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AcEntRoad Project

Survey on Entrepreneurial Culture and Attitudes Across Students

Developed within the Project
“Academic Entrepreneurship Roadmap”
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PREFACE

This current publication is produced as a result of a research project with the following formal details:

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CHAPTER 1

ACADEMIC ENTREPRENEURSHIP ROADMAP AS AN INNOVATIVE MODEL AT UNIVERSITY LEVEL[1]

Introduction

The scientific potential generated by universities can be promoted and transferred through commercial application and be a source of revenue. Educational institutions with a strong entrepreneurial culture are thought to be leaders in molding students' entrepreneurial attitudes and helping them form close relationships with industry partners. When university academics incorporate specific business-related activities into their research with the intention of implementing and profiting from the study, this is referred to as academic entrepreneurship (Azeez, Rasheed O. and Fatimo Aliu, 2023).

Academic entrepreneurship is seen as a means of commercialization, which is the transformation of knowledge into products, processes, and organization and their contribution to economic growth and innovation. In this regard **the project is aimed** to explore hidden strengths of academic entrepreneurship in detail and in various aspects oriented to students, academic staff, and businesspeople. The project topic is “Academic Entrepreneurship Roadmap” and is funded by Erasmus+ Programme, Action type KA220-HED – Cooperation partnerships in higher education, 2023.

[1] The text of this chapter is elaborated during the work on the project and originally published as follows Angelova, M. & Pastarmadzhieva, D. (2024) Academic entrepreneurship roadmap as an innovative model at university level, International Scientific Journal "Science. Business. Society", 9 (1): 7-10, ISSN 2534-8485.

The general **project objective** is to explore the ways for success in entrepreneurial activities to trigger students` initiative in an adapted way bringing together students from various social categories with focus on those who are discouraged in their study and lagging their peers. The project will suggest training materials in line with the changes in the economic environment in recent years to create both entrepreneurial culture and skills to start own business under the supervision of academic entrepreneurs.

The **specific objectives** of the project are:

– Revealing trends and influencing factors on entrepreneurship by exploration of entrepreneurial culture and attitudes across the targeted students.

– Closing the gap in cultivating academic and students' entrepreneurship by creation of methodologies for entrepreneurial education among the targeted students.

– Development of Entrepreneurial Journey based on Academic Entrepreneurship Roadmap, accompanied by series of lections, seminars, and workshops.

Within the project, **the team will produce** the following:

– Development of Methodology to study the entrepreneurial attitudes of the students.

– Creation of teaching materials for entrepreneurial education of students in risk of falling out.

– Development of model entrepreneurial journeys.

– Piloting the developed content at workshops.

– Holding thematic seminars with business experts.

– Organizing local dissemination meetings.

– Organizing cross border final events.

The authors' thesis is that all the efforts focused on the development of the triangle of knowledge: science-business-education including participation and lectures by business representatives is helpful in the educational process because this collaboration provides practical experience and know-how gained by professionals in their practice. This method is called action learning and provides opportunities for the theory to "meet" the practice. Furthermore, this activity creates opportunities to develop internship programs for students. Business representatives will have the opportunity to meet motivated and talented students that thrive on innovation development and are focused on their professional realization. A good example exists but it is not in the news and everyday topics that are discussed. The project is a good chance for the students to believe in themselves and try to be entrepreneurs. The development of entrepreneurial culture is a long process, and it is necessary to be applied in university education. The business representatives will share their experiences and how they have overcome the difficulties. This is a chance for the students to believe that they can do more and use their potential in entrepreneurship projects.

1. PROJECT DESCRIPTION

1.1. Partners

The University of Plovdiv Paisii Hilendarski is a coordinator of the research project. By a decision of the Academic Council of the University of Plovdiv Paisii Hilendarski on March 29, 2021 was established Office for Technology Transfer (TTO) as a separate unit of the Center for Technology at the University of Plovdiv. The TTO maximizes the impact of new knowledge gained from research and discoveries and aims to be recognized as a trusted and creative negotiator of fair, mutually benefi-

cial agreements. It aims to engage the community by encouraging and supporting the development of innovation and entrepreneurship at the University of Plovdiv Paisii Hilendarski and in the wider ecosystem. The office provides competent consultation and timely services to the researchers from university for the realization of their inventions. At the same time, TTO adheres to the highest ethical standards, both in the protection of intellectual property and in partnerships with business. TTO is highly motivated for construction of infrastructure to support innovation activities at the University of Plovdiv Paisii Hilendarski. The success in its work is based on a set of values and motivation that guide the team, earning the trust of the university researchers and our partners. Standing at the border between science and business, the team supports academic entrepreneurship and establishes connections with potential beneficiaries of innovative products and services. Members of the business development team liaise with both university researchers and external partners. Staff foster connections with industry collaborators, create comprehensive economic plans to advance technologies in laboratories across the university toward licensing and commercialization, and catalyze the launch of innovative projects.

A partner of the project is the Association for Support of the Development of the Intellectual Capital that is a non-governmental organization acting as consultancy and networking umbrella entity combining capacity and capability of experts in domains such as insertion of social innovation, usage of digital technologies, human aspects of industrial modernization, development of personal skills, support for disadvantaged people and ameliorating their carrier perspectives. The organization is based on voluntary membership of various entities and individuals all solidified around common goals towards raising intellectual capital of the country and across the EU.

The partners from abroad include “Gheorghe Asachi” Technical University of Iasi that is a prestigious Romanian university with the oldest tra-

dition in engineering education; The University of Malta that is the sole public and highest teaching institution in Malta, with its structures being in line with the Bologna Process and the European Higher Education area; L'Aquila University, Italy, that is a public teaching and research institution offering a full range of academic programs including biotechnologies, economics, engineering, education, humanities, medicine, psychology, and sport sciences and the Çanakkale Onsekiz Mart University that is a public research university in Turkey. The strategic partnership contributes to the priorities to stimulate innovative learning and teaching practices and to support innovation and entrepreneurial skills of students.

1.2. Project Inclusion and Priorities

Even with similar educational achievement, students having poorer background have much less chances to retain into top rated university specialties than their privileged peers. Very often students from lower socioeconomic families encounter a virtual wall which blocks them from the moment of applying to the graduation at the end of their studies due to serious financial issues and widening gap between their daily routine and desired carrier. Scholars in education and sociology have observed generally that low-income students often feel alienated from their better-off peers, fear approaching professors, and lack the experience to exploit existing networks to arrange their future. Low-income students are more challenged by the pursuit of access to and academic success in university than their more affluent peers. These students are not only financially disadvantaged in comparison to their peers but are also culturally disadvantaged and constrained in their professional realization. Unleashing their potential will be in favor of their carrier development as well as in favor of society in general.

Education innovation is both a pedagogic and organizational challenge. Often the pedagogic dimension is the easier of the two. Universities are

places of amazing intellect, creativity, and drive to create a better world, yet they are also places of competing aims, intricate hierarchies, embedded ways of working and intense workloads. To design and implement meaningful innovation, educators must connect with students. Their thinking needs to be informed by the actual, rather than partial or imagined, expectations and experiences of students. An ongoing dialogue with students should be brought into all innovative teaching initiatives. Students learn best when they feel part of an academic community to which they can actively contribute. Teaching, research, and support staff are most fulfilled when they feel that their work positively influences people and makes a difference.

The project will provide hands-on experience via offering students the opportunity to work on real-world projects and start their own businesses to help them apply what they have learned in the classroom (Angelova, M. N.; Pastarmadzhieva, D. D.; Naydenov, A. T., 2022). The project promotes the culture of innovation by creating an environment that supports risk-taking, experimentation and creativity by encouraging students to think outside the box and pursue their ideas. The project is aimed to encourage networking by connecting students with successful entrepreneurs, innovators, and investors to help them gain insights and build valuable relationships. As a side effect, the project will celebrate success to recognize and reward successful innovations and entrepreneurial ventures to encourage students to continue developing their skills and pursue their passions.

1.3. Added Value at European Level

The project provides opportunities for interaction between students from different fields of education. We are going to prepare target educational materials for them to provide training in entrepreneurship. Furthermore, the materials will be supplemented by meetings with successful entrepreneurs, who will share their experience with the youth. The shared values and aims toward start-ups and entrepreneurship will be the motion to participate and interact with other peers, even in common business projects because the contacts create the contracts.

The EU goals in this programming period are toward the development of entrepreneurship and more precisely academic entrepreneurship. Using different financial mechanisms and programs the EU strikes to gain more entrepreneurial initiatives and established business projects. According to Erasmus for Young Entrepreneurs, the students that have just started a business or intend to soon could qualify for the Erasmus for Young Entrepreneurs exchange scheme. The scheme – which is partly funded by the EU – allows students to spend some time in another EU country working for and learning from an experienced entrepreneur. To qualify for the scheme, students must be able to demonstrate their motivation and firm intention to start a business. They will have to present a solid business idea, including a realistic business plan. In this regard, the efforts of the project team will complement the participation of more students in the program.

Alongside, performing such research across different European countries will contribute to identifying the common issues regarding academic entrepreneurship, and particularly the opportunities of the disadvantaged groups of students. The identification of common challenges will allow the partners to propose approaches to overcoming the gaps and improving the entrepreneurial environment at the universities especially for disadvantaged students.

2. NEEDS THAT THE PROJECT ADDRESSES

In January 2023 the National Statistical Institute of Bulgaria (https://www.nsi.bg/bg/content/766) published a series of results from the last population survey where migration for educational reasons has been put at second place after seeking for a job (19,1% as mean value among men and women). Internal migration for studying is well known by all universities across the country. The capital is notorious as an attractive center for young people from all regions to move to for their higher education. A similar flow though with lower intensity is seen in the biggest university cities outside the capital. Such migration requires stable financial support by the parents and poses needs for temporary job and increased expenses for rent and subsistence to those who cannot rely on sufficient support from home.

Unlike the opportunities for temporary student jobs related to their future specialties provided in the capital area, those in the other regions are significantly fewer. In this way the students are forced by reality to work in positions requiring low-level qualifications and sometimes very far away from their field of studying. While for some student groups such as students in technical specialties there is some possibility of work in the same field, for students in economic programs for example finding a temporary job related to their courses becomes mission impossible. Very often such students, coming from smaller towns and having weak financial family support work as executive staff in non-stop shops, clothing stores, restaurants, etc. till the moment of getting their diplomas. Thus, those young people lose their motivation for self-improvement in the selected carrier field and face serious barriers in the transition period from study to work. In this regard, the initiating team wants to address the following needs of the targeted students:

– To be introduced in near-real business environment matching developed skills during studying and practice of enterprises in terms of management, finances, administration, economics, and accountancy.

– To be inspired to follow the entire way from theory to business reality on the surface of academic entrepreneurship.

– To be allowed to take practical action towards addressing the needs of business by means of science and thus to be supported in unfolding their creativity and research initiative.

– To meet peers with similar challenges and to exchange experiences to explore their strengths.

– To be equipped with a variety of examples which they could follow to solve situations which they could face after graduation.

The overall activity framework of the project has been designed with the purpose of addressing the needs targeted for intervention. The framework will be realized through the thematic work packages which cover the specific project objectives. This will guarantee achievement of the envisaged end state as well as will ensure proper monitoring and loopback. In this regard the project embeds the logical chain needs – objectives – activities in the following way:

– Introduction in near-real business environment which matches developed skills during studying and company practices by revealing trends and influencing factors on students` entrepreneurship

– Inspiration for following the way from theory to business reality on the surface of academic entrepreneurship by closing the gap in cultivating academic and students' entrepreneurship

Both elements above will be done within the WP2 and through its outputs and results – methodology content and workshops.

– Taking practical action towards addressing the needs of business by means of science and launching creativity and research initiative by creation of methodologies for entrepreneurial education among the targeted students. This will be addressed by WP3 and respective outputs and results – developed training content and organized piloting events.

– Meeting peers facing similar challenges and exchanging experience how to explore strengths by series of lections, seminars, and workshops

– Provision of a variety of examples which students could follow to solve problematic situations in their future carrier by development of Entrepreneurial Journey based on Academic Entrepreneurship Roadmap.

The two needs above will be addressed within WP4 through creation of model materials and organizing exchange events.

3. THE POTENTIAL WIDER IMPACT OF THE PROJECT

Successful project achievement is seen by the initiating team as a measurable and positive result that is received upon completion of a project's aims and outputs as well as throughout all organized activities. It is a process of achieving a desired outcome within a project under certain criteria that determine success and failure of the project, and it will start well before actual project implementation and will last after the official project end. The team will apply the following basic steps to gain successful project achievements:

– Setting SMART goals that clearly explain what to achieve within a project

– Detailing the goals to make the path to achievement shortened and easier

– Estimating and allocating all necessary resources, such as time, knowledge, funds, skills, etc.

– Assigning the goal elements in the efforts and do the work

– Monitoring and controlling performance

– Completion of the goals and confirmation that these have been successfully achieved.

The team will assign project objectives as subsets of the general project goal. Such short-term tasks will be essential for achieving consistency within the project staff and reaching the project goal. Project objectives will serve as milestones, spread across the project, that are communicated to the team in measurable detail. While project goals have a measure of vagueness attached, objectives will be clearer for all involved staff.

The SMART acronym stands for Specific, Measurable, Achievable, Realistic, and Time-bound. It is a definitive approach to finalizing project objectives. The SMART approach adopted by the team will implement the elements as follows:

–Specific – All stage objectives of the project will be clearly defined. The team will express the 5Ws and H of the objective (Why, Where, When, Who, What and How) into tangible determinants, so no project objective will lack clarity and specific details.

–Measurable – The objectives will be quantifiable. For this purpose, the team will use impact gathering questionnaires measuring indicators in quantitative and qualitative aspects.

– Achievable – While considering an objective, the team will be able to determine what needs to be done to achieve it. Then the answer will be how to do that.

– Realistic – The achievement of the project objectives must be a realistic possibility. For this purpose, achieving the objectives will be bound to the timeline and the budget. The resources, knowledge, skills, and support required for the project objectives will be constantly revised by the team to decide if the achievement is realistic.

– Time-bound – The project is time-bound, and it won`t go on as a perennial exercise. In this way, its objectives will have a clear deadline that is communicated to all team members. The completion of one activity very often is dependent on another activity. In such cases, the time allowed will take into consideration all such dependencies.

Participation in the project will contribute to the development of the involved organizations in the following ways:

– Improving skills and knowledge: Participation in the project will provide opportunities for organizations to build skills and knowledge in areas related to the project objectives. This will help organizations to grow and improve their capabilities over the long term.

– Networking and collaboration: Participation will facilitate cooperation with other organizations, helping organizations to build relationships and partnerships that can benefit them in the future.

– Exposure to new ideas and approaches: Participation will bring organizations to new ideas and approaches, providing them with opportunities to learn from others and to incorporate best practices into their own work.

– Building reputation and credibility: Successful participation in the project will help organizations to raise their reputation and credibility, to increase their visibility and to attract new opportunities in the future.

– Access to resources and funding: The participation will provide organizations with access to resources and funding that can support their ongoing development and growth.

The team intends to utilize impact assessment as a tool for planning and decision-making to evaluate the possible outcomes of the project. Numerous variables will be considered during the assessment process, which will also identify ways to lessen the negative effects of projects. Better judgments about a project can be made early on, during the planning stage, thanks to the impact assessment processes. Additional benefits will be demonstrated by strengthening participant safeguards, lowering the chance of causing environmental damage, preventing negative effects, boosting positive effects, and improving public and core target group comprehension of project consequences (Impact Assessment Agency of Canada. Basics of Impact Assessments).

The team will evaluate whose purpose is to attribute outcomes and impacts to project operations. This will be done by establishing a counterfactual, which is what would have happened in the absence of the envisaged project activities and deliverables. Establishing a counterfactual in turn will be accompanied by creation of a monitoring group which won`t receive project services but which will be like project participants in terms of observable and unobservable characteristics.

The project team will apply the following steps:

– Assessing the impacts both intended and unintended of all project actions, measuring the magnitude of the influence, and determining the causal factors.

– Improving the effectiveness of accomplished and planned project activities and assigned tasks.

– Getting informed decisions about remaining activities, tasks, and available resources.

Conclusion

The desired impact will equally benefit each participating organization as the developed materials will be used in their training process.

On local level the project will impact the following groups:

– Raising the attractiveness of the scientific achievements through facilitating the touch among students, researchers, and business

– Expanding and complementing the capabilities of students with disadvantaged background

– Raising positive attitude towards EU projects and the EU goals for growth based on innovation and science.

On national level the project will impact:

– Other students as users of the elaborated content through their active involvement in learning processes, stimulating developing of practical and critical thinking, problem solving, reasoning, synthesizing information, posing of interrogative questions, ameliorating personal confidence, ability to decompose complex notions, adaptability, capability for presenting, listening, teamwork, etc.

– Stronger interconnections among different university faculties towards fruitful transfer of scientific inventions to real business.

On European level:

– The project will establish a network among organizations with similar profiles. It will concentrate efforts of various actors towards common challenges in development of new generation specialists with proper view on how to address the needs of business and to raise its efficiency. Sharing and promoting the project results is essential for uptake and further use of the developed outputs and keeping the impetus of the activities.

– Successful sharing and promotion of project results and developed project outputs in terms of their sustainable use is related to several criteria, which should be presented at the first stage as a basis for the development of the project outputs. Project results can only be of sustainable value and use if sharing and promotion of them is well planned and implemented at different levels. The strategy aims to support all activities in the fields of sharing and promotion and sustainability by presenting general aspects as well as specific information to be used by each project partner according to the national sharing and promotion plans. Furthermore, the strategy tries to highlight specific indicators for achieving high impact as well as for how high quality can be assured in the implementation of the sharing and promotion process.

The next step of project development is focused on the development of research design and research methodology. It is planned to be presented at an international conference. In this way, this desk work contributes to the general project objective on exploring the ways for success in entrepreneurial activities to trigger students` initiative in an adapted way bringing together students from various social categories with focus on those who are discouraged in their study and lagging their peers. However, this addresses the second project specific objective on closing the gap in cultivating academic and students' entrepreneurship by creation of methodologies for entrepreneurial education among the targeted students.

CHAPTER 2

INVESTIGATION OF THE ACADEMIC ENTREPRENEURSHIP: RESEARCH DESIGN[2]

1. LITERATURE REVIEW

A vital component of the market economy and the democratic growth of nations is entrepreneurship, which raises living standards. However, nations that previously adopted a planned economy model need to modernize their entrepreneurial cultures, knowledge bases, and skill sets. Therefore, it is necessary to assess the existing condition of entrepreneurial culture and create a strategy for its advancement.

Traditionally, the culture is seen as a product of the collective and is made up of the unspoken social norms. Members of one group are distinguished from others by the collective programming of their minds. Every group or category of individuals possesses a shared mental program that makes up their culture. A variety of cultural levels can be distinguished, according to Hofstede et al.: national, regional, gender, generational, social class, and organizational. The latter is a gentle, all-encompassing idea that is expected to have harsh repercussions. Certain scholars contend that an organization's quality can be found in the shared experiences and perspectives that its members have gained (Hofstede, G., Hofstede, G. J., & Minkov, M., 2010).

The culture has the power to either amplify or lessen the effects of institutional and economic factors on entrepreneurial activity through its

[2] The text of this chapter is elaborated during the work on the project and originally published as follows Pastarmadzhieva, D. & Angelova, M. (2024) Investigation of Academic Entrepreneurship: Research Design, 9 (1): 29-31. International Scientific Journal Industry 4.0. ISSN 2534-997X

influence on beliefs, motives, and behaviors (Hayton, J. C. & Cacciotti, G. 2013). The culture of a business organization and in particular the entrepreneurial culture is essential for the development of sustainable business (Bau, F. &Wagner, K., 2015) and, thus, economic environment. It seems that increasing the number of entrepreneurs has proven to be a worldwide undertaking. In some contexts, the government has addressed this issue by enhancing entrepreneurship education throughout all educational levels (Mukhtar et al, 2021; Saad, N. & Ariffin, Z. Z., 2016).

According to Nikolova-Alexieva and Angelova (2020) “the first component in entrepreneurial learning is the base for developing an entrepreneurial culture”, which refers to supporting students in elaboration of their ideas and be confident. The second element according to them is the collaboration with business for finding the best educational approach. And as a third factor they identify “entrepreneurial training”.

Such studies underline the key role which academic institutions have in the development of acquisition of entrepreneurial knowledge. Similarly, Al-Lawati et al. suggest that the decision-makers must adopt policies aiming at improvement of the entrepreneurial culture through supporting the cooperation between stakeholders and universities. According to the authors the latter can “improve entrepreneurial culture among academic and non-academic staff, students, and the rest of the stakeholders through innovative and practical approaches, such as curriculum development and entrepreneurship training seminars” (Al-Lawati, E. H., Kohar, U. H. A. & Suleiman, E. S., 2022).

Knowledge about entrepreneurial culture can boost the creation of improved programs on entrepreneurship education. Such training can include various topics. However, Sirelkhatim and Gangi suggest three groups of knowledge, namely about entrepreneurship, for entrepreneurship and through entrepreneurship. The first is theoretical and the second and third – practical (Sirelkhatim, F. & Gangi, Y., 2015).

It is important to notice that in the current study we do not focus on examination of theoretical knowledge about the phenomenon "entrepreneurial culture" but rather examine the entrepreneurial culture of the students. There is research, which are particularly focused on "theoretical exploration of the entrepreneurial culture construct" (Wong, M. A., 2014).

2. DESIGNING THE RESEARCH

2.1. The Place of the Research Design in the Project Structure

The research design of the project is part of Work Package 2 (WP2), named "Study of the entrepreneurial culture and attitudes across students". The objective of this work package is to study the entrepreneurial culture and attitudes across students.

WP2 thus contributes to the overall project goal of investigating how entrepreneurial success can spark students' initiative in a modified way by uniting students from different social categories and concentrating on those who are falling behind their peers and becoming discouraged from their studies. WP2 investigates the entrepreneurial culture and attitudes of the targeted students to specifically meet the first project-specific objective, which is to identify trends and influencing variables on entrepreneurship.

The specific objectives of WP2 are:

Providing methodology to study the entrepreneurial attitudes of the students.

Identifying and presenting trends and influencing factors on Entrepreneurship.

Suggesting improvement in the formal learning plans.

The main results will be the following:

Development of Methodology to study the entrepreneurial attitudes of the students.

Collecting data on entrepreneurial culture and attitudes across students.

Piloting the developed content at workshops.

Holding thematic seminars with business experts.

2.2. Stages of the Research Design

The *first stage* of the research design is creating a methodology to study the entrepreneurial attitudes of the students. It consists of a questionnaire for survey and in-depth interviews with students. It will be based on the current knowledge on the general challenges facing the youth, prerequisites for successful entrepreneurship, obstacles according to the youth, etc. Using both qualitative and quantitative methods will help us to make a triangulation and acquire more valid results. This step is going to support the creation of a precise and adequate approach to collect information on which the following activities will be grounded. Thus, we will have a first version of questionnaires for surveys and in-depth interviews. The realization of this first stage will be done by the representatives of the participating universities with expertise in entrepreneurship, entrepreneurial culture and in creation of questionnaires for surveys and in-depth interviews. Currently, the team is working on the creation of the questionnaire and the supplementary documents.

The *second stage* is focused on performing workshops on the methodology of studying the entrepreneurial attitudes of the students. Thus, a pilot study will be performed so that the questionnaire is tested. The results will be analyzed, and a revised version of the questionnaire will be prepared. It will help the team to test the methodology and to im-

prove the approach. As a result, we are having the final improved version of the questionnaires for surveys and in-depth interviews. At this stage we will rely on potential respondents and representatives of the participating universities with expertise in entrepreneurship, entrepreneurial culture and in creation of questionnaires for surveys and in-depth interviews.

The methodology continues with the *third stage*, which is the actual survey on entrepreneurial culture and attitudes across students. Here, we are performing a survey and in-depth interviews across the students from the partner universities. The field research is the core of Work Package 2 because it points out the gaps in entrepreneurial knowledge and culture, which must be addressed in entrepreneurial education. As a result, we will have collected surveys with students in each partner university and in-depth interviews with students and lecturers performed. The participants in this stage are students and lecturers from participating universities.

At *stage four* we are performing the analysis of the results and suggestions for improvement in the formal learning plans. The acquired results will give insights on the precise needs related to the development of an entrepreneurial culture. Furthermore, we will identify the common issues in all the partner universities, while bearing in mind the specific conditions in each of them. It is going to contribute to the determination of the most significant topics, which must be addressed in entrepreneurial education. Thus, we are producing a document, consisting of the results from the surveys and in-depth interviews, analysis of them and recommendations for improvement of entrepreneurial education. The main actors at this stage will be the representatives of the participating universities with expertise in entrepreneurship, entrepreneurial culture and in analysis of questionnaires for surveys and in-depth interviews.

