, which might show that the startupers are not intentionally planning for the growth of the organization. These two factors lead to the absence of corporate identity, which might lead to the fluctuation of employees, hiring the wrong people and the absence of an elaborated onboarding process. This was confirmed by more startupers e.g., by three different co-founders and CEOs as well.

CONCLUSION

Looking at the state of research on startups' internal communication and organizational culture as well as the interview-based study, there are several issues that need to be addressed, namely the absence of internal communication, organizational structure, and a solid base of corporate identity. This study is a solid starting point of a bigger research where I intend to find solutions to the identified issues.

Keywords: startup, internal communication, team, organization, abstract, Danube Cup 2023

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LEVERAGING THE RESPONSIBILITY FACTOR IN THE ENTREPRENEURSHIP EDUCATION FOR IT STUDENTS

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OBJECTIVE

The wide portfolio of the innovation and entrepreneurship courses on the different levels of education at ELTE Faculty of Informatics, with strong embeddedness into international education programs (Pisoni, 2019) demanding the continuous improvement of the methodologies (Cruz, 2017), called for the determination of a distinctive feature that enables a unique positioning. The motivation of the study is to introduce those pilot results that targeted the mapping of students' attitudes towards social responsibility in general, the efficiency of the mindset forming in this regard and the social impact component of their individual ideas. This systematic analysis allows experimental conclusions how embracing the responsibility factor can be more adjusted to the expectations of the dynamically changing entrepreneurship education, by comparing the different patterns of students' inputs from regular and asynchronous courses. The main research question is if the change of students' awareness in the regard of the role of social impact is demonstrable along the different courses, and if there is a detectable difference between the results originating from different groups of participants (following online and onsite courses).

METHODOLOGY

Independently from the format and level of education, in all entrepreneurship courses the importance of the responsibility of new innovations is not only introduced as a theoretical chapter, but students have to build in the possible aspects into their team and individual ideas. The positive social impact is emphasized as an unmissable potential competitive edge (Cone, 2019). The different layers and related phenomena are explained by leveraging the critical contributions of students as well.

The change in the awareness and the different patterns originating from diverse student groups will be analyzed through three data sources that enable the induction of acquired knowledge's depth:

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The first data source is based on the answers to a questionnaire that aimed to detect the different attitudes of computer science students towards social responsibility before the topic was discussed in the related course.

The second data source is based on the evaluation of students' answers of different basic entrepreneurship courses given to an online quiz that aimed to detect their knowledge regarding the corporate social responsibility strategies in general.

The third data source is built on the thorough qualitative analysis of the individual ideas: how students could embed the social responsibility factor, how well elaborated it was or if it was forced or mixed up with the environmental impact.

The three data sources also refer to the expected progress that can be observable during the various phases of the courses and aim to contribute to the circumscription of differences in the interpretation of social impact.

RESULTS AND DISCUSSION

The study would like to outline experimental conclusions on how the knowledge and applicable methods regarding social impact could be effectively transmitted in onsite and online basic entrepreneurship courses and if there is detectable deviation in the embeddedness level among the different groups of students.

In case of the first dataset (questionnaire on the social impact of the innovative ventures), the main findings in relation to the awareness of students at the beginning of the courses show that the majority of the students believe that profitability and positive social impact are indeed achievable at the same time, in the case of new ventures. 84% of agrees that start-ups can be competitive while addressing social issues, while 6% thinks that it is only social start-ups that should tackle social issues. 10% worries that addressing social issues would set back a new venture.

The ratio of correct answers exceeding 70% in the quiz can be indicative of effective and successful message transmission on the role of social responsibility and no major differences can be demonstrated among the answers of the students who followed courses in different formats.

The social impact components of the final individual innovative ideas show almost the same proportion of the answers in a category where the environmental impact is mixed up with the social impact like those that have clear and positive social impact. A few ideas' social impact approach was poorly addressed. The study elaborates on the identifiable patterns in the idea introductions of the diverse student groups.

CONCLUSION

In general, we can state that the elaboration on social impact was an integral part of the idea presentations. It can confirm that a change in the awareness in the regard of social impact is observable along the courses. The study allows experimental consequences as relies on data sources from one semester only, but can outline further steps of the improvement and positioning of a responsible entrepreneurship education for tech students, and it can suggest refinement opportunities in the variables of embedded social impact analysis.

Keywords: social impact, entrepreneurship education, responsible innovation

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RELATIONS OF FORMAL ENTREPRENEURSHIP EDUCATION AND PERCEPTION OF SCALING CHALLENGES IN THE ICT INDUSTRY

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OBJECTIVE

The information and communication technology industry has great value and continues to grow, while only a small percentage of the organizations successfully scale, that is, manage to cope with various challenges and build the ability to do more of what they are already doing. The goal of this research is to, through the analysis of data obtained from the industry employees, increase the understanding of how formal education about entrepreneurship and business growth currently affects or does not affect the employees' perception of how to face the scaling challenges. The research results can be further used to adapt formal education and increase the success rate of scaling in the ICT industry.

METHODOLOGY

The data was gathered from 120 employees in the ICT companies which undergo organizational scaling, of which 82% were from Serbia, and 18% were from other, primarily European countries. Employees were asked if they had a subject dedicated to entrepreneurship in their formal education and if they had formally covered organizational scaling during their formal education. The second part of the survey collected data on the challenges of organizational scaling based on the theoretical background (Greiner, 1972; Churchill & Lewis, 1983; Hess, 2012; Harnish, 2014; Forsgren, Humble & Kim, 2018), grouped in Recruiting (5 items), Structure and process (5 items), Leadership and management (6 items), Organizational culture (5 items) and Finance related (3 items). Variables show moderate Crombach Alpha reliability, except for the recruiting, which has poor reliability, according to Hair et al. (2003). Data was analyzed using the SPSS package for descriptive statistics analysis and t-test.

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RESULTS AND DISCUSSION

The results show that except for finance-related challenges, employees with some formal entrepreneurship education perceive lower challenges to scaling up the company. Means and standard deviations are shown in table 1 and figure 1.

Table 1: Descriptive statistics of organizational scaling challenges in relation to entrepreneurship education

	Some entrepreneurship education	N	Mean	Std. Deviation	Std. Error Mean
Recruiting challenges	No	78	3.436	.619	.070
	Yes	42	3.195	.619	.096
Structure and process challenges	No	78	3.138	.652	.074
	Yes	42	2.905	.774	.119
Leadership and management challenges	No	78	3.406	.649	.074
	Yes	42	3.163	.653	.101
Organizational culture challenges	No	78	3.077	.777	.088
	Yes	42	3.000	.728	.112
Finance related challenges	No	78	2.859	.830	.094
	Yes	42	2.905	.790	.122

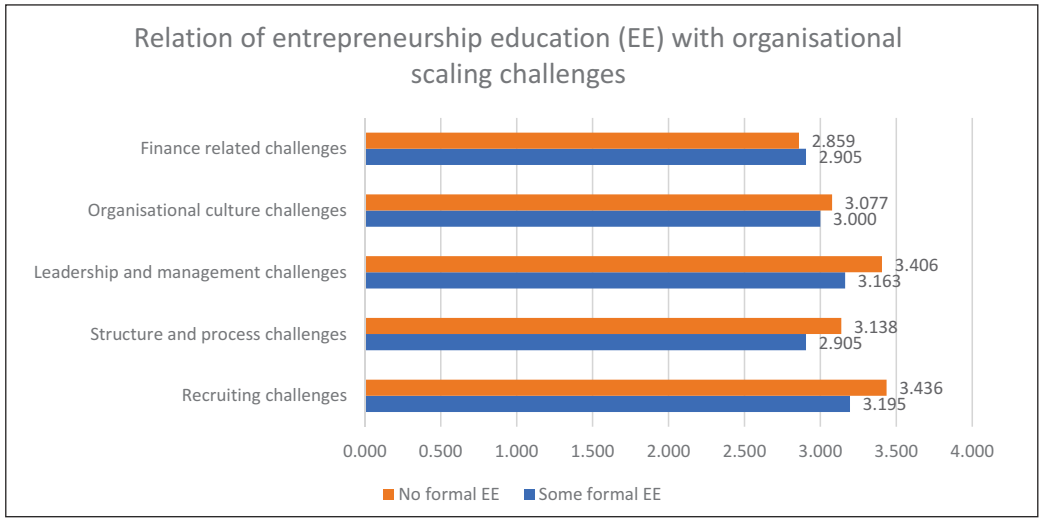

Figure 1: Challenges of organizational scaling in relation to entrepreneurship education(EE)

Following the descriptive analysis, we have performed a parametric t-test. F-statistics pointed towards equal variances assumed for all variables. Results show that 42 employees with some entrepreneurship education show significantly lower perceptions of Recruiting challenges: $t(118)=2.031$, $p=.044$, Structure and process challenges: $t(118)=1.752$, $p=.082$ and Leadership and management challenges: $t(118)=1.954$. There was no significant difference for organizational culture and finance-related challenges. Full results are given in table 2.

Employees with some entrepreneurial education show lower perceptions of challenges which can be solved with short-term or mid-term actions. Organizational culture and finance are deep issues and need long-term actions to be solved. So, we can suggest that employees with entrepreneurial education see a solution where others fail. Also, perceiving fewer challenges makes them produce lower resistance to change (Tornjanski, Čudanov & Jaško, 2019)

Table 2: Independent sample t-test for the equality of means

	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
	F	Sig.						Lower	Upper
Recruiting challenges	.134	.715	2.031	118	.044	.241	.118	.006	.475
Structure and process challenges	.244	.622	1.752	118	.082	.234	.133	-.030	.498
Leadership and management challenges	.203	.653	1.954	118	.053	.243	.125	-.003	.490
Organizational culture challenges	.133	.716	.529	118	.598	.077	.146	-.211	.365
Finance related challenges	.049	.825	-.293	118	.770	-.046	.156	-.355	.264

In the field of finance, employees saw the provision of additional capital for growth as the biggest challenge, and the only constructive suggestion for overcoming this challenge is also mentioned in the existing literature - seeking enough capital for growth long before it is needed, that is, through financial planning. Only 11% of them had a comment about ways to solve challenges in this field, which leads to the conclusion that they had no formal or experienced knowledge about these topics. According to respondents, the two most significant challenges in the field of employment and employee development are hiring adequate staff and hiring them quickly enough, which is undoubtedly a consequence of the fact that the industry is young in the region, that there is not enough specific education, so it isn't easy to find staff with adequate experience. The respondents see the magnitude and importance of the challenges of measuring product quality and performance of the teams, and they also know the connection of these with the very domain of the organization and phase of the organizational development. Still, they do not offer concrete solutions on how to solve them. Recruiting and/or building enough good leaders during growth is the biggest challenge that, if overcome, pretty much dwarfs all the other scaling challenges quickly. Through their answers, the respondents showed a good understanding of the impact of the appropriate behaviour of the leader on all the changes that occur during organizational growth. The fewest proposals for overcoming challenges were creating a differentiated strategy. This seems to be a direct consequence of the lack of education on this topic, but it should be checked in some further research. The respondents are aware of the importance of leaders being culture carriers, that is, role models in behaviour, and thus, with a lot of dedicated work with people, they create a culture of high responsibility.

CONCLUSION

Even when they do not have formal education about entrepreneurship and business growth, employees, through their work experience, gain a reasonably good picture of the scaling challenges and the general directions for solving these challenges. Employees with formal education show significantly lower perceptions for three short to mid-term challenges, but the question is whether the leaders of the organizations learn to use it. The findings show that leaders who are humble enough to learn from their people to be closer to people build highly successful organizations. Given the lack of education in strategy creation, finance, and transformational leadership, it can be considered to expand current educational programs in that field. Also, an interesting result not elaborated due to wordcount limitations is that if the employee groups were divided only by having formal entrepreneurship subject or learning about scaling in organizations, they showed no difference. Only when two questions were combined with OR, the results show a significant difference. That supports the stance that for more impact, we should not assume that entrepreneurship is taught at the university when the students have a subject called “Entrepreneurship”, but when entrepreneurship-related subjects also are taught within other subjects in the curriculum.

Keywords: scaleup company, scaling, organization, entrepreneurship education, formal education

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SELF-EMPLOYMENT INTENTIONS AMONG STUDENTS

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OBJECTIVE

The main objective of the paper is to find out the level of motivation and self-employment intentions of students, that are familiar with technology entrepreneurship concepts through different courses at their faculty. The purpose of the work is to strengthen awareness among current and future generations about the importance of entering the self-employment process, while at the same time improving entrepreneurial and technological competencies, which are the basis of successful and long-term business. Self-employment is gaining importance Wan (2017) in less developed countries and countries in transition, but also in all countries of the world, because: it enables the reduction of poverty, reduction of unemployment, and improvement of the quality of employment. According to Jovanca-Stakić & Dasho-Sharko (2022), it is the most typical solution for reducing the unemployment rate in a country. It is a logical assumption that effective educational programs in the field of technological entrepreneurship can have a positive impact on the motivation and attitudes of students toward employment through their entrepreneurial ventures.

