ENTRANCE: Enhancing the ENTRepreneurial mindset of non-business Academics in Europe

Stella Chalvantzara- Insitute of Entrepreneurship Development

Larisa, Greece, 2021

The project has been funded with support from the European Commission. The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Co-funded by the Erasmus+ Programme of the European Union

PROJECT NUMBER: 2020-1-CY01-KA203-065982

Contents

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Project Partners

idea innovation center

European Commission

EEPA Category Winner 2019

ktu kaunas university of technology 1922

GrantXpert consulting

UNIVERSIDADE BEIRA INTERIOR

Institute of Entrepreneurship Development iED

NTRANCE

Co-funded by the Erasmus+ Programme of the European Union

1. Introduction

The present global socioeconomic crisis and restructuring is causing a variety of changes in entrepreneurial dynamics. The overall global growth prospects are determined by the competitive survival capabilities of diverse socioeconomic systems under globalization.

Promoting entrepreneurship as a core competency in education, enables EU citizens to be entrepreneurial and to come up with creative approaches to societal challenges as well as to create solutions with additional socio-economic value.

In addition, the current financial situation in Greece constitutes a significant factor in the necessity of researching the role of entrepreneurship education. Specifically, the research of its role in facing unemployment and in the development of a healthy and viable entrepreneurship. The purpose of this report is to examine the functions of the Entrepreneurship Education (EE) in Greece and whether academics and students are willing in order to build business ventures or start-ups in the industry. Moreover, we try to investigate best practices that improve Entrepreneurship Education in general. Last but not least, the results of a primary research- survey and 2 interviews- are extensively reported.

2. Background characteristics of Greece

Greece is a country in Southeast Europe that is formally known as the Hellenic Republic. According to the latest studies of 2020 (eurostat, 2020), its population was estimated to be over 10.7 million, with Athens as the largest and capital city, followed by Thessaloniki. Greece is made up of a mountainous peninsular landmass that juts out into the sea at the southern edge of the Balkans, terminating in the Peloponnese peninsula, and is strategically located at the crossroads of Europe, Asia, and Africa. Greece has the 11th longest coastline in the world, with 13,676 km, due to its heavily indented coastline and many islands.

Greek is the only official language of the country, and 99 percent of the population speaks it. A variety of non-official, minority languages, as well as certain Greek dialects, are also spoken. English, German, French, and Italian are the most prevalent foreign languages learned among Greeks.

2.1 Emphasis to entrepreneurial activity

According to the Global Innovation Index 2020 report, Greece ranks 43rd among the 131 economies. Compared to other European economies, Greece performs as follows; above average in one of the

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

seven GII pillars: Human capital & research; and below average in six out of the seven GII pillars: Institutions, Infrastructure, Market sophistication, Business sophistication, Knowledge & technology outputs and Creative outputs (GII, 2020).

According to the GEM's 2020 policy report, the Total early-stage entrepreneurial activity (TEA) in Greece grew slightly in 2020, from 8.2 in 2019 to 8.6 in 2020. While this is an encouraging indication, other indicators of future entrepreneurial confidence are less so. For example, 79 percent of TEA participants claimed that the pandemic outbreak had provided them with no chances. Furthermore, Greece's Established Business Ownership (EBO) rate increased significantly, from 14.3 percent in 2019 to 14.6 percent in 2020, similar to the TEA rate. This is the highest EBO rate among all GEM European countries, and it may prove to be a crucial element of Greece's recovery if early-stage entrepreneurs are less impatient and present growth obstacles are resolved. Experts also gave Greece's government-related conditions a slightly higher rating than in 2019, indicating a much-needed improvement in some of the country's recent institutional difficulties. Experts evaluating the Greek government's performance during the pandemic noted the improvements in these parameters. Greek experts scored the government's reaction to the pandemic a grade of 6.5, putting it sixth among all GEM economies. However, their score for the pandemic's entrepreneurial response was only 6.4, ranking them in 29th position among GEM economies. https://www.gemconsortium.org/file/open?fileId=50691

The pandemic has had a significant impact on startups that are still in the early stages of development. Regardless of their business or market emphasis, the majority of startups were hit by the lockdown restrictions and the global economic crisis.

The most popular startups in Greece, according to the Greece Startup Map, are numbered about 138. Based on the strength of its startup environment, Greece is ranked 44th out of 202 economies. Athens, Thessaloniki, and Rhodes have the most dynamic startup ecosystems in Greece.

2.2 Emphasis to Entrepreneurial Education

The Ministry of Education, Research, and Religious Affairs oversees tertiary education in Greece (MoERRA). While MoERRA oversees operational concerns like as recruiting, finance, and student enrollment, higher education institutions are mostly self-contained when it comes to academic and administrative affairs.