At the final, *fifth stage* of the research design, we will perform workshops with lecturers on existing educational plans. We plan to discuss the opportunities for upgrading the university courses on Entrepreneurship with the lecturers and if needed incorporate new topics in the courses according to the survey results and its further analysis. As a result, we are having upgraded entrepreneurial courses according to the recommendations. The key participants here are the lecturers in entrepreneurship from each partner university.

2.3. Progress of the Research

As mentioned above we have started with a questionnaire for survey and in-depth interviews with students. Currently, the research team have elaborated the first version of the questionnaire and supplementary documentation, namely:

Ethics Application Form;

Appendix 1: Letter to the University Registrar at Each University;

Appendix 2: Invitation Letter and Consent for Students;

Survey on Student Attitudes Toward Entrepreneurship.

The *ethics application form* provides basic information on the survey. It starts with the aims of the study, namely, to contribute to a better understanding of university students' attitudes toward entrepreneurship and educational practices relevant to developing students' attitudes and entrepreneurial skills. Furthermore, we briefly present the main groups of questions in the survey, namely:

1. How do university students perceive entrepreneurship and different forms of education about entrepreneurship?
2. How do university students perceive their knowledge and skills about entrepreneurship?

3. What topics and forms of learning about entrepreneurship do the students prefer to learn?
4. Are there any differences in the responses of students with different demographics and personal characteristics regarding their attitudes toward entrepreneurship?

By addressing the above-listed research questions, the proposed study aims to contribute to closing the existing knowledge gap in the domain of student attitudes toward entrepreneurship and to create the evidence base for developing the roadmap for academic entrepreneurship.

The ethics form also indicates that the project involves the collection of primary data from human participants. Alongside, it provides information on the following key topics, regarding such research:

Salient participant characteristics (min-max participants, age, sex, other);

How participant will be recruited;

What participant will be required to do and for how long;

If inducements/rewards/compensation are offered;

How participants/society may benefit;

If participants are identifiable at any stage of the research;

The way the team will manage and store the data.

The *letter to the university registrar at each university* is a request for permission to conduct research. It will be adapted for the circumstances of each partner. The letter consists of information about the requesting person and their affiliation. It also presents the project and its aim to contribute to a better understanding of student attitudes toward entre-

preneurship and educational practices relevant to the development of student attitudes and entrepreneurial skills.

Alongside, the letter asks for permission to conduct the study among the students from the university and a description of the approach fort data collection and its substance, namely students' attitudes toward entrepreneurship and their experiences and preferences about educational practice in this domain. It continues with the voluntary and anonymous nature of the study. It also provides information for the collected data protection conditions.

The *invitation letter and consent for students* is a call for the students to participate in the survey and to confirm their agreement to participate in it. It presents the project and its aim "to explore student attitudes toward entrepreneurship and educational practices relevant for the development of student attitudes and entrepreneurial skills". Further comes the inviting part, which starts with the conditions under which the study is performed, including the time for filling the survey, usage of data, benefits and risks, voluntary and anonymous participation.

The survey on student attitudes toward entrepreneurship consists of two groups of questions:

Attitudes towards entrepreneurship

Demographic

The attitudes towards entrepreneurship are examined through close-ended (mostly using Likert scale) and open-ended questions as the closed ended prevail. It includes questions with various purposes. The first attempt is to identify to what extent the students are interested in being entrepreneurs or prefer to be employed. Alongside, we ask them from whom they expert support and respectively what type of support.

To understand what the role of academicians is or can be we ask the students who inspire young people to start their businesses, and to what extent. Furthermore, we want to see the type of business which students would start if they intent to start one. By using adjectives, we can identify how young people perceive the options of having their own business or working for someone else.

There is also a question aiming to provide us with information whether the person's mindset is with entrepreneurial orientation.

We are going to study the self-evaluation of the respondents on their entrepreneurial knowledge and the interest in learning new things. Alongside, we made a list of topics related to entrepreneurship, and asked the students to point which are interesting for them to learn about. There are also questions about the forms of training.

At the end, we ask the students about the potential barriers to starting a private business.

The *demographic section* collects information about:

Gender

Age

Faculty at the respective university

Type of programme (undergraduate, master, PhD or other)

Year of study

Full-time or part-time student

Self-ranking of academic proficiency

Highest level of education the student would like to get.

Current employment status

Country of birth

Whether the student consider him/herself as a member of a visible minority group

Whether the student consider him/herself as a visible disadvantaged group

Whether the student consider him/herself to be a person with a disability

Family income rate

Family income in addition to their employment

Whether the family has any income from rent, social support, or other sources (e.g., investment or inheritance)

Description of the settlement where student's family lives

Living arrangement

Conclusion

The research design of the project covers the institutionalized international academic norms of ethics. It is relevant for the aim of the project, namely "to explore hidden strengths of academic entrepreneurship in detail and in various aspects oriented to students, academic staff, and businesspeople". It is consistent and its application will lead to valid results acquisition. Its algorithm is tested in other previously performed research and is approbated across the academic community.

The research design guarantees that the results of WP2 are of the highest quality, which is a prerequisite that the implementation of the activities under Work Package 3 (WP3) will be successful.

The objective of WP3 is to create methodologies for entrepreneurial education among students. In this way, WP3 contributes to the general project objective on exploring the ways for success in entrepreneurial activities to trigger students` initiative in an adapted way bringing together students from various social categories with focus on those who are discouraged in their study and lagging their peers. WP3 addresses the second project specific objective on closing the gap in cultivating academic and students' entrepreneurship by creation of methodologies for entrepreneurial education among the targeted students.

CHAPTER 3

SURVEY ON ENTREPRENEURIAL CULTURE AND ATTITUDES ACROSS STUDENTS: A PILOT STUDY[3]

1. BULGARIA

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Introduction

The universities provide different programs for business and management studies focused on gaining knowledge on how to assess new business opportunities, harness innovation, and transform the idea into a viable venture. But these specific teaching programs are mostly focused on students in the professional fields of Economics and Administration and Management. That lacks the opportunity for students in humanitarian, natural, technical, and other scientific fields to improve knowledge to grow or start a business, to explore the entrepreneurial journey from finding an idea, to gaining traction in the marketplace, to raising capital for their venture. In this regard, the international project

[3] The text of this chapter is elaborated during the work on the project and originally published as follows Angelova, M. & Pastarmadzhieva, D. (2024) Survey on Entrepreneurial Culture and Attitudes Across Students: A Pilot Study, AIP Conference Proceedings, SCOPUS indexed, CiteScore2022=0.7, SJR 2022=0.164, in print

"Academic Entrepreneurship Roadmap" aims to thoroughly examine the hidden benefits of academic entrepreneurship from a variety of angles, with a focus on students, faculty, and business professionals.

The focus of this chapter is to acquire specifics about students expressed preferences and attitudes toward entrepreneurship. The population surveyed includes full-time and part-time students enrolled in Undergraduate, Master and PhD level of study from the University of Plovdiv Paisii Hilendarski. The initial data were collected by authors' own questionnaire. We used simple random sampling, which were distributed questionnaires to all students and 118 filled questionnaires were received during the first two weeks of the research. As this questionnaire is forced to be distributed in all project partners, these preliminary results are mandatory to find inconsistencies, gaps, and/or questions improvement for better understanding. Furthermore, the role of this pilot study is to determine the feasibility of the research design, based on a small-scale "rehearsal" in which to test the methods we plan to use for the research project. The results are used to guide the methodology of the large-scale investigation. The analyses of the inquiry card strike to confirm or reject the main research hypothesis namely that students are looking for opportunities to start their own business and possess entrepreneurial mindset.

Furthermore, we organized small focus groups with students that declared that filled the questionnaire focused on discussing their recommendations and suggestions for improvement of the questionnaire. Findings of this research and focus groups provide evidence that there is no necessity to change the research design, all the questions are correctly structured, and the respondents do not have any inconsistencies about the questionnaire.

Literature Review and Methodology Development

The concept 'entrepreneurial culture' is broadly described and researched by many authors that force efforts in searching factors that influence it at corporate and academic level (R. A. Baron and R. A. Henry, 2011; W. Boeker and R. Karichalil, 2002; V. Nikolova-Alexieva and M. Angelova, 2020) An atmosphere that inspires people to create, innovate, and take chances is known as an entrepreneurial culture. Danish et al. (2019) have classified entrepreneurial cultures as innovative cultures since the main motivation for founding a business is thought to be innovation. There are always reasons to launch a new company, such as the desire to introduce novel ideas or cutting-edge technologies (S. Shane, L. Kolvereid and P. Westhead, 1991).

However, the focus of this survey is to acquire specifics about students expressed preferences and attitudes toward entrepreneurship. Universities can generate revenue by promoting and transferring their scientific potential through commercial applications. Strong entrepreneurial cultures in educational institutions are seen to play a leading role in influencing students' attitudes toward entrepreneurship and assisting them in developing strong bonds with business partners. Entrepreneurship students exhibit more innovative behavior than business students, according to Goldsmith and Kerr (1991). Aiming to increase the entrepreneurial culture of students from different scientific fields of education, we are closing the gap in cultivating academic and students' entrepreneurship by creation of methodologies for entrepreneurial education among the targeted students. Moreover, the specific objective of the international project that we work for is toward the development of Entrepreneurial Journey based on Academic Entrepreneurship Roadmap, accompanied by series of lections, seminars, and workshops.

The development of entrepreneurship, and specifically academic entrepreneurship, is the aim of the EU during this programming period. The EU attempts to obtain more established business projects and entrepreneurial initiatives through various financial mechanisms and programs. Academic entrepreneurship is viewed as a vehicle for commercialization, which is the process of converting knowledge into goods, systems, and structures that support innovation and economic growth. It takes time to develop an entrepreneurial culture, but university education must incorporate it. Based on the results of this survey, recommendations for enhancements to the official learning plans will be made. The obtained results will provide information on the specific requirements for the growth of an entrepreneurial culture.

The Research Design includes five stages, i.e. (1) creating a methodology to study the entrepreneurial attitudes of the students that consists of a questionnaire for survey and in-depth interviews with students; (2) performing workshops on the methodology of studying the entrepreneurial attitudes of the students including a pilot study so that the questionnaire is tested; (3) the actual survey on entrepreneurial culture and attitudes across the students from the partner universities; (4) the analysis of the results and suggestions for improvement in the formal learning plans and finally (5) performing workshops with lecturers on existing educational plans to discuss the opportunities for upgrading the university courses on Entrepreneurship (D. Pastarmadzhieva and M. Angelova, 2024).

This chapter presents the results from the pilot study (Phase 2 of the project) including analysis and preliminary results of the approach. Open-ended and closed-ended questions are used to examine attitudes toward entrepreneurship, with most of the questions using a Likert scale. It contains questions meant for different purposes. The first step is to determine the degree to which students would rather be employed

or become entrepreneurs. We also ask them what kind of support they receive and from whom they receive expert assistance.

We can learn more about the role of academicians by asking students who, and to what extent, inspire young people to launch their own businesses. In addition, we are interested in the kind of business that students intend to launch. Adjectives help us understand how young people view working for someone else or starting their own business. Additionally, there is a question designed to tell us whether the respondent has an entrepreneurial mindset.

We examine the respondents' assessments of their own entrepreneurial knowledge and openness to learning. In addition, we created a list of entrepreneurship-related subjects and asked the students to indicate which ones they would find interesting to learn more about. There are more questions regarding the training formats. After we conclude, we ask the students if they see any barriers to starting a private business. The questionnaire closes with demographic data of the respondents.

Additionally, we conducted brief focus groups with students who reported having completed the questionnaire, wherein they deliberated on their recommendations and suggestions for enhancing the questionnaire. The method is particularly useful for exploring people's knowledge and experiences and can be used to examine not only what people think but how they think and why they think that way (BMJ, 1995). While group interviews are frequently employed as a rapid and easy means of gathering information from multiple participants at once, focus groups incorporate group interaction as an integral component of the methodology.

In summary, the authors' experience and fluence in entrepreneurship based upon broad literature review on the subject and the developed research design according to this survey are the base for the approbation of the methodology in practice and proceed with the pilot study results.

Findings and Discussion

Sample and Data Collection

A series of procedures were followed in the survey design, including a pilot test with a total of 118 respondents approached for the questionnaire-based online survey. The data were collected using the integrated online system at the University of Plovdiv Paisii Hilendarski providing the contacts of all students. Added desk research was made to gather the contacts of the active PhD students. The introduction of the inquiry card explained to respondents that an international group of researchers is currently conducting a research study that aims to explore student attitudes toward entrepreneurship and educational practices relevant for the development of student attitudes and entrepreneurial skills. Any data collected by the survey is used solely for the purposes of this study and the students have not been asked to provide their name or any other personal data that may lead to their identification. Furthermore, they participate voluntarily and have the option to skip over any questions that they do not wish to answer.

The respondents' age ranged between 19 and 49 years, with an average age of 34. Most of the respondents declare that their country of origin is Bulgaria (92.5%), there are three persons, who stated that the country of their origin is North Macedonia, Serbia, and Australia, 3 respondents are from Turkey and 3 people preferred not to say. The level of study, educational mode, employment status, do they consider themselves to be a member of a visible minority group, to be a member of a disadvantaged group, to be a person with a disability, and the other sample characteristics have been presented in Table 1.

Table 1 *Socio-demographic profile of the sample*

Variable	Categories	Percentage
Gender	Male	18%
	Female	79%
	I prefer not to say	3%
Level of study	Undergraduate	88.9%
	Master	6.8%
	PhD	3.4%
	Other	0.8%
Educational mode	Full-time	83.8%
	Part-time	15.4%
	Other	0.8%
Eemployment status	Employed Full-Time	21.4%
	Employed Part-Time	8.5%
	Self-employed	16.2%
	Seeking employment opportunities	38.5%
	I prefer not to say	15.4%
Part of Minority group	Yes	12%
	No	88%
Part of a disadvantaged group	Yes	4.3%
	No	95.7%
A person with a disability	Yes	3.4%
	No	96.6%

Attitudes Toward Entrepreneurship

The next questions are closed-ended questions used to examine attitudes toward entrepreneurship, with most of the questions using a Likert scale. The first step is to decide the degree to which students would

rather be employed or become entrepreneurs (Table 2). Based on the data delivered from Table 2, it is obvious that more than 50% of respondents are interested in different job opportunities that give them the option to develop their own business and/or work for themselves. The last row from the Table is filled by 12.3% of respondents and they had written by themselves options to find a job in IT industry, administration, elderly hostel, working with children, and the opportunity to have a half working day for somebody else and working for themselves.

Table 2 *Students' interest in the job's occupational opportunities*

	Not Interested at all	Not Interested	Interested	Very Interested
Full-time employment	19,5%	20,3%	31,4%	28,8%
Part-time employment	14,4%	13,6%	41,5%	30,5%
Self-employment (individual work for own account)	13,6%	19,5%	36,4%	30,5%
Combined full-time employment and self-employment	22,0%	23,7%	34,7%	19,5%
Combined part-time employment and self-employment	18,6%	18,6%	40,7%	22,0%
Micro business (employing less than 10 people)	15,3%	22,9%	32,2%	29,7%
Small business (employing less than 50 people)	22,0%	16,9%	34,7%	26,3%
Medium-sized business (employing less than 250 people)	24,6%	24,6%	34,7%	16,1%
Large business (employing more than 250 people)	29,7%	22,9%	30,5%	16,9%
Co-operatives	22,9%	24,6%	36,4%	16,1%
Other jobs				

We also asked them what kind of support they expect to receive and from whom they expect expert aid (Table 3). The presented results in Table 3 prove the role of the institutions in developing entrepreneurial culture. The students believes and expectations must be mentored/guided by qualified experts. Unfortunately, the respondents prefer to receive support from parents, friends, and relatives than the opportunities that are provided by the universities, schools, educational institutions, and technology transfer offices (more than 60% do not have expectations to receive support from the mentioned institutions). Such results show trust issues and that these parties must make more efforts.

Table 3 *Students' expectations of support receiving in own business foundation*

	Absolutely Yes	Probably Yes	Probably No	Absolutely No
University staff (professors, lectures etc.)	12,7%	29,7%	44,9%	10,2%
Secondary school teachers	5,1%	22,0%	50,8%	18,6%
Parents	52,5%	32,2%	10,2%	4,2%
Relatives	33,9%	40,7%	16,1%	8,5%
Friends	36,4%	44,9%	15,3%	3,4%
Educational institutions	14,4%	30,5%	43,2%	10,2%
Technology transfer office at your university	15,3%	28,0%	43,2%	11,9%
Other organizations				

It is interesting what kind of support is most important for people who intend to start their own business, and who can provide this kind of support. The respondents filled the open-ended question with the following answers: other enterprises and firms, non-governmental organizations,

the state, bank, private sponsors as business angels, friends. There is an interesting statement by one of the students that focuses our attention. He tells that "*When you open a business it is important that people are informed about it. Maybe you hold something in your hands that solves people's problems. This is the goal of every business in the market. The more problems you solve in the market, the more value you get. In the beginning for any startup business, support is extremely hard to come by and you just help people. Now if I must expect support**, it is from the universities to inform the students**. I know it's hard for people these days. But they must be informed about what the market is like, what is offered on the market, what opportunities are available not only to them but to each of us. The potential is in all of us, the difference is that some people jump and take advantage of the chances while others sit and watch*." Some of the respondents think that the most important support for people who intend to start their own business is not only emotional, financial, moral, motivational, but also the provision of accessible consulting services, centres where the future entrepreneur can ask all his questions about financing methods; the preparation of a project with which he will apply for financing; the current legislation. Despite the opportunity to use a private consultants or companies, the educational institutions can provide these services by qualified experts in the field.

According to the inspiration of young people to start their businesses, more than 80% of respondents have marked that the successful entrepreneurs are strong motivation for them (Table 4). The opportunity to meet with someone who will explain about the problems, fears, strengths, and weaknesses toward entrepreneurship is a vehicle to follow the good exam. In this sense, the University of Plovdiv develops the events part of the Start-up Academy just to meet these necessities of students. For those who want to start their business, the respondents have written many different answers about the kind of business they want to start – a restaurant, an edu-

cational institution, transportation company, different kind of services, milk production, real estates, tourism industry, etc.

Table 4 *Students' inspiration to start their businesses*

	To a great extent	Somewhat	Very little	Not at all
Own initiative of young people	43,2%	44,1%	10,2%	2,5%
Successful local business owners	37,3%	47,5%	8,5%	5,1%
Some widely known business owners	30,5%	50,8%	14,4%	4,2%
Secondary school teachers	4,2%	22,0%	49,2%	22,0%
University professors	14,4%	40,7%	30,5%	12,7%
Parents	33,1%	50,0%	11,9%	4,2%
Relatives	19,5%	45,8%	26,3%	6,8%
Friends	26,3%	49,2%	18,6%	4,2%
Educational institutions	12,7%	33,9%	37,3%	14,4%
Technology transfer office	11,9%	30,5%	39,8%	14,4%
Other organizations				

Using a pair of adjectives, the respondents have been asked to select the point that best describes their opinions about owning a private business and the opposite statement – working for somebody else. In summation, most of their answers state that the opportunity to create own company is interesting (61.8%), innovative (51%), profitable (50.9%), exciting (71.2%), safe (11%), realistic (36.4%), sustainable (24.4%), creative (60.2%), pleasant (58.5%), good (61.9%), active (75.4%), strong (56.8%), easy (7.6%). These

results clearly state that the respondents adequately assess the tasks and responsibilities that come from owning their own business and approach responsibly to the realization of such an initiative. On the contrary, using the same pair of adjectives but focused on the point that best describes their opinion about working for somebody else is assessed as interesting (25.4%), innovative (14.4%), profitable (20.4%), exciting (16.1%), safe (51.7%), realistic (49.1%), sustainable (32.2%), creative (13.6%), pleasant (18.6%), good (22.1%), active (28%), strong (24.6%), easy (17%). Asking two consecutive questions using the same sets of adjectives aims to confirm or reject the main hypothesis that students are looking for opportunities to start their own business. The results show that the opportunity to work for themselves is more motivating than working for someone else.

Human Capital Ratification

The next group of questions are focused on the motivation and necessity for entrepreneurship education and entrepreneurial culture development at educational institutions. The respondents are asked to assess their knowledge and skills about different dimensions as innovative work practices, various kinds of innovations, creating own start-ups, legislation for opening and managing own business, accounting related to managing own business, etc. Table 5 presents the results in summary focused on the percentage of respondents that sometimes and often think about activities related to their future work. The table includes the motivation of respondents to learn anything about the mentioned activities.

Table 5 *Students' attitudes toward activities related to their future work*

	Thinking about the different activities related to students' future work		Motivation to learn about the different activities related to students' future work	
	Sometimes	**Often**	**Probably Yes**	**Absolutely Yes**
Creating innovative ideas for complex issues	39,8%	36,4%	39,8%	47,5%
Searching out new work methods, techniques, or instruments	37,3%	39,0%	35,6%	50,0%
Generating original solutions for problems	33,1%	41,5%	38,1%	50,8%
Discussing latest ideas with your colleagues	28,8%	36,4%	39,0%	40,7%
Getting approval for innovative ideas	33,9%	21,2%	35,6%	45,8%
Making important people enthusiastic about your innovative ideas	25,4%	32,2%	33,9%	48,3%
Transforming innovative ideas into useful applications	32,2%	32,2%	34,7%	50,0%
Introducing innovative ideas into the work environment	28,8%	33,1%	36,4%	51,7%
Evaluating the effectiveness of innovative ideas	31,4%	28,8%	29,7%	50,0%

The respondents evaluate their knowledge and skills mostly acceptable and poor about innovative work practices, process innovation, product innovation, creating own start-up, legislation for opening and managing own business, accounting related to managing own business, marketing

of new products or services, financial aspects of a business, environmentally friendly or green business practices, socially responsible businesses. That is a signal about the necessity to provide learning materials, lectures, and seminars to whole students. The pilot study provides evidence that fulfilling the tasks and goals resulting by the international project application is of important value at university level. Furthermore, we asked respondents about their interest in learning different topics related to starting and managing a business and to show to what extent each form of learning about entrepreneurship is suitable for them (Table 6).

Table 6 *Students' attitudes toward basic aspects of business planning and suitable forms of learning*

Students' interest in learning topics related to starting and managing a business			Forms of learning about entrepreneurship suitable for students		
	Interested	**Very Interested**	**Suitable**	**Very Suitable**	
Development of entrepreneurship skills	33,1%	35,6%	29.7%	23,7%	In-class lectures (30 hours of lectures wit a certification exam)
Information on business management	29,7%	44,1%	33,1%	22,9%	Online lectures (30 hours of lectures wit a certification exam)
Legislative and legal information	29,7%	37,3%	34,7%	20,3%	Combined in-class and online lectures (30 hours of lectures with a certification exam)
Marketing and sales information	33,1%	42,4%	38,1%	35,6%	Seminars (Short presentations by experts followed by dis cussions)

Financial and accounting information	33,1%	36,4%	36,4%	35,6%	Workshops (intensive group discussion and practical activity)
Risk management	32,2%	39,8%	38,1%	39,0%	Individualized guidance and mentoring on how to develop and manage one's own business
Acquisition of financial support and resources	24,6%	45,8%	26,3%	23,7%	Self-directed learning (Individual reading about entrepreneurship)
Networking and business collaboration	27,1%	40,7%			Other forms of learning
Human resources management	32,2%	33,1%			
Financial aspects of a business	29,7%	39,8%			
Environmentally friendly or green business practices	28,8%	33,9%			
Socially responsible businesses	29,7%	36,4%			

The inquiry card also gives them options to consider which one is more suitable for their entrepreneurship training. This information is helpful for the international project team to focus how to create and apply different kind of materials that would be as most beneficial for the students. 41.5% of the respondents prefer printed learning materials while 51.7% are keen on digital learning materials. The positive results about

other options are as follows: Access to mass media channels – 30.5%, Specialized courses – 67.8%, Discussions with entrepreneurs – 61.9%, Visits businesses related to students' interests – 63.6%, Internships in businesses related to students' interests – 72.9%.