METHODOLOGY

The research was conducted to examine how capable students of the Faculty of Organizational Sciences feel and how much they think about starting their own entrepreneurial business based on technology in the coming period. A modified survey questionnaire from a scientific paper by Hassan & Bakri (2016) was used to examine their attitudes. The survey was based on questions/statements summarized in three parts of the questionnaire: 1) questions regarding entrepreneurial efficiency, 2) questions regarding independent motives and 3) questions regarding intentions for self-employment. The research in this paper was conducted in the period from June 19 to June 30, 2023. Students of FON who studied topics related to technological entrepreneurship as part of their undergraduate or master's studies had the opportunity to participate. The answers of 110 respondents were collected.

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RESULTS AND DISCUSSION

One of the representative results is presented in Figure 1, showing more than 50% of students prefer being an entrepreneur to working in a company.

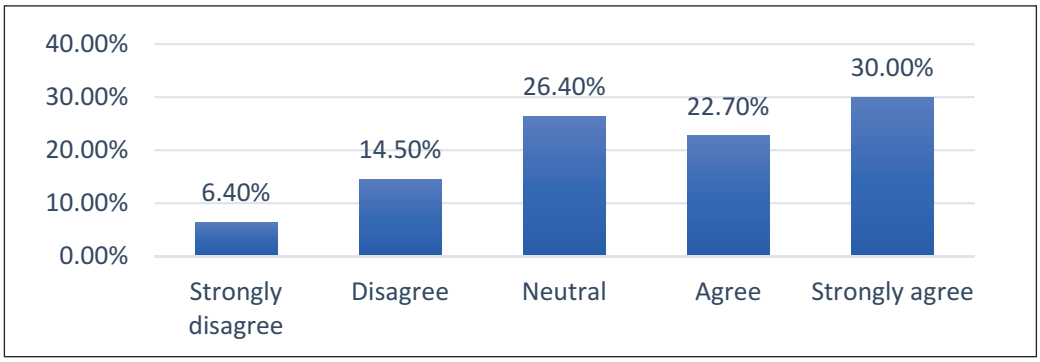

Figure 1: Statement: I prefer being an entrepreneur to being employed by a company.

When it comes to specific attitudes and intentions of students, main findings are presented in Table 1.

Table 1: Top rated statements* – average ratings on the Likert scale

	Average (1-5) Likert scale	Highly and completely agree (% of respondents)
ENTREPRENEURIAL SELF-EFFICIENCY		
"I believe that I can think creatively in business"	4.07	75.40%
"I believe I can inspire those I work with to share my business vision"	3.80	64.50%
INDEPENDENCE MOTIVES		
"I believe I can be independent"	4.24	79.10%
"I believe that I can become a boss in my own business"	4.17	73.70%
INTENT OF SELF-EMPLOYMENT		
"I have a strong intention to start a business one day"	3.68	59.10%
"I will start my business in the next ten years"	3.65	57.30%

*Source: Statements based on Hassan, R. & Bakri, M. (2016). Self-Efficacy and Self-Independence in Promoting Self-employment Intention among University Students. Journal of Research in Business, Economics and Management (JRBEM), 6(2): 888-893.

CONCLUSION

The results confirm that students have a high entrepreneurial self-efficiency attitude, independence motives and intent toward self-employment. They confirm previously conducted findings from other countries. For example, Chilenga et al. (2022) identified the presence of positive correlations between entrepreneurial mindset (personal control, self-esteem and innovativeness) and self-employment intention. They also

proved that individuals who have the necessary skills and abilities in the field of entrepreneurship have a greater intention to enter the self-employment process. Similar conclusions were reached by other authors (Manjunatha & Nagesha, 2012, Dumebi-Moemeke, 2013, Farzin, 2015).

The results obtained from the research are significant both for professors and curriculum developers, but generally for educators in this field. Founding relevant correlations would be the next step in the research, as well as conducting the study at other technical faculties where students have a domain of technical knowledge, but no technology entrepreneurship in their study programs.

Keywords: technology entrepreneurship, entrepreneurship education, self-employment

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DIGITAL REVOLUTION POWERED BY COVID-19? – ANALYSIS OF DIGITALIZATION ACTIVITIES OF HUNGARIAN ENTREPRENEURS

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OBJECTIVE

The COVID-19 pandemic and the related economic and societal uncertainty raised a significant challenge for entrepreneurs in the whole world. The lockdowns with various stringency also exacerbated the situation, while governmental aid schemes attempted to support the entrepreneurs' survival (Jáki et al., 2023). Digitalization provided, however, a possible way to adapt to the new normal. Although expectations towards digitalization tended to be overly optimistic during the pandemic, which resulted in price bubbles in the technology sector (Jalan et al., 2022), COVID-19 acted as a catalyst for adopting new technologies and practices (Amankwah-Amoah et al., 2021). While large companies may have the resources, personnel and knowledge to do so, it is a significant challenge for micro-, small and medium-sized enterprises (MSMEs) as they generally lack the required competencies and qualifications (Hulla et al., 2021). Former analyses show that those firms adapted more quickly who were already active in online sales channels (Szepesi & Pogácsás, 2021), but a significant share of entrepreneurs reported that their businesses can function without digital technologies (Sági & Szennay, 2022). Thus, the paper aims to shed light on the possible influencing factors of Hungarian entrepreneurs' activities and attitudes towards digitalization.

METHODOLOGY

The analysis is based on the Hungarian annual population survey (APS) datasets of the Global Entrepreneurship Monitor (GEM) from the years 2021 and 2022. The APS is a representative survey of the total working-age population (n=2000), from which the non-representative subsample of entrepreneurs (n=359 and n=338 for 2021 and 2022, respectively) is used. Examining the two subsequent years may allow us to identify

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longer-term effects and contribute to the robustness of the analysis. Pearson's Chi-square analyses were conducted to explore relationships between variables as all analyzed variables are measured on a nominal scale. APS was complemented with data from a representative survey of SMEs conducted for the Budapest Business University in the year 2022.

RESULTS AND DISCUSSION

Our results show that approx. a quarter of entrepreneurs (27.3 and 25.6% in 2021 and 2022, respectively) adopted new digital technologies in response to the pandemic or enhanced their initial plans, and another third of them implemented the digitalization projects planned even before COVID-19. Nevertheless, about two-fifths of the entrepreneurs reported that their businesses can function without digital technologies. However, a further significant spread of digital technologies is not expected as 72 and 64 percent of entrepreneurs do not plan to adopt new digital technologies in the short term in the two years analyzed.

Among the control variables, there is a consistent and significant relationship in the two years only in the case of "to make a difference in the world" as entrepreneurial motivation and the expected use of more digital technologies in the next 6 months.
CONCLUSION

Our results suggest that the pandemic did not make a breakthrough towards the digitalization of enterprises. Although the majority of entrepreneurs have implemented some kind of digitalization in Hungary due to the pandemic or even independently of it, and the legal environment also requires using more digital technology (e.g., online billing, providing electronic payment methods, etc.), enterprises have to adapt to the new normal of future challenges like changes in consumers' expectation, increasing global competition, geopolitical tensions or even the artificial intelligence.

Keywords: COVID-19, entrepreneurship, digitalization, Hungary, GEM

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LESSONS LEARNED FROM THE COVID-19 PANDEMIC FOR SMES: A CO-CITATION ANALYSIS

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OBJECTIVE

The COVID-19 pandemic has transformed business entities and they will not totally return to their pre-COVID-19 form. Today's business environment is more competitive and dynamic where business entities should prepare for various changes due to its dynamics, particularly small and medium enterprises (SMEs). SMEs have a unique role in the macro environment as they significantly contribute to the Gross Domestic Product (GDP) but simultaneously have limited resources (Corvello et al., 2023; World Economic Forum, 2021). Therefore, SMEs should initiate change in their business to create innovative solutions for problems in their business environment (Eggers, 2020). However, studies on entrepreneurship and crises are still limited due to the absence of process definitions of crises in the business environment (Doern et al., 2019). At the same time, the questions related to actions during adversity, entrepreneurial failure, and post-crisis businesses need to be answered (Thorgren & Williams, 2020).

Therefore, through co-citation analysis, this study aims to identify the influential papers that contribute to the emerging knowledge regarding the SME's strategy in facing the COVID-19 crisis and identify critical knowledge that is important for entrepreneurs to gain business success in the post-COVID-19 business environment. Co-citation analysis enables researchers to identify intellectual structure in specific knowledge objectively and quantifiable (Boyack & Klavans, 2010; Small, 1973; Wang et al., 2016). This study provides critical skills that SMEs need to manage adversity in the dynamic business environment in the post-COVID-19 era by reflecting on the empirical findings of

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business research during the COVID-19 crisis. This study also provides a reference to upgrading their business skillset for entrepreneurs, conducting further empirical research for business researchers, and updating the curriculum for business teachers.

METHODOLOGY

This study utilizes co-citation analysis of the published articles on SMEs in facing the COVID-19 crisis. The published articles are collected from the Scopus database using the following key search "TITLE-ABS-KEY (SME OR SMEs OR "Small-Medium Enterprise" OR "Small-Medium Enterprises" OR "Small Business") AND TITLE-ABS-KEY ("Covid 19")) AND (LIMIT-TO (SUBJAREA , "BUSI")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (LANGUAGE , "English"))". We limited the search area to business, management, and accounting subject areas, journal papers, and English language manuscripts. Through that approach, we collected 672 documents. We analyze the bibliometric of the collected documents using the Biblioshiny package in R Studio and focus on the interpretation of co-citation analysis. From the co-citation result, we selected twenty-one resources that have the strongest co-citation articles with a closeness score greater than ten. We briefly review the papers from the selected resources to identify each study's aims and findings or suggestions.

RESULTS AND DISCUSSION

The results of the co-citation analysis are presented in Figure 1 and Appendix 1 below. The co-citation analysis extracts the co-citation articles into five clusters. According to the themes of the co-citation articles, we regroup and denominate the clusters as follows: 1) Cluster 1 & Cluster 3, Structural Equation Modelling (SEM); 2) Cluster 2, Resource-Based View (RBV), Dynamic Capability and Digital Transformation; 3) Cluster 4, Risk Management and Entrepreneurial Resilience; and 4) Cluster 5, Flexible, agile, and financial access. Based on the co-citation analysis, we recognize various significant issues that could give entrepreneurs, researchers, and business teachers insight to upskill and innovate their businesses, develop further practical and empirical research, and update the curriculum for entrepreneurship education.

According to the co-citation analysis result, RBV (Barney, 1991) and Dynamic Capability (Teece et al., 1997) were founded as the foundations of a business model that researchers propose for the business entity to generate competitive advantage and resilience in facing crisis or adversity. The concepts of RBV and Dynamic Capability are further developed, adapted, and elaborated by the researchers to deliver more practical concepts suitable for SMEs, such as 1) entrepreneurial efficacy, 2) positive leadership, 3) entrepreneurial bricolage, 4) digital transformation, 5) innovative and proactive; 6) critical, creative, coherent, and effectual thinking; 7) learn and relearn (human development); 8) digital teamwork; 9) supply chain agility; and 10) financial agility.

The identified critical skills and knowledge from the co-citation papers are valuable for business practitioners, researchers, and teachers to adopt to develop new strategies, conduct further research direction, and update the curriculum.

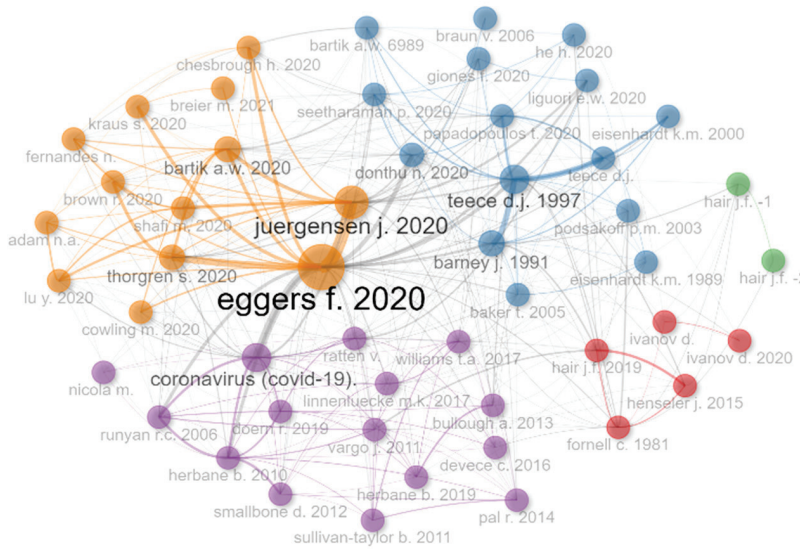

Figure 1: Co-Citation Analysis

CONCLUSION

This study has identified the influential research that becomes a reference of the emerging research regarding SMEs facing the COVID-19 crisis. The study has also identified critical factors SMEs need to generate competitive advantage in the post-COVID-19 business environment. The results imply that SMEs need to upgrade their business skills, and business teachers should update their curriculum. Furthermore, business researchers must conduct more empirical research to give practical evidence to practitioners and scholars.

