

Students' entrepreneurial skills formation in the changing world

Maryna Salun¹, Kateryna Zaslavska², Radka Vaničková^{3*}

¹Simon Kuznets Kharkiv National University of Economics, Economy and Law Faculty, Nauky avenu 9a, 61001 Kharkiv, Ukraine

²Simon Kuznets Kharkiv National University of Economics, Management and Marketing Faculty, Nauky avenue 9a, 61001 Kharkiv, Ukraine

³Institute of Technology and Business, Faculty of Corporate Strategy, Department of Management, Nemanická 536/7, 370 01 České Budejovice, Czech Republic

Abstract. Managerial practice in today's global world offers a number of concepts in the typology of a manager's personality. The personality of the manager is applied in the daily practical actions of the manager with the necessary degree of validity. Start-up intention among students is related to the vision of entrepreneurship as a career alternative. Understands the classification and content of managerial skills, including the fulfilment of managerial roles, learns the principles of coaching, practices the basic tools used in the management of managers, formulates a work team, and effectively manages it. They will get acquainted with selected methods of HRM in the company as Brainstorming and Leadership. The purpose of educating successful managers is to apply the principles of managerial skills implemented in business practice. It is based on the assumption that the result can be caused by one factor, but also by a combination of several conditions. The qualitative comparative analysis (QCA) is used to find out more detailed contexts of fulfilling a specific indicator. The QCA of the demands of the labour market on entrepreneurial skills and its presence in curriculums in Ukrainian universities was done to find out the correspondence and ways for improvement in the challenging world.

Keywords: entrepreneurial hard skills, entrepreneurial soft skills, entrepreneurial competencies, entrepreneurial education, students' start-ups' activities.

1 Introduction

The basic typology of a manager is divided into four basic types of personality, such as the analytical, pragmatic, extrovert, and social personality of manager. The social personality of the manager is focused on the well-being and good relationships, where the manager can empathize with the situation and feelings of subordinate employees. The social type of a manager does not like to listen to criticism or unpleasant things. However, the manager is very loyal and tends to help other employees. The manager's analytical personality focuses in detail on recognizing and assessing things with the subsequent use of detailed analysis. The analytical personality of the manager prefers carefully done work not only for himself but also for his co-workers, for which clear and strict rules are required, which must be observed. In contrast, the pragmatic personality of a manager focuses on achieving performance with a focus on finding complex and challenging situations or tasks. The pragmatic personality is above all the manager, whose satisfaction usually stems from achieving success. In practice, the manager is often strict not only with him but also with others and knows exactly what goals he wants to achieve. The manager's extroverted personality is focused on experience, which stems from excitement, fantasy, and imagination. The extrovert manager does not like to follow strictly set standards and rules. The manager likes to present his ideas here, while extensive and boring interpretations lose the essence and time for him.

Leadership skills, as well as other abilities and skills, need to be acquired through practice and hard work (Krakovetskaya, Dalibozhko, Slesarenko, 2018). However, there are many different ways to be a good manager-leader (Dardiri, Alfianto, Kuncoroet al., 2018). Many managers use different management styles (Malaikosa, Ulfatin, Degenget al., 2020). The most appropriate management style is management that is flexible, adaptive, applicable to the circumstances, as different situations require different management methods. The leader must also trust the vision in every situation. The difference between a manager and a true leader lies in the following practical experience: The manager orders, the leader leads. The manager explains the leader inspires. The manager requires discipline, the leader mentors. The manager delegates task the leader delegates an authority. The manager is above the team, the leader is part of the team.

University is critical in developing the levels of motivation and capabilities of graduates to effectively engage in entrepreneurial activity (Tomy, Pardede, 2020). The student will a set of professional knowledge, especially practical skills in the field of managerial management and decision-making with the differentiation of three basic

*Corresponding author: vanickovaradka@gmail.com

levels of management, namely top managerial, tactical, and operational, which are crucial for fulfilling defined corporate goals according to quality. They will learn the basic typology, functions and roles of managers, and management styles (Turner, Mulholland, 2017).

Competence concept sometimes refer to competencies as a result (what is done) and sometimes as a process (how it is done) (Rowe, 1995). In our opinion the integrated approach that emphasis on personal attributes, delivered performance, and context (Gonzi, 1999) is fully describes the essence of competencies. It is defined as a set of knowledge, skills, and attitudes necessary to exercise a given activity, but also the person's performance in a given context in terms of behaviours used at work and following achievements. Main constitutive elements of competence are knowledge, skills, and attitudes (Brandao, 2008) and it is quite important to provide the synergy between them.

Entrepreneurial skills, practices, and approaches are undergoing profound changes at present, which must be taken into account when shaping the individual students' learning trajectory. For example, the dynamic development of start-up in the field of social entrepreneurship necessitates the formation of knowledge about the development of society; such knowledge becomes vital to ensure the professional significance of entrepreneurship. At the same time, the most relevant professional skills of an entrepreneur remain verbal and written communication skills to create sustainable entrepreneurial connections and communities.

The modern Ukrainian start-up market (Ukrainian Venture Capital & Private Equity Association, 2020) is characterized by rapid growth in the total cost of offers (on average + 40.19% annually); a double increase in the number of the invested projects and their average cost over three years period; intensification of mergers and acquisitions (91.18% in the total structure); allocation and gradual growth of investments at the stage of supporting an innovative idea; stabilization of investment volumes at the initial stage of project formation and the stage of development of an innovative product; activation of the start-up movement at universities with the formation of project start-up teams and the involvement of consultants from the academic environment.