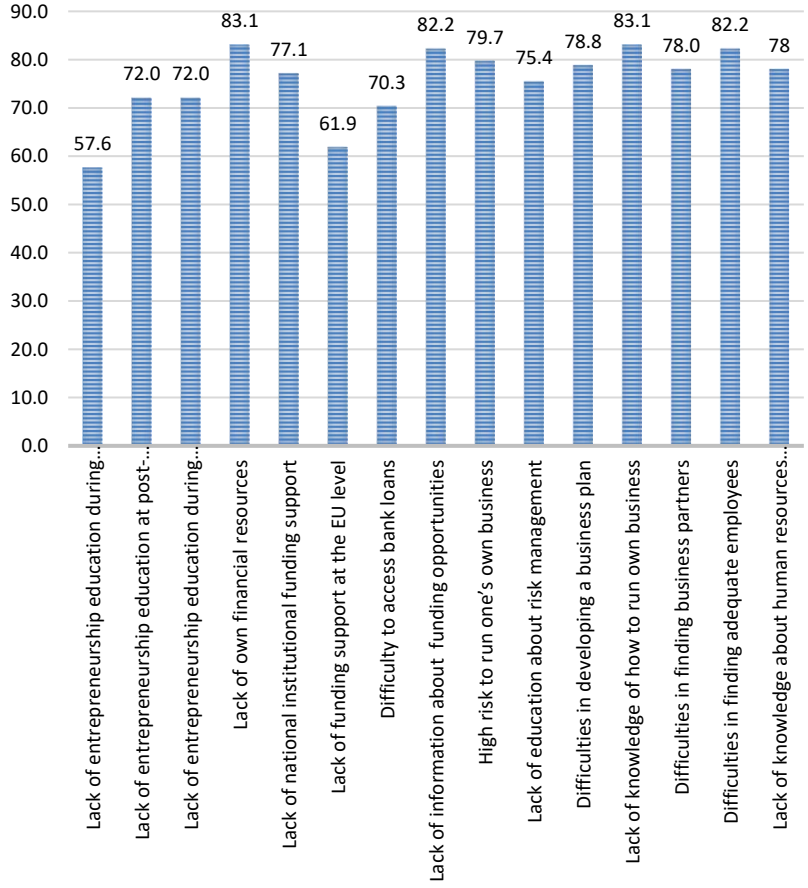

Figure 1 *Significance of factors that present an obstacle for someone starting a private business*

As this research is part of an international project, we are trying to fill the gaps about factors and their significance as an obstacle for someone starting a business. The respondents declare that there are issues that must be revised and lack of knowledge that must be obtained at educational institutions (secondary school, university, etc.) (Figure 1).

Conclusion

The preliminary results obtained by this pilot study confirm the main research hypothesis that students are looking for opportunities to start their own business and possess entrepreneurial mindset but there is a gap in entrepreneurship education. Entrepreneurial culture development is a long process that is necessary to be part of the national educational strategies. The influence of many factors and obstacles could be overcome by common efforts of experts in the field of business process development. The need to obtain an entrepreneurial culture and the necessary skills to launch one's own business under the guidance of academic entrepreneurs is revealed by an analysis of data collected. The results of this study show that the project research design does not need to be changed, that all the questions are appropriately structured, and that the respondents have not expressed any inconsistent thoughts regarding the questionnaire.

The efforts by the Technology transfer office at the University of Plovdiv give some positive results according to the business opportunities that are provided in the University. Good practices that are applied include the organization of public lectures with successful people, business representatives, directors of different governmental organizations that share knowledge about the financing, management, human resources, motivation, emotional intelligence, etc. as part of the events of Start-up

Academy. Furthermore, the TTO department organizes two contests that provide opportunities for start-ups to find resources, partners, and mentors. Some of the factors that influence entrepreneurial culture development are overcome and the results obtained by the fulfilment of the international project activities will increase the academic entrepreneurship at university level.

Limitations

One possible constraint pertained to this specific cohort of students; more specifically, they were a convenience sample, distinguished by a common personal relationship through the Technology Transfer Office department of the University. Because of this, there's a good chance that in a questionnaire of this type, the respondents will give us answers that they think we should hear or that will be most beneficial to our research. To allay these worries, we made sure that the questions were appropriately open-ended, allowing the respondents to share as much of their own ideas as possible. Extra cues usually avoided taking the lead in the response and instead asked if they could elaborate.

The possibility that a different outcome could have been achieved with a different set of indicators and/or data was a significant limitation of this specific finding. This is because the data is used to generate a unique solution for the paths that are offered, meaning that the outcomes are data driven.

The fact that entrepreneurial culture was only assessed once is another drawback. When measuring culture at a single time point, there is a chance that respondents will be responding on an unusual day (such as right after a positive or negative work experience) or under other circumstances that could unnecessarily affect their answers. To establish test-retest reliability of the measures, future research would benefit

from evaluating the culture at several time intervals. Repeated testing would also contribute to the empirical validation of the expected cultural stability reported in the literature.

Future Research

Organizational research finds an interesting and productive field in entrepreneurial culture. A fascinating phenomenon, entrepreneurial culture has wide-ranging effects on strategy, innovation, and the working environment. Despite the preliminary nature of the research, significant progress has been made in identifying the fundamental conceptual problems of entrepreneurial culture and in filling in the gaps and missing pieces of the construct.

These efforts have produced a chance for fascinating future research and proceeding with Stage Three of the international project, i.e. the actual survey on entrepreneurial culture and attitudes across the students from the partner universities. A more thorough understanding of entrepreneurial culture opens several possible directions for future research. Both the entrepreneurship field as a whole and entrepreneurial culture as a theoretical construct will benefit greatly from these streams' substantial scholarly contributions. Moreover, the fact that the research will be made at the same time in five partner universities will gain insightful ideas and knowledge about the students' attitudes toward entrepreneurship and the academic efforts in supporting this study direction.

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2. ITALY

MARIATERESA GAMMONE

FRANCESCO SIDOTI

Sample and Data Collection

This report is primarily based on data collected from the responses of students at the University of L'Aquila. These students participated anonymously and voluntarily in the same survey administered simultaneously to Romanian, Turkish, Bulgarian, and Maltese students.

A total of 300 participants took part in the survey; 284 provided consent to participate and proceeded with the survey, while the remaining 16 did not give consent and were therefore not permitted by the software to continue. Before answering the questions, participants were informed about the study's objectives and assured of the anonymity of their responses.

Data were collected online using Microsoft Forms, and the sample was randomly selected through invitations sent via the University of L'Aquila's mailing list. To ensure participants' freedom and privacy, they could choose to skip any question in the survey. In addition to questions on entrepreneurship, a brief demographic form was administered, which included items such as country of origin, course of study, parents' occupation, and family income.

Of the participants who completed the survey, 104 were male, 173 were female, 4 preferred not to specify their gender, and 19 chose not to select any of the available gender options (see Figure 2).

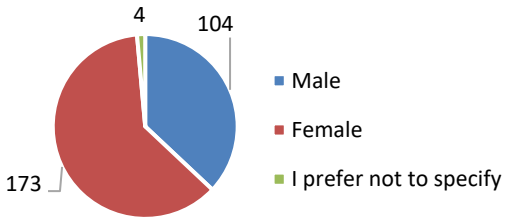

Figure 2 *Gender*

In total, between March 22 and April 18, 2024, 283 people participated in the survey, with women slightly outnumbering men at 56%. The average response time to the questionnaire was approximately 18 minutes. The scope of issues addressed allowed us to delve into the mindset of the respondents regarding the topic at hand. In particular, we developed a collaboration with the Order of the Psychologists of the Abruzzo Region to gain specific support in interpreting these mindsets. Participants' ages ranged from 18. Ninety percent of the participants were Italian nationals and residents of Italy.

The survey yielded results that are surprising in many respects. To verify, the same survey was repeated on another sample of students at the University of L'Aquila; this second group perfectly confirmed the trends and results obtained from the first group.

Further comparison will be conducted with the responses of university students from other parts of Italy, in regions characterized by strong entrepreneurial spirit, such as Veneto and Lombardy. There is a huge historical, economic, and cultural difference between the various Italian

regions. Scholars of Stein Rokkan caliber have already developed the theme of historical cleavages in Europe, which is particularly significant in Italy. The West is not a homogeneous context.

In addition to this research carried out at the University of L'Aquila, we have conducted various other comparative and additional analyses. Notably, the data from the "Generazione Proteo" Observatory, established in 2012, which has periodically involved tens of thousands

of young people over the years, were particularly relevant regarding creativity, permanent employment, and training among young generations and were subject to a specific and parallel analysis (in another publication in Italian).

The international project "Academic Entrepreneurship Roadmap" involves bringing together students from diverse social backgrounds, with a particular focus on those who feel discouraged in their studies and are falling behind their peers. The project will provide training materials that reflect recent changes in the economic environment, fostering both an entrepreneurial culture and the necessary skills to start their own businesses under the guidance of academic entrepreneurs. This very challenging part of the project will be conducted carefully and systematically in the future.

Research findings

L'Aquila is a city in central Italy but has a tradition that classifies it historically, culturally, and economically as part of southern Italy. The traditional image of entrepreneurship suggests that young people in the Global South lack an entrepreneurial vocation, culture, and tradition. Southern Europe is believed to suffer from a long-standing cleavage.

Permanent and dependent employment is considered one of the reasons characterizing certain geographical areas in Italy and Europe. With this perspective.

Compared to previous knowledge of the subject, this survey has provided new, surprising, and objective elements of understanding on topics that are the subject of various and diverse speculations (including a concealed racism towards Southern Europe, the PIGS, and so on). Notably, the data reveals that 70% of the students interviewed would prefer to pursue self-employment or independent work (Figure 3).

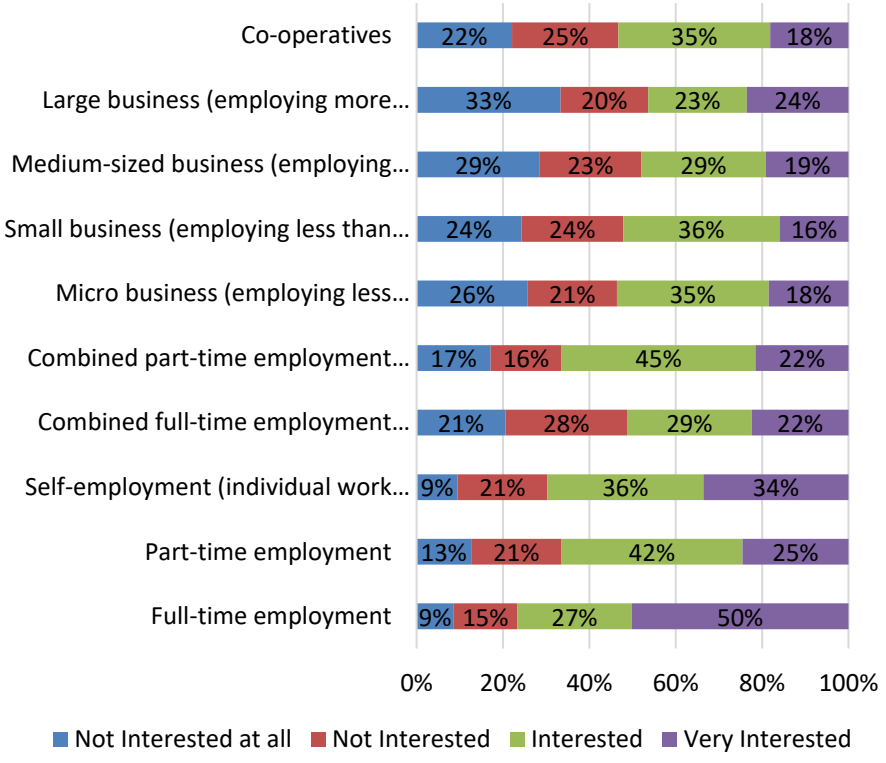

Figure 3 *Jobs, interested in*

This specific component of entrepreneurship is thus very pronounced. It is equally illuminating to note that (for 79.2% of the sample), students expect more support (in the eventual start of their own business) from parents, friends, and relatives rather than institutions (Figure 4), which are considered distant or absent. These two profiles depict a new panorama compared to previous knowledge: entrepreneurial vocation significantly exists even among young people in the South.

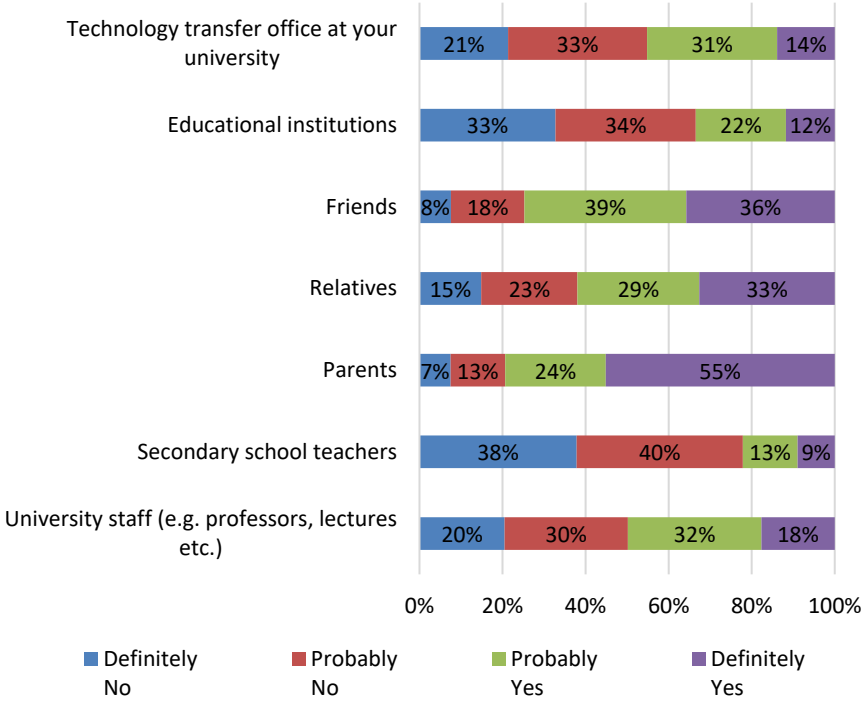

Figure 4 *Expected support from*

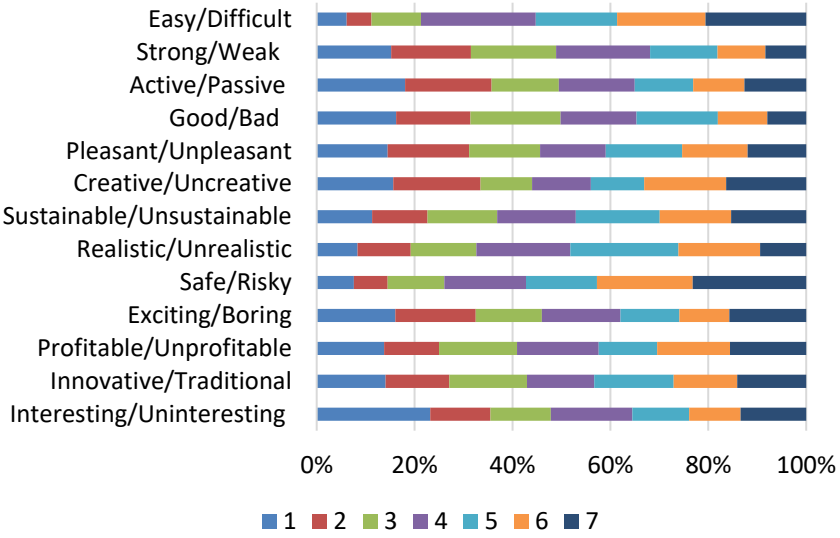

Figure 5 *Perceptions of owning a private business*

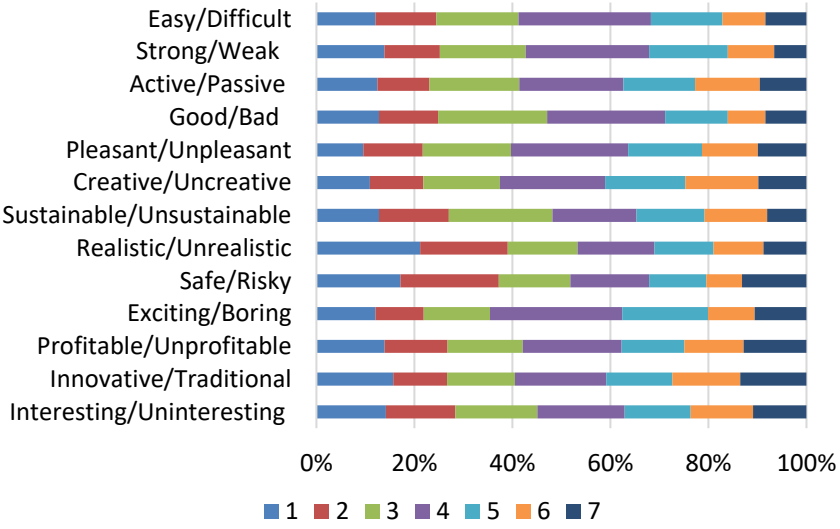

Figure 6 *Perceptions of working for somebody else*

Figures 5 and 6 show that most respondents find it “difficult” to manage a private enterprise; such an endeavor is seen as highly “risky.” There is consistency in the responses: entrepreneurial work is difficult, thus risky, even if “interesting” (for over 50%).

Working “for someone else” is felt to be more “secure” precisely because engaging in entrepreneurship involves many risks, caused by the lack of knowledge, bitterly and consciously acknowledged (Figure 7 and 8), and the lack of institutional support.

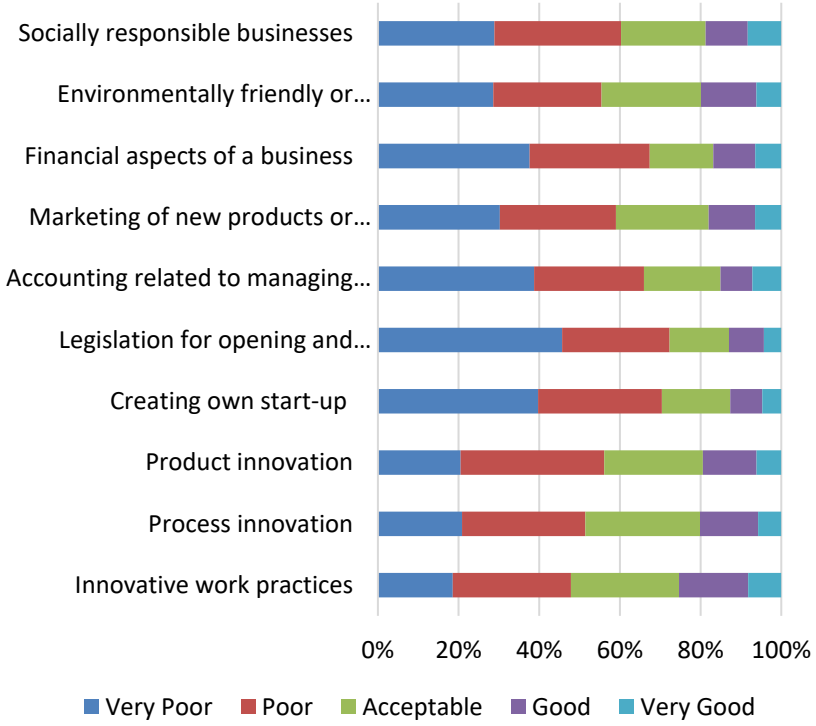

Figure 7 *Assessment of own knowledge and skills about*

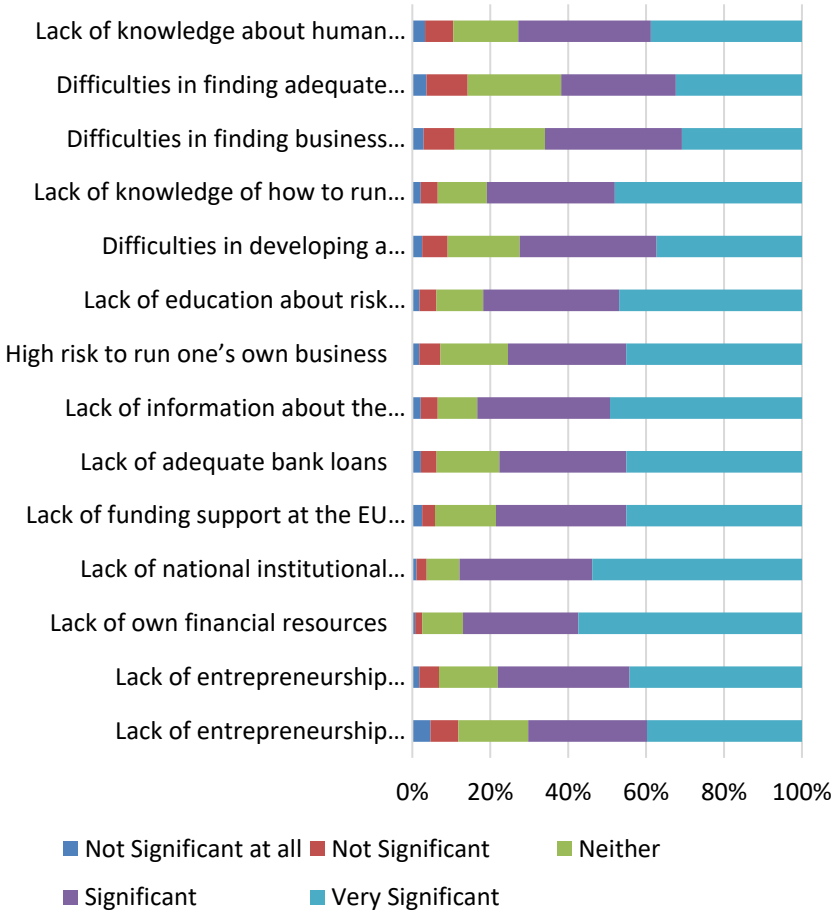

Figure 8 *Assessment of the obstacles when starting new business*

Fifure 9 is highly significant in this regard: there is a high interest in learning "topics related to starting and managing a business." This response is consistent with the reported lack of information (previous Figure 8). Only insecurity, lack of information, knowledge, and support push young people to prefer dependent employment. In the responses,

risk management (in Figure 9) stands out: the negative perception of the risk associated with entrepreneurial activity is very high. Paradoxically, in a context of unrecognized opportunities, the love of risk (a factor traditionally necessary and specific to the notion of entrepreneurship) turns into a fear of risk.

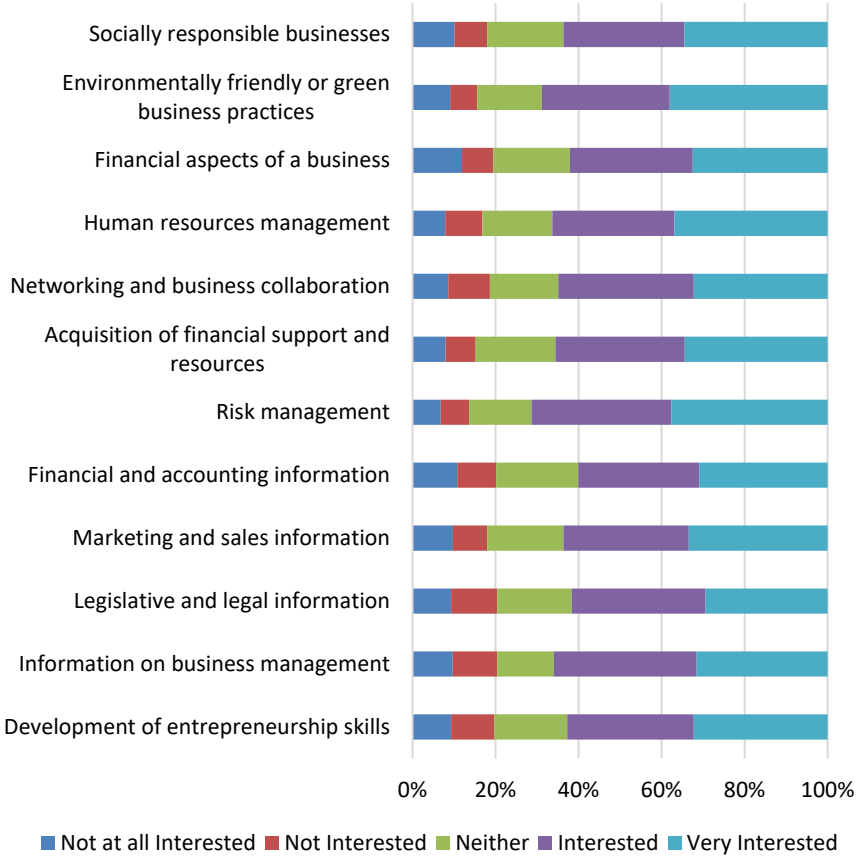

Figure 9 *Topics, interesting for the students to learn more about*

Overall, in the sample we studied, a low propensity and lack of interest in starting an entrepreneurial activity emerged; the results show that dependent work is preferred. This is not a contradiction but a logical and coherent consequence.