Keywords: SME, Agility, Crisis, Digital Transformation, COVID-19

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Appendix 1: Results of Co-Citation Analysis and Review Tabulation

No.	Node	Clstr	Betweeness	Close-ness	Purposes	Findings
1	Fornell C. 1981	1	80,2653	0,0112	Develop and apply a testing system based on measures of shared variance within the structural model, measurement model, and overall model.	Analysis technique or properties to measure convergent validity and discriminant validity of measurement models in Structural Equation Models (SEM)
2	Hair J.F. 2019	1	14,2377	0,0107	Textbook: Multivariate Data Analysis	
3	Barney J. 1991	2	42,0444	0,0109	Examine the link between firm resources and sustained competitive advantage.	Four empirical indicators of potential firm resources to generate competitive advantage were identified: value, rareness, imitability, and substitutability.
4	Teece D.J. 1997	2	57,9914	0,0112	Compare and contrast dynamic capability approach to other models of strategy to illustrate its essential elements for gaining competitive advantage.	Honing internal technological, organizational, and managerial processes inside the firm - important in rapid growth of technology environment. Identifying new opportunities and organizing effectively and efficiently to embrace them are fundamental.
5	Donthu N. 2020	2	89,2995	0,0114	Editorial - For Special Issue "Effect of Covid-19 on Business and Research" - Journal of Business Research	Mobility restrictions impacted companies to more nationalistic and less globalized; Traditional businesses are struggling, while internet-based businesses and medical businesses are thriving; Market becomes more dynamic and move rapidly; Business needs a reliable supply chain.

No.	Node	Clstr	Betweeness	Closeness	Purposes	Findings
6	Papadopoulos T. 2020	2	41,5248	0,0112	Outline potential research avenues and reflect on the managerial implications of using DT within SMEs to deal with the repercussions of COVID-19 and securing business continuity.	There are two main schools of thought to business continuity using DTs: firstly, ensuring the DT enabled processes and services are up and running (continuity); and secondly, having in place appropriate mechanisms through support systems that ensure key business processes and staff interactions can be conducted digitally while processes and data are backed up.
7	Seetharaman P. 2020	2	24,1508	0,0102	Analyze and examine the strategic shift effected by firms in specific industries.	COVID-19 phenomenon or crisis required organizations to look for digital replacements or identify ways of delivering their products and services with minimal physical contact and safely. Companies have to innovate their business, be agile, and possess the dynamic capability to gain adaptability to the changing business environment.
8	Baker T. 2005	2	15,5185	0,0103	Examine the process by which entrepreneurs in resource-poor environments were able to render unique services by recombining elements at hand for their purposes that challenged institutional definitions and limits.	Entrepreneurial bricolage makes business create something from nothing. Entrepreneurial bricolage is an engine driving the enactment of resource environments that are idiosyncratic to the firm.
9	Hair J.F. -1	3	10,9195	0,0089	Text Book: Multivariate Data Analysis.	
10	Coronavirus (Covid-19).	4	94,4936	0,0109	UN Report	
11	Ratten V. (2020)	4	23,3500	0,0107	How the COVID-19 crisis has affected cultural, lifestyle, and social entrepreneurship.	Entrepreneurs should integrate cultural and lifestyle factors into their business strategy. The new ways of thinking are required to integrate societal changes made by the COVID-19 crisis. As the uncertainty is surrounding the future, more research and policy should focus on deriving new thought processes.
12	Herbane B. 2010	4	12,7852	0,0093	Examine the understanding of, and resourcing and support for, crisis management using case studies from four UK small businesses.	Four critical knowledge are constructed, 1) understanding risks, 2) three-dimensional crisis, 3) learning from crisis, and 4) stifled support systems. Owner-managers may frame risks in two ways, 1) a 'growth vulnerability paradox' and 2) the 'risk elastic', and conceptualized it using a chronological approach to determine crisis threat, crisis response, and crisis impact.

No.	Node	Clstr	Betweeness	Closeness	Purposes	Findings
13	Linnenluecke M.K. 2017	4	25,1430	0,0106	Examine the conditions under which disaster entrepreneurship contributes to community-level resilience.	The typology identifies four different disaster entrepreneurship approaches to improve community resilience-level: entrepreneurial business continuity, scaling of organizational response through activating latent structures, improvising, and emergence.
14	Williams T.A. 2017	4	40,9754	0,0112	Review the literature on crisis management and resilience and discuss opportunities to both integrate and advance these streams of research.	The integrative framework that is focused around key themes of both crisis and resilience, including capabilities for durability, organizing and adjusting, responding to major disturbances, and a feedback loop from these experiences.
15	Doern R. 2019	4	15,8462	0,009	Review the literature on entrepreneurship and crises, capturing where we have been and where we are now, and begins to discuss where we might go next.	How entrepreneurs respond to a crisis may depend on several factors including experience, stage of business development, the type or stage of the crisis impacting on the business, and resources, both in terms of how resources are utilized as well as the suitability of resources for the stage of the crisis. Different types of crises demand different responses, and as the nature of crises evolves there will remain a need to strive for new ways to prepare and respond
16	Bullough A. 2013	4	11,1142	0,0104	Examine specific personal factors matter greatly for the pursuit of entrepreneurship, especially during periods of adversity.	In developing entrepreneurial self-efficacy and resilience, entrepreneur need to: (1) engage in business development training to build their belief in their entrepreneurial ability; (2) seek out networking events, special lectures, and mentoring opportunities to learn by modeling others who have been resilient through challenging times; and (3) be active in their entrepreneurial pursuits, practice business acumen, and seek feedback from those who can be objective, critical, and encouraging.
17	Vargo J. 2011	4	16,0008	0,0097	Propose a model for crisis strategic planning to help organisations understand their natural tendencies and how these affect the type of resilience the organisation is able to achieve.	To be resilient in times of crises, organisations need to (1) have **leaders** who able to inspire people with a sense of hope and direction whilst being grounded about the situation they are in, (2) have an organisational culture that values disciplined planning whilst fostering innovation, (3) plan and make decisions carefully and structured effectively yet be responsive and bold, and (4) have teams that able to recognise patterns and integrate information to make sense of a chaotic situation, yet be alert to subtle changes as the situation evolves.

No.	Node	Clstr	Betweeness	Closeness	Purposes	Findings
18	Eggers F. 2020	5	368,7968	0,0141	Propose ways to overcome economic downturns in the areas of finance, strategy and the institutional environment.	SMEs have potential to create market opportunities with innovative and proactive posture as they have flexible decision-making and closeness to their customers. Availability of financial access are needed. Financial support can be accessed by trade credits and various financing programs. Entrepreneurial Expertise (Effectual Thinking and Reasoning/Effectuation);
19	Juergensen J. 2020	5	107,8918	0,0117	How the COVID-19 pandemic has challenged European SMEs in the manufacturing sector, and suggesting policy implications	In the shorter run, most SMEs have faced logistical challenges in addition to demand disruptions, although the severity has differed across firms and industries. In the longer-term, there will be different challenges and opportunities depending on the type of SME. The policy mix will need to shift from its initial focus on the survival of SMEs towards a more structural and longer-term approach based on promoting their renewal and growth through innovation, internationalization and networking.
20	Bartik A.W. 2020	5	15,1662	0,0102	Explore the impact of COVID-19 on small businesses.	1) Mass layoffs and closures had already occurred; 2) The risk of closure was negatively associated with the expected length of the crisis; 3) Many small businesses are financially fragile.
21	Thorgren S. 2020	5	41,4798	0,0111	What measures do SMEs most likely take in order to make ends meet in the face of a “black swan” external shock?	SMEs acted immediately by deferring investments, reducing labor costs, reducing expenses, and negotiating contracts and terms. SMEs in an unfolding crisis are reluctant to commit to any action that will increase their debt-to-equity ratio.

FEMALE ENTREPRENEURIAL RESILIENCE IN A TIME OF CRISIS FROM BULGARIA TO FINLAND, WITH HIGHLIGHTS ON HUNGARIAN AND SERBIAN WOMEN ENTREPRENEURS

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Loretta Huszak[3], Orsolya Gergely[4]
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OBJECTIVE

The percentage of women entrepreneurs is steadily increasing all over the world; however, the COVID-19 pandemic has increased their challenges in maintaining their businesses, as well as balancing work and private life. The circumstances created by COVID-19 and then the energy crisis have underscored the need for women entrepreneurs to be flexible, enhance their digital skills, and effectively apply crisis management strategies. In our research, we wanted to identify the women entrepreneurs' experiences of adapting to changes and the need for becoming resilient in times of crises through the following three research questions:

1. What is the short-term effect of the COVID-19 pandemic and the multi-crisis on the operation of companies led by women?
2. What strategies women entrepreneurs (can) apply to overcome the difficulties caused by the crises?
3. What are the individual and societal level gender implications of coping with crises as a woman entrepreneur?

METHODOLOGY

Our research encompasses results from three sources: 1) a cross-country survey involving 608 female entrepreneurs from 7 EU countries (Bulgaria, Finnland, Hungary,

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Romania, Serbia, Slovakia, Spain), 2) interviews with 22 experts in female entrepreneurship, and 3) 57 in-depth semi-structured interviews with women entrepreneurs.

RESULTS AND DISCUSSION

The survey results highlighted that women entrepreneurs not only encountered difficulties but also displayed resilience and adaptability when restarting their businesses. They dedicated significant efforts to upskill and innovate their businesses. Key findings include:

- 37% of respondents reported an increase in their business activity.
- The most common source of financial support was family reserves or loans (30.7%).
- Individual learning through webinars or online skill development (26%) was the most widely used form of professional support. Approximately 20% also engaged in formal or informal entrepreneurial communities and training related to entrepreneurial skills and knowledge.
- Nearly 50% of respondents felt somewhat more prepared to manage possible crises in the future.

The interview results aligned with the survey findings, demonstrating how women entrepreneurs continued to learn and adapt despite evolving crisis circumstances. Experiences varied widely, ranging from finding the situation 'very challenging' to being 'greatly affected,' 'not affected at all,' achieving a 'positive outcome for their business,' to considering it 'beneficial' or 'very beneficial.' These variations were influenced by factors such as sector of operation, business size, number of employees, and income stream diversification.

Despite this diversity in experiences, commonalities emerged in how the COVID-19 pandemic and the multi-crisis environment affected women entrepreneurs. Notable differences persisted primarily in two aspects:

1. The specific challenges posed by each crisis (Covid-19 vs Multi-crisis/energy crisis)
2. How women entrepreneurs perceived each crisis: the COVID-19 pandemic, the post-pandemic recovery phase, and the ongoing multi-crisis environment.

The interview results also highlighted the significant role of women-only online spaces during the COVID-19 pandemic, facilitating skill development, knowledge acquisition, and self-directed learning through webinars and online courses. Therefore, we argue that the role of informal and formal communities, particularly women-only safe spaces, has been significant in fostering resilience and adaptation. This raises the question of to what extent these communities contribute to women's social capital and whether the emergence of formal communities is a response to limited access to public subsidies.

The study identified various support needs for women entrepreneurs, including mentoring, networking, professional development (especially in digital skills and competencies, financial knowledge and awareness), and increased public support for women in business. Additionally, the importance of early entrepreneurship education, awareness-raising, and comprehensive support to address work-life balance challenges was emphasized.

CONCLUSION

While the COVID-19 pandemic and the multi-crisis environment presented numerous challenges for women entrepreneurs, they also offered opportunities for increasing professionalism, adaptability, and community involvement. Despite ongoing challenges, women entrepreneurs continue to learn and succeed within constrained circumstances, contributing to their growth and resilience in an evolving business landscape, and at the same time showing signs of better adaptation to the male norms of entrepreneurship with limited progress on gender awareness among women entrepreneurs.

Keywords: women, entrepreneurship, crisis, adaptation, resilience

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ANALYZING COVID-19 IMPACT IN THE EU: GEOGRAPHICAL CLUSTERING AND EC STATE AID IN PROPORTION OF GDP AND ENTREPRENEURIAL RESILIENCE

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OBJECTIVE

In 2020-2021, the world experienced the Covid-19 pandemic crisis. On 30 January 2020, the World Health Organization (WHO) declared Covid-19 a public health emergency of international concern, and on 11 March 2020, Covid-19 was declared a pandemic (Kavaliunas et al., 2020; Cho, 2020). It reached European countries in the spring of 2020, and governments have introduced lockdown measures to contain the spread of the virus to varying degrees. The closures have reduced the number of cases, so restrictions were eased (reopened) in summer 2020. The second wave of COVID-19 reached Europe in the autumn, followed by the third and fourth waves in 2021 (Goolsbee and Syverson; 2021). The severity of the lockdowns was measured by the stringency index (Mathieu et al., 2020). The first question of our research is: how can the EU27 countries be grouped according to the economic and health impact of COVID-19, taking into account the development of their economic and health systems? As the next step in our research, we look at the EU countries with the largest territories covering 90% of the EU's territory, to see if the countries can be grouped according to the impact of COVID-19. The European Commission announced from early 2020 that in addition to the health crisis, the coronavirus crisis is a major shock for the European economies, too. During a prolonged period of closure and movement control, SME entrepreneurs face operational disruption and liquidity problems. SMEs typically face a shortage of internal resources, and therefore COVID-19 has put them at risk of bankruptcy. The European Commission has implemented common measures for member states and several strategies to face the emerging COVID-19 crisis (Goniewicz et al, 2020; Forman et al, 2021). The temporary state aids were introduced by countries in different degrees, proportions, and forms (EC, 2022).