University of Thessaly (UTH): The Structures of the University of Thessaly related to Research and Innovation are organized according to international standards and provide high quality services for the development of Research Programs and Innovative Applications of the institution, the results of which multiply the reputation and competitiveness of the University. Specifically, the

NTRANCE Co-funded by the Erasmus+ Programme of the European Union

MSc program in Applied Economics provides the course “Innovation and Entrepreneurship”, where students receive the appropriate knowledge about setting up their own business in practice. Through laboratory courses, groups of students are divided and develop their idea steadily under the guidance of the responsible teacher. They are also given the opportunity to get in touch with mentors and renowned entrepreneurs, who will lead them to the implementation of their idea.

The **AUEB** Innovation and Entrepreneurship Unit often holds events such as the "Career Day for Startups", which is open to those who wish to gain useful work experience in a dynamic and innovative environment with excellent development prospects.

Also, the "**MITOS**" program is an innovative initiative of the **University of Crete** that started as a pilot in 2020 and this year the new, enriched cycle takes place. It aims to provide young researchers with critical knowledge, internships and consulting free of charge, so that young researchers can acquire the basic resources to support commercial and business research (research commercialization).

The program concerns the following fields:

- support for intellectual property,
- support for partnerships with companies and organizations for technology / knowledge transfer,
- support for the creation of companies (spin offs).

3. Collection of best practices from secondary research

3.1 Scientific articles

Scientific article 1

Title: *Action-embedded pedagogy in entrepreneurship education: an experimental enquiry.*

Year of publication: 2019

Authors: H. V. Mukesh, K. R. Pillai, Jose Mamman

Journal: Studies in Higher Education

Aim of the research: The efficiency of traditional classroom pedagogy in entrepreneurship education (EE) has been questioned by the academic community, underlining the need for an alternative pedagogic approach. To address these issues, this research investigates the advantages of action learning pedagogy over traditional classroom pedagogy for Entrepreneurship Education.

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Specifically, the aim of this study is to address developing challenges in Entrepreneurship Education and pedagogical methodologies. The study used an experimental research methodology to examine the impact of traditional classroom pedagogy and action-learning pedagogy on entrepreneurial intention. The goal of this research is also, to assess how action-learning pedagogy affects Entrepreneurship Education.

Entrepreneurial self-efficacy and entrepreneurial intention were used to measure the effectiveness of both pedagogic approaches. To achieve the research objectives, a randomized experimental, pre-and-post-test with control and treatment groups design was used.

Main results: Promoting an entrepreneurial culture is a decisive approach to the increasing levels of unemployment in developing and underdeveloped countries. This research findings give substantial evidence for encouraging Entrepreneurship Education and pedagogic approaches to cultivate a positive entrepreneurial mindset, confidence, and competency in order to pursue a successfully entrepreneurial career.

The impact of both pedagogic approaches, traditional classroom pedagogy and action-learning pedagogy on entrepreneurial intention, was assessed through entrepreneurial self-efficacy and entrepreneurial intention. A randomized experimental, pre-and-post-test with control and treatment groups design was followed to accomplish the study objectives.

For undergraduate Bachelor of Business Administration (BBA) students in the study setting, an EE framework with action-learning pedagogy was developed. Based on action learning principles, this course was revised using action learning pedagogy. The researchers designed the action learning pedagogy in collaboration with pedagogical professionals and offered it to the institutional bodies for authorization and legitimacy. The students were assigned the task of forming teams of four to six people to carry out their small business activity over 10 weeks. The students were offered the option of using their own funds as seed capital or applying for the institution's entrepreneurship development fund.

The results of the experiment showed that action-embedded Entrepreneurship Education is more beneficial than theoretical classroom-centric learning since entrepreneurial learning is more pragmatic. When compared to those who were exposed to traditional classroom pedagogy, the results showed that those who were exposed to action learning pedagogy (treatment group) had considerably higher levels of entrepreneurial self-efficacy and entrepreneurial intention (control group).

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Scientific article 2

Title: *Integrating Entrepreneurship into the Design Classroom: Case Studies from the Developing World.*

Year of publication: 2017

Journal: Journal of the Knowledge Economy

Authors: Constance Van Horne, Vincent Dutot, Sylvaine Castellano, Marco Sosa, Lina Ahmad

Aim of the research: Developing countries are becoming increasingly committed to developing a knowledge-based economy as a method of diversifying their economies away from their existing resource-based economies. Many governments are focusing on technology at the moment, real insights on creative economy and arts. Universities are recognised as an essential government partner in this regard.

The findings of two innovative case studies in which professors from the College of Art and Design collaborated with a professor from the College of Business to incorporate entrepreneurial principles into their interior design classes are presented below. This was accomplished by designing space for entrepreneurial projects and having students behave as entrepreneurs with an external client.