The acute perception of existing obstacles (previous Figure 8) leads to surrender and the choice of a different occupational life plan, despite having different desires. In fact, a significant degree of propensity for creativity and innovation emerged among the respondents (Figure 10); for example, the possibility of new methods or tools for work is highly appreciated.

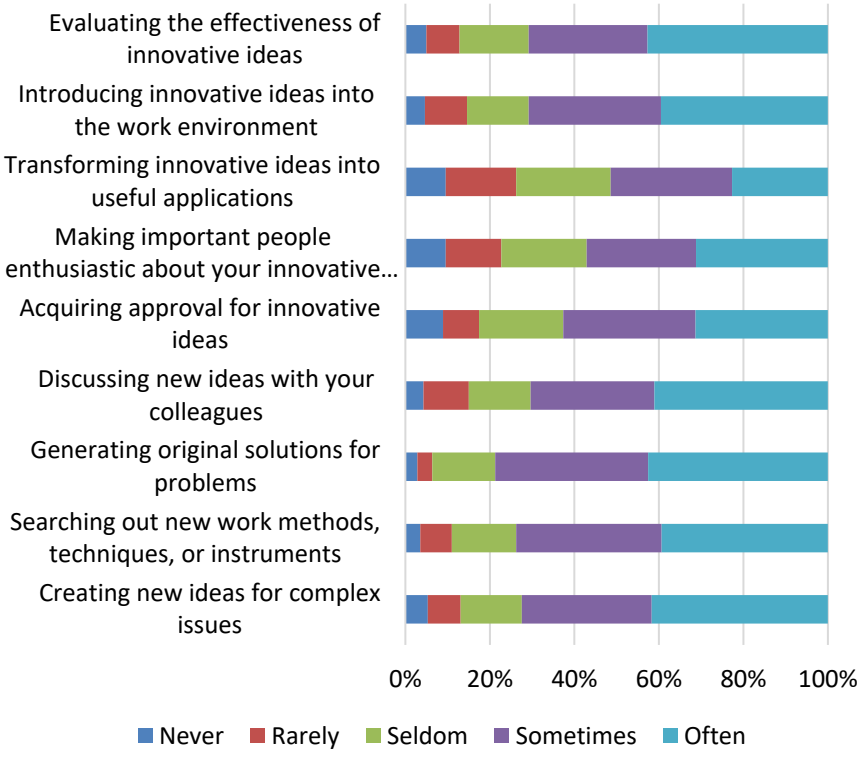

Figure 10 *Topics, interesting for the students to learn more about*

This creative and innovative drive aligns with the data showing how much students would like to acquire more knowledge related to their future work activities; they want to learn more strategies and techniques to solve complex problems, with a view to satisfactory future activities, to generate solutions to hypothetical work problems. The desire to learn and the willingness to grow are extraordinarily relevant (Figure 11).

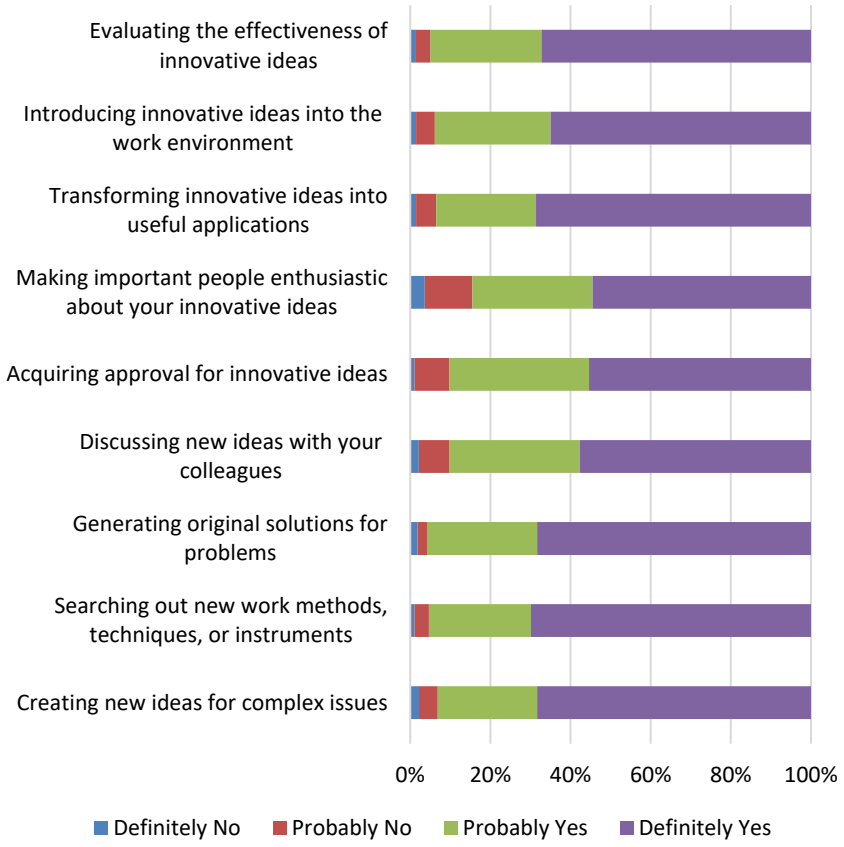

Figure 11 *Activities, related to their future work, which students would like to learn more about*

Generation Z views entrepreneurship in a sense that aligns more closely with "post-materialism" (well described by Ronald Inglehart and the World Values Survey since the 1970s) than with Keynesian "animal spirits" (which are still alive and active in both the West and the East, albeit framed differently). In short, Generation Z embraces the demand for openness to the new, and readiness for change, which are now becoming mandatory. The International Monetary Fund warns that approximately 60% of current work modes risk being erased by the rapid penetration of Artificial Intelligence (AI) in the production of goods and services. AI, deep learning, generative intelligence, and a readiness for innovation and entrepreneurship are becoming increasingly necessary and interconnected.

An interesting explanation that emerged from the study (closely related to the low motivation and inclination to start a private business) is proposed by the observation from Figure 7: the self-assessed knowledge in innovative work practices, marketing, accounting, social enterprises, and other sector variables is very limited according to the respondents. Indeed, almost paradoxically, there is a high interest in starting an independent business (Figure 11), but on the other hand, there is also an enormous lack of information, which could deter investment of energy and money into this independent venture. For example, the respondents would like to have more knowledge related to business risk, human resource management, legislative information, union issues, banking, and many other aspects related to entrepreneurship.

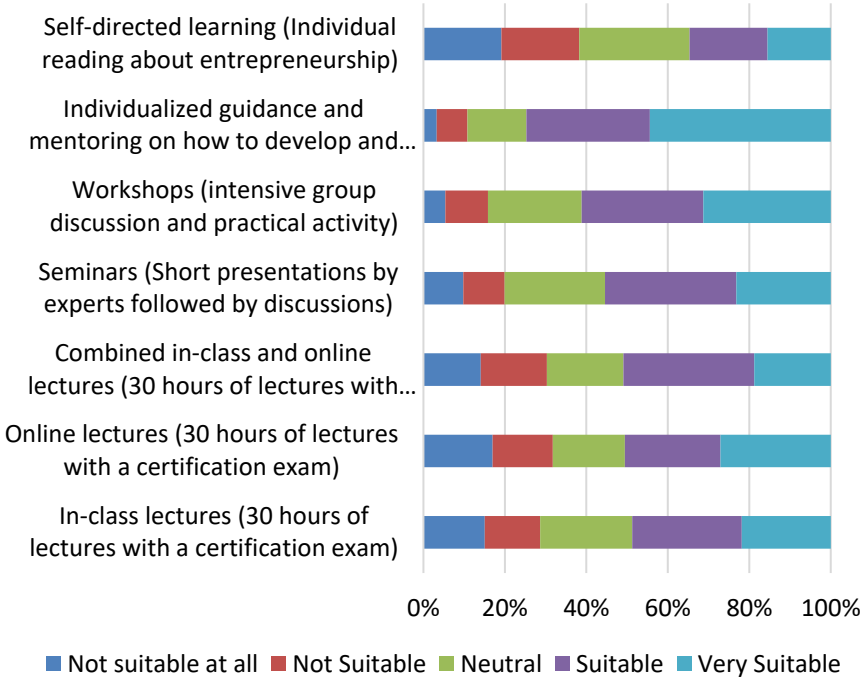

Figure 12 *Preferred form of learning*

In line with the spirit of the times, students prefer to acquire these skills not only through lectures or preprinted materials but also, and especially, through business guides and tutoring, group discussions, and hands-on learning. The aspect of a business tutor could compensate for the previously mentioned lack of information and thus, at the same time, educate and inform students about starting a business. Direct experience is a highly appreciated factor among young people, favored over all other learning methods. The preferred path is hands-on learning through internships, company visits, mentoring, and peer-to-peer interactions. Implementing these training requests would consequently increase students' openness to entrepreneurship (Figure 12 and 13).

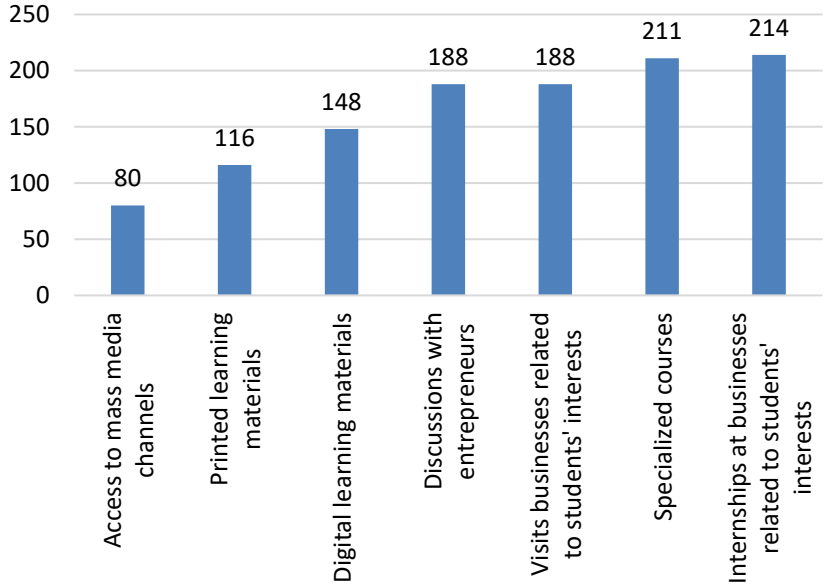

Figure 13 *Preferred options for entrepreneurship training*

The most concerning data that emerged from the research relates to the obstacles that discourage the start of a business. Indeed, in the students' perception, every single hindering factor presented in the questionnaire was seen as significantly invalidating. For example: they believe there is a lack of entrepreneurship education in high school, lack of university training on the subject, lack of bank loans, lack of support from the EU, difficulty in finding suitable staff and partners, lack of knowledge in human resource management, and difficulty in setting up business elements such as a business plan.

It is entirely inappropriate propose holographic images of nerds like Mike Lazaridis and Doug Fregin, or of inimitable pioneers like Steve Jobs and Steve Wozniak, or of geniuses who seemingly appeared out of nowhere like Bill Gates and Paul Allen. Today the Italian (and European) context is very

different. Through the interviews and focus groups, we found that this social and generational group is very grounded. In the open-ended responses, respondents indicated perspectives related to activities in the healthcare field, such as private practices or rehabilitation centers, and social cooperatives. Outside the healthcare field, small business activities are significant, including in the areas of restaurants, sports associations, construction companies, agricultural enterprises, tourism, and various types of startups, including in the engineering sector.

The demiurgic notion of entrepreneurship (recently reiterated by William Magnuson in his book titled *For Profit: A History of Corporations*) can be reconsidered in the more sober and realistic light of the challenges posed by the rise of AI. Our project pays particular attention to those who are discouraged in their studies and lagging behind their peers. The research highlights the relevance of these profiles (Figure 14).

Figure 14 *Preferred options for entrepreneurship training*

The ability of large corporations to generate the future is not the only factor; there is also a social necessity to include a common vision. Entrepreneurship can also mean shaping a more open and cohesive society that can better meet the needs of its citizens. The pursuit of innovation, creativity, and profit does not necessarily imply shared social development.

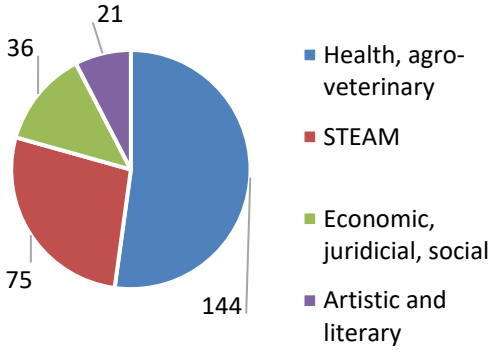

Figure 15 *Faculty of the respondents*

The sample examined primarily consists of students in healthcare, economic, legal, social, scientific, and technological fields–sectors theoretically well-qualified for entrepreneurial endeavors. Conversely, students in the arts and humanities are underrepresented (only 7.4% of the sample). These students from the University of L'Aquila are mainly expected to pursue careers in teaching (Figure 15).

Based on this data alone, one might expect a strong entrepreneurial inclination, but instead, a preference for dependent employment and job security is observed. Interpreting the survey this way would reinforce traditional and detrimental prejudices. However, the creative, innovative, and entrepreneurial spirit is present but clashes with and is stifled by a social, cultural, and institutional context perceived as impoverished, disappointing, and discouraging.

This entrepreneurial project could ultimately be beneficial by showing young people the various institutional opportunities (from local to European levels) that are not sufficiently known but can be explored. Simultaneously, the project could benefit businesses and institutions by maximizing educational and informational offerings, revealing lesser-known dimensions and information to young people. The aim is to replace the existing vicious cycle with a virtuous one, which can be activated not through additional economic resources but through the construction of a renewed perception.

Most respondents consider themselves on par with their peers in educational competencies and believe they belong to an average economic, social, and cultural bracket (Figures 16-20). A quarter of the respondents consider themselves part of a disadvantaged group.

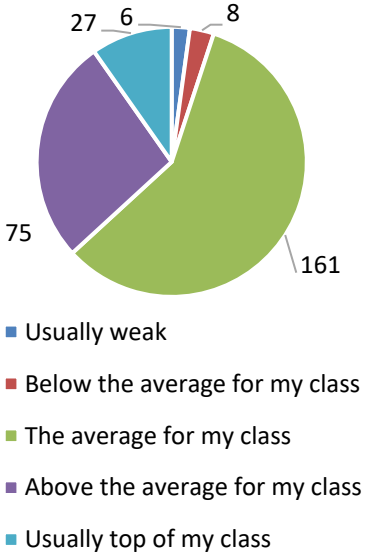

Figure 16 *Self-assessment of the academic proficiency*

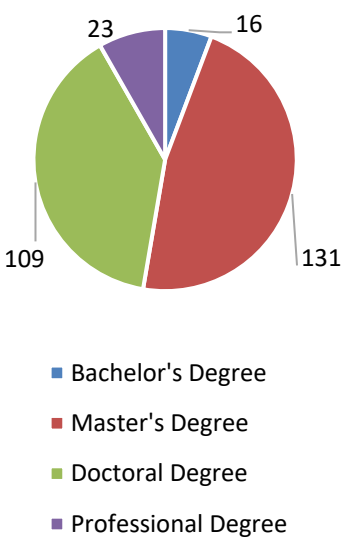

Figure 17 *Targeted highest educational level*

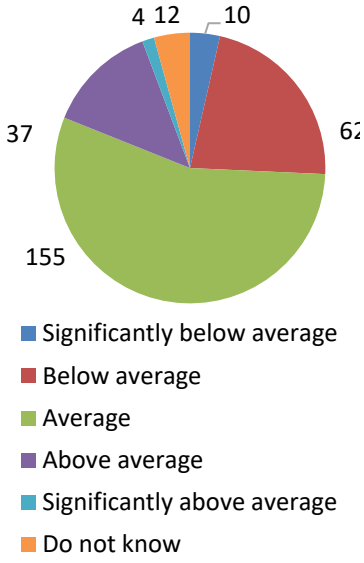

Figure 18 *Self-assessment of family income*

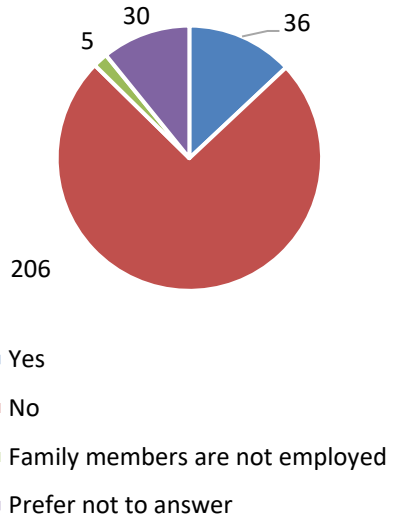

Figure 19 *Any other sources of family income besides employment*

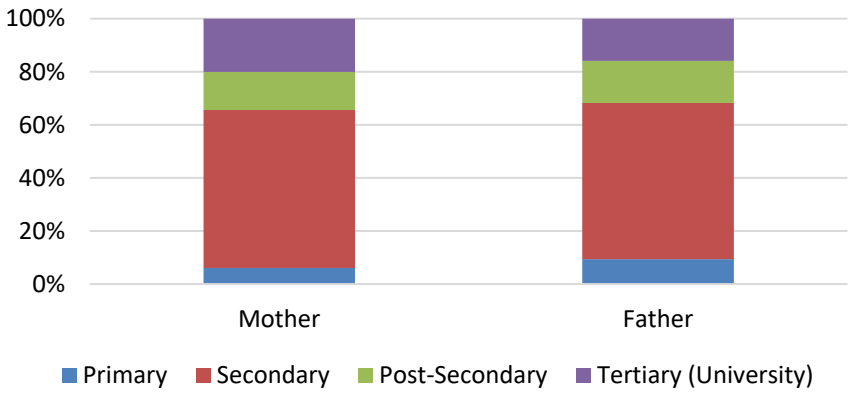

Figure 20 *Highest level of education of mother and father*

The numerous responses reinforce the idea that the data is balanced and coherent: the respondents belong to the middle class but clearly want to advance and are very willing to do so, as evidenced by the high percentage of those seeking opportunities (Figure 21).

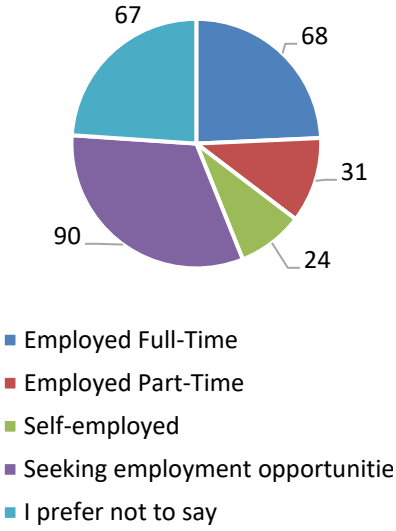

Figure 21 *Current employment status*

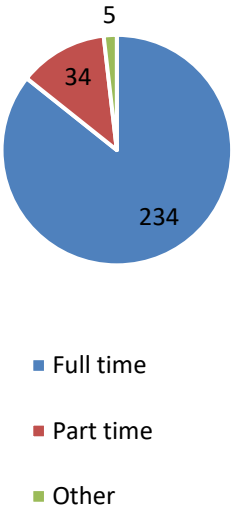

Figure 22 *Full/Part time student*

Most respondents have high career and educational aspirations, demonstrated by their desire to pursue a master's degree or a PhD (Figure 17 and 22).

These social and academic aspirations are seen as steps towards a career once studies are completed. A significant portion of the sample is already seeking job opportunities during their studies, highlighting the strong desire to enter the workforce. In the interviews, even older individuals showed a strong desire to challenge themselves and start anew, considering the possibility of quitting a dependent job to attempt independent work.

Conclusions

The primary objective of the project is to explore pathways to success in entrepreneurial endeavors, aiming to inspire students' initiatives in a tailored manner.

The survey yielded results that are surprising in many respects. We have an interpretative idea. In summary, among the students, there is a strong willingness to pursue entrepreneurship, but there is also a low propensity to start an entrepreneurial activity. This apparent contradiction is due to the lack of information and training that students receive. Most of them have great aspirations towards excellence and creativity, but at the same time, many of them are sadly aware of not possessing the practical and institutional means. They would like to learn more about the entrepreneurial world but recognize they need more opportunities to learn and develop their skills. This is the prevailing and characteristic trend in the survey responses.

There is a great interest among the students for entrepreneurship. The low inclination to start an entrepreneurial activity is due to the lack of information and training available to students. There is full awareness of this context. Most students have aspirations and, above all, want to learn more about the entrepreneurial world. The entrepreneurial spirit exists, but there is also full awareness of the few existing opportunities, especially at the educational and institutional levels.

Additionally, the research conducted in L'Aquila demonstrates our integration into a global context. Our young people are in sync with their peers in the global civil society, which is growing worldwide and expressing values of creativity, innovation, and peace.

Limitations and Future Research

One of the limitations of our analysis is that the survey was conducted only from people studying at L'Aquila University. It could be assumed that the results cannot be generalized across the entire national territory.

L'Aquila is a university characterized by its location in the center of the country. If the same questions had been asked to students active in other Italian universities, in the South or the North, perhaps the answers would have been different. We have tried to begin an analysis of this profile, but more research is necessary to complete it.

If the same survey were conducted with students from different Italian university, the results might vary. Therefore, the absence of comparisons with other Italian universities (located in different geographic, cultural, economic Italian areas) is a limitation.

From this perspective, developing comparative analysis with other Italian universities to examine student learning and skills is necessarily the next step for addressing knowledge gaps about entrepreneurship youth.

3. MALTA

MILOSH RAYKOV
VICTOR MARTINELLI
EMANUEL MIZZI
MARIE JOSEPHINE MALLIA

There is a general agreement among policymakers and general population that entrepreneurship is crucial for driving business and social innovation, creating jobs, and fostering economic growth. Entrepreneurial activities are also a crucial factor that contribute to national, economic and social development by enhancing productivity, improving standards of living, and encouraging a culture of creativity and resilience. The importance of entrepreneurial activities in small countries is highlighted because 67% of Malta's Gross Domestic Product (GDP) is generated by Small and Medium-sized Enterprises (SMEs).

Malta's economy is contending with substantial challenges in maintaining its rapid economic development, particularly within knowledge-intensive industries, which are hindered by a shortage of highly qualified young professionals due to emigration. Moreover, the potential migration of recent university graduates poses a further risk, intensifying the existing lack of a highly educated workforce and potential talent drain (EY, 2023).

This study aims to enhance the understanding of academic entrepreneurship to harness highly educated university students' creative and innovative potential. By encouraging them to apply their knowledge to

developing new products and processes, the study seeks to foster their engagement in entrepreneurial activities, thereby contributing to national economic growth and social development.

Objectives of the Academic Entrepreneurship Roadmap Survey

Consistent with the general objective of the AcEntRoad project, the main objective of the survey was to explore ways to increase students' success in entrepreneurial activities and activate students` initiative through a student-centered approach to the development of the Roadmap based on student-identified interest in and knowledge about entrepreneurial activities. At the survey's core was the objective to involve students with various social and educational backgrounds and encourage them to participate in entrepreneurial activities regardless of their current socio-demographic characteristics.

The survey intends to provide an evidence base for the development of the Roadmap and of training materials for entrepreneurial training programs required by the current and continuously evolving business environment. One of the specific objectives is to explore students' attitudes toward entrepreneurial activities and to determine students' educational needs in this domain. In this way, the results of this study are expected to contribute to the development of students' positive attitudes toward entrepreneurship and entrepreneurial culture that will encourage hesitant or discouraged students to develop their own businesses with the support of the members of academic and business community.

The main research questions of the study are:

1. How do university students perceive entrepreneurship and different forms of education about entrepreneurship?
2. How do university students perceive their knowledge and skills about entrepreneurship?
3. Which knowledge bases and forms of learning about entrepreneurship do students prefer?
4. Are there any differences in the responses of students with different demographic characteristics regarding the attributes toward entrepreneurship?

In short, the objective of this study is to create an appropriate methodology for exploring students' attitudes toward entrepreneurship and evidence-based methodology for developing entrepreneurial education programs. The objective of the survey is to collect the evidence necessary for developing an Entrepreneurial Journey and the Academic Entrepreneurship Roadmap, accompanied by a series of lectures, seminars, and workshops.

Research Methods for the Exploration of Student Attitudes Toward Entrepreneurship

The study is a cross-sectional exploration that uses an online survey to collect empirical, quantitative and qualitative data, and this report includes the basic descriptive findings from the study conducted in Malta (Cohen, Manion, and Morrison, 2007, p. 206).