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As part of our analyses, the EU countries are compared along the measures backed by the European Commission aimed to help companies and mitigate the significant economic impact of the pandemic. Consequently, the third question of our research is whether EU aid has changed in proportion to GDP in line with the country's COVID-19 exposure. Finally, we looked at how business registration and closures changed in the affected years of COVID-19 compared to pre-covid years in the countries surveyed (Eurostat, 2023).

METHODOLOGY

We analyzed the daily-basis published Oxford Covid-19 Stringency Index, calculating the average and the range defined as the distance between the minimum and maximum values for the EU27. We measured the economic downturn during COVID-19 by the GDP fall 2019-2020 and The health impact of COVID-19 by the total deaths per million citizens. We aim to create a few large, well-structured, approximately identical clusters with the help of Hierarchical Clustering using Ward Linkage analysis.

Hierarchical clustering using Ward Linkage has plotted the countries geographically into four groups: north, south, and central region one and two. In the second step, 13 countries were selected from each region as follows: two Nordic countries with the largest areas, Finland and Sweden, plus Denmark which belong to an alliance. In the south, the two countries on the Iberian peninsula, Spain and Portugal, and one of the largest countries in the south, Italy. From Central Europe, we have included the V4 countries, which represent a political entity, we wanted to see whether V4 is a group in our cluster analyses as in several studies they are considered as a whole. Also the largest Central-West European countries were included: Germany and France. We have also included Austria from Central Europe in the study, making 13 countries in total. With 13 countries selected, 90% of the EU27 territory was included in the study.

We used the K-Means cluster analysis, where we wanted to divide the countries into 4 groups. Based on this experience, four clusters were proposed for EU13, including additional variables. In this case, we used 12 variables, two each for the stringency index and economic impact, and four each for health impact and health system development. We tested the variables by defining the variables and then we performed an ANOVA test, ANOVA - significance test, and Z-Score, i.e. all variables are standardized, so they have the same degree of influence on the clustering. Each variable has a p-value less than 0.05, i.e. each variable has a significant ability to classify (group).

For the selected countries, we have created a dataset on the main state aid temporary framework programs to support the economies in the context of the coronavirus outbreak granted for the period 2020-2022, based on the data published on the European Commission's website, indicating the amount, the beneficiary sector, the size of the beneficiary company.

The existence of the relationship between the size of public aid as a share of GDP and the country groups was quantified first by a chi-square test and then by the measures of association.

RESULTS AND DISCUSSION

The clusters were plotted in the average stringency index and the GDP decline from 2019 to 2020, which nicely illustrated the following clusters:

- Southern countries form a cluster Italy, Spain and Portugal
- Europe's middle cluster I., Austria, Germany and France.
- Europe's middle cluster II., the V4 countries,
- The Nordic countries form a cluster: Sweden, Denmark and Finland.

The V4 countries together are justified as a separate cluster.

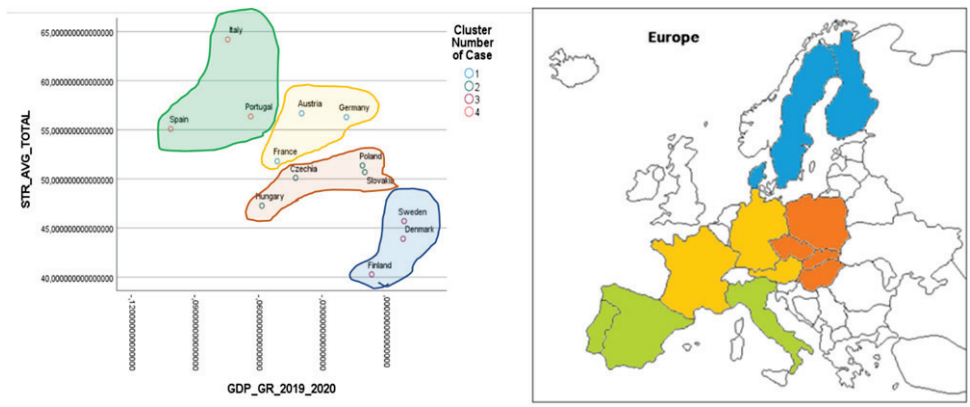

Figure 1: EU13 geographical grouping used cluster with centre K

Based on the set of variables used for clustering, such as economic development and effect, stringency, Health effect of the covid-19, and health system, we compared the four groups of countries and made the following key findings. The economic effect is seen in the geographical fragmentation between South and North, consistent with the Stringency index as the South was more severe than the North. In practice, North and South are indeed very well separable. The question is what divides the middle band of Europe, and why the V4 countries are distinguishable from the Center EU Countries. Based on our analyses CE was stricter and more economically shaken than COVID than the V4. Based on health data, we found that the Central European region has higher reproduction rates and so lower mortality and hospitalisation rates, in addition, the CE region has a higher human development index and a higher number of hospital beds per million people, i.e. they had a better health system to defeat COVID-19.

We found a slight relationship between clustering by COVID-19 stringency and the amount of EU aid as a share of GPD. We further investigate the impact of COVID-19 on business registration and deaths in the countries studied, some existence of a certain link between them is proven.

CONCLUSION

Overall, based on the impact of COVID-19, countries could be grouped geographically into North, South, and Central Europe, distinguishing V4 countries from the more developed Western countries. This grouping helps to assess the economic impact of COVID-19 along these regions. Our research will help decision-makers to understand how the regional impact of a new epidemic might evolve at European level, and which countries and industries in the EU need more help.

There have been several studies on the economic impact of COVID-19, but no study has yet been carried out to compare COVID-19 impact and responses at the EU level.

Keywords: COVID-19, stringency index, EU, health

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FINANCIAL RESILIENCE AND ADAPTATION: ANALYZING THE IMPACT OF THE COVID-19 PANDEMIC ON SUCCESSFUL HUNGARIAN COMPANIES

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OBJECTIVE

The "Budapest Stock Exchange - 50 Interesting and Successful Companies" (BSE50) series of publications focuses on the analysis of Hungarian companies that have achieved sustained market success. This research aims to investigate the effects of the COVID-19 pandemic on these BSE50 companies. Our study encompasses the evaluation of their performance from the pre-pandemic years (2016-2019) to the pandemic period (2020-2021). We hypothesize that these companies adeptly navigated the crisis, maintaining their profitability and market stability. While certain efficiency indicators may have been affected, their liquidity remained intact, and they maintained a prudent leverage position. This study highlights the diverse survival strategies adopted by BSE50 companies across various industries, many of which successfully weathered the challenges posed by the COVID-19 pandemic.

METHODOLOGY

The research started by collecting financial data from 250 BSE50 companies from the ORBIS database over a six-year period (2016-2021) and filtering out extreme values. Then, a comprehensive analysis was conducted, including descriptive statistics and formal hypothesis testing (two-sample z-test), analyzing company performance based on existing data along 4 sets of indicators: liquidity, profitability, indebtedness and growth. Pre- and post-Covid periods were compared to see if there was a significant change in each indicator.

RESULTS AND DISCUSSION

Our descriptive statistical analysis underlines the flexibility of BSE50 companies in the face of the COVID-19 pandemic. These companies demonstrated that the business strategies confirming their previous successes enabled them to effectively overcome

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the crisis. Turnover and profit after tax for BSE50 firms fluctuate both before and after Covid-19, suggesting that COVID-19 did not cause a significant decline in firms' ability to generate income. Notably, these companies refrained from employee layoffs and exhibited prudent cost management practices. Consequently, earnings before interest and taxes (EBIT) experienced a noteworthy uptick, surpassing pre-pandemic levels. An interesting result of our analysis is that indebtedness has fallen slightly while interest expenditure has increased. In our research, we investigate whether the interest expenditure/total debt ratio has changed, i.e. whether the increase in debt explains the increase in interest expenditure. While the debt ratio initially rose, it stabilized in the wake of the pandemic. Concurrently, interest expenses increased substantially, but this did not compromise the return on equity (ROE).

CONCLUSION

This research contributes novel insights to the literature in two ways: Firstly, it offers a rare examination of the COVID-19 pandemic's impact on financial data, shedding light on the challenges faced by firms. Secondly, the inclusion of firms in this study is based on their track record of successful business management, encompassing both small and large enterprises.

The research shows that BSE50 firms have proven their ability to respond to unexpected difficulties, i.e. to adapt to the business challenges of COVID-19.The result may be interesting for stakeholders of the Budapest Stock Exchange and for the stock market development strategy, which with the BSE50 program seeks to identify companies that are suitable for listing and with their successful story able to attract more investors to BSE A further interesting research question for economic development strategy is the extent to which public support and assistance provided under COVID-19 has contributed to this success.

Keywords: COVID-19, BSE50, Hungary, financial statements

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FINANCIAL LITERACY EDUCATION IN THE CONTEXT OF ENTREPRENEURSHIP: ARE THERE SPECIFICS IN THE CONTEXT OF AUTONOMOUS VEHICLE SHARING?

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OBJECTIVE

Globalization and numerous financial and technological innovations are the basis for entrepreneurship development. Small and medium enterprises are an important factor in economic development. They create new jobs, new innovations and are the promoters of economic growth. Starting your own business requires many skills and especially advanced knowledge in finance. Therefore, the relationship between entrepreneurship and financial literacy is interdependent.

There are a variety of definitions for financial literacy. One of the earliest definitions comes from Mason & Wilson (2000) and defines financial literacy as "the ability of individuals to acquire, understand, and evaluate relevant information in order to make informed decisions about the likelihood of financial consequences".
The most commonly cited definition of financial literacy comes from OECD INFE (2014) and states, " Financial literacy is a combination of awareness, knowledge, skills, attitudes, and behaviors necessary to make correct financial decisions and achieve individual financial well-being." Despite the differences in definition, some common elements are apparent. It can be said that financially literate individuals: 1) are knowledgeable about wealth management, banking, credit, investments, insurance, and taxes; 2) understand the basic principles that should guide money and property management; 3) apply their knowledge in making financial decisions (Hogarth at al. 2002).

Worldwide early stage entrepreneurial activity (TEA) in 2022 is around 18.3% globally (Amjad, 2023) while in Serbia and Croatia is 10.5% and 13.2% respectively (Statista, 2023). Hence, educating students and developing their entrepreneurship skills is important for

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business students, especially in this region. As entrepreneurship education helps business students gain necessary knowledge and skills, it develops and focuses on students' entrepreneurial intentions and motivations and develops entrepreneurial mindsets (Sassmannshausen & Gladbach 2013). Using the case study approach in education helps students better relate theory and practice, encourages the creativity of students and teachers, and helps the development of presentation and communication skills (Damnjanović, 2011). These can be found among the needed skills for young future entrepreneurs.

Huijun & Lantian (2021) define a sharing economy as an economic system in which individuals share a service or goods. The shared economy expanded with the development of digital applications. Botsman & Rogers (2011) find out "the sharing economy phenomenon can be divided into three systems: (1) product-service systems that enable collaborative use of products without ownership after payment; (2) redistribution markets that enable reallocation and reuse of used goods; and (3) collaborative lifestyles that enable sharing and exchange of intangible resources such as skills, time, money, and technology". The sharing economy flourished with the development of technology. Berger et al. (2021) state that the market share of providers offering their services through online platforms is increasing. Online platforms are the basis for the exchange of data, assets and prices.

Urban mobility will be transformed in the future. Electric, connected, and autonomous vehicles will dominate the road. Autonomous vehicles will be generators of expanded shared mobility. McKinsey (2023) predicts that autonomous driving could generate $300 billion to $400 billion in revenue by 2035. Roads will become safer, carbon emissions will be cut, and at the same time, entrepreneurs will be motivated to find new alternative mobility options.

Social influence, convenience, and perceived usefulness are important factors influencing users' intent to use automated vehicles. Price also has a major impact on customers in the context of financial literacy. A customer's willingness to pay is the maximum price a customer is willing to pay for a particular product or service. Customers may also be willing to pay a higher price if they believe that the product or service will benefit them more than a cheaper alternative (Bushara et al.2023).

This study aims to better understand financial literacy from the perspective of the sharing economy, using the use of autonomous vehicles as an example.

The research questions arising from the foregoing are:

1. Are students financially literate in terms of attitudes, beliefs, and behaviors?
2. Are students open to participate in shared autonomous vehicles?