Main results: Recognizing that many of the students were still unemployed after graduation, the College and individual professors made an effort to promote the principles of entrepreneurship to students as an integrated component of their existing classes.

The following is the research topic to be answered: How can entrepreneurship better assist university students in participating in and benefiting from the knowledge and creative economy?

This aforementioned dual training methodology combines (a) learning processes about entrepreneur behaviors and needs and (b) learning by operating as an entrepreneur. Such methods illustrate the importance of universities in providing students with a solid theoretical basis and encouraging entrepreneurial activity through arts entrepreneurship education.

Case Study 1: The Entrepreneurial Office

Interior Design Studio II students in their second semester of interior design were assigned to design a space that would serve as an office for promoting young graduate entrepreneurs inside the institution as part of their course work in the spring 2013 semester. The existing location was empty and situated on the university's campus. It was incorporated with thorough coordination and cooperation with academics from the College of Business, who took on the formal position of an existing program and added some fundamental principles of entrepreneurship. To effectively design the space, the student designers needed to comprehend the essence of entrepreneurship as well

NTRANCE Co-funded by the Erasmus+ Programme of the European Union

as operate as entrepreneurs with a realistic brief given by actual individuals, according to their requests, tastes, and rationality.

The students learned the potential need of a recently graduated entrepreneur could in a workspace, as well as how an interior design entrepreneur works with actual clients and a dynamic brief that was not presented completely formed, throughout the case study.

Case Study 2: The Incubator Space

Incubator Space, the second case study, was completed in the autumn of 2013 with Interior Design Studio III students and followed a three-phase procedure. The course's key objective was to introduce students to the theoretical and functional aspects of interior design, with a focus on three-dimensional spatial knowledge, design improvements, and physical and technological solutions. At the same time, it integrated the basic customer analysis, planning evaluation and space design awareness as well as the necessary materials and finishes.

A business professor participated as a customer, presenting the project brief to students and attending many design sessions as well as the final project presentation. The students were put in a unique situation in which they had to choose between two roles: designer and potential new user.

The two case studies done by all of the relevant academics had the purpose of preparing interior design students for active engagement in the developing creative industries, which is the intended objective of all arts entrepreneurship education.

3.2 National & International programs

National programmes

ACEin Unit

Innovation and development units operate in Greek universities that aim to connect innovation with education. The ACEin Unit (Athens Center For Entrepreneurship And Innovation) a unique example of an innovation unit. The ACEin of AUEB is the incubator of the University with the aim of supporting new business schemes and research teams in the development and implementation of their innovative business ideas. Among other things, it provides hosting, training, support, networking services and supports various entrepreneurial support actions, such as the ennovation.eu student competition, the open innovation program idea.aueb.gr, etc. The ACEin Unit helps the beneficial business groups to develop the ideas and move from the idea stage to the business implementation stage, while increasing the chances of success through continuous interaction with the market. In

NTRANCE Co-funded by the Erasmus+ Programme of the European Union

three years of operation, the center has supported more than 200 teams and has organized over 50 actions and specialized programs to support entrepreneurship. It also plays a leading role in the business exploitation of research results.

Innovation and Entrepreneurship Unit University of Thessaly (MOKE)- University of Thessaly

The main goal of the Innovation and Entrepreneurship Unit (MOKE) is to develop the business and innovative skills of the students of the University of Thessaly and to support them in undertaking business activities. To this end, MOKE implements activities such as: teaching entrepreneurship courses related to entrepreneurship and innovation, ensuring direct contact with the business community, lectures by well-known entrepreneurs, seminars and mentoring programs, student business activities through specialized guides and tools and consulting. A mix of modern educational tools is used, which are constantly updated: teamwork, guest speakers - mainly young people - entrepreneurs and work with experienced consultants, visits to innovative companies, support of student groups through specialized guides and tools and team management and organization and organisation. During the program students are organized into groups (simulating a real start-up effort) with the aim of presenting their ideas and plans in writing and defending them orally (pitching). The action of MOKE is not limited to students, as it supports and offers its services to researchers and research groups, but also to individuals / groups outside the University. The goal is the proper guidance (coaching) of individuals / groups who have a business idea for commercial use. MOKE participates in various European and national programs, which are related to the support of business initiatives.

The services of MOKE are addressed both to students at the University of Thessaly through the entrepreneurship courses and the various activities that are implemented targeted at them, as well as to people who are in the later stages such as graduates or researchers both at the University of Thessaly and abroad, who try to integrate into the entrepreneurial ecosystem through the creation of new businesses. Finally, MOKE offers its services to existing companies with the aim of strengthening their activity and shaping a better business strategy.