The survey included both closed- and open-ended questions about university students' attitudes toward entrepreneurship and other forms of employment, their planning of innovative work activities, their interests in learning about innovative work, and preferred organizational forms of learning about entrepreneurship and innovative work practices.

The online survey was voluntary and anonymous. The survey was expected to take approximately 15–20 minutes to complete. The study included university students enrolled in academic courses on a full-time and part-time basis at all levels (undergraduate, master, and doctoral programs). Participants were intended to be of all ages and genders. The data collection was conducted immediately after the approval of the institutional research ethics board and started early in May 2024.

The plan for this study was reviewed for its compliance with ethical guidelines and approved by the Faculty Research Ethics Committee at the University of Malta (EDUC-2024-00186). Among 299 participants invited to participate in this study, 71 accepted the invitation, and the overall response rate was 24%.

Quantitative Data Analysis

Quantitative data analysis in the study included exploratory, descriptive, and inferential statistics to describe and identify differences between various groups of participants (Agresti et al., 2018; Tukey, 1977). All statistical analyses were performed using IBM SPSS Statistics, Version 27 (IBM Corporation, 2020). The results of the descriptive analysis were mainly reported by using percentages and means. Inferential statistics and difference tests among various groups of participants were conducted by using comparisons between the means t-tests and chi-state tests for nominal and ordinal data comparisons. In addition, data

visualization techniques (Evergreen, 2019) were combined with qualitative data analysis to illustrate the main patterns of participants' responses and explain the identified tendencies.

Factor analysis was applied to explore the structure of students' attitudes toward entrepreneurship, employment, and perceived barriers to entrepreneurship. Principal component analysis was selected for the extraction of factors, and parallel analysis was selected for determining the number of factors. The parallel analysis was applied as a criterion for extracting factors since eigenvalues were leading to overfactorization of responses from our relatively small sample of participants (Costello & Osborne, 2005; Floyd & Widaman, 1995).

The extracted factors were rotated to identify the robustly loading ones and minimize cross-factor loading (Parsons, 2017). Both orthogonal and oblique rotations of the extracted factors provided similar results. The factorization findings in this report include the results of oblique rotations.

The Kaiser-Meyer-Olkin (KMO) coefficients were used to determine the sampling adequacy of the collected data, and Bartlett's sphericity tests were used to test the suitability of correlation matrixes for factorization. Both KMO and Bartlett's coefficients demonstrated the suitability of the collected data for factorization.

The internal consistency of the identified factors was determined by Cronbach's α and McDonald's coefficient ω (Taber, 2018). The McDonald's coefficient was used in addition to the standard Cronbach's alpha since this coefficient considers the strength of association between items and constructs as well as item-specific measurement errors, making for more realistic estimates of the true reliability of the scale (Lance et al. 2006).

The thematic analysis approach was applied to identify the main themes within the collected qualitative data (Creswell, 2007; 2009). Qualitative data analysis aimed to identify the main themes and better understand

students' perceptions of barriers to entrepreneurship activities (Creswell, 2009, p. 183). The themes were identified through an inductive 'bottom-up' by coding relevant responses and patterns of related responses or the main themes (Saldana, 2009, p. 6). Based on this inductive data-driven approach, the identified initial codes were organized into themes (Clarke & Braun, 2013). The analysis was conducted using Maxqda software for computer-assisted qualitative data analysis (Kuckartz & Rädiker, 2019).

The current report primarily presents quantitative data and an analysis of the open-ended responses from the survey participants. In the second phase of the project, we will collect and analyze additional qualitative materials through focus groups and individual interviews. These activities, conducted during workshops related to the survey findings, will contribute to the development of an academic roadmap for entrepreneurial education.

Research Findings

Demographic characteristics of participants in the Maltese AcEntRoad study

Figure 23 presents the demographic characteristics of the participants, revealing a notable gender imbalance, with females making up 77% of the sample and males comprising only 22.7%. Regarding student status, the majority (66%) are full-time students, while the remaining 34% are part-time students. Regarding self-reported academic achievement, a slight majority (53%) consider themselves average or below average, while almost half (47%) rate their academic achievement as above average.

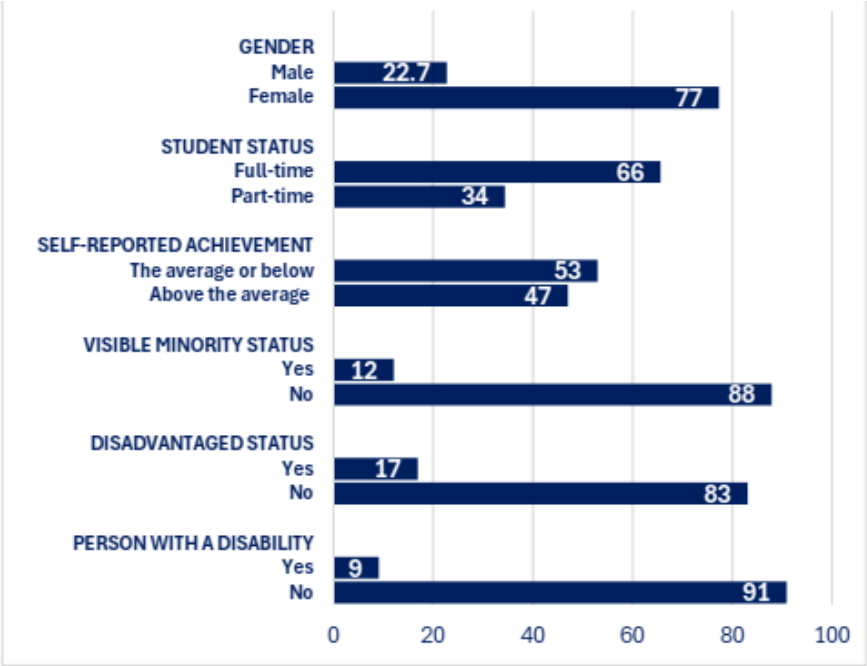

Figure 23 *Participants' demographic characteristics (%)*

The table also highlights the diversity and socioeconomic status of the participants. Only 12% identify as a visible minority, and a larger proportion (88%) were domestic students. Additionally, 17% of participants reported being disadvantaged for some reason, whereas 83% did not report any disadvantages. Lastly, a small fraction (9%) of the participants have a disability, while the vast majority (91%) do not. The presented demographic characteristics provide a comprehensive overview of the sample's composition, illustrating a predominantly female, full-time student population with varied academic self-perceptions and a low representation of minorities, disadvantaged individuals, and persons with disabilities.

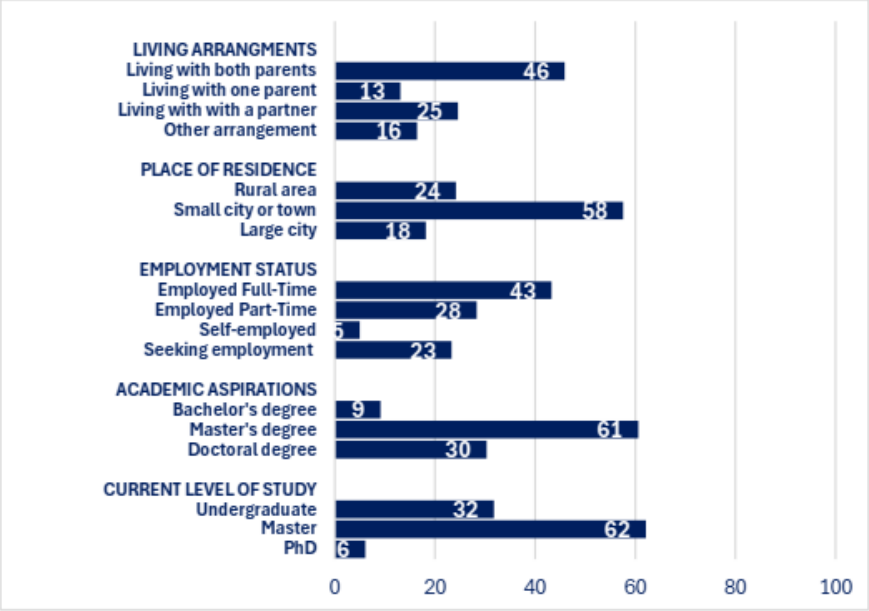

Figure 24 *Student's living arrangements, employment, and education (%)*

Further analysis of the demographic characteristics of the student participants, as illustrated in **Figure 24**, shows a diverse array of living arrangements, places of residence, employment statuses, academic aspirations, and current levels of study. Nearly half of the students (46%) live with both parents, while a smaller proportion lives with one parent (13%). A significant portion (25%) lives with a partner, and 16% are in other living arrangements. This distribution suggests a mix of traditional and non-traditional living situations among the student body. The majority of participants reside in small cities or towns (58%), with 24% living in rural areas and 18% in large cities. Employment status varies widely, with 43% employed full-time and 28% part-time, while 23% are actively seeking employment. Self-employment is less common, with only 5% of students in this category.

Most students were involved in the master's level studies (62%), followed by undergraduates (32%) and a smaller percentage at the PhD level (6%). Our study also shows that a substantial proportion of participants (61%) aspire to achieve a master's degree, 30% aim for a doctoral degree, and 9% are focused on obtaining a bachelor's degree. These statistics highlight the high academic aspirations and diverse employment situations among the student participants.

Figure 25 describes the family background of survey participants, showing diverse parental employment and educational levels. Among mothers, 35% are full-time employees, 12% work part-time, 11% are self-employed in trades, and 42% fall into other categories, most often unemployed homemakers or temporary part-time employed.

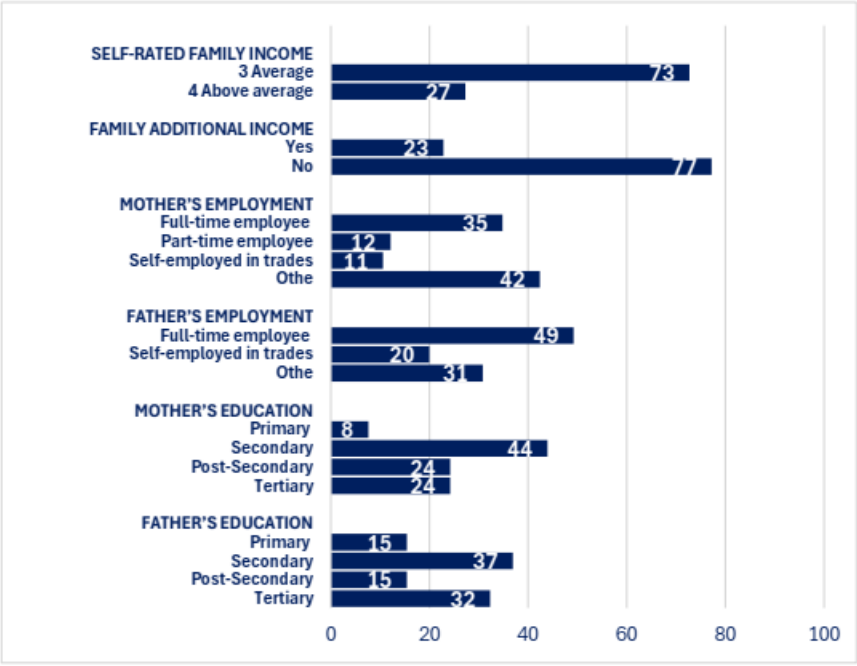

Figure 25 *Family background of survey participants (%)*

Fathers are predominantly full-time employees (49%), with 20% self-employed in trades and 31% having other employment arrangements. Regarding educational attainment, 44% of mothers and 37% of fathers have secondary education, while 24% of mothers and 32% of fathers have tertiary education. Most participants rate their family income as average (73%), with 27% above average and 23% reporting additional family income sources.

Students' interest in different forms of employment

Figure 26 presents the distribution of student interest in various forms of employment. The data shows an evident preference for full-time employment, with 57% of students expressing a high level of interest (Very Interested) and 24% indicating moderate interest (Interested). This result suggests a substantial preference among students towards traditional, stable, full-time employment. Similarly, self-employment is notably appealing to many students, with 55% of students Interested and 27% Very Interested, reflecting a significant interest in entrepreneurial activities among the student population.

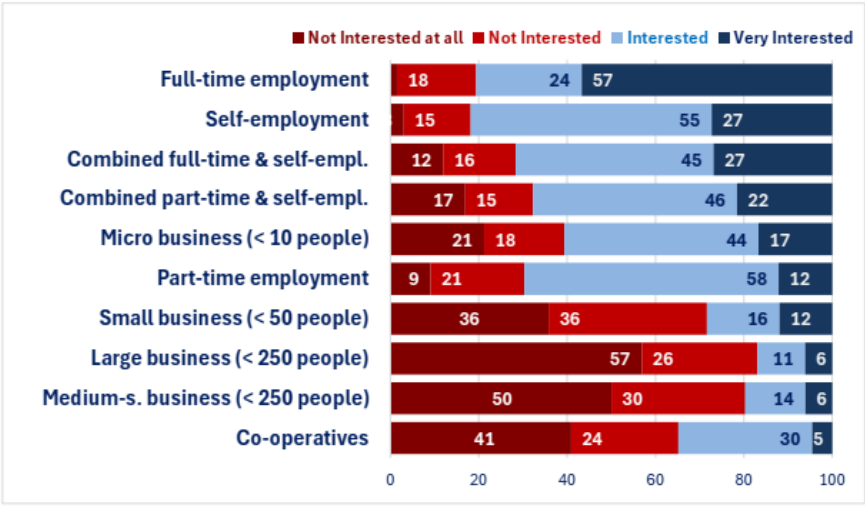

Figure 26 *Students' interest in different forms of employment (%)*

Hybrid employment models, such as combined full-time and self-employment (45% Interested, 27% Very Interested) and combined part-time and self-employment (46% Interested, 22% Very Interested), also attract considerable interest, indicating a propensity for flexible career paths.

In contrast, larger business entities and co-operative employment models are significantly less attractive as employment options for the participants in our study. Only 6% of students express a high level of interest (Very Interested) in working in large businesses, with a significant majority (57%) indicating a categorical lack of interest (Not Interested at All) and an additional 26% indicating a lack of interest in this form of employment. Medium-sized businesses are also less attractive to the students who participated in this study, with 50% Not Interested at All and just 6% Very Interested. Co-operative models are similarly unattractive, with 41% Not Interested at All and only 5% Very Interested. This data indicates a clear student preference for smaller, more adaptable employment structures over traditional, larger corporate models. The results also indicate a tendency of many participants to combine the safety of regular employment and the advantages of self-employment or owning a business.

Expected support to open a business

Regarding expected support, should the participants decide to open their own business, as **Figure 27** shows, most participants believe they can expect support from parents. A great majority of respondents (85%) indicated confidence in receiving either definite (Definitely Yes) or probable (Probably Yes) support from parents. Similarly, most respondents expect support from relatives and friends, with 81% and 79%, respectively. Results demonstrate the crucial role of immediate family and the firm expectation of support from extended family and social circles. University staff, such as professors and lecturers, are also considered a significant pport system, with 58% of respondents expecting probable or definite assistance, underlining the importance of academic networks.

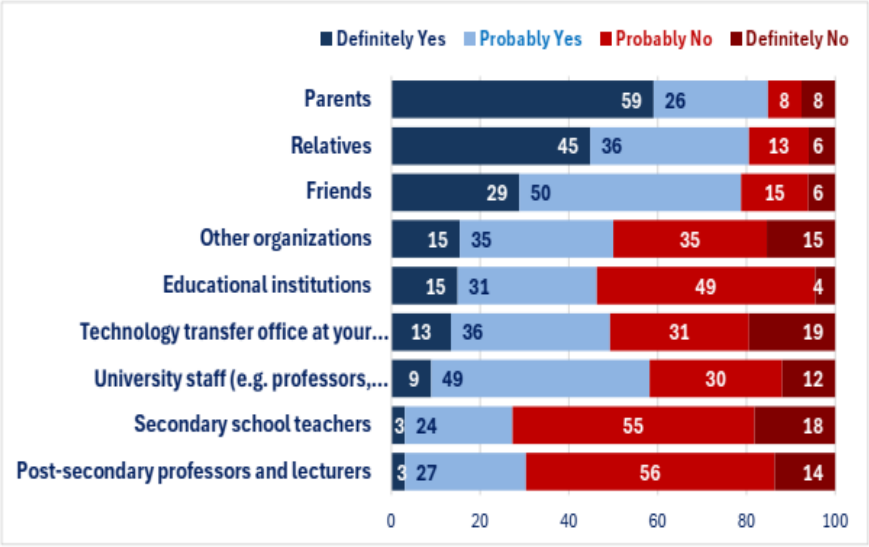

Figure 27 *Expected support to open a business*

In contrast, the support expected from other organizations and educational institutions is moderate, with around half of the respondents anticipating some level of assistance. However, support from technology transfer offices and post-secondary lecturers is perceived as limited, with less than half of respondents expressing confidence in receiving support from them. Secondary school teachers are perceived as the least supportive group, with only 27% expecting probable or definite support, reflecting low expectations for assistance from this source. Overall, immediate family, relatives, and friends form the primary expected support network, while institutional support varies significantly in perceived reliability.

The essential support systems for aspiring entrepreneurs

Analysis of the open-ended question from the survey related to the kind of support that would be most important for people who intend to start their own business identified six main themes related to the essential support systems for aspiring entrepreneurs: financial support, **knowledge and educational support, emotional and moral support, practical and logistical support, networking and mentorship, and government support and incentives.**

Financial Support is the most frequently mentioned type of support. According to the participants' responses, support can come from various sources such as banks, financial institutions, government grants, angel investors, seed funds, family, and friends. Financial support is crucial for securing the necessary resources and funding for the initial phases of the business, and this topic should be emphasized in entrepreneurship education programs.

Knowledge and educational support are also prominent themes in the participants' opinions about the kind of support for entrepreneurial activities. Many responses emphasize the importance of having the proper knowledge and educational background obtained through business courses, mentorship from experienced entrepreneurs, professional advice from experts, and guidance on legal and tax-related issues. The need for mentorship from experienced entrepreneurs and professional advice from business experts is nicely articulated in a response from an aspiring young entrepreneur:

> *People providing insights from their life experiences are the most valuable form of support. Also, the encounter they had with the product or service that is being offered. All of this may be taken into account to develop a better company that provides consumers with quality.*

Emotional and Moral Support from family, friends, and peers is perceived as vital. Encouragement and moral support can boost confidence and reassure new entrepreneurs during challenging times of establishing and managing a business.

Practical and Logistical Support includes assistance with creating a business plan, handling documentation and paperwork, securing premises or working space, and understanding the logistics of starting a business. Support from technology transfer offices, service hubs, and established entrepreneurs was perceived as highly valuable in this regard.

The next identified theme is **networking and mentorship.** Many participants in our study perceive building a network of professional contacts and having access to mentors who can offer guidance and share their experiences as essential forms of support.

An additional theme, **'Government Support and Incentives',** indicates participants' needs and hope that government programs and subsidies can provide financial aid and other resources necessary for starting and sustaining a business, which are mentioned as possibilities or needs by many participants.

Overall, the support needed spans financial, educational, emotional, practical, and networking aspects, and it can be provided by a diverse range of sources, including financial institutions, educational entities, family and friends, experienced entrepreneurs, and government bodies. A response from a survey participant provides a good illustration of the challenges and complexities of starting a new business and the essential forms of support that can mitigate such challenges:

> *Financial support could help me start by buying the resources needed for the business, but emotional and motivational support could help me grow my confidence.*

The survey results provide a solid base for developing a learner-centred education program or training for potential entrepreneurs as they identify selection of knowledge basis which are deemed important for developing entrepreneurship.

Sources of inspiration for young people to start their businesses

Figure 28 illustrates the extent to which various sources inspire young people to start their own businesses. According to our study, the most significant inspiration comes from the initiative of young people, with 88% of respondents indicating that it motivates them either To a great extent (52%) or Somewhat (36%). Following this, Successful local business owners (88%, including To a great extent 41% and Somewhat 47%) and widely known business owner (91%, including To a great extent 32% and Somewhat 59%) are also major sources of inspiration, for young people to start their own business.

Conversely, sources such as University professors, Educational institutions, Secondary school teachers, and Technology transfer offices are less influential. For instance, 44% of respondents report that University professors Somewhat (39%) and To a great extent (5%) inspire them to open a business. Also, one in four participants (a total of 38%, Somewhat, 35%, and To a great extent, 3%) indicated that they were inspired by their educational institutions. Results suggest that while personal initiative and local business role models play a crucial role in inspiring young entrepreneurs, traditional educational institutions and educators are perceived as less impactful in this regard.

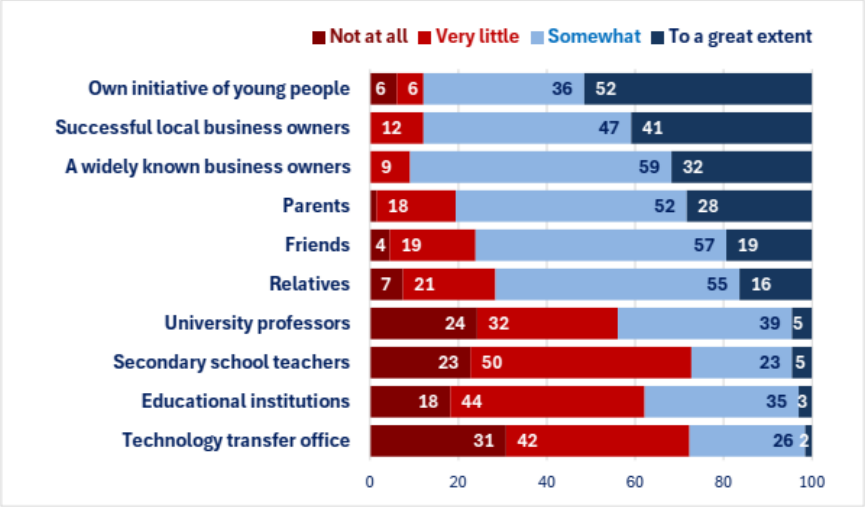

Figure 28 *Sources of Inspiration for young people to start their businesses*

Students' attitudes toward entrepreneurship and employment

Figure 29 compares students' attitudes toward having their own business versus being employed by a company across various dimensions of the applied semantic differential scales, showing that the university students from Malta perceive entrepreneurial activity as more exciting (6.1 vs. 3.9), active (6.1 vs. 4.1), creative (5.9 vs. 3.7), satisfactory on the scale 'good – bad' (5.8 vs. 4.7), strong (5.6 vs. 4.4), interesting 5.6 vs. 4.2), pleasant (5.6 vs. 4.2), innovative (5.4 vs. 3.3), and more profitable (5.4 vs. 4.3)than employment or work for a company. Regarding sustainability, employment and business ownership are perceived as virtually the same (5.1 vs. 5.0, respectively). However, employment is considered more realistic (5.9) than owning a business (4.8) and safer (5.9 vs. 3.8). Also, Employment is perceived as easier (4.7) than owning a business (2.9).

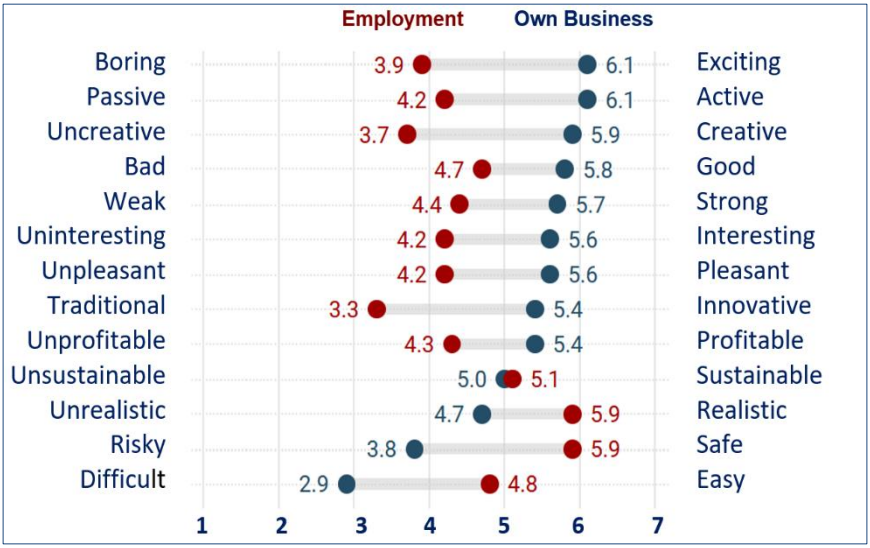

Figure 29 *Students' attitudes toward entrepreneurship and employment*

Overall, students have a more favourable attitude toward owning a business regarding excitement, activity, creativity, goodness, strength, interest, pleasantness, innovation, and profitability. However, they view employment as more sustainable, realistic, safer, and easier.