METHODOLOGY

The questionnaire included four main sections: attitudes, beliefs, and behaviors related to financial literacy; willingness to adopt autonomous vehicle sharing; willingness to pay for autonomous vehicle sharing; and demographic characteristics.

Research was conducted in the fall of 2023. and included a hundred business students from two countries, Serbia and Croatia.

RESULTS AND DISCUSSION

Research has successfully identified the factors affecting financial literacy in terms of attitudes, beliefs, and behaviors. The willingness to adopt shared autonomous vehicles has also been explored.

Research concludes that financially literate individuals are more likely to use shared autonomous vehicles, with the strongest influence of attitudes. It also identified that the level of developed entrepreneurial skills contributes to this relationship. Differences between Croatia and Serbia are not found. Demographic characteristics do not have an impact on this research.

CONCLUSION

Students have a high level of financial literacy. They are early adopters of new technology and a new way of life. The willingness to pay for shared autonomous vehicles is high.

The study's limitations are the small sample and the focus on students with high financial knowledge. Future research can use focus groups with more diverse demographics and explore the studied constructs on different groups of individuals with various levels of financial literacy.

Keywords: finance literary, sharing economy, autonomous vehicle, willingness to pay

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QUANTITATIVE SWOT-TOWS ANALYSIS BASED ON THE ENTREPRENEURS SELF EVALUATION

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OBJECTIVE

This research presents a comprehensive examination of the SWOT (Strengths, Weaknesses, Opportunities, Threats) and quantified TOWS (Threats, Opportunities, Weaknesses, Strengths) frameworks, aiming to elucidate their significance in strategic planning in the SME sector. The emphasis will be given to the SWOT analysis application that was developed to collect and analyse the responses of entrepreneurs and SMEs owners during self-evaluation of their businesses. The primary objective is to explore the potential of this tool to facilitate strategic decision-making and enhance organizational performance in SMEs. The research also seeks to uncover practical applications and limitations through empirical evidence and case studies in education.

METHODOLOGY

To achieve this objective, a mixed-method approach was adopted. Initially, an extensive literature review was conducted to understand the theoretical underpinnings of SWOT and TOWS analysis applications in the SMEs sector. In parallel with literature research, a special application was created to collect and evaluate the opinions of entrepreneurship professionals (Mihajlovic et al., 2022). Subsequently, the online forms were administered to professionals across various SMEs sector to gauge the prevalence and effectiveness of these frameworks in practice. Additionally, a qualitative AHP analysis was conducted using case studies to illustrate the real-world application of SWOT and TOWS analysis.

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RESULTS AND DISCUSSION

The SWOT analysis tool, described in this paper, was developed to enable decision makers, e.g., managers or SME owners, to directly insert their selection of SWOT parameters considering their businesses (Mihajlovic, 2022). The initial database used in this research was developed based on collected responses from the survey, organized in our previous research (Nikolić et al., 2020). Part of the questionnaire included the SWOT analysis of investigated enterprises.

The initial GUI front page is presented in Figure 1. Through the application interface, decision-makers are enabled to administer the Google Form SWOT questionnaire to their employees. All collected responses are stored in a joint database and can be directly assessed by the decision-maker. Pilot testing of the app was facilitated during the research on the project described in (Mihajlovic et al., 2022). Different organizational factors, including strengths, weaknesses, opportunities and threats, were proposed and rated by 635 entrepreneurs from Serbia, Bulgaria and all four Visegrad group countries. Part of the demographics of the investigated sample is given in the Table 1.

Considering that, during the time of app utilization, the number of collected responses for each of the SWOT elements has increased, the application is enabling the decision maker to refine the responses and to select the most appropriate ones for his or her business. Subsequently, the interface enables the ratings of the final list of refined SWOT elements on a scale from 1 to 10. At the end, the decision-maker receives a report on his or her ratings and comparisons with the average vales of other respondents' ratings, which are stored in the central database. The obtained final results of SWOT element quantification are used to propose TOWS strategic directions, which are subsequently evaluated and prioritized by adequate quantification, based on the AHP method. Obtained results can serve as valuable tools for identifying internal strengths and weaknesses and external opportunities and threats for SMEs. However, the study also revealed several limitations associated with these frameworks. Many organizations struggle with the subjective nature of SWOT analysis, often leading to biased assessments. This is the reason why, in the tool described in this paper, the decision-makers are also offered to compare their evaluations with the evaluations of other respondents collected during the previous surveys.

Figure 1: The overview of the SWOT application GUI

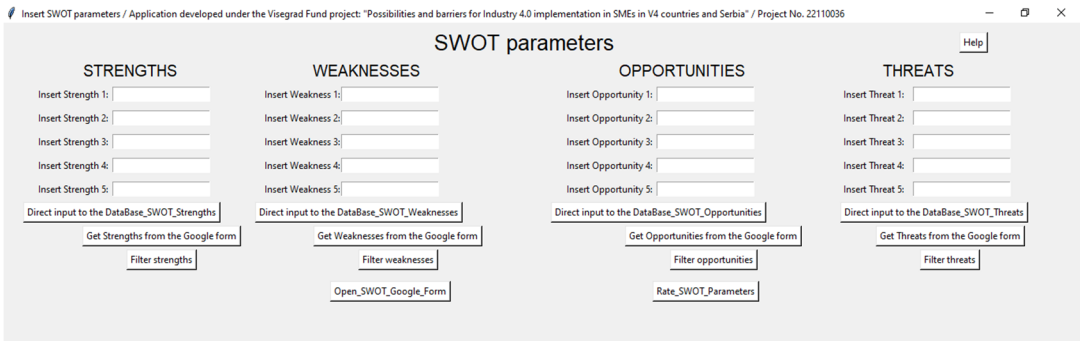

Table 1: Profiles of analyzed entrepreneurs' sample

Characteristics		Percent
Respondents' Age	<30	23.9
	31–45	36.2
	46-60	32,1
	>61	7,7
Respondents' Gender	M	61,9
	F	37,2
	Other	0,9
Respondents' Country	Czech Republic	14,0
	Hungary	17,3
	Slovakia	15,7
	Poland	15,9
	Serbia	21,1
	Bulgaria	15,9

CONCLUSION

As strongly innovative and heterogeneous organizations, SMEs should aim to mitigate bias and subjectivity in SWOT analysis by involving diverse approaches and seeking external perspectives (Montiel-Campos, 2022). TOWS analysis, based on the application developed in this research, offers a more systematic approach to strategy development and is particularly beneficial for SMEs looking to balance their strengths and weaknesses effectively.

Upgrading the SWOT tool with the quantified TOWS-AHP method enables decision-makers to materialize their selection of SWOT elements in practical strategic directions.

Besides being a potentially practical tool for SMEs owners and entrepreneurs, the application described is also used for educational purposes, on the master-level course, as part of the case studies in strategic decision-making.

Keywords: SWOT, TOWS, AHP, Strategic Planning, SMEs

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ROMA INFORMAL ENTREPRENEURSHIP AND MUNICIPAL WASTE COLLECTION

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OBJECTIVE

The informal economy is estimated to account for two-thirds of all enterprises globally (Williams and Oz-Yalaman, 2021). By focusing on the entrepreneurial activities of informal municipal waste collectors in Hungary, induction-driven ethnographic research was applied to thematically derive outcomes to assess the prevalence of informal entrepreneurial practices. Therefore, This abstract aims to present an account of the processual examination of informal entrepreneurial practices of Roma informal waste collectors. Novelty arises through research findings primarily drawn from insights of 'frontline' informal workers, which has not, to our knowledge, previously been performed in Hungary.

METHODOLOGY

Adu-Gyamfi et al (2022) suggest formal and informal actors mutually engage with a focus on entrepreneurial output. In the context of entrepreneurial ecosystems, this is conceptually applied below:

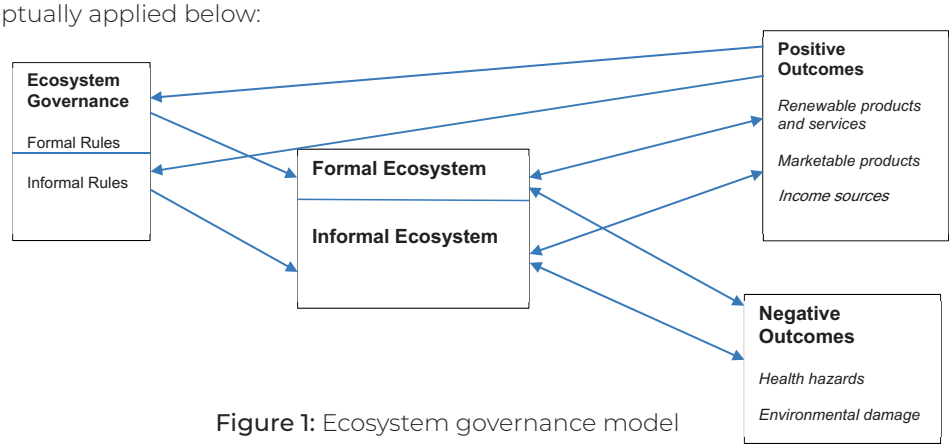

Figure 1: Ecosystem governance model

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Challenges associated with researching Roma communities have been extensively documented. Principally, Messing (2014) argues that perceived reluctance of Roma individuals to engage in quantitative studies leads to a qualitative bias. While the presence of Roma in the informal economy at macro level has received sufficient attention, this has generally not been applied at micro-based level.

An assumed transactional supply chain for collected waste material formed the unit of examination. This originates with informal waste collectors working in parallel with the official annual residential collection of bulky waste. Thus, a participatory ethnographic approach was implemented whereby researchers initiated unstructured conversations with informal collectors based on a 'community walkthrough' approach applied to Roma communities by Hall and Zeman (2018). We also interviewed officials employed by the Budapest municipal waste collection authority.

Informal collectors were accessed through bulky waste collections conducted in different districts of Budapest throughout 2022. We focused on more affluent districts by assuming the quality of disposed material is more attractive to informal collectors. Conversations were memorised and then transcribed and compared between authors. By following grounded research methodology (Strauss and Corbin, 1990) open coding rationale was used to derive outcome-based themes.

RESULTS AND DISCUSSION

Table 1: Themes arising from open coding of unstructured and semi-structured interviews

Theme	
1	Informal waste collectors implicitly apply sustainability practices
2	Social capital utilisation enables informal entrepreneurship
3	Market based norms drive an informal processual supply chain
4	Informal collectors utilize limited resources to practice bricolage

Outcomes

1. Roma informal collectors act as sources of material for informal/illegal markets and act as initial suppliers. They are principally motivated by market value and their activity serendipitously contributes to overall residential waste clearance.

2. A notable presence of family based informal collectors infers the existence of underlying intricate social capital networks and that social capital is derived from intimate cognitive institutional norms which may in turn be derived from lack of trust in state institutions.

3. The practice of for example dismantling discarded TV sets suggests systematic search and acquisition of valuable material. Synthesis of findings from unstructured and structured discussions relatedly supports evidence for existence of a transactional supply chain.

4. Roma are generally perceived as 'unskilled', yet our observations and findings suggest an intrinsic disposition towards conducting bricolage practices, such as using wood for heating fuel. Similarly, collection and sale of items for further use constitutes a strong extent of market orientation.

CONCLUSION

With reference to our research objective, this study firstly suggests robust existence of family-embedded social capital networks used to locate collecting opportunities and subsequently supply material to markets with varying shades of legality. Secondly, informal activities reveal strong conformity with bricolage principles.

This study advances the debate on informal entrepreneurship by presenting a unique case of officially enabled informal entrepreneurs acting as initial actors in a transactional supply chain. While it serves as a foundation for further micro-based examination of informal waste collectors, we did not collect data on volumes of material. This was, however not our intention but rather to provide a foundation for further entrepreneurially oriented research of informal Roma waste collectors.

Keywords: Informal Entrepreneurship, Municipal Waste Collection, Transactional Supply Chain

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ENTREPRENEURSHIP: HOT OR NOT?

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OBJECTIVE

Entrepreneurship has always been popular among ambitious people who want to be independent and have the freedom to design and start a business of their interests. On the other hand, given that entrepreneurship comes with many unknowns, it is necessary to carefully measure the pros and cons of starting this type of venture, so this abstract will provide an overview of the most significant benefits and challenges faced by entrepreneurs.

METHODOLOGY

The analysis of the benefits and challenges that accompany the initiation of entrepreneurial ventures will be based on a review of relevant and contemporary literature in the field of entrepreneurship, as well as on the authors' personal entrepreneurial practice and experiences.

RESULTS AND DISCUSSION

Entrepreneurship is not a new concept in general, although its key characteristics have changed significantly throughout history (Nielsen, Klyver, Evald, & Bager, 2023). At the core of entrepreneurship is the initiation of a business venture in order to create products or services that could generate stable profits on a long-term basis (Longenecker, Petty, Palich, & Hoy, 2022). Starting one's own business is popular in modern business contexts because it can bring significant benefits to entrepreneurs, such as:

- Flexibility - successful entrepreneurs can adapt private life to work and vice-versa (Adisa, Gbadamosi, Mordi, & Mordi, 2019).
- Motivation - entrepreneurs are aware that their results depend to the greatest extent on their personal effort and commitment, so they are motivated to put in extra effort to make the business work (Xue, Qian, Qian, & Li, 2021).