The services provided are the following:

- teaching courses related to entrepreneurship and innovation.
- ensuring direct contact with the business community with the help of visits to productive bodies and the utilization of renowned entrepreneurs and / or high-ranking business executives.
- take full advantage of the possibilities offered by new technologies by utilizing modern management and business planning tools.
- support in undertaking business action and the implementation of business ideas

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Egg - enter • grow •

The Egg - enter • grow is a leading business incubation-acceleration program that strengthens innovative entrepreneurship with the right infrastructure and guidance and creates opportunities for the development, financing, networking and extroversion of start-ups. The program offers opportunities for appropriate startup funding, mentoring, marketing, networking and internalisation with 2 platforms, for:

- Startups, teams or individuals with innovative ideas, looking for the right supplies and resources to become sustainable businesses (START UP).
- New companies that want to accelerate their growth to try their next step with a new product or in new markets in Greece and abroad (SCALE UP).

Participation in the program lasts 12 months, where one can get everything a strong startup needs. Regarding some of the conditions that must be met to participate in this program are the age -18-65 years old - and the studies which must be in a higher education institution, public or private, in Greece or abroad, from all professional sectors independently.

International programme

entreTime: Creation and Implementation of a Train-the-Trainer Programme is a project
entreTime is an entrepreneurship education project aimed at upskilling educators within Higher Education Institutions and upgrading their pedagogical tools on this domain by providing a comprehensive training package. The EntreComp framework is used to improve skills and expertise such as problem-solving, human empathy, teamwork, communication, self-efficacy, adaptability, attentiveness, tenacity, and resilience via the use of experiential learning. The primary target group of the project is non-business Academics who have an interest in embedding objectives and practical aims of entrepreneurship education into their syllabus. Athens University of Economics and Business (AUEB) from Greece participates in this project as a partner to the consortium.

4. Primary research

4.1 Summary of findings from the survey for non-business academics

As part of the project, a primary research was conducted to assess the current knowledge of non-business Academics in Greece on entrepreneurship and the pedagogical approaches they use to promote the entrepreneurial mindset of their students.

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

The questionnaire was answered by a total of 12 participants, 6 men and 6 women. Most of the respondents are at the age range of 41-50 years old and the rest of them are divided as follows: 3 respondents were ranged between the youngest group of 26-30 years old, 2 respondents at the group of 31-40 years old and only 1 at the group of 51-60 years old. Regarding the Universities represented by the participants, most of them (5) belong to the University of Thessaly, while the rest are almost equally divided into universities from all over Greece: 2 respondents of Panteion University, 1 from National Technical University of Athens, 1 from the Aegean university, 1 from the Aristotle University of Thessaloniki and 1 from the Ionian University.

A broad spectrum of professions has been reported in terms of the areas of their expertise, however the majority of the participants are from fields such as Arts and Humanities, Clinical and Health and Physical Sciences. Concerning their academic position and years of experience, the majority of the participants answered that they are Researchers and Associate Professors. Also, the partcipants of the survey have been in Academia for 1-5 years (4 respondents), for 6-10 years (also 4 respondents), 11-20 years (2 respondents and 21-30 years (1 respondent). Last but not least, the majority of the participants stated that they would like to be participate in the free online ENTRANCE training addressed to non-business academics that will take place during 2021-2022.

Part I: The relationship of your university with entrepreneurship

The majority of non-business Academics declared that there is collaboration between their university and the local firms in order to promote entrepreneurship. However, 4 respondents stated that there is no link between the Universities and the local firms (e.g Start-ups, SMEs etc.)

Part II: Your experience in relation to entrepreneurship

Concerning the Academics relation to entrepreneurship, the majority claimed that they had a relevant experience in the development and the exploitation of a business idea. However, when asked if they are afraid that their idea will not be successful due to the fact that they have not received the appropriate knowledge, most answered that they strongly agree. 4 out of 12 respondents indicated that the legal framework in Greece does not support academics when they start entrepreneurial activities within Universities and the rest of the participants neither agreed nor disagreed. Finally, the majority of participants (9 out of 12) stated that the Covid-19 pandemic situation plays a very important role in the development of their idea, while someone noted that the difficulty they face in relating their field to entrepreneurship is an inhibiting factor.

ENTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Part III: The development and implementation of an idea/activity

9 out of 12 non-business Academics declared that they could recognise the needs for the development of their idea and also could identify the innovative components of it. However, only 4 respondents agreed that they can choose the right resources for the implementation of their idea. Meanwhile, 9 out of 12 respondents states that they can identify their strengths and weaknesses and keep the team motivated to what they want to achieve. The lack of knowledge in searching for external help for the development and implementation of the activity/idea (e.g., social enterprise advisors) is clear at this point, as less than half of the participants believe they can do it. Furthermore, more than half of the respondents feel confident about drawing the budget of their idea. It is more than encouraging the fact that 10 out of 12 Academics can make use of the social media based on the audience and the purpose of their activity/idea.