Students' attitudes toward entrepreneurship (private business)

Our factor analysis of attributes revealed that university students perceive private businesses as interesting, innovative, profitable, exciting, creative, pleasant, good, active, and strong. We define this factor as **Entrepreneurial Optimism**. It encompasses a positive outlook towards starting and running one's own business, highlighting perceptions of excitement, creativity, innovation, and profitability. This factor reflects an

enthusiastic and confident attitude towards entrepreneurial ventures, emphasizing the perceived benefits and strengths. The internal consistency of Entrepreneurial Optimism as measured by two methods was above .8 (Cronbach's $\alpha = 0.836$ and McDonald's $\omega = 0.854$). These are significantly above the threshold value of .7, which is considered satisfactory (Taber, 2018). The advantage of McDonald's omega compared to Cronbach's alpha is that the former takes into account the strength of association between items and constructs as well as item-specific measurement errors, making for more realistic estimates of the true reliability of the scale (Lance et al. 2006).

The attitudes identified through our descriptive and factor analysis (**Table 7**), which reveal perceptions of one's own business as unrealistic, risky, and difficult, can be defined as **Entrepreneurial Pessimism**. This factor captures a negative attitude towards starting and running a business, emphasizing views of impracticality, high risk, and significant difficulty. It also reflects a sceptical attitude toward the feasibility and risk of entrepreneurial endeavours. The internal consistency of the factor Entrepreneurial Pessimism was above .7 (Cronbach's $\alpha = 0.765$ and McDonald's $\omega = 0.768$) and above the minimal threshold value of .7. Bartlett's Test of Sphericity = Chi-square = 340, $p < .001$, and the overall KMO Measure of Sampling Adequacy = 0.785 indicated the suitability of the collected data for factorization.

Table 7 *Structure of students' attitudes toward their own business*

	Entrepreneurial Optimism	Entrepreneurial Pessimism
Exciting – Boring	0.864	
Active – Passive	0.756	
Creative – Uncreative	0.746	
Good – Bad	0.699	
Strong – Weak	0.694	
Pleasant – Unpleasant	0.629	
Innovative – Traditional	0.605	
Interesting – Uninteresting	0.479	
Profitable – Unprofitable	0.475	
Easy – Difficult		0.832
Safe – Risky		0.783
Realistic – Unrealistic		0.724
Sustainable – Unsustainable		0.560

Structure of students' attitudes toward employment

Our analysis identified perceptions of employment or working for someone else as less interesting, traditional, unprofitable, boring, uncreative, unpleasant, bad, passive, and weak (**Table 8**). Given the negative attributes of employment or working for someone else identified in our analysis, this type of attitude is defined as **Employment Disillusionment** or a pessimistic perception of employment. This factor reflects a pessimistic attitude towards traditional employment, highlighting negative perceptions and a lack of enthusiasm. It captures the negative outlook towards working for someone else, emphasizing the view of traditional employment as less interesting, innovative, profitable, and satisfying. The internal consistency of the factor Employment Disillusionment was above .9 (Cronbach's α = 0. 917 and McDonald's ω = 0. 924), which is significantly above the required threshold value.

Table 8 *Structure of students' attitudes toward employment*

	Employment Disillusionment	Employment Pragmatism
Exciting – Boring	0.889	
Good – Bad	0.831	
Interesting – Uninteresting	0.815	
Creative – Uncreative	0.809	
Pleasant – Unpleasant	0.802	
Innovative – Traditional	0.79	
Active – Passive	0.754	
Strong – Weak	0.748	
Profitable – Unprofitable	0.606	
Safe – Risky		0.877
Realistic – Unrealistic		0.794
Easy – Difficult		0.565
Sustainable – Unsustainable		0.528

Our analysis also identified some favourable attributes of employment, including perceptions of working for someone else as a safer, more realistic, and easier form of employment. This factor is defined as Employment Pragmatism, reflecting students' preference for job security. It captures the practical and realistic outlook towards working for someone else, emphasizing perceptions of safety, realism, and the less demanding nature of traditional employment. This factor also highlights students' preferences for the stability and practicality of conventional jobs. The internal consistency of the factor Employment Pragmatism as measured by two methods was above .7 (Cronbach's α = 0. 713 and McDonald's ω = 0. 742). These were very slightly above the minimal threshold value. Bartlett's Test of Sphericity = Chi-square = 479, $p < .001$, and the overall KMO Measure of Sampling Adequacy = 0.826 indicated the suitability of the collected data for factorization.

Students' involvement in planning innovative work practices

Since innovative products, services, or work practices are crucial for the success of a new business or enterprise in this study, in addition to exploring students' attitudes toward entrepreneurship, we also explored student involvement in planning various innovation-related work activities. **Figure 30** shows the frequency of participants thinking about various innovative activities related to their future work. The most frequently contemplated activities include generating original solutions for business-related problems (41%) and searching out new work methods (38%). Also, 39% of participants sometimes consider searching out new work methods, while 35% often consider generating original solutions.

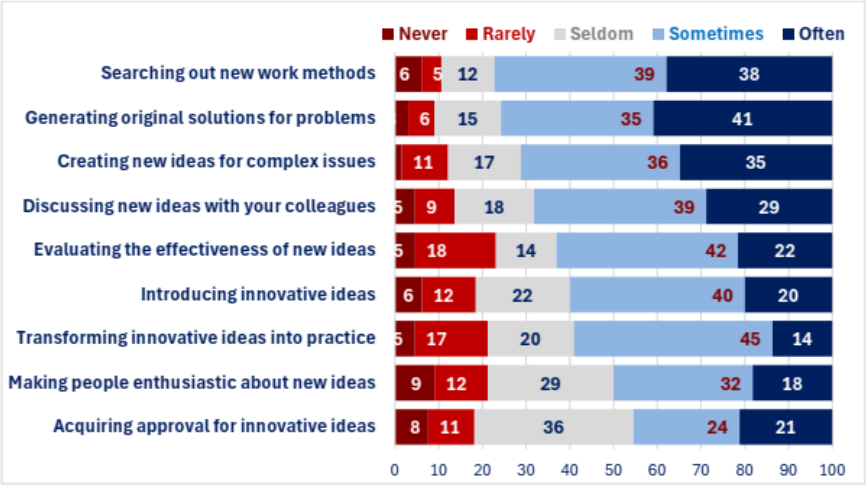

Figure 30 *Students' involvement in planning innovative work practices*

On the other hand, acquiring approval for innovative ideas is least frequently considered, with 55% of respondents never, rarely, or seldom thinking about obtaining support for their innovative ideas and only

21% often contemplating it. Introducing innovative ideas has a balanced response, with 40% sometimes and 22% often thinking about it, but still, 22% rarely or seldom consider it.

Activities involving the practical application of innovative ideas and communication of new ideas show that the participants less frequently think about these aspects of the innovative work activities. Discussing new ideas with colleagues and evaluating the effectiveness of new ideas are sometimes considered by 39% and 42% of participants, respectively. However, fewer participants think about making others enthusiastic about their innovative ideas (18%) and transforming their ideas into practice (14%). These results suggest a general inclination towards innovation and problem-solving, with usually lower levels of promotion and implementation of innovative ideas.

Students' interest in learning about innovative work practices

Since research and numerous examples from domestic and international business activities clearly demonstrate a strong positive association between learning and innovative work practices, one objective of the AcEntRoad project was to explore students' interests in learning about innovative work practices and the process of implementing innovative solutions in business practice. Additionally, we aimed to investigate students' involvement in planning various innovation-related work activities.

The results presented in **Figure 31** indicate a strong interest among participants in learning about various activities related to their future work, with a significant majority of responses leaning toward positive responses. For example, 58% of participants expressed a definite interest in learning about searching out new work methods, and an additional 34% indicated probable interest, making it the most positively received activity. Similarly, generating original solutions for problems also gar-

nered high interest, with 52% responding definitely yes and 44% probably yes. This trend continues with creating new ideas for complex issues and evaluating the effectiveness of new ideas, both of which have 50% and 49% of participants, respectively, indicating definite interest.

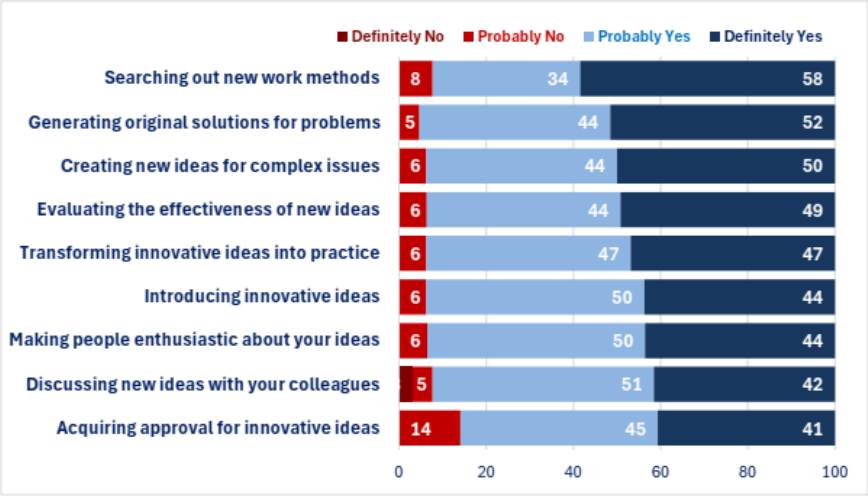

Figure 31 *Students' interests in learning about innovative work practices*

On the other hand, activities such as discussing new ideas with colleagues and acquiring approval for innovative ideas show a relatively higher, relatively small proportion of negative responses. Discussing new ideas with colleagues had 3% of participants responding definitely no and 5% probably no. Despite these slight variations, the overall pattern suggests a strong enthusiasm for learning about innovative and creative processes, with almost all innovative activities being interesting to more than 90% of participants in this study.

A slightly lower interest in learning about acquiring approval for innovative ideas (with 86% of participants indicating some level of interest, probably or definitely yes) and a slightly higher negative response (14% of responses as 'probably no') likely stem from students' interest in self-employment or small enterprises, where hierarchical organizational structures and decision-making processes are less dependent on higher managerial structures and.

Students' skills and knowledge about various business activities

The participants' responses presented in **Figure 32** indicate a generally low self-assessment of their knowledge and skills across various business-related areas. For example, a significant portion of university students rated their knowledge of business-related legislation as Very Poor (32%) or Poor (26%). Similarly, most respondents rated the accounting knowledge required for managing a business as Very Poor (27%) or Poor (24%). Also, approximately half of the participants reported a considerable lack of confidence regarding the financial aspects of a business, with 22% rating their skills as Very Poor and 28% as Poor.

On the other hand, certain areas exhibit slightly better self-assessed competencies. For instance, in the domain of environmentally friendly business practices, 34% of participants rated their knowledge as Good and 14% as Very Good. Socially responsible business practices also had relatively higher positive ratings, with 28% rating their knowledge as Good and 22% as Very Good.

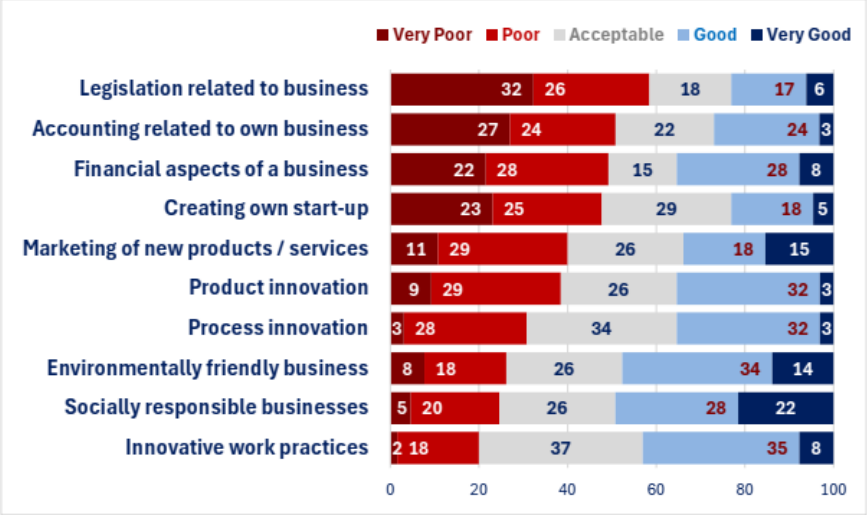

Figure 32 *Figure Students' self-reported knowledge and skills about various business activities*

Regarding innovative work practices, 35% of participants rated their skills as Good and 8% as Very Good, showing considerable confidence compared to other areas. However, more than 60% of participants evaluated their knowledge about product and process innovations as very poor, poor, or just acceptable. Also, a considerable proportion of participants (15% to 37%) feel that their knowledge is only acceptable or poor in most innovation-related activities. The results provide a firm basis for developing a roadmap for the entrepreneurial education of university students.

Students interested in learning about starting and managing a business

The survey results presented in **Figure 33** reveal the participants' strong interest in topics related to starting and managing a business enterprise. The topics with the highest levels of interest (combining Interested and

Very Interested responses) include Basic aspects of business planning (83%), Risk management (83%), Marketing and sales information (82%), Acquisition of financial support (82%), Networking and business collaboration (82%), and Socially responsible businesses (80%). These topics indicate a strong inclination towards practical business operations, ethical business practices, and foundational business planning.

Topics such as Human resources management, Legislative and legal information, and Financial and accounting information received slightly lower levels of high interest, with percentages of 75%, 74%, and 74%, respectively. Despite this, a significant majority, approximately three-quarters of participants, showed some degree of interest in these areas, with fewer participants expressing disinterest. The results underscore a broad interest across all business-related topics, with particular emphasis on marketing, ethical practices, and foundational business-related knowledge.

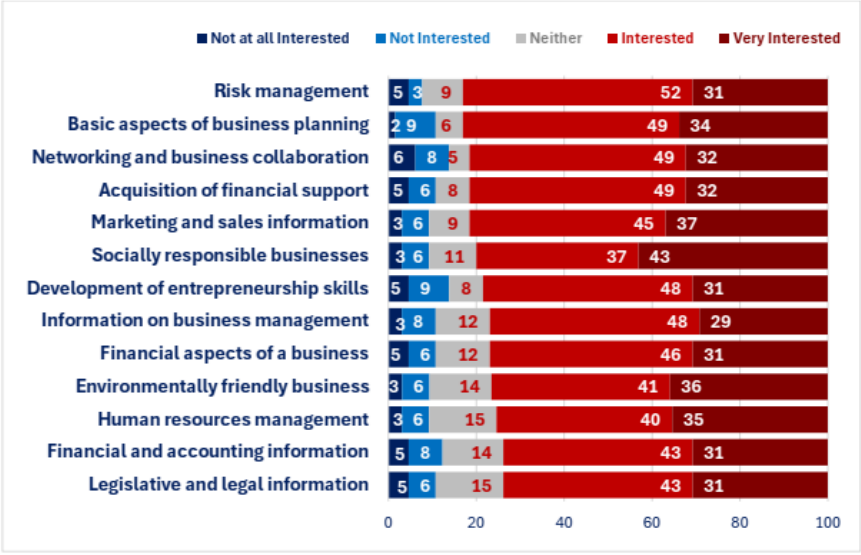

Figure 33 *Students interested in learning about starting and managing a business (%)*

Students' preferences for various forms of learning about entrepreneurship

In addition to the topics related to learning about entrepreneurship, one of the objectives of the AcEntRoad Erasmus project was to identify students' preferences for the various forms of learning about entrepreneurship. The results presented in **Figure 34** indicate varying levels of preferences or suitability for different forms of entrepreneurship learning among participants. Individualized guidance and mentoring were perceived as most suitable by a total of 79% of students, with 42% finding it suitable and 37% finding it very suitable. This form of learning also had the lowest unsuitability ratings, with only 3% considering it not suitable at all and 8% not.

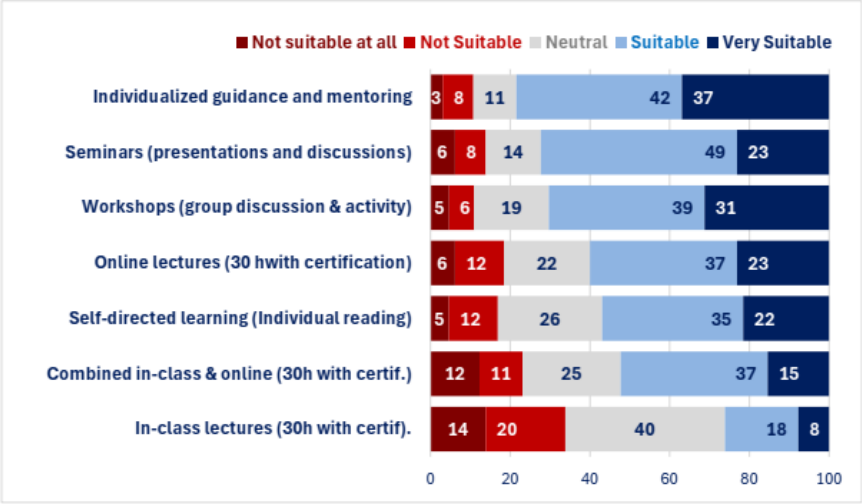

Figure 34 *Students' preferences for various forms of learning about entrepreneurship*

This suggests a strong preference for personalized and tailored learning experiences. Other forms of learning, such as seminars (73%) and workshops (70%), had moderate levels of suitability, with seminars and workshops being relatively well-received compared to online lectures (60%) and self-directed learning (57%) and combined in-class and online formats (52%).

In contrast, in-class lectures with certification were deemed the least suitable, with 20% of participants finding them unsuitable and 14% finding them not suitable at all. Only 18% found in-class lectures suitable, and a mere 8% found them very suitable. The results show that students prefer more interactive and engaging forms of learning rather than traditional lecture-based approaches.

Students' preferences for various training options for entrepreneurship

In addition to the content and forms of learning about entrepreneurship, the participants in our study also indicated their preferences for various options of entrepreneurship training. The responses in **Figure 35** indicate a clear preference among participants for interactive and specialized forms of entrepreneurship training. Both specialized courses and discussions with entrepreneurs are highly favoured, with 91% of respondents considering these options suitable. This finding additionally suggests a strong inclination towards structured and experiential learning environments that provide direct insights from experts and practitioners in the field.

Digital learning materials are also well-regarded, with 88% of participants finding them suitable, reflecting the increasing acceptance and utility of online educational resources. Similarly, while internships, visits to businesses, and access to media channels are seen as suitable by a

majority (84%, 83%, and 86%, respectively), they are not as highly rated as specialized courses or direct discussions with entrepreneurs, suggesting that while practical experience and media resources are valuable, participants may prioritize structured learning and direct mentorship opportunities more.

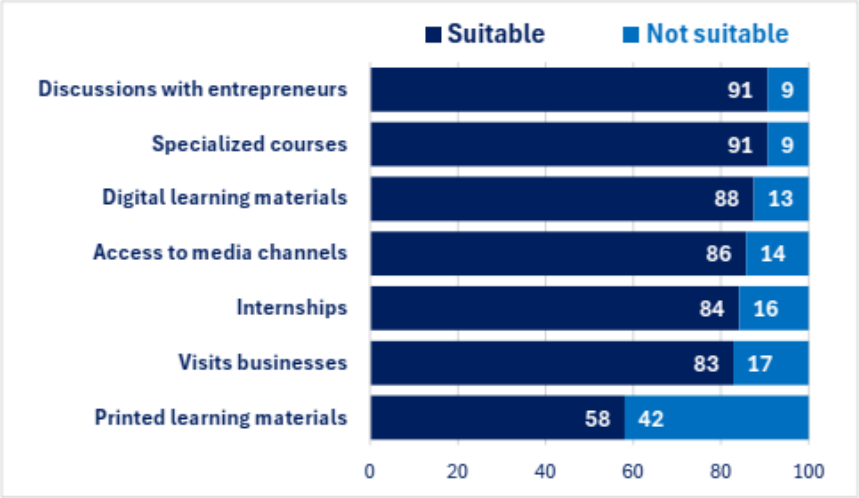

Figure 35 *Students' preferences for various training options for entrepreneurship*

Similar to the other results of our study, traditional and less interactive methods like printed learning materials are deemed less suitable, with only 58% of participants in favour and 42% considering them unsuitable. This notable divide indicates a shift towards more dynamic and engaging forms of learning.

Perceived obstacles to starting a private business

The responses to the question '*… how significant of an obstacle you think it is for someone starting a private business*' presented in **Figure 36** provide an overview of the perceived obstacles for individuals starting a private business. A significant majority of participants view the lack of their own financial resources as a major challenge, with 70% considering it Very Significant and an additional 25% deeming it Significant. This indicates that financial constraints are the most critical barrier for aspiring entrepreneurs. Similarly, the lack of information about funding opportunities is also seen as a considerable obstacle, with 53% labelling it Very Significant and 39% Significant, highlighting a substantial gap in access to information funding for new enterprises.

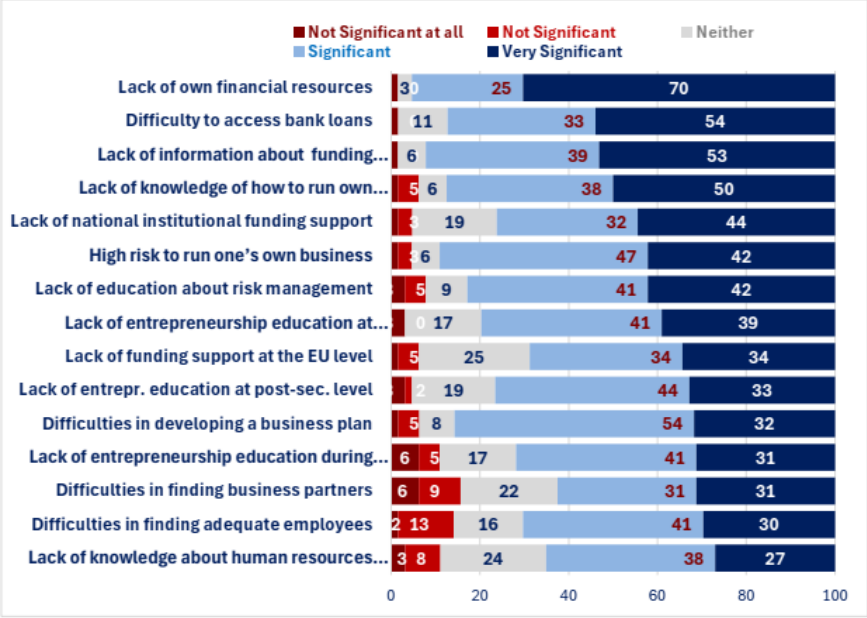

Figure 36 *Perceived obstacles to starting a private business*

Other notable obstacles include the high risk of running one's own business and the lack of knowledge about business operations. Nearly half of the participants (47%) find the high risk Significant, and 42% consider it Very Significant. This reflects a pervasive fear of business failure among potential entrepreneurs. Additionally, 50% of respondents view the lack of knowledge on how to run a business as Very Significant, with 38% finding it Significant. This suggests that educational and informational deficiencies are prominent concerns for most participants in this study that explores university students' attitudes toward entrepreneurship.

Access to bank loans and difficulties in developing a business plan are also perceived as significant hurdles. A combined 87% of respondents regard the difficulty in accessing bank loans as either Significant or Very Significant. Furthermore, 54% find developing a business plan Significant, and 32% see it as Very Significant. The findings indicate the importance of education about financial planning and support in the early stages of business development, which are, according to the findings of this study, essential learning topics.

Educational shortcomings in entrepreneurship are evident in students' answers to several questions, with the lack of entrepreneurship education at universities and post-secondary institutions being a significant concern. Four out of ten (41%) participants find the lack of university-level entrepreneurship education Significant, and 39% deem it Very Significant. Regarding education about entrepreneurship at the post-secondary level, 44% consider it Significant, and 33% consider it Very Significant. The results consistently indicated the need for enhanced entrepreneurial education at all, secondary, post-secondary, and university levels.

Structure of students' perceptions of obstacles to starting a private business

The first factor identified through the factorization of the items related to students' perception of the obstacles to starting a private business (**Table 9**) is defined as **Educational and Knowledge Barriers to Entrepreneurship**.