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- The possibility of combining nice and useful - the businesses that entrepreneurs start often come from their field of interest, which allows them to do what they really love and to be proud if they succeed in achieving their dreams.
- Facing challenges and constant learning - in entrepreneurship it is difficult to predict what will happen in the future, which is exciting and challenging for entrepreneurs.
- The possibility of earning more than in a corporation - with a good idea and adequate implementation, entrepreneurs can earn much more money than employees in a corporation.

On the other hand, the ever-increasing instability of the business environment and the changing roles of market participants put a lot of pressure and burden on entrepreneurs, which is most often reflected in the following challenges:

- Innovative product/service - increased creativity is needed to produce potential value for customers.
- Financial basis - entrepreneurs have difficulties in obtaining the financial resources needed to start a business and place it on a stable basis (Cumming, Marc, Manigart, & Wright, 2019), especially when these businesses are largely unknown and thus carry a high dose of uncertainty.
- Sales strategy - an innovative approach which will motivate customers to become loyal and enable the business to generate stable income continuously is needed (Guerola-Navarro, Gil-Gomez, Oltra-Badenes, & Soto-Acosta, 2022).
- Development of employees and partner relations - although a small number of people often starts entrepreneurial ventures, the business will grow over time, and it will be necessary to find other people who will share the vision of the initiator and be equally committed to his goals.
- Business development - it is very likely that at some point even a well-designed enterprise will reach a stage of stagnation if there is no further development plan that will allow the business to constantly develop and adapt to the needs of customers.
- Time management - an entrepreneur is expected to be agile and ready to solve problems quickly and efficiently, and this requires a lot of sacrifice, often with unknown results.

Bearing in mind these observations it is clear that the decision to become an entrepreneur is very delicate, and that it depends on the personal preferences and characteristics of the individuals.

CONCLUSION

Even though the modern business environment is extremely changeable and complex, it can be said that entrepreneurial ventures are still very popular, which is evidenced by the fact that in several countries in Europe (including Serbia) the percentage of adult citizens involved in entrepreneurial activities is higher than 10% (Statista, 2023). This practically means that individuals recognize to a large extent the potential benefits of

starting an entrepreneurial business and assess that they can successfully cope with the accompanying challenges. These benefits and challenges may depend primarily on the economic system in which the business is launched, but it is possible to identify some common for all environments, as presented in this abstract.

Keywords: entrepreneurship, benefits, challenges.

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ENTREPRENEURIAL INTENTIONS OF INTERNATIONAL STUDENTS: A SYSTEMATIC LITERATURE REVIEW

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OBJECTIVE

Considering the significant contributions of entrepreneurship to national economies, which is often associated with job creation, economic growth (Hope, 2016), and achievement of social goals (Carree & Verheul, 2012), fostering entrepreneurship has become an ever-important policy for countries (Mahmoud & Muharam, 2014; Luthje & Franke, 2003). Thus, intention as a precondition for action has become a key issue. Intention can be defined as a person's direction and attention towards a specific goal. In this context, entrepreneurial intention can be explained as an individual's specific state of mind directing a person's efforts to establish an enterprise or a business (Shapero & Sokol, 1982). In other words, entrepreneurial intention is a person's belief in paving the way for future potential entrepreneurial action (Mao & Ye, 2021). Examining entrepreneurial intentions among international students will further contribute to understanding, as these may show distinctly different patterns (Davey et al., 2011). However, there is a significant gap in the literature regarding the entrepreneurial intentions of international students. Within this context, the main goal of this paper is to review the existing literature on entrepreneurial intentions within the framework of international students.

METHODOLOGY

A bibliometric analysis was conducted to construct a thorough academic summary of all the available studies on international students' entrepreneurial intentions. In order to identify the relevant studies, two sets of keywords were utilized. These are "entrepreneurial intention" and "international student" on five databases: EBSCO, Web of Science, Scopus, Emerald and Google Scholar. While focal keywords were maintained

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as is, different variations of keywords were also searched so that studies with relevant scope and academic themes could be included in the research. Keywords were generated based on the authors' intuition and the existing literature. Journal articles, book chapters, theses and conference proceedings were included in the bibliometric search. All other non-academic publications were excluded.

RESULTS AND DISCUSSION

Overall, the bibliometric search has yielded 42 studies with the keywords "entrepreneurial intention" and "international student" on five different databases. Although the number of studies from the research indicates an academic gap, the number of publications from recent years shows that scholarly interest in this field is increasing. Almost all of the studies on this topic were published during 2010's, and most were published after 2020.

Our research revealed that multiple research was done in Turkey, Hungary and China, and further papers deal with the issue in Vietnam, Canada, Malaysia, Nigeria, Jordan and Finland. Of the 42 articles, 32 work with questionnaires to collect data and related quantitative data analysis techniques. Use of secondary data or qualitative methods (grounded theory, content analysis, interviews) are also present among the studies.

A significant number of the analysed articles included the same factors already known from the general literature on entrepreneurial intention (Gubik, 2023). These are mainly demographic factors such as gender (Wu et al, 2022), personality traits such as creativity, risk-taking (e.g. Akolgo, 2018; Wu et al., 2022), attitudes (e.g. Nguyen, 2017), self-efficacy (Wu, 2022; Rasul et al., 2017), the role of family background (e.g. Wan-Ismail & Olabinjo, 2017) and education (e.g. Gieure, 2019; Sharma, 2023). The impact of the role of social norms also appears in studies (see, for example, Joseph, 2017).

A smaller number of studies deal with the importance of context, for example, cultural differences (Jannesari et al., 2022), differences in the economic development of the host and home countries (see, for example, Davey, 2011), corruption and limited freedom (Bakkar et al., 2021) in the international students' entrepreneurial intention.

Regarding the results of the articles included in the study, one of our findings is that there are no significant differences in the drivers of international students' entrepreneurial intention compared to national entrepreneurial intention research results. However, at the same time, international students have a higher entrepreneurial intention. In addition to discovering the existing (static) difference, some articles also show that international mobility increases the entrepreneurial intention of students taking part in international mobility (Wu & Rudnak, 2021; Pinto, 2020).

CONCLUSION

On the one hand, our systematic literature analysis revealed that the topic of international students' entrepreneurial intention has been neglected until now, but it is emerging.

Considering that there are no significant differences between international and non-international students in terms of the main determinants of entrepreneurial intention (such as demographic factors, individual personality traits, attitudes), we see the value of further research in highlighting institutional factors and understanding the different characteristics of internationally mobile and non-mobile students.

A limitation of our research is that our chosen keywords impacted the articles included in the sample, so articles relevant to the topic may have remained undiscovered.

Keywords: Entrepreneurship, Entrepreneurial Intention, International Students, Bibliometric Research

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THE IMPACT OF FAMILY ENTREPRENEURIAL BACKGROUND ON UNIVERSITY STUDENTS' ENTREPRENEURIAL INCLINATION

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OBJECTIVE

Entrepreneurial activity is a complex process involving different stages, one of which is the evolution of entrepreneurial intention. In recent years, researchers have paid special attention to the intention and motivation for starting businesses, as well as factors influencing the process from an idea through to the realisation of a new business (Hassan et al., 2021).

This has also been the subject of research in Hungary (Huszak & Jaki 2022), carried out as part of the GUESSS surveys presented earlier, where analysis shows that the existence of a family business is the most important factor in influencing university students' entrepreneurial intention (S. Gubik & Farkas, 2016).

In contrast to other previous research on entrepreneurial motivation (e.g. GEM and GUESSS research and other longitudinal surveys) (S. Gubik & Farkas, 2016; Csákné-Filep et al., 2022), the primary aim of this research is not to investigate students' entrepreneurial motivation in general but to specifically examine students' entrepreneurial intention factors in the context of the phenomenon of family firm background.

Based on the literature on entrepreneurial intention and previous research findings from national and international research (e.g. Szerb & Lukovszki, 2013; Szerb & Petheő, 2014; Tan et al., 2021) in the first phase of the research, we will survey undergraduate students whose study business and economics at Corvinus University of Budapest, focusing on individual factors of entrepreneurial motivation.

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The second cross-section of the research will also investigate the entrepreneurial intention of university students with a family entrepreneurial background, looking at how their entrepreneurial intention is influenced by their family entrepreneurial pattern. We aim to contribute and complement the theoretical literature on the family business with a quantitative large-sample study.

The research questions and topics were the following: What factors influence entrepreneurial motivation among university students? How does family entrepreneurial background influence entrepreneurial intention among university students?

METHODOLOGY

Considering the trends observed in international research, we conducted a survey of students at Corvinus University of Budapest, whose studying business and economics. We used a quantitative method based on a questionnaire survey, from which we analysed separately students with a family business background with different statistical relationship analyses.

RESULTS AND DISCUSSION

The survey reveals which individual and external factors of entrepreneurial intention have the most impact on the university students surveyed, and differences between students from different backgrounds may also provide further feedback on entrepreneurial motivation (e.g. the range of students with a family entrepreneurial background versus those without an entrepreneurial background in their family). It is an important finding that students coming from entrepreneurial families show a greater number inclination to become entrepreneurs. Therefore, are more likely to become entrepreneurs themselves after their university studies. However, most of them do not want to take over their family business but want to create their own business.

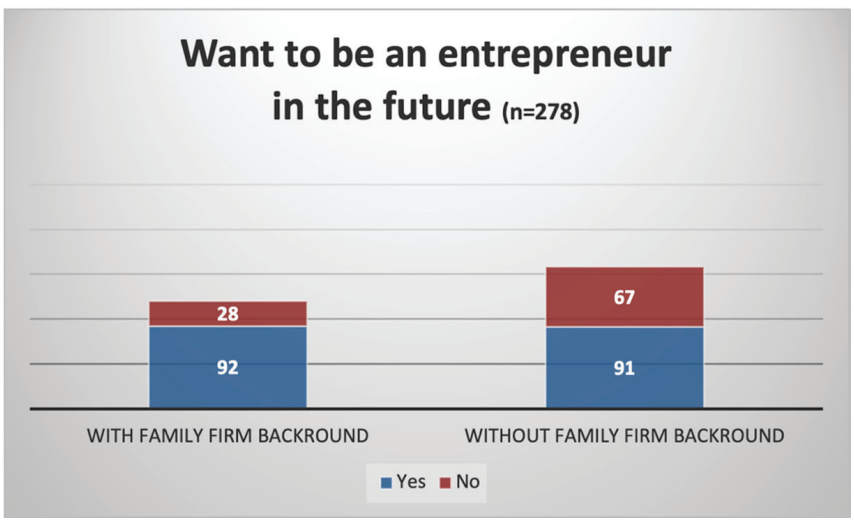

Figure 1: University students' entrepreneurial intention based on family firm background

CONCLUSION

Previous research and articles have pointed out that research on entrepreneurial intention and the family business is constantly developing, and in the future, new approaches are needed to understand the relationship between them better (Zellweger et al., 2011; Sieger et al., 2016; Hernández-Linares & López-Fernández, 2018; Aparicio et al., 2021). With this targeted research, it is possible to conduct an in-depth statistical relationship analysis among students focusing specifically on the relationship between family business and entrepreneurial motivation.

The main result of the data analysis is to use the systematic interaction of theory and the resulting data to identify and define variables, that can be measured quantitatively on large samples in the future.

This research has a good chance of answering whether and how family entrepreneurial background influences entrepreneurial inclination.

The major limitation of the research is that so far authors can only be able to questionnaire this research with the number of students that can be used for analysis only at the Corvinus University of Budapest. We plan to explore the topic in a larger sample (covering other universities) and create a longitudinal survey from it (in Hungary and the Danube Cup partner universities – if the opportunity arises).

Keywords: entrepreneurial intention, entrepreneurial motivation, university students, family firm background

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REASONABLENESS OR RATIONALITY? PUTTING AN EMPHASIS ON ETHICS IN ENTREPRENEURSHIP

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OBJECTIVE

Following the study made by Linda DeLeon, entrepreneurship is characterized by promoting the traits of individualism and egotism which have been emphasized by various libertarian thinkers throughout the history of meta-theory of entrepreneurship (deLeon, 1996). On the other hand, John Quiggin argues for the fact that this premise has been built upon the simplistic version of human psychology offered by the economists who have separated it from the various research fields in social science (Quiggin, 1987). This leads us to have a view of entrepreneurship as a practice based on the faulty psychological premise. It also results in a particular and negative perception of the practice of entrepreneurship and its connection to ethics and values (Fisscher, Frenkel, Lurie, & Nijhof, 2005).

Assuming that the proposed hypothesis is correct, it leads us to open a research question: how can we change the particular narrative in which entrepreneurship is considered to be an egoistic and individually focused practice that is constantly in clash with ethics? Moreso, the premises of psychological individualism and egotism can be and often are in contradiction with the notion of social responsibility that entrepreneurship has embedded within the core of its practice (Tiba, Rijnsoever, & Hekke, 2018).