As for the business plan development, the majority answered that they are capable of developing one.

Part IV: Entrepreneurial environment and practices

Likewise, concerning the university's objectives of stimulating entrepreneurial mindsets and skills, the majority of the respondents agreed, and the rest of them moved to a neutral option.

Respondents were divided on the question of whether Academics and staff should follow an entrepreneurial teaching approach across all the departments, promoting diversity and innovation in teaching and learning. Half of them agreed and the other half disagreed.

Regarding the last chapter of the survey, the pedagogical methods, almost the majority of the non-business Academics have agreed that it might be important to ask students to work and examine case studies, engage them in real-world projects and teach them an experiential learning approach.

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

4.2 Summary of findings from the interviews with industry experts

1st Interviewee: Male/ Business owner of a Digital Transformation Agency

Educational profile

MSc in "Advanced Computer and Communications Systems"- Dept of Electrical and Computer Engineering- AUTh, Greece

PhD Researcher in the field of Computational models- AUTH

Entrepreneurial experience

2019

2nd Interviewee: Male/ PhD Student and Researcher- Founder of an Architectural company

Educational profile

PhD Student and Researcher- Department of Architecture and Engineering, Polytechnic School, Aristotle University of Thessaloniki (AUTh), Greece

Entrepreneurial experience

2009

The 1st interviewee is an owner of a digital transformation agency company, started its business at the end of 2019. The company is engaged in digital transformation services, ie automation and optimization of processes, development of software and web solutions.

The 2nd interviewee is a founder of an Architectural company that is a cross disciplinary design research network of professionals dealing with objects of all scales and matter, physical and digital, real and speculative, conceptual and functional. The office was founded in 2009, in the midst of the Greek financial crisis.

Part I: Challenges and the role of Universities

Both interviewees highlighted the difficulties they faced given their academic background which was not related to entrepreneurship. The 1st interviewee stated that the biggest challenge he has faced was the time management. He emphasizes that perhaps with proper studies this would have

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

accelerated some processes and situations. Also, the 2nd interviewee outlines that another constrain was developing a business plan.

Regarding the difficulties due to the pandemic situation, both interviewees talked about challenges they faced. The 1st interviewee they had to retest all their tools in order to be efficient in teleworking mode. Also, the same interviewee stated that, although the fact that the market was derailed due to quarantine, the later accelerated some processes, i.e., some industries (including himself) took the time to dedicate energy to the business to develop it from a technological point of view. The 2nd interviewee stated that the situation went some work a little further back and complicated the working conditions.

The reason that pushed the 1st interviewee to leave Academia and do his own business venture is to test himself as an engineer in a different environment, with different dynamics and other values. He also wanted to meet new people, to get himself out of the comfort zone and to learn new things.

The 2nd interviewee has not left the academic field but he has noticed that he does not follow it as warmly as he did in previous years. He finds the implementation of a project much more interesting than staying in the plans, as is done in the schools of architecture.

Both interviewees outlined that University cannot be imagined to be cut off from the business sector. The 1st interviewee believes that both university and market must respect each other's particularities in order to lead to a healthy and constructive cooperation between them. Also, both respondents concluded that the work done in universities during their studies is very important for someone's later career as a professional. If entering entrepreneurship at university means a better motivation for a student, that is, to have a better professional development, then yes, it should enter his life earlier.

Part II: Entrepreneurial skills

Ideas & Opportunities

As the first interviewee is active in the field of digital transformation and the second in architectural design both mentioned extensively the business skills they developed during their business activity. It is quite interesting to highlight their answers when asked what is most important to them: the novelty of a product/idea or its meaning. The 1st interviewee said that the utility of a product/idea plays the leading role because if it does it is not useful and does not cover a need, it will not be sustainable for long in a competitive environment. The ones that will meet needs are the ones that will stay. On the contrary, the 2nd interviewee said that the meaning of a product in Architecture must always be combined with innovative features. The final product itself and how it will be shaped and differentiated produces the innovation.

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Resources

Regarding the resources, both interviewees said that in the beginning of their ventures the cash flow was low, so they managed to overcome this difficulty with hard work and persistence.

Both interviewees stated the most crucial component of business is people. They also mentioned that people are the driving force. If there is no team, one cannot go too far. Also, the 1st interviewee highlighted that people are the ones who create the legacy of the company.

Furthermore, the 1st interviewee mentioned that when comes to motivation, it derives from a good work environment, with respect, consistency, reliability, fairness and beyond that the development and training of the employee certainly plays a role.

Again, both interviewees stated that networking is certainly important for a business. Networking offers customer confidence, as well as plays a role in finding partners. The 1st interviewee said that they expand their network in 2 ways: 1) The customer service after the completion of a project try to always be correct and targeted and 2) Use social media. The 2nd interviewee indicated that networking is different when it comes to partners than when it comes to the targeted public.