Table 9 *Structure of students' perceptions of obstacles to starting a private business*

Items / Components	Knowledge Barriers	Planning Barriers
Lack of entrepreneurship education during secondary school	.722	
Lack of entrepreneurship education at the post-secondary level	.924	
Lack of entrepreneurship education during university	.847	
High risk to run one's own business	.420	
Lack of education about risk management	.729	
Difficulties in finding business partners	.387	
Difficulties in finding adequate employees	.409	
Lack of knowledge about human resources management	.641	
Lack of own financial resources		.609
Lack of national institutional funding support		.935
Lack of funding support at the EU level		.841
Difficulty to access bank loans		.653
Lack of information about funding opportunities		.590
Difficulties in developing a business plan		.432
Lack of knowledge of how to run own business		.530

This factor incorporates various items related to insufficient educational opportunities and knowledge, which the students perceive as significant barriers to starting a private business. The items associated with this factor reflect a lack of entrepreneurship education at different educational levels, inadequate education on risk management, and challenges related to human resources. The specific items with high loadings on this factor include Lack of entrepreneurship education during secondary school, Lack of entrepreneurship education at the post-secondary level, High risk to run one's own business, Lack of education about risk management, Difficulties in finding business partners, Difficulties in finding adequate employees, and Lack of knowledge about human resources management. The internal consistency of Educational and Knowledge Barriers to Entrepreneurship was above .9 (Cronbach's $\alpha = 0.917$ and McDonald's $\omega = 0.924$), significantly above the minimal threshold value.

The factorization of the questionnaire identified the second factor that can be best defined as **Financial and Planning Barriers to Entrepreneurship**. This factor captures the financial constraints and planning challenges that students perceive as significant obstacles to starting a private business. The items associated with this factor reflect a lack of financial resources, difficulties in accessing funding, and challenges in business planning and management. The specific items with high saturation with this factor include Lack of own financial resources, Lack of national institutional funding support, Lack of funding support at the EU level, Difficulty accessing bank loans, Lack of information about funding opportunities, and Difficulties in developing a business plan. The internal consistency of the factor Financial and Planning Barriers to Entrepreneurship was above .7 (Cronbach's $\alpha = 0.713$ and McDonald's $\omega = 0.742$), and these values were slightly above the required minimal threshold value.

The identified factors, Educational and Knowledge Barriers to Entrepreneurship and Financial and Planning Barriers to Entrepreneurship, provide clear directions for developing the Academic Entrepreneurship Roadmap.

Conclusions

The study highlights the significance of entrepreneurship in Malta, particularly among university students, to drive economic growth and innovation. With Small and Medium-sized Enterprises (SMEs) contributing to 67% of Malta's GDP, there is an urgent need to support entrepreneurial education and reduce barriers such as the need for education and skills needed for entrepreneurial activities. The research found positive attitudes and preferences among students, as well as various perceived obstacles to entrepreneurial activities.

The survey's main objectives were to assess students' perspectives on entrepreneurship, identify their educational needs, and establish support mechanisms. Quantitative analyses reveal a strong interest among students in personalized learning experiences, such as mentoring and workshops, over traditional lectures. Many students show a preference for self-employment as a form of entrepreneurial activity, although financial constraints, lack of entrepreneurial knowledge, and other barriers are significant challenges. The study found that the participants indicated the need for support for entrepreneurial activities, including financial aid, mentorship, and government incentives.

The study emphasizes a positive attitude toward entrepreneurship as innovative and profitable, though some students also perceive it as risky and complex. In contrast, traditional employment is viewed as safer but less exciting. This research offers valuable insights for developing educational programs that foster entrepreneurial skills and address barriers, ultimately encouraging a resilient entrepreneurial culture in Malta.

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4. ROMANIA

GABRIELA CIOBANU
SOFRONIA BOUARIU

Sample and Data Collection

In order to explore student attitudes towards entrepreneurship, a pilot test was conducted with a total of 73 respondents from the Technical University "Gheorghe Asachi" of Iasi. The survey involved an online questionnaire and the data were collected using the integrated online system at the Technical University "Gheorghe Asachi" of Iasi, which provided contact information for all students. Prior to participating, respondents were informed that an international group of researchers is conducting a research study to explore student attitudes towards entrepreneurship and educational practices relevant to the development of student attitudes and entrepreneurial skills. Any data collected from the survey is used solely for the purposes of this study and students were not required to provide their name or any other personal data that could lead to their identification. Additionally, participation was voluntary, and students had the option to skip any questions they did not wish to answer.

The age of respondents ranged from 19 to 28 years, with an average age of 23. The majority of respondents indicated Romania as their country of origin (61.64%), followed by the Republic of Moldova (23.29%). One respondent mentioned Uganda as their country of origin (1.37%) and 13.7% of respondents did not provide an answer. Information on their

level of study, educational mode, employment status, self-identification as a member of a visible minority group, belonging to a disadvantaged group, being a person with a disability, and other sample characteristics can be found in Table 10.

Table 10 *Socio-demographic profile of the sample*

Variable	Categories	Percentage
Gender	Male	41.10%
	Female	50.68%
	I prefer not to say	2.74%
	Other	2.74%
	No answer	2.74%
Level of study	Undergraduate	72.60%
	Master	26.03%
	PhD	0%
	Other	0%
	No answer	1.37%
Educational mode	Full-time	82.19%
	Part-time	8.22%
	Other	8.22%
	No answer	1.37%
Employment status	Employed Full-Time	15.07%
	Employed Part-Time	4.11%
	Self-employed	20.55%
	Seeking employment opportunities	46.58%
	I prefer not to say	12.33%
	No answer	1.37%
Part of Minority group	Yes	20.55%
	No	76.71%
	No answer	2.74%
Part of a disadvantaged group	Yes	13.70%
	No	83.56%
	No answer	2.74%
A person with a disability	Yes	5.48%
	No	91.78%
	No answer	2.74%

Attitudes Toward Entrepreneurship

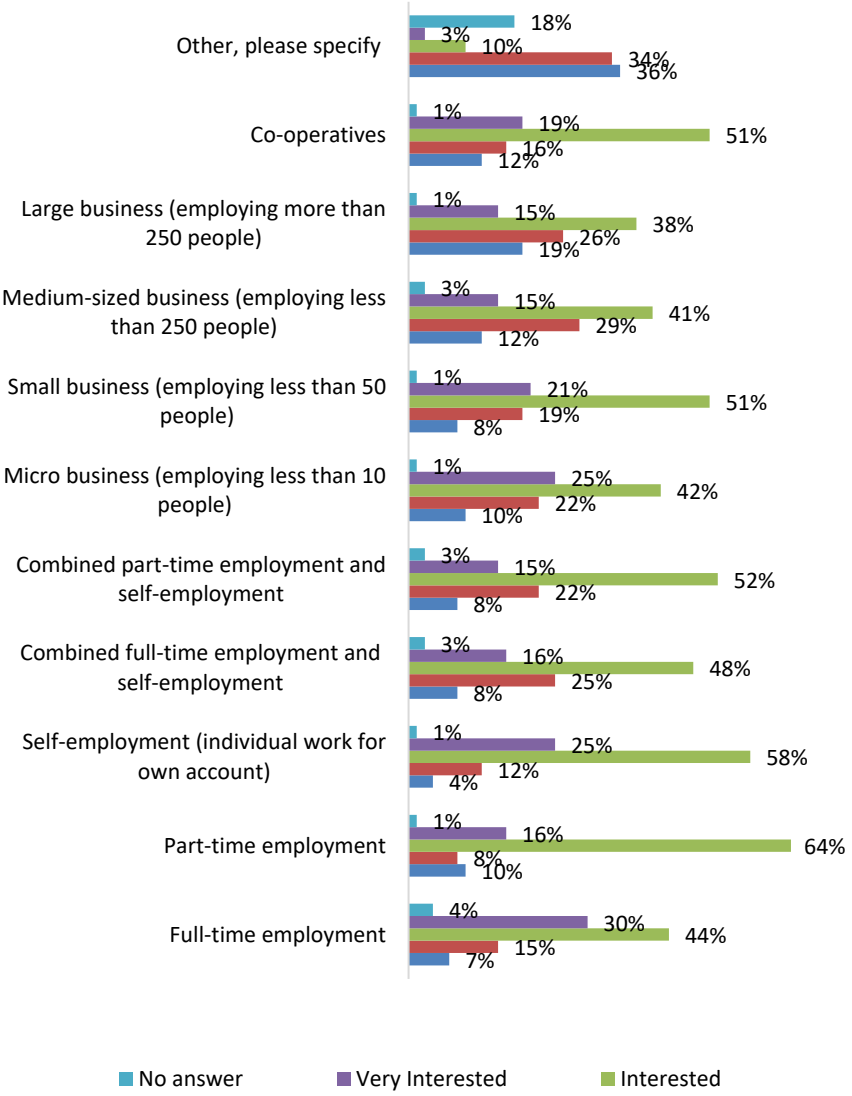

Figure 37 *Students' interest in the job's occupational opportunities*

The following questions comprise closed-ended inquiries designed to assess attitudes toward entrepreneurship, with the majority utilising a Likert scale. The initial step involves ascertaining the extent to which students prefer employment over entrepreneurship (Figure 37). It can be observed that over 60% of respondents, and in some cases over 70% of them are keen (interested and very interested) on different job prospects that allow them to either start their own business and/or work for themselves. In terms of other options, only four responses were given, but these were inconclusive, with "not interested" being the most common answer.

Forwards, the students' expectations of receiving support for their own business (should they decide to open one) are centred in Figure 38. According to the figure, respondents are most likely to seek support from parents, friends, and relatives (over 69%), followed by universities (56,17%), educational institutions (42,47%), technology transfer offices (42,47%) or schools (34,25%). Despite the importance of guidance from knowledgeable experts, these institutions are ranked relatively low in the results.

Regarding the specification of other organizations, out of the 10 responses received, 3 were inconclusive (specifically "not interested") while the others referred to: "associations promoting entrepreneurship, European Funds and Projects, ANAF (National Agency for Fiscal Administration), the State (government), car service organisations, organizations owned by individuals we know or are close to, who would like to collaborate with us to enhance our products, non-governmental organizations or companies looking to invest in the company and receive dividends".

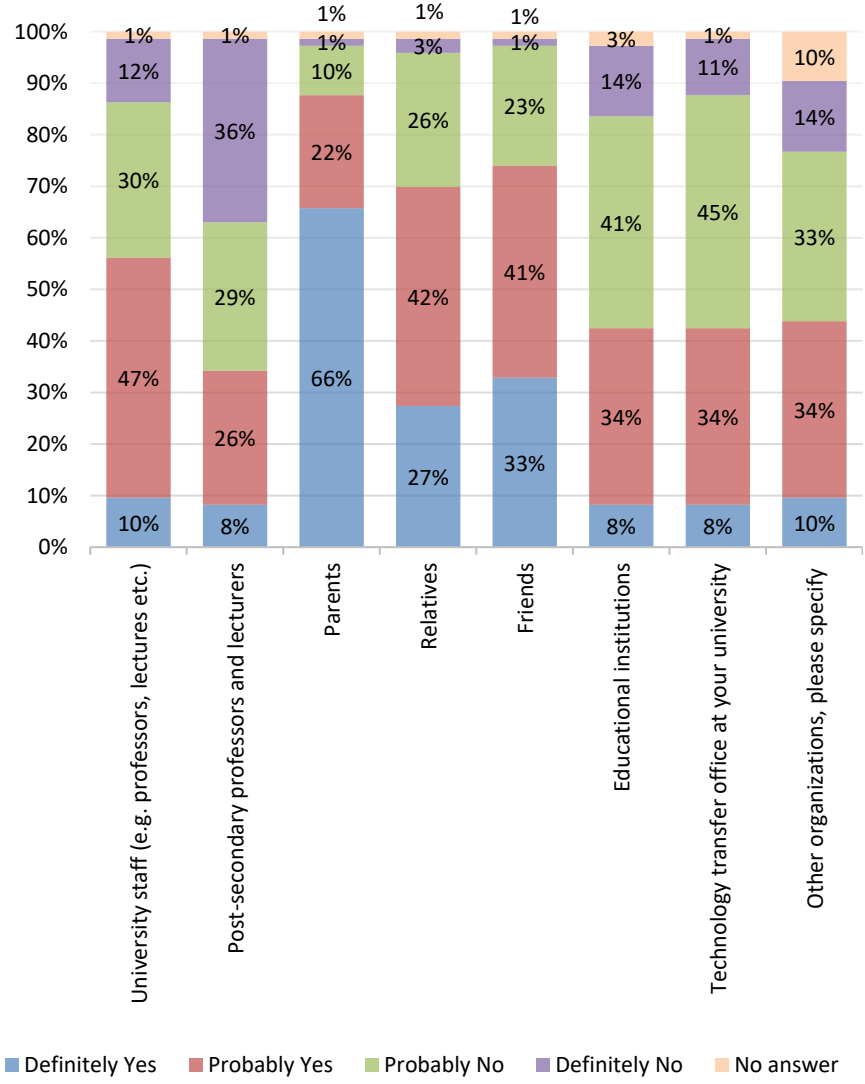

Figure 38 *Students' expectations of support in their own business foundation*

Another aspect explored in the survey was to investigate the type of support that is most important for people intending to start their own business, as well as identifying who can provide this support. In response to this inquiry, 41 of the surveyed students (56,16%) responded to the open-ended question. The analysis of these responses revealed that the majority of respondents consider financial support to be the most critical form of assistance, along with moral support, particularly from their family and/or close people. Some respondents also highlighted the importance of legislative support, while others mentioned the support from professionals in the field or potential business partners.

Regarding the responses gathered about the source of inspiration for young people to start their businesses, it appears that the greatest influence is attributed to the own initiative of young people (over 85%, when considering the two significant options together), with successful entrepreneurs following closely behind (over 75% according to Figure 39).

Additionally, parents and friends could represent good motivation for starting a business for over 65% of respondents. In terms of other organizations that could inspire young people to start their businesses, the responses included social networks, Phinia or other types of automotive companies, LCLs (Limited Liability Companies) owned by acquaintances and non-governmental organizations.

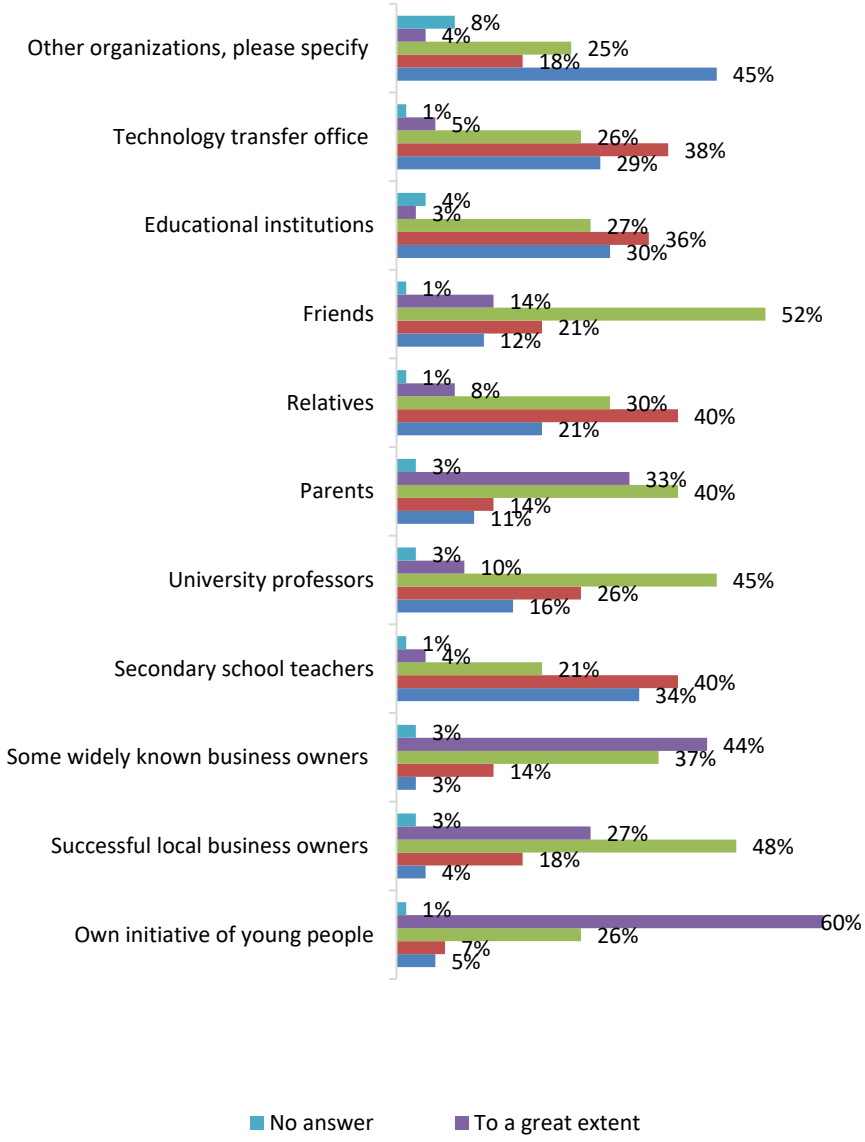

Figure 39 *Students' source of inspiration to start their businesses*

For those who want to start their own business, the respondents have provided various answers regarding the type of business they are interested in starting. These include businesses focused on the production of cosmetic products, natural or hand-made products, chemical and food production factories, automotive design/industry, mechanical engineering, auto service, agriculture, cafes, real estate etc.

Further, the respondents were asked to rate their opinions about owning a private business using a scale of 1 to 7 for various pairs of adjectives.

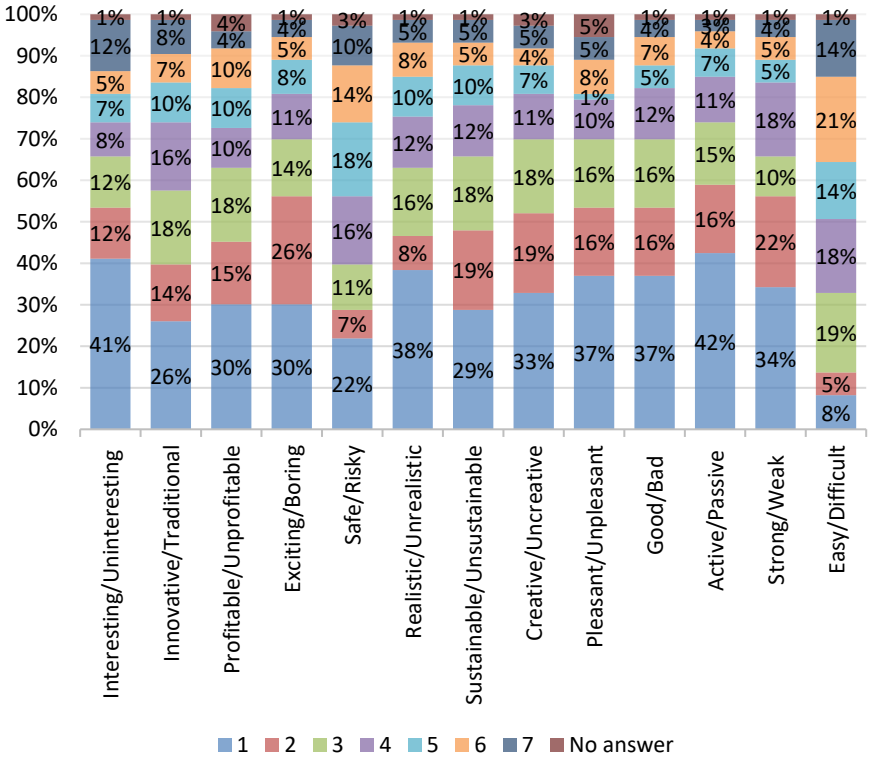

Figure 40 *Students' opinion about owning a private business*

Overall, their responses indicate that the prospect of starting their own company is seen as interesting, innovative, profitable, exciting, realistic, sustainable, creative, pleasant, good, active and strong. However, they also acknowledge that it is perceived as risky and difficult (see Figure 40). These results clearly state that the respondents adequately assess the tasks and responsibilities that come from owning their own business and approach responsibly to the realization of such an initiative.

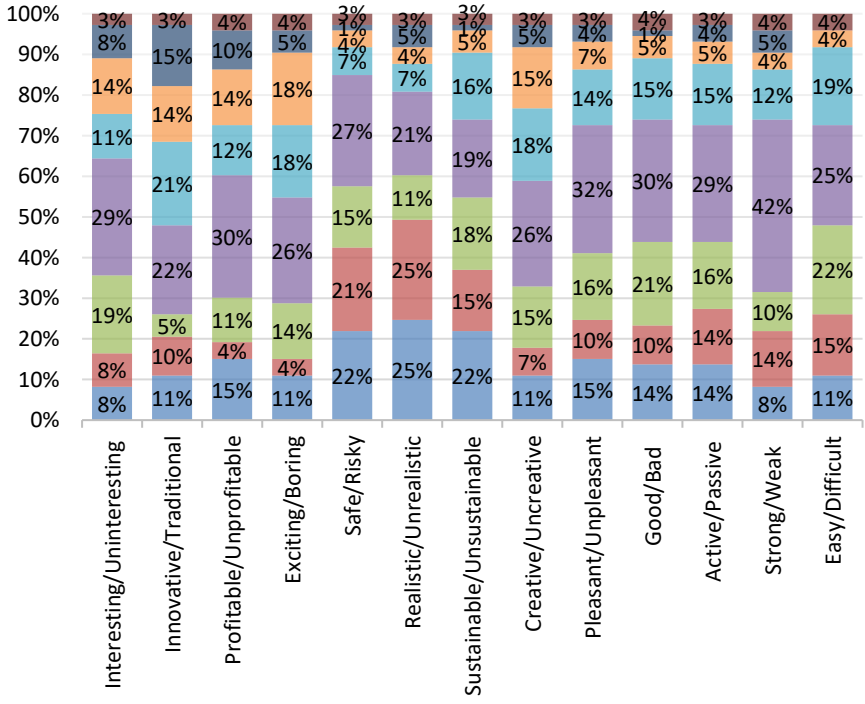

Figure 41 *Students' opinion about working for somebody else*

On opposite, when discussing the same pair of adjectives but concerning their perspective on working for somebody else, the answers suggested that this scenario is less interesting, innovative, profitable, exciting, realistic, creative, sustainable, pleasant, good, active and strong compared to the perspective on owning a private business. Additionally, working for somebody else is considered to a greater extent safe and easy (Figure 41).

Therefore, by posing these two back-to-back questions with the same pairs of adjectives, it becomes evident that students are particularly drawn to the prospect of launching their own business.

Human Capital Ratification

The following set of questions focuses on the motivation and necessity for entrepreneurship education and the development of entrepreneurial culture at educational institutions. Respondents are asked to evaluate their knowledge and skills in various dimensions such as innovative work practices, various kinds of innovations, creating own start-ups, legislation for opening and managing own business, accounting related to managing own business, etc. Table 11 provides a summary of the results, showing the percentage of respondents who sometimes and often think about activities related to their future work, as well as their motivation to learn more about these activities.

Table 11 *Students' attitudes toward activities related to their future work*

	Thinking about the different activities related to students' future work		Motivation to learn about the different activities related to students' future work	
	Sometimes	**Often**	**Probably Yes**	**Absolutely Yes**
Creating innovative ideas for complex issues	36.99%	30.14%	45.21%	36.99%
Searching out new work methods, techniques, or instruments	35.62%	28.77%	50.68%	36.99%
Generating original solutions for problems	31.51%	35.62%	42.47%	38.36%
Discussing latest ideas with your colleagues	17.81%	32.88%	46.58%	32.88%
Getting approval for innovative ideas	21.92%	21.92%	32.88%	43.84%
Making important people enthusiastic about your innovative ideas	30.14%	21.92%	41.10%	45.21%
Transforming innovative ideas into useful applications	28.77%	27.40%	45.21%	45.21%
Introducing innovative ideas into the work environment	34.25%	30.14%	41.10%	42.47%
Evaluating the effectiveness of innovative ideas	36.99%	26.03%	52.05%	36.99%

Regarding self-appreciation of their knowledge and skills, the majority of respondents evaluated them as acceptable (about 40% on average), followed by respondents who rated them as poor (around 25%, see Fig-

ure 42). These results highlight the need for providing additional learning materials, lectures and seminars to all students.