The main objective of this topic is to provide a way to mediate entrepreneurship by promoting the aspect of ethical education from the Rawlsian standpoint.

METHODOLOGY

The method that is being used is the theoretical application of the already established philosophical opus onto an issue that was emphasized.

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RESULTS AND DISCUSSION

John Rawls offers us a distinction between the notions of practical reasonableness and practical rationality which will be central for this discussion (Rawls, 1996). In his terms, rationality is a practical striving to achieve the already determined goals through following the steps necessary for achieving those goals. Practical reasonableness, on the other hand, is a striving that is limited by the deliberation with others. Namely, we choose our goals based on the deliberative framework we have with others, and we act based on the fact that we are not maximizing unreasonable harm.

After proposing Rawlsian philosophical terminology, the second step is to connect it to the practice of entrepreneurship. A pure and unmediated rationality in this context means following the individualistic and egoistic aspects that are commonly associated with entrepreneurship without considering the welfare of others. Being reasonable in the practice of entrepreneurship is regulating one's goals in terms of the deliberation made in the relation to the social and communal realm.

Both rationality and reasonableness are important to consider in the practice of entrepreneurship and they are important for the descriptive account of the psychological illustration that was the problem in the beginning. Ethical education has been stated in numerous studies to be a core initiator for reasonableness (Mangini, 2017) (Carson, 2008) (López & Vicuña, 2006).

CONCLUSION

By encouraging ethical education in the fields of entrepreneurship, reasonableness flourishes and it is taken as a mediating factor to the pure rationality that is considered as a problem when criticizing the practice of entrepreneurship. By being more reasonable, an entrepreneur is both an agent who seeks success in his/her business, and an agent who is bound by social responsibility that he/she affirms.

Keywords: Entrepreneurship Practice, Rationality, Reasonableness, Ethical Education

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CHANGEMAKER PROGRAM – KIDS BECOME ENTREPRENEURS. EXPERIENCE FROM SCALING A REGIONAL PROGRAM NATIONAL WIDE

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OBJECTIVES

In recent years, entrepreneurship has become increasingly important in the education sector. Not just in terms of imparting knowledge and skills to start a company, but rather in the sense of a broader entrepreneurial mindset that also encourages active participation in society.

Against the background of limited resources for entrepreneurship education, the development of our program followed the guidelines of developing a (1) low-threshold, (2) cross-education sector and (3) scalable offer. In this way, new target groups for entrepreneurship education should be opened up (both in higher education and primary schools), the impact on society should be maximized and future growth should be facilitated.

Especially in primary schools, there is often a lack of awareness, skills and suitable teaching concepts. University students often equate entrepreneurship education with courses on starting a business and are open to offers that enable them to train entrepreneurial skills without having to work on their own (more or less concrete) start-up ideas.

METHODOLOGY

Eventually, “Changemaker Market Day” was rolled out in the academic year 2017/18 as “the program that makes entrepreneurial thinking and action as well as financial and economic skills tangible for primary school children” and provides university students with the opportunity to be involved in an impact initiative.

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When designing the program, barrier-free integration into the current primary school curriculum played an important role. The schools' participation in the program does not require any prior knowledge of entrepreneurship education on the part of the teachers and the time commitment is manageable with two 4-hour workshops each and a morning with the final joint event, the market day.

RESULTS AND DISCUSSION

With regards to the scalability aimed for from the start, the program follows a "train-the-trainer" approach. The participating students are trained in the areas of entrepreneurship and didactics and are thus qualified to hold the workshops at primary schools. In these workshops, students work in teams together with "their" elementary school class to develop their first entrepreneurial project: from the idea to the sale of the product. The university students take the lead in the conception and implementation of the entire project and have the program coordinators and the school teachers at their side as sparring partners. During the collaboration, the teachers gain valuable insights into the implementation of entrepreneurship education without initially requiring any additional investment of time and skills. Rather, over the course of the collaboration, they develop a feel for educating people to think and act entrepreneurially, which they can later incorporate into their teaching methods. The train-the-trainer concept allows the program to be scalable while maintaining the same resources at the university itself (see Figure 1).

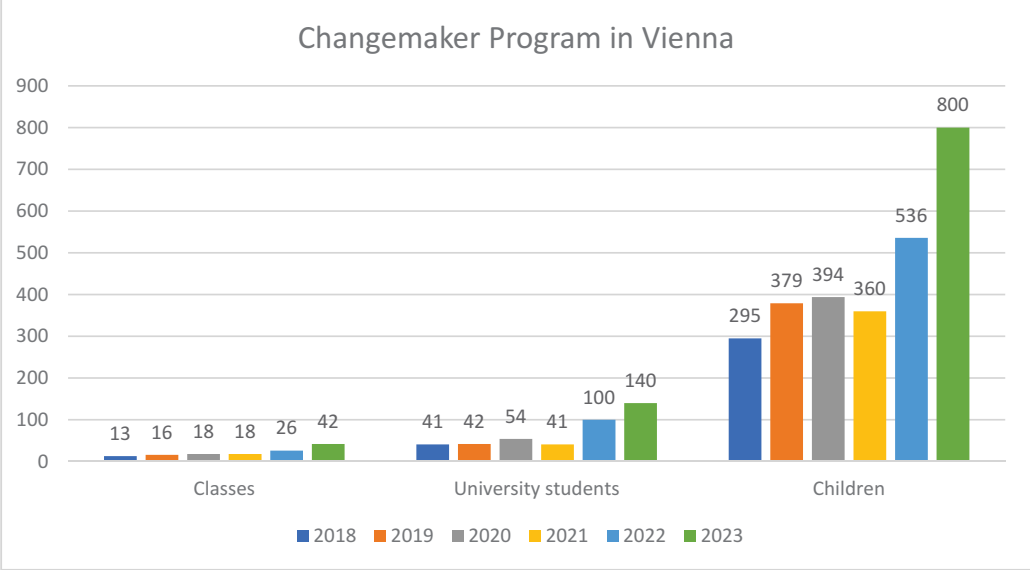

Figure 1: Changemaker Program: Number of participants in Vienna 2018-2023

Another component of scaling relates to growth across locations. The mission of the program is to give every primary school kid in Austria the opportunity to experience entrepreneurship education. In order to achieve this goal at the national level, the train-the-trainer concept was applied again at the university partner level. When designing the program, great emphasis was placed on the creation of toolboxes. Similar to a franchise concept, these digital toolboxes can be used by other university partners to implement the program in their regions. An onboarding meeting and an introduction to the guiding principles of the WU Vienna program ensure a comprehensive

understanding of the toolbox. Monthly meetings of the partner universities take place for regular exchange.

CONCLUSIONS

The first implementation partners for the Austria-wide roll-out of the Changemaker Market Day were won through the Entrepreneurship Center Network (ECN), an Austria-wide initiative of 30 universities with the aim of promoting entrepreneurial thinking and action. Today, the Changemaker Market Day exists not only in Vienna, but also in Graz (partner: Karl-Franzens-University Graz), in Upper Austria (with the University of Applied Sciences Upper Austria, Campus Steyr) and in Vorarlberg (UAS Vorarlberg). In the coming years, further growth and the integration of additional university partners will be sought. In total, since the expansion into additional federal states, over 3,600 children and 520 students have been reached in 2022 and 2023 alone.

In the light of growing and reaching more university students and primary school children the need for an impact measurement becomes present. Hence, in order to shed light on the long-term impact of the Changemaker Program on children and their entrepreneurial mindset while simultaneously enabling continuous improvement through a detailed evaluation of the program and its aspects, a study is being conducted focusing on indicators of entrepreneurial qualities and behavior in children. Such indicators can relate to diverse aspects of the children's' entrepreneurial mindset that the Changemaker Program aims at strengthening, such as financial and economic literacy, perseverance, or self-efficacy. The ever-growing interest of policymakers in this topic based on the importance of an entrepreneurial mindset in multiple aspects of life, highlights the relevance of this research revolving around early exposure of children to entrepreneurial acting and thinking (Huber et. al. 2014; Barba-Sánchez & Atienza-Sahuquillo, 2016; Hassi 2016; Zupan 2018; Brüne & Lutz, 2020).

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ORGANIZATIONAL TRAINING CAPABILITY AND CREATIVITY PERSPECTIVE ON ENTREPRENEURSHIP

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OBJECTIVE

The objective of this research is to explore the interplay between organizational training capability and creativity from a perspective focused on entrepreneurship.

METHODOLOGY

This study employs a mixed-method research design to investigate the relationship between organizational training capability and creativity within the entrepreneurial context. The research design incorporates both quantitative and qualitative research methods to provide a comprehensive understanding of the phenomenon. The survey was conducted among entrepreneurs. Participation in the survey was free and confidential, providing an opportunity for entrepreneurs to express their thoughts and experiences regarding entrepreneurship education and its impact on their business initiatives. Research methods included surveys, structured questionnaires, interviews and content analysis. The obtained results were objectively analyzed, providing important information about entrepreneurs' perception of entrepreneurship education and its impact on their business practices and creativity. These methods enable the exploration of individual experiences, perceptions, and the contextual factors that influence the effectiveness of training programs in fostering creativity among entrepreneurs.

RESULTS AND DISCUSSION

Entrepreneurship, characterized by innovation, risk-taking, and the pursuit of opportunities, has long been a cornerstone of economic development. In recent years, the relationship between organizational training and entrepreneurship has garnered significant attention. This study explores the intricate interplay between these two

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essential aspects of business and offers insights into how effective training programs within organizations can catalyze and sustain entrepreneurial endeavors (Hjort et al, 2018; Gomez et al, 2022).

The theoretical foundations of entrepreneurship were laid by Joseph Schumpeter. He articulated the peculiarities of entrepreneurship and formulated a comprehensive theory known as "creative destruction." Schumpeter's theory encompassed several key principles. He emphasized that entrepreneurship revolves around the introduction of innovative ideas and technologies into the market, serving as the primary driver of economic growth and competitiveness. Additionally, Schumpeter highlighted the dynamic nature of entrepreneurship, involving the continuous disruption of existing markets and structures through innovative endeavors. This process, known as "creative destruction," leads to the transformation and advancement of societies and economies. Schumpeter also recognized that entrepreneurship extended beyond creating new businesses, encompassing "intrapreneurship" within established organizations, fostering adaptability and competitiveness (Gomes, Seman & Montreuil 2020).

Nowadays, entrepreneurship is a primary sector contributing to government revenue. It represents an enduring source of economic growth and fiscal stability, encompassing a wide spectrum of activities, from small businesses to innovative startups. This sector drives job creation, fosters innovation, and generates substantial tax revenue that supports public services and infrastructure development (Makhloufi et al. 2021; Zhu et al 2022).

Entrepreneurship training was originally aimed at reintegrating retired military personnel into the civilian workforce by providing them with the skills they need for employment. This approach laid the foundation for entrepreneurship training through business centers and incubators. This model blends academic learning with practical entrepreneurship, enabling students to pursue their ideas with financial support. This innovative educational paradigm empowers young individuals to bridge the gap between theoretical knowledge and real-world application, fostering a dynamic ecosystem of creativity and innovation in the heart of the technology industry.

As sustainable development gained prominence, entrepreneurship evolved into social entrepreneurship, addressing societal and environmental challenges with a profit motive. This shift towards social entrepreneurship reflected a growing awareness of the need to balance economic growth with environmental and social responsibility. For example, in Germany, the Eastern Europe Fund introduced entrepreneurship education targeting students in grades 8-11, now integral to the EU's educational landscape. This educational approach encourages young minds to explore entrepreneurial solutions that not only generate profit but also make a positive impact on their communities and the environment. It nurtures a generation of socially conscious innovators who are well-prepared to tackle the complex challenges of the 21st century while contributing to the broader goal of sustainable development both in Europe and around the world.

CONCLUSION

The history of entrepreneurship education illustrates its adaptability and relevance in ever-changing socio-economic landscapes. From post-war reintegration to innovative student programs and social entrepreneurship, education equips individuals with the

skills and mindset needed to thrive. It fosters economic growth and addresses societal challenges, exemplified by its integration into school curricula in countries like Germany. Entrepreneurship remains a driving force in modern economies, shaped by both theoretical insights and practical education.

Keywords: organizational training, economic growth, entrepreneurship

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EFFECT OF COVID-19 AND ECONOMIC CRISIS ON ENTREPRENEURSHIP

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OBJECTIVES

The main subject of research in this work is the impact of COVID 19, the energy and economic crisis on entrepreneurship (Korchunov & Rosenberg-Jansen, 2022; Benmelech & Tzur 2020). In this paper, these three factors are investigated on the survival of entrepreneurs, and sectoral spillovers and transformations, as well as recommendations on how to overcome problems in business. An overview of good practices in the European Union and outside the EU is given, as well as suggestions for stimulating IT entrepreneurship and startups.