Into Action

The 1st interviewee outlined that the most important features for developing a successful business plan are the initial needs and risk analysis, which should be detailed and market oriented. Also, the same interviewee said that at the end of each effort an assessment analysis has to be made and corrective actions taken based on it. Moreover, the 2nd interviewee declares that the resilience of a business plan plays an important role. Analyzing the target market is just as important.
Both of them agreed that for a business to be viable it must promise itself change and a willingness to experiment. Change is an opportunity, not a risk.

5. Conclusions

The following conclusions derived based on the results of the primary research. First, based on the results of the questionnaire we can summarize that the non-business Academics who participated have a strong will to know more about the process of developing a business idea. However, it has been observed that what may be difficult for them is to find sufficient external help and to manage financial parts of the design of the idea. Nevertheless, the overall survey overview is quite encouraging.

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Moreover, the interviews with industry experts also provided us with valuable information regarding the challenges and difficulties that a potential entrepreneur trying to take up business may have. The completely different backgrounds of the interviewees confirm the above.

NTRANCE
Co-funded by the
Erasmus+ Programme
of the European Union

References

Websites

eurostat, 2020. [Online]
Available at: https://ec.europa.eu/eurostat/web/population-demography-migration-projections/visualisations

Theegg.gr. 2021. *egg enter grow go*. [online] Available at: https://www.theegg.gr/el

Moke.uth.gr. 2021 [online] Available at: https://moke.uth.gr

Articles

Mukesh, H., Pillai, K. and Mamman, J., 2019. Action-embedded pedagogy in entrepreneurship education: an experimental enquiry. *Studies in Higher Education*, 45(8), pp.1679-1693.

Van Horne, C., Dutot, V., Castellano, S., Sosa, M., & Ahmad, L. (2017). *Integrating Entrepreneurship into the Design Classroom: Case Studies from the Developing World. Journal of the Knowledge Economy.* doi:10.1007/s13132-017-0499-4

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Appendix

Non-business academics questionnaire-Frequency tables

Does your university collaborate with local firms (e.g., SMEs, large corporations, start-ups) for the promotion of entrepreneurship culture within the university?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	4	33,3	33,3	33,3
	Yes	8	66,7	66,7	100,0
	Total	12	100,0	100,0	

Does your university provide to its academics/researchers the opportunity to receive research or innovation funding for the development and exploitation of a business idea?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	3	25,0	25,0	25,0
	Yes	9	75,0	75,0	100,0
	Total	12	100,0	100,0	

Is there a relevant office or department within your university that supports academics or students in developing entrepreneurial activities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	4	33,3	33,3	33,3
	Yes	8	66,7	66,7	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Do you have any relevant experience in the development and the exploitation of a business idea?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	4	33,3	33,3	33,3
	Yes	8	66,7	66,7	100,0
	Total	12	100,0	100,0	

I never thought to develop and exploit any business idea until now.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stronly Disagree	5	41,7	41,7	41,7
	Disagree	1	8,3	8,3	50,0
	Neutral	5	41,7	41,7	91,7
	Agree	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

My university does not provide any incentives for academics to develop entrepreneurial activities.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stronly Disagree	2	16,7	16,7	16,7
	Disagree	2	16,7	16,7	33,3
	Neutral	3	25,0	25,0	58,3
	Agree	5	41,7	41,7	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

There is no clear university policy regarding relationship with business.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stronly Disagree	2	16,7	16,7	16,7
	Disagree	1	8,3	8,3	25,0
	Neutral	6	50,0	50,0	75,0
	Agree	2	16,7	16,7	91,7
	Strongly Agree	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

My university does not have a relevant office/department that supports academics in developing entrepreneurial activities.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stronly Disagree	1	8,3	8,3	8,3
	Disagree	5	41,7	41,7	50,0
	Neutral	3	25,0	25,0	75,0
	Agree	2	16,7	16,7	91,7
	Strongly Agree	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

My research work is more theoretical, it is not so relevant with entrepreneurial activities.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stronly Disagree	1	8,3	8,3	8,3
	Neutral	3	25,0	25,0	33,3
	Agree	6	50,0	50,0	83,3
	Strongly Agree	2	16,7	16,7	100,0
	Total	12	100,0	100,0	

My colleagues at university are not willing to start working on this new business idea together so I face difficulties in forming a successful team.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	16,7	16,7	16,7
	Neutral	5	41,7	41,7	58,3
	Agree	4	33,3	33,3	91,7
	Strongly Agree	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

There are many legal complications between the university and the academics when they start a spin-off and I do not want to get into arguments with my superiors.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	8,3	8,3	8,3
	Neutral	5	41,7	41,7	50,0
	Agree	5	41,7	41,7	91,7
	Strongly Agree	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