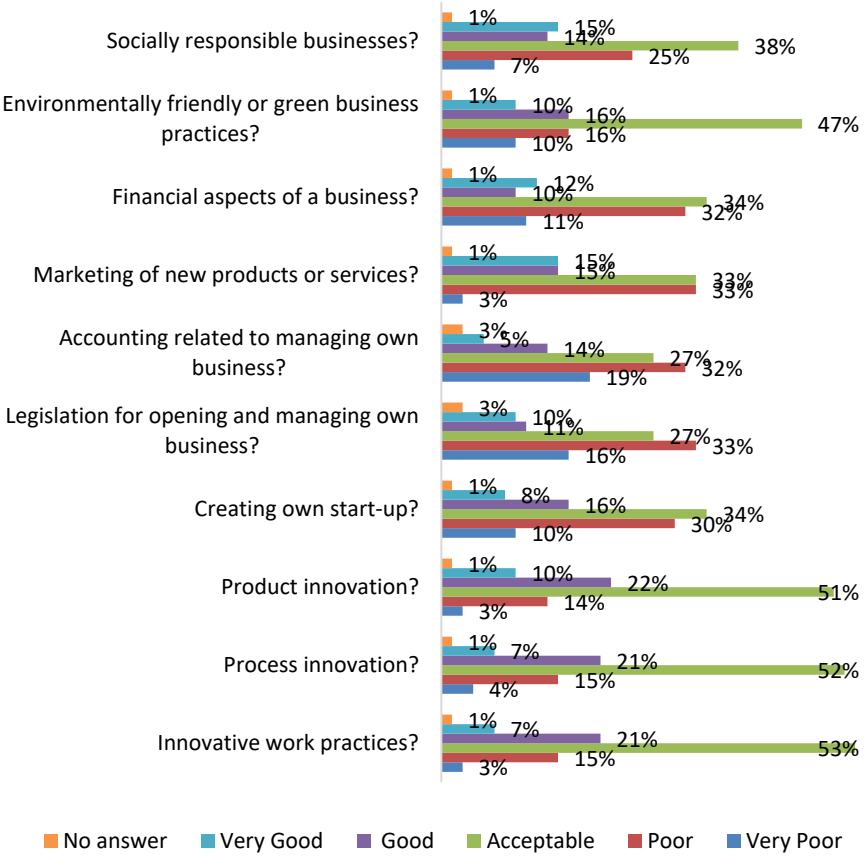

Figure 42 *Students' self-evaluation of their knowledge and skills on entrepreneurship*

Therefore, the next step of the survey aims to investigate the interest of the respondents in learning different topics related to starting and managing a business and to determine the extent to which each form of learning about entrepreneurship is suitable for them (Table 12).

Table 12 *Students' attitudes toward basic aspects of business planning and suitable forms of learning*

Students' interest in learning topics related to starting and managing a business			Forms of learning about entrepreneurship suitable for students		
	Interested	**Very Interested**	**Suitable**	**Very Suitable**	
Development of entrepreneurship skills	39.73%	30.14%	28.77%	15.07%	In-class lectures (30 hours of lectures with a certification exam)
Information on business management	42.47%	28.77%	36.99%	17.81%	Online lectures (30 hours of lectures with a certification exam)
Legislative and legal information	35.62%	32.88%	32.88%	15.07%	Combined in-class and online lectures (30 hours of lectures with a certification exam)
Marketing and sales information	41.10%	32.88%	54.79%	19.18%	Seminars (Short presentations by experts followed by discussions)
Financial and accounting information	41.10%	36.99%	32.88%	39.73%	Workshops (intensive group discussion and practical activity)
Risk management	35.62%	42.47%	34.25%	36.99%	Individualized guidance and mentoring on how to develop and manage one's own business
Acquisition of financial support and resources	38.36%	41.10%	35.62%	20.55%	Self-directed learning (Individual reading about entrepreneurship)

Networking and business collaboration	35.62%	39.73%	12.33%	8.22%	Other forms of learning
Human resources management	31.51%	43.84%			
Financial aspects of a business	38.36%	36.99%			
Environmentally friendly or green business practices	36.99%	35.62%			
Socially responsible businesses	32.88%	36.99 %			

The inquiry card provides further respondents with options to determine the most suitable entrepreneurship training for them. This information is helpful for the international project team to guide on developing and implementing different kinds of materials that would be most beneficial for the students. Specifically, the survey shows that there is high level of interest among respondents, with 61.64% interested in printed learning materials, 80.82% preferring digital learning materials, 80.82% desiring access to mass media channels, 91.78% interested in specialized courses, 89.04% interested in discussions with entrepreneurs and in the same extent in visiting businesses related to students' interests and 87.67% interested in internships in businesses related to their interests.

At the end of the survey, respondents are asked to reflect on the significance of certain factors as potential obstacles for someone starting a private business. The responses to this question are summarized in Figure 43, which indicates that the most significant obstacles seem to be the lack of knowledge on how to run their own business as well as the lack of personal financial resources.

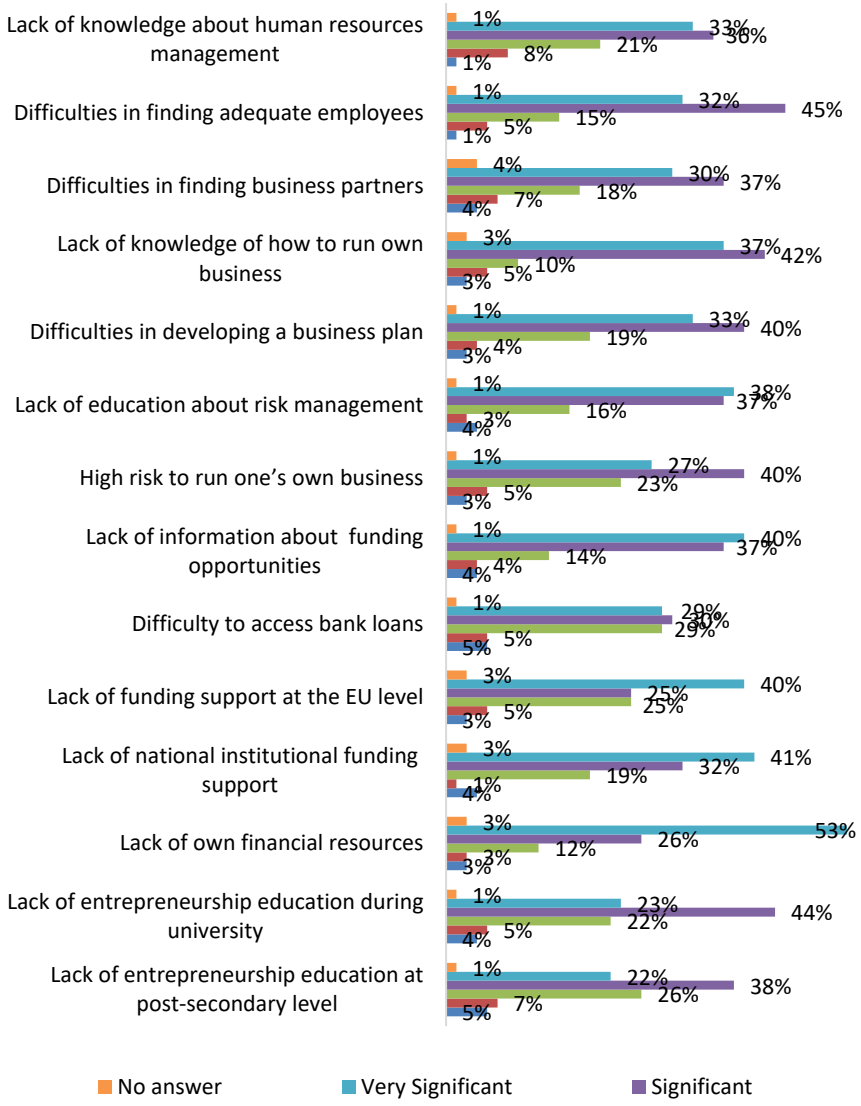

Figure 43 *Significance of factors that present an obstacle for someone starting a private business*

Conclusion

The pilot research test conducted at Technical University "Gheorghe Asachi" of Iasi, on a sample of 73 respondents, provided important preliminary data regarding student attitudes towards entrepreneurship. According to these results, it can be deduced that there is a significant interest among the target group of students for entrepreneurship, with most of them finding the idea of starting and managing a business attractive. Unfortunately, the analysis of collected data revealed many gaps in the entrepreneurship education and culture of the target group, which could be a major obstacle to identifying and exploring opportunities in the field of entrepreneurship. The need for students to acquire entrepreneurial knowledge and skills under academic guidance and professional support is clearly highlighted in this research. In this respect, the development of professional learning materials or other forms of support to improve student entrepreneurship knowledge and skills could be a good strategy to start addressing these gaps. A better approach could be achieved through the joint efforts of international experts involved in this project.

Limitations

One possible limitation of this research is related to the specific group of students, as they come from only a part of the eleven faculties of Technical University "Gheorghe Asachi" of Iasi. Additionally, a potential limitation could be that about half of the respondents are first-year undergraduate students with limited academic experience.

5. TURKEY

MUSTAFA YUNUS ERYAMAN
MARTINA RIEDLER
YAHYA HAN ERBAS
LEVENT CETINKAYA
SINAN KALKAN

Sample and Data Collection

In this part of the study, data were collected from students studying in various departments at Çanakkale Onsekiz Mart University. Although a total of 184 participants were involved in the data collection process via an online form, only 164 participants provided complete responses to the questions. Regarding gender distribution, 104 participants identified as female, 55 as male, 2 as other, and 3 participants chose not to disclose their gender. The age range of the participants varied widely, from 18 to 59 years old. The highest participation was from individuals aged 22, with 28 participants, while the age groups of 26, 35, 39, 41, 42, 44, 47, 50, and 59 each had only one participant. The participants consisted of a large majority, around 97.5%, who were citizens of the Republic of Türkiye, with 1 student each participating from Azerbaijan, Bulgaria, Kosovo, and Greece. Demographic information such as education levels, types of education, educational modes, employment status,

membership in any minority group, membership in a disadvantaged group, and disability status were obtained. This demographic information is provided in Table 13.

Table 13 *Socio-demographic profile of the sample*

Variable	Categories	Percentage
Gender	Male	37%
	Female	60%
	I prefer not to say	3%
Level of study	Undergraduate	73.5%
	Master	16.3%
	PhD	0.6%
	Other	9.6%
Educational mode	Full-time	83.1%
	Part-time	8.45%
	Other	8.45%
Employment status	Employed Full-Time	14.45%
	Employed Part-Time	13.85%
	Self-employed	7.85%
	Seeking employment opportunities	25.3%
	I prefer not to say	38.55%
Part of Minority group	Yes	19.7%
	No	81.3%
Part of a disadvantaged group	Yes	4%
	No	96%
A person with a disability	Yes	0%
	No	100%

Attitudes Toward Entrepreneurship

In the closed-ended 4-point Likert question, students' attitudes towards being an employee versus being an entrepreneur were assessed. As seen in Table 14, approximately 70% of the students would like to have

a full-time job. However, the average preference for working in small, medium, and large-scale enterprises is above 60%. Additionally, there are participants who stated that they would like to work in the public sector, establish an online business, or freelance.

Table 14 *Students' interest in the job's occupational opportunities*

	Not Interested at all	Not Interested	Interested	Very Interested
Full-time employment	4,5%	26,3%	53,2%	16%
Part-time employment	3,4%	25,5%	57,4%	13,7%
Self-employment (individual work for own account)	7,3%	25%	43,8%	23,9%
Combined full-time employment and self-employment	8,5%	25,8%	54,5%	11,2%
Combined part-time employment and self-employment	6,3%	26,3%	53,1%	14,3%
Micro business (employing less than 10 people)	10,9%	32%	48%	9,1%
Small business (employing less than 50 people)	9,3%	25,6%	55,8%	9,3%
Medium-sized business (employing less than 250 people)	7,6%	26,3%	55%	11,1%
Large business (employing more than 250 people)	9,4%	25,9%	43,5%	21,2%
Co-operatives	15,1%	44,2%	37,2%	3,5%
Other jobs				

Participants were also asked from whom and what kind of support they would like to receive. When we analyzed the responses, we found that 75% of the respondents mentioned academics and other university employees. These results highlight the importance of universities in foster-

ing entrepreneurship. Additionally, 90% of participants want to receive support from their families, and 80% from their friends. The expectation of support, especially from their close environment, along with the significant expectation of support from university academicians, is a noteworthy finding (Table 15).

Table 15 *Students' expectations of support receiving in own business foundation*

	Absolutely Yes	Probably Yes	Probably No	Absolutely No
University staff (professors, lectures etc.)	29,4%	46,9%	18,6%	5,1%
Secondary school teachers	8,6%	35,6%	42,5%	13,3%
Parents	53,1%	36,2%	5,6%	5,1%
Relatives	12,4%	30,8%	32,6%	24,2%
Friends	27,4%	53,7%	16%	2,9%
Educational institutions	29,1%	45,2%	21,7%	4%
Technology transfer office at your university	23,3%	34,7%	34,7%	7,3%
Other organizations	17,5%	34,3%	40,4%	7,8%

To further elaborate on the above question, respondents were asked an open-ended question about the kind of support they would like to receive for their businesses. Participants' responses included government loans, incentives for small and medium enterprises, support from large companies, family support, and individual entrepreneurial skills. For example, one participant reflected: "*Loans from banks or the government can support young people in specific projects*." Another participant mentioned that people who have experienced similar situations before can be significant contributors: "*People who have experienced such an experience before can be the biggest supporters. In addition, one of the most important supports when starting a business can be financial sup-*

port. In this sense, all kinds of people who will support the person financially can be considered important supporters."

Participants were also asked about their biggest source of inspiration for starting their own businesses. As seen in Table 16, the participants stated that their own motivation was the biggest source of inspiration at a rate of 87%, followed by successful local businesses at 85%, large businesses recognized by large masses at 80%, and university academics at 55%. The fact that university academics are a source of inspiration for 55% of the participants indicates that entrepreneurship should be an important subject of study in universities.

Table 16 *Students' inspiration to start their businesses*

	To a great extent	Somewhat	Very little	Not at all
Own initiative of young people	56%	32%	8%	4%
Successful local business owners	34,1%	42,6%	18,2%	5,1%
Some widely known business owners	35,5%	39%	21,5%	4%
Secondary school teachers	8,7%	13,3%	31,2%	46,8%
University professors	24%	37,4%	23,4%	15,2%
Parents	46,9%	34,3%	16,5%	2,3%
Relatives	7,5%	30,1%	28,3%	34,1%
Friends	29,7%	44%	18,3%	8%
Educational institutions	24%	36%	25,1%	14,9%
Technology transfer office	19,5%	30,5%	24,1%	25,9%
Other organizations	12,3%	28,6%	27,9%	31,2%

Using a pair of adjectives, the respondents have been asked to select the point that best describes their opinions about owning a private business and the opposite statement – working for somebody else. In sum-

mation, most of their answers state that the opportunity to create own company is interesting (44%), innovative (45%), profitable (35,7%), exciting (50,8%), safe (28,1%), realistic (34,6%), sustainable (36,8%), creative (45,4%), pleasant (51,9%), good (51%), active (54,1%), strong (53,5%), easy (18%). These results clearly state that the respondents adequately assess the tasks and responsibilities that come from owning their own business and approach responsibly to the realization of such an initiative. On the contrary, using the same pair of adjectives but focused on the point that best describes their opinion about working for somebody else is assessed as interesting (9,2%), innovative (10,7%), profitable (18.4%), exciting (9,7%), safe (29,8%), realistic (28,1%), sustainable (21,7%), creative (13%), pleasant (14,1%), good (16,7%), active (16,2%), strong (14%), easy (15%). Asking two consecutive questions using the same sets of adjectives aims to confirm or reject the main hypothesis that students are looking for opportunities to start their own business. The results show that the opportunity to work for themselves is more motivating than working for someone else.

Human Capital Ratification

In another question, participants were asked about the necessity of entrepreneurship education and whether a culture of entrepreneurship has developed in educational institutions. They were also asked to evaluate their knowledge and skills in innovative business practices, types of innovation, starting their own business, written rules for starting a new business, and managing a business. Table 17 presents these findings, including participants' motivation to learn for the mentioned activities.

Table 17 *Students' attitudes toward activities related to their future work*

	Thinking about the different activities related to students' future work		Motivation to learn about the different activities related to students' future work	
	Sometimes	**Often**	**Probably Yes**	**Absolutely Yes**
Creating innovative ideas for complex issues	29,7%	34,1%	46,5%	37,8%
Searching out new work methods, techniques, or instruments	28,1%	31,4%	45,9%	36,2%
Generating original solutions for problems	25,4%	38,4%	41,1%	43,2%
Discussing latest ideas with your colleagues	24,3%	39,5%	42,2%	35,1%
Getting approval for innovative ideas	26,5%	33%	49,2%	34,1%
Making important people enthusiastic about your innovative ideas	26,5%	33%	45,4%	35,7%
Transforming innovative ideas into useful applications	34,6%	25,9%	43,2%	38,9%
Introducing innovative ideas into the work environment	29,7%	30,3%	42,2%	37,8%
Evaluating the effectiveness of innovative ideas	28,6%	34,6%	48,6%	36,2%

We see that the participants' motivation to learn about starting and managing a new business is high. When we examine Table 18, we find that participants are highly motivated to learn about improving their

entrepreneurial skills, business management, legal regulations, and other related topics. The findings indicate that 57.3% of participants want to be supported with a blended online and face-to-face training program on these issues. Additionally, 67.6% think the training should be enhanced with various workshops, and 73% believe it should include mentoring.

Table 18 *Students' attitudes toward basic aspects of business planning and suitable forms of learning*

Students' interest in learning topics related to starting and managing a business			Forms of learning about entrepreneurship suitable for students		
	Interested	**Very Interested**	**Suitable**	**Very Suitable**	
Development of entrepreneurship skills	43,2%	23,8%	32,4%	14,6%	In-class lectures (30 hours of lectures with a certification exam)
Information on business management	41,1%	25,4%	37,8%	16,2%	Online lectures (30 hours of lectures with a certification exam)
Legislative and legal information	38,4%	24,3%	42,2%	15,1%	Combined in-class and online lectures (30 hours of lectures with a certification exam)
Marketing and sales information	38,4%	27,6%	42,2%	22,2%	Seminars (Short presentations by experts followed by discussions)
Financial and accounting information	31,9%	23,2%	38,4%	29,2%	Workshops (intensive group discussion and practical activity)

Risk management	41,1%	27%	41,6%	31,4%	Individualized guidance and mentoring on how to develop and manage one's own business
Acquisition of financial support and resources	39,5%	25,9%	36,8%	22,7%	Self-directed learning (Individual reading about entrepreneurship)
Networking and business collaboration	42,2%	28,1%			Other forms of learning
Human resources management	42,2%	27,6%			
Financial aspects of a business	35,7%	23,8%			
Environmentally friendly or green business practices	38,4%	28,1%			
Socially responsible businesses	42,2%	26,5%			

Figure 44 shows the subjects that participants believe are lacking in entrepreneurship education. Participants expressed opinions on a range of issues, from human resources management to securing a budget for a business. They stated that the biggest deficiency was not receiving such training during their university education.

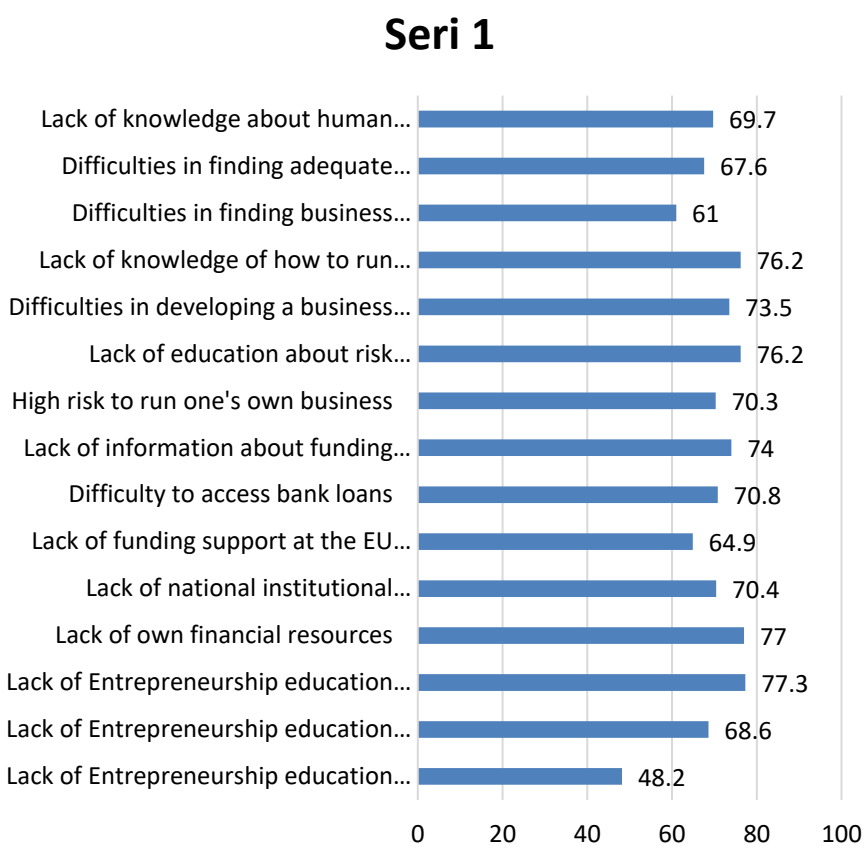

Figure 44 *Significance of factors that present an obstacle for someone starting a private business*

Conclusion

The study reveals that students are in search of opportunities to start their own businesses, demand support for their entrepreneurial skills, and seek to understand from whom and how they can receive support

for entrepreneurial activities. Additionally, the findings show that university students emphasize the necessity of providing education on entrepreneurship. Entrepreneurship, as a new field, should have a more significant place in national policies. It is crucial for both universities and the business world to work together to develop new policies and training programs. The analysis of the data highlights the importance of equipping individuals with entrepreneurial skills and teaching them what needs to be done in the process of starting their own businesses.

A unit affiliated with Çanakkale Onsekiz Mart University, Teknopark, establishes cooperation between the university and industry. Through various established companies, the projects of the business world directed towards the university and the projects developed by companies serve as examples for entrepreneurial individuals. Companies operating in many fields, from software to biotechnology, offer opportunities to young entrepreneur candidates. Significant developments in the field of entrepreneurship will be achieved through bilateral international agreements to be established with the university.

Limitations

One of the limitations of this study is that the data was collected from students studying at various faculties and vocational schools of Çanakkale Onsekiz Mart University. If the same survey were conducted with students from another university or a different target group, the results might vary. Another limitation is that participants might have provided answers that they believed were necessary to serve the purpose of the research, thus showing the results we were expected to see. Additionally, the survey data was collected from participants selected through convenience sampling. One of the limitations of this sampling method is the potential for biased responses.

Moreover, the data was collected by administering the survey only once within a specific time frame. Therefore, the inability to make comparisons is a limitation. A data collection process in which responses could be compared using the test-retest method could be implemented.

Future Research

Research on attitudes, skills, thoughts, and plans related to entrepreneurship is among the current research topics. This study examines university students' attitudes towards entrepreneurship and their expectations regarding entrepreneurship. In future studies, practical exercises guided by successful entrepreneurs could be a significant step towards achieving success in entrepreneurship. Additionally, studies providing theoretical and practical knowledge to support entrepreneurship infrastructures will contribute to the field. With this research jointly designed by partner organizations, there is an opportunity to compare the situations of students in entrepreneurship across different countries. These studies can be further advanced to plan joint entrepreneurship education programs, offering entrepreneurship courses designed according to international standards.

CONCLUSION

The pilot study for the research project on academic entrepreneurship conducted in five countries (Bulgaria, Italy, Malta, Romania, and Turkey) has provided compelling preliminary data regarding student attitudes towards entrepreneurship. The analysis of the collected data, which included both quantitative and qualitative responses, revealed a significant interest among the target group of students for entrepreneurship, with most of them finding the idea of starting and managing a business attractive. The study also identified common issues among the partner universities, while considering the specific conditions in each of them.

In addition to the widespread interest in entrepreneurship, the research study found out that students in all five countries have a strong desire for more information and education on the topic. This is likely due to the fact that entrepreneurship is a relatively new field of study, and there is still a lack of awareness and understanding of the topic among students. As a result, there is a need for more educational and training opportunities to help students develop the skills and knowledge they need to be successful entrepreneurs.

The results of the pilot study support the main research hypothesis: students are looking for opportunities to start their own business and possess an entrepreneurial mindset. However, there are gaps in entrepreneurship education, suggesting the need for the development of an entrepreneurial culture as part of national educational strategies. The influence of many factors and obstacles could be overcome by the common efforts of experts in the field of business process development.

The next step in the project involves collecting additional research evidence through focus groups and individual interviews during workshops related to the survey findings. These activities will contribute to the development of an academic roadmap for entrepreneurial education.

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