It investigates institutional organization at the time of establishment and status changes among entrepreneurs during the COVID-19 pandemic, with a further focus on the impact of the energy and economic crisis on their business (Wieczorek et al,2022; Beraha & Đuričin 2020; Benmelech &Tzur, 2020). The energy crisis had an impact on the increase in business costs, so it was also a stimulus for various types of innovation and the invention of alternative energy solutions (Karanina,et al, 2022; De Man & Strandhagen, 2017; Severengiz et al, 2015 ; Kalvet, 2012 Bismuth& Tojo, 2008). The economic crisis has influenced many individuals who have lost their jobs to turn to entrepreneurship as a means of income generation. Entrepreneurship as a small business requires special resilience and adaptability from the owner, requiring them to identify new opportunities and adapt to dynamic market conditions. that's why entrepreneurs are an important factor in the vitality of every economy, EU measures to encourage entrepreneurship, and a special program for access to finance for starting a small business (Baqaee & Burstein,2023; Borio, 2020).

METHODOLOGY

The paper uses the methodology of comparative and generic analysis, which ends with a synthesis that results in the main recommendations for stimulating responsibility. including access to global markets, technologies, knowledge, as well as vulnerability and gender inequality in entrepreneurship. It also emphasizes the importance of digital

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technologies in the development of entrepreneurship, the digital divide and opportunities for business improvement. Entrepreneurs faced the challenges of imported inflation and the economic crisis deepened by the energy crisis. The influence of innovation on entrepreneurial efficiency is isolated. The paper ends with recommendations for encouraging entrepreneurship in Serbia, outside the EU, bearing in mind the changed business circumstances brought about by the pandemic. These recommendations are to implement educational programs improve access to finance, encourage networking and government support and the goal of the study is to explain the impact of the pandemic and economic crisis on entrepreneurship to the world and support entrepreneurship with the aim of increasing the resilience of the economy of Serbia and the EU (Próchniak et al, 2023; Kuckertz et al 2020).

RESULTS AND DISCUSSION

The main hypothesis is that investment and development of entrepreneurship have multiplied influence on the economy, and the growth of the gross domestic product. The main hypothesis is developed from the second hypothesis that development and encouragement of entrepreneurship affect the reduction of unemployment, the diversification of risks and the stability of the economy (Huszak & Jaki 2022). COVID 19 make a large tectonic disturbance in the economy leading certain sectors to total bankruptcy) and others to a position of indescribable growth and gaining enormous profits (Ağanoğlu et al,2023; Dejanović, M. 2023; Geng et al, 2022; Dejanović,2015). This is understandable, bearing in mind the exceptional demand for certain products such as medical equipment drugs, and vaccines (Akbarpour, et al ,2023; Vukovic & Nevalennyi, 2021; SeCons, 2020). Main objective of this research is to show how much is important to obtain access to finance to all entrepreneurs with new ideas, with innovation and applied market approach. Also, it addresses how much is important implementation of digital solutions in various types of entrepreneurship activities. If we have an institutional support of the government through excellent administrative organization, and easy procedures for opening a firm, and other operational job important for functioning of the entrepreneurs it is a prerequisite for the easy functioning of every company, especially entrepreneurs who are often the only employees in the company.

CONCLUSIONS

When we take a closer look at how Serbia dealt with the pandemic, we can see that they weren't fully ready at first. However, the government quickly took action and put in place important measures in line with the guidance from the World Health Organization.

Despite these challenges, entrepreneurs have demonstrated remarkable resilience, adaptability, and innovation in response to the crisis to create new products and services and expand their business networks (Bullough & Renko 2013). They have pivoted their business models, identified new opportunities, and harnessed the potential of digital platforms. Stimulating entrepreneurship is important for various reasons. It drives economic growth, job creation, and increased productivity, ultimately leading to higher GDP. Moreover, promoting gender equality in entrepreneurship helps abolish barriers and discrimination that individuals traditionally faced difficulties in accessing funding due to financial market uncertainty and selective investment. Entrepreneurs bring diverse perspectives, experiences, and ideas to the business landscape, fostering innovation and creativity (Sternberget al 2020).

In the face of difficulties, entrepreneurs have demonstrated resilience and adaptability, leading to the development of new products and expanded networks. Encouraging entrepreneurship contributes to economic growth, job creation, and increased productivity. Additionally, promoting gender equality in this field removes obstacles and encourages a diverse environment that stimulates innovation and creativity.

Keywords: COVID-19, Entrepreneurship, Economic crisis, Digital technologies, Innovation

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THE MEDIATING ROLE OF DYNAMIC CAPABILITY IN THE RELATIONSHIP BETWEEN ENTREPRENEURSHIP ORIENTATION AND FIRM PERFORMANCE: A STUDY OF SME BUSINESSES IN GHANA

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OBJECTIVE

The concept of Entrepreneurial Orientation (EO) has garnered substantial attention since its inception by Denny Miller, Dennis Slevin, and Jeff Covin (C. Corbett et al., 2021). Scholarly discussions have advanced our understanding of entrepreneurship orientation and its connection to strategic management. In today's uncertain world, where small and medium-sized enterprises (SMEs) and their managers seek solutions for workplace challenges, the relevance of EO conversations has grown significantly. EO is characterized by a firm's strategic posture that involves continuous engagement in risk-taking, innovative, competitive aggressiveness, autonomy, and proactive behaviors, ultimately influencing firm performance (Zaato et al., 2020; Rezaei & Ortt, 2018). Over the past decades, EO has been extensively investigated in relation to its impact on firm performance (Saeed, Yousafzai, & Engelen, 2014). However, despite numerous studies, the results have been conflicting and inconclusive, leaving the relationship between EO and performance still unclear (Su, Xie, and Wang, 2015). Some studies suggest a favorable correlation between EO and performance (Wiklund & Shepherd, 2003), while others indicate unfavorable or insignificant effects (Renko, Carsful, & Brännback, 2009), leading to differing opinions among researchers.

The discussion on EO has permeated both the private sector, especially SME organizations, and the public sector, as well as in developed economies (Weerakoon et al., 2020; Li et al., 2009) and developing countries (Adim & Poi, 2021; Zaato et al., 2020). In

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the context of Ghana, EO has gained relevance across various sectors due to the country's growing population, projected to reach 37.9 million by 2025, and the potential for economic development (Moors, 2022; Acheampong, 2017). The increasing number of research studies on the entrepreneurship orientation in developing economies and academic discussions had called to consider this concept again at the policy level, which could be beneficial to foster economic growth and development.

In Ghana's case, the historical development of entrepreneurship within the country's culture, even before the arrival of Europeans in the fifteenth century, highlights the significance of EO (Robson et al., 2009). Ghana's growth in entrepreneurship orientation has undergone three distinct phases: post-colonial Ghana from 1957 to 1966, characterized by large-scale nationalization and state-owned enterprises; the period from 1967 to 1979, marked by totalitarianism and asset confiscation that discouraged private investment; and the renaissance of entrepreneurship from 1980 to 2010, during which various entrepreneurial models flourished (Amankwah-Amoah & Lu, 2019).

Therefore, the objective of this work is to fill this research gap by investigating how policymakers and business owners in Ghana can understand dynamic capability as the potential mediator between entrepreneurship orientation and firm performance which can help SMEs to better leverage their internal resources and seize the market opportunities for their sustained growth, adapt and innovate in response to changing business environments. The study will build on previous research to provide a deeper understanding of the relationship between EO and FP in the context of developing economies.

METHODOLOGY

Three separate phases of data collection were included as part of this study. The first phase of data collection included administering the online questionnaires to participants who represent important stakeholders of the Ghanaian economy. These are the Association of Ghana Industries (Ackah et al., 2014), the Ghana Association of Banks, automobile business owners and Managers (Gyasi et al., 2020), the Association of Forex Bureaus Operators, and the Association of Market Queens and Women (Thompson Agyapong et al., 2018). These are participants identified and classified under SME in the major businesses in Ghana, which explained the study focus (Oppong et al., 2014; Andræ, 1981). The second phase of the data collection employed field research officers who are university students with the printout of the questionnaires used to visit the locations where these participants can be found at their workplaces. The officers have been receiving online instruction for four (4) months in both core strategies on how to reach out to the targeted participants and guide them to answer the research questionnaires. This method speeds up the data collection processes by allowing us to handle the participants' concerns and address some issues they raise. The third data collection phase included a mixture of both phases (1 and 2). The researcher relied on the constant sharing and follow-up to the copies of the questionnaires shared with the participants. Also, during this phase, participants were encouraged and assured of confidentiality as their company names or organizations would not be included in any summary information for the findings (Slater, 2001)

Keywords: Dynamic Capability, Entrepreneurship Orientation, Firm Performance SME Businesses in Ghana

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A STARTUP CHALLENGE: SCALABILITY IN CUSTOMER SERVICE

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OBJECTIVE

The customer base of dynamically developing, innovation-driven (IT service) Startups can increase suddenly and fluctuate a lot. Computing capacity can be easily scaled with the help of modern ICT tools, but how can scalability be interpreted in customer service? Can the customer service of a small startup serve a wide customer base? How should an entrepreneur set up customer service at the start, so that it can stand its ground in any situation? The following research explores these questions.

METHODOLOGY

The real problem of an IT service company just entering the market was analyzed primarily through qualitative primary research. In addition to extensive secondary research, several in-depth interviews were realized in 2023 to get to know the role of customer service in startups and find the most effective customer service solutions. Among the six interviewees, there was one Hungarian customer service expert, one customer service manager working at a multinational company in Belgium, and three founders of successful startup companies (plus one - the examined company's founder), who had a different depth of knowledge in the field of customer service. The research had a twofold goal: on the one hand, to explore this rarely researched area, and on the other hand, to give practical advice to entrepreneurs.

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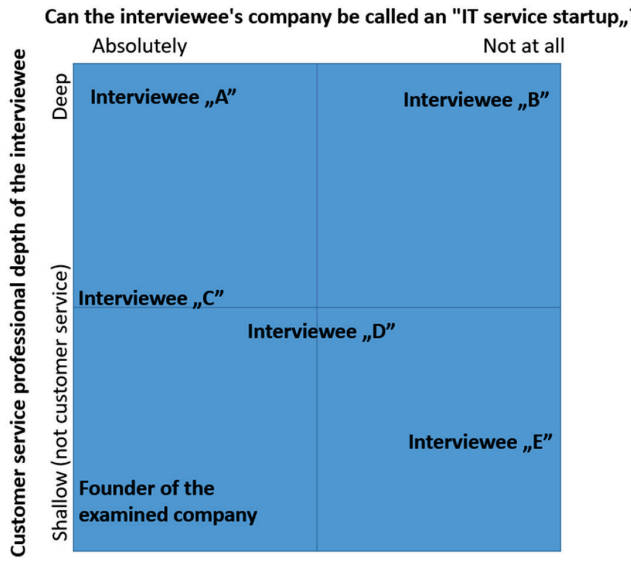

Figure 1: Interviewee quadrangle to explore the topic

RESULTS AND DISCUSSION

The research concluded that in the scientific literature, the concept of scalability mostly arises in connection with the resource requirements of ICT devices, and it only occasionally appears in the field of customer service, which receives little attention anyway. At the company where the research primarily took place, the problem initially arose as a process development issue, but it soon became clear that it primarily had a knowledge management aspect.

On the other hand, in practice, companies, entrepreneurs and customer service experts have different approaches to their customer service, but to some extent, each of them agreed it has a particularly important, in many cases a prominent role in the success of a company and its services.

The research yielded clear and consistent answers to the research questions:

- The concept of scalability can also be interpreted in the field of customer service, just as in the field of IT (cloud), “outside-the-box” solutions are needed in this field as well.
- An IT service startup consisting of a couple of people can operate a customer service (with high SLA%) that can serve tens of thousands of people, the main key to this is knowledge management excellence.
- At the end of the research, a 10-point recommendation was created for IT service startups on developing their customer service from the beginning.

CONCLUSION

During the research, it was surprising how under-researched the topic of customer service is, only a very few articles was found that deal with the impact of digital transformation in this area. The concept of scalability is rarely assigned to this field in the

scientific literature, so the research is certainly novel in this regard. The greatest merit of the research is the ten-point recommendation based on the practical experience of the experts we spoke to and the experience of the examined company, because this can be a practical toolkit for future entrepreneurs. The research began in 2022 and ended in 2023, hence its limitations: although many chatbot services were examined, the rapid development of text-generative AIs since then may revolutionize this field as well.

Keywords: customer services, scalability, startup developement, knowledge management

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- Journal of East European Management Studies (JEEMS) published by NOMOS Publishing in Germany, metrics Web of Science Impact Factor 2020 JIF: 0.821 (2019: 0,679; 2018: 0,571; 2017: 0,794) Scopus CiteScore 2019: 0.9 (2018: 0.66; 2017: 0.62), Scimago H-index: 19
- Society and Economy, journal of the Corvinus University of Budapest, metrics: Scimago Quartile Score: Economics Q3, Scopus CiteScore: 1.2, Scimago H-index: 13
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