I am not aware of the Intellectual Property Rights associated with my invention or the procedure that I should follow to protect them.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stronly Disagree	3	25,0	25,0	25,0
	Disagree	1	8,3	8,3	33,3
	Neutral	2	16,7	16,7	50,0
	Agree	3	25,0	25,0	75,0
	Strongly Agree	3	25,0	25,0	100,0
	Total	12	100,0	100,0	

I work so many hours to conduct other academic tasks that I don't have time to embark in such exploitation/entrepreneurial activities.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	5	41,7	41,7	41,7
	Agree	5	41,7	41,7	83,3
	Strongly Agree	2	16,7	16,7	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

I do not hold a previous experience of how to start in exploiting my research findings or embarking on entrepreneurial activities (e.g., development of a business plan).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	3	25,0	25,0	25,0
	Neutral	2	16,7	16,7	41,7
	Agree	4	33,3	33,3	75,0
	Strongly Agree	3	25,0	25,0	100,0
	Total	12	100,0	100,0	

I am not sure how to identify a business opportunity considering the needs of a particular target group and the characteristics of my business idea.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	16,7	16,7	16,7
	Neutral	5	41,7	41,7	58,3
	Agree	5	41,7	41,7	100,0
	Total	12	100,0	100,0	

I am afraid that I won't be successful in my entrepreneurial efforts since I was not trained in this area before thus I avoid starting altogether.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	16,7	16,7	16,7
	Neutral	3	25,0	25,0	41,7
	Agree	4	33,3	33,3	75,0
	Strongly Agree	3	25,0	25,0	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

I am afraid that my potential business idea will not be attractive in the market.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	3	25,0	25,0	25,0
	Neutral	3	25,0	25,0	50,0
	Agree	5	41,7	41,7	91,7
	Strongly Agree	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

The legal framework in my country does not support academics when they start entrepreneurial activities within Universities.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	16,7	16,7	16,7
	Neutral	6	50,0	50,0	66,7
	Agree	4	33,3	33,3	100,0
	Total	12	100,0	100,0	

The current situation of the COVID-19 pandemic.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stronly Disagree	1	8,3	8,3	8,3
	Neutral	2	16,7	16,7	25,0
	Agree	5	41,7	41,7	66,7
	Strongly Agree	4	33,3	33,3	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Other (please write your own reasons)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		10	83,3	83,3	83,3
	it is difficult to make the connection between my field and entrepreneurship	1	8,3	8,3	91,7
	Total	12	100,0	100,0	

I can recognize community's and surroundings' needs for the development of my idea/activity.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	3	25,0	25,0	25,0
	Agree	6	50,0	50,0	75,0
	Strongly Agree	3	25,0	25,0	100,0
	Total	12	100,0	100,0	

I can identify innovative characteristics of my idea/activity.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	8,3	8,3	8,3
	Neutral	2	16,7	16,7	25,0
	Agree	2	16,7	16,7	41,7
	Strongly Agree	7	58,3	58,3	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

I can choose the right resources for the implementation of my idea.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	5	41,7	41,7	41,7
	Neutral	3	25,0	25,0	66,7
	Agree	1	8,3	8,3	75,0
	Strongly Agree	3	25,0	25,0	100,0
	Total	12	100,0	100,0	

I can identify my strengths and weaknesses and those of my team.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	8,3	8,3	8,3
	Neutral	3	25,0	25,0	33,3
	Agree	5	41,7	41,7	75,0
	Strongly Agree	3	25,0	25,0	100,0
	Total	12	100,0	100,0	

I can keep my team motivated to what they want to achieve.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	8,3	8,3	8,3
	Neutral	1	8,3	8,3	16,7
	Agree	4	33,3	33,3	50,0
	Strongly Agree	6	50,0	50,0	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

I can look for external help if need be, for the development and implementation of my activity/idea (e.g., social enterprise advisors).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	16,7	16,7	16,7
	Neutral	5	41,7	41,7	58,3
	Agree	4	33,3	33,3	91,7
	Strongly Agree	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

I can draw up the budget of my activity/idea.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	16,7	16,7	16,7
	Neutral	3	25,0	25,0	41,7
	Agree	6	50,0	50,0	91,7
	Strongly Agree	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

I can use social media appropriately based on my audience and the purpose of my activity/idea.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	2	16,7	16,7	16,7
	Agree	6	50,0	50,0	66,7
	Strongly Agree	4	33,3	33,3	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

I can develop an action plan which includes the basic steps to achieve the goals of my activity/idea (e.g., set milestones).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	10	83,3	83,3	83,3
	Strongly Agree	2	16,7	16,7	100,0
	Total	12	100,0	100,0	

I can recognize in advance possible risks related to my activity/idea.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stronly Disagree	1	8,3	8,3	8,3
	Disagree	1	8,3	8,3	16,7
	Neutral	5	41,7	41,7	58,3
	Agree	5	41,7	41,7	100,0
	Total	12	100,0	100,0	

I can develop a business plan describing how to achieve the goals of my activity/idea.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	16,7	16,7	16,7
	Neutral	1	8,3	8,3	25,0
	Agree	7	58,3	58,3	83,3
	Strongly Agree	2	16,7	16,7	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

One of the goals of the university is to stimulate and support the development of entrepreneurial mindsets and skills.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	4	33,3	33,3	33,3
	Agree	6	50,0	50,0	83,3
	Strongly Agree	2	16,7	16,7	100,0
	Total	12	100,0	100,0	

Academics and staff follow an entrepreneurial teaching approach across all the departments, promoting diversity and innovation in teaching and learning.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stronly Disagree	1	8,3	8,3	8,3
	Disagree	3	25,0	25,0	33,3
	Neutral	2	16,7	16,7	50,0
	Agree	6	50,0	50,0	100,0
	Total	12	100,0	100,0	

Ask students to decide their own problem-solving procedures.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	2	16,7	16,7	16,7
	Agree	4	33,3	33,3	50,0
	Strongly Agree	6	50,0	50,0	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Encourage academics and students' collaboration for common assignment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	1	8,3	8,3	8,3
	Agree	5	41,7	41,7	50,0
	Strongly Agree	6	50,0	50,0	100,0
	Total	12	100,0	100,0	

Ask students to work and examine case studies.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	2	16,7	16,7	16,7
	Agree	4	33,3	33,3	50,0
	Strongly Agree	6	50,0	50,0	100,0
	Total	12	100,0	100,0	

Engage students in real-world projects (e.g., problem-based learning).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	2	16,7	16,7	16,7
	Agree	3	25,0	25,0	41,7
	Strongly Agree	7	58,3	58,3	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Use experiential learning approach (e.g., organize students' visits in local firms as an objective of your class, pop-up shops).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	8,3	8,3	8,3
	Neutral	5	41,7	41,7	50,0
	Agree	1	8,3	8,3	58,3
	Strongly Agree	5	41,7	41,7	100,0
	Total	12	100,0	100,0	

What is your gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	6	50,0	50,0	50,0
	Male	6	50,0	50,0	100,0
	Total	12	100,0	100,0	

How old are you?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	26-30	3	25,0	25,0	25,0
	31-40	2	16,7	16,7	41,7
	41-50	6	50,0	50,0	91,7
	51-60	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

By the end of this academic year, how many years will you have been teaching altogether?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 years	4	33,3	33,3	33,3
	11-20 years	3	25,0	25,0	58,3
	21-30 years	1	8,3	8,3	66,7
	6-10 years	4	33,3	33,3	100,0
	Total	12	100,0	100,0	

In which country are you located?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Greece	12	100,0	100,0	100,0

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

In which institution/university are you employed?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	American College	1	8,3	8,3	8,3
	Auth	1	8,3	8,3	16,7
	Ionian University	1	8,3	8,3	25,0
	National and Kapodistrian University of Athens	1	8,3	8,3	33,3
	Panteion University	2	16,7	16,7	50,0
	University of the Aegean	1	8,3	8,3	58,3
	University of Thessaly	1	8,3	8,3	66,7
	UTH	3	25,0	25,0	91,7
	UTH Dept. of Physical Education and Sport Science	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

What is your area of specialization?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Arts and Humanities	3	25,0	25,0	25,0
	Clinical and Health	2	16,7	16,7	41,7
	Economics	1	8,3	8,3	50,0
	Education	2	16,7	16,7	66,7
	Knowledge Transfer	1	8,3	8,3	75,0
	Law	1	8,3	8,3	83,3
	NA	1	8,3	8,3	91,7
	Physical sciences	1	8,3	8,3	100,0
	Total	12	100,0	100,0	

NTRANCE
Co-funded by the Erasmus+ Programme of the European Union

Which is the exact position you hold in the organization/university?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Assistant Professor	2	16,7	16,7	16,7
	Associate Professor	3	25,0	25,0	41,7
	Consultant	1	8,3	8,3	50,0
	Lecturer	2	16,7	16,7	66,7
	Researcher	4	33,3	33,3	100,0
	Total	12	100,0	100,0	

Would you like to participate in the free online training of entrepreneurship addressed to non-business academics during 2021-2022 offered by the "ENTRANCE" EU-funded project? (For more information, please visit https://entranceproject.eu/)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not sure	1	8,3	8,3	8,3
	Yes	11	91,7	91,7	100,0
	Total	12	100,0	100,0	

ENTRANCE
Co-funded by the Erasmus+ Programme of the European Union