Current Entrepreneurship Training Initiative "The Entrepreneurship University", implemented by the network of start-up incubators YEP in cooperation with the Ministry of Education and Science of Ukraine, the Ministry of Digital Transformation of Ukraine, the Ukrainian Foundation of Start-ups with the support of USAID "Competitive Economy of Ukraine" (Ministry of Education and Science of Ukraine, 2020), aimed at developing entrepreneurship skills in and through higher education, and is a response to the modern development of flexible innovative business and growth of self-employment in the youth segment of the labour market (Gulyaeva, 2016), while the lack of entrepreneurial skills is considered as a limiter of student employment opportunities.

The paper aims to supplement the current discussion on entrepreneurial skills, clarify their current composition and content, highlight global (professional) skills, consider a forecast of future skills that may affect the profile of the profession, and require being included in the curriculum.

2 Methods and Data

In the research, the literature was used on the issues of enhancing entrepreneurship in the student environment, the formation of the start-up movement in universities; standards of higher education in Ukraine in specialties to identify the entrepreneurial competencies prescribed in them and the possibility of developing entrepreneurial skills among Ukrainian students in a period March and September 2019; results of research by international organizations on current and future entrepreneurial skills and competencies.

Basic entrepreneurial skills were presented comprehensively, often in the form of specific disciplines that are offered on Coursera and meet the needs of daily business, for example as follows:

H1: Accounting provides for the formation of accounting skills, the creation of accounting, financial, tax information, and reporting under the state or international standards.

H2: The communicative skill of an entrepreneur is developed in the practice of discussing a task or problem, communication between two or more people in writing or orally.

H3: Financial analysis skills are allocation investment opportunities of risk, uncertainty, or blockchain.

H4: Management provides for the formed skills of developing a company's strategy and coordinating the efforts of employees.

H5: Marketing as an entrepreneurial skill provides the ability to create positive, trusting, long-term relationships with potential and actual customers, allowing enterprises to establish rules and regulations for doing business in the regional and global markets.

H6: Sales as an entrepreneur's skill is focused on an effective system for bringing the company's products and services to the market and conducting transactions with real customers.

Quality comparative analyses (QCA) is not primarily an evaluation technique, the original application lies in comparative political science. QCA analysis seeks to explain individual, unique cases where the investigated phenomenon occurred or did not occur in a set of mutually comparable cases. The method is suitable for the evaluation of several dozen cases. It does not evaluate the strength of the dependence between the variables but identifies the circumstances of how the intervention works. QCA is suitable for testing the theory of change. It is often supplemented by case studies and is also a supporting tool for statistical methods. Indicates necessary

and/or sufficient or irrelevant conditions that (do not) lead to the observed phenomenon. The ability to perform analysis at multiple levels simultaneously, i.e. it is possible to evaluate different and seemingly "unrelated" conditions of the investigated phenomenon at once statistic methods.

The main steps of the methodological procedure were:

- Determination of the hypothesis based on the theory of change, including the identification of the dependent variable and conditioning factors, i.e. gaps.
- Data Collection.
- Creating a truth table of the presence/absence of individual variables.
- Calculation of parameters of individual variables with logical minimization.
- Interpretation of the obtained results.

The selection of variables was based on the practical experience and professional skills of the authors of the paper and was discussed by all stakeholders. For each factor was hypothesized resp. an assumption that argues and explains the relationships and contexts of the influence of a factor on the resulting indicator.

3 Results and Discussion

The done analysis had brought authors to the conclusion that there are the gaps in students' entrepreneurial skills formation in Ukrainian universities. It is connected firstly with the specifics of the demands from the business in the quick changing world. Thus, the Global Skills Index 2020 Report (Coursera, 2020) focuses on the skills that are most important for business and high-tech areas, that is, the skills of a modern entrepreneur as well as start-up participants.

Among the entrepreneurial skills that are currently important (Doyle, 2020) the following skills have been identified: creative thinking, leadership, the ability to take risks, adherence to business ethics, as well as business storytelling, computer skills, critical thinking, flexibility, logical thinking, non-verbal communication, planning, working with social media, strategic planning, team building, time management, trendsetting. The author (Oosterbeek et al., 2010) describes the ten most important determinants of successful entrepreneurship. They are: the need for achievement, need for autonomy, and need for power, social orientation, self-efficacy, endurance, risk-taking propensity, market awareness, creativity, and flexibility.

The presented key skills of a modern entrepreneur do not give an idea of which disciplines will allow the formation of these skills and competencies at the university. For example, the skill of creative thinking includes formed emotional intelligence, the formed ability to understand root problems, the ability to brainstorm, to build a team. Or, for instance, adhering to business ethics presupposes a deep knowledge and understanding of business planning, project management, the ability to work independently, consistently, and purposefully. Thus, entrepreneurial competencies are ambiguous and include several personal characteristics, attitudes, and skills of a particular person.

Entrepreneurial skills are also viewed in reverse, based on the most important elements of entrepreneurship learning (Andrea, Frank, 2007). In this case, a certain combination of knowledge, abilities, skills, and competencies, consisting of awareness of the enterprise (start-up) and the field of business; business skills (accounting, business planning, etc.), and creativity, shape the effectiveness of entrepreneurial decisions, and business in general. This combination of knowledge, skills, and competencies makes entrepreneurship learning challenging (see Table 1), and the question of the best way to develop an entrepreneurial skills package within the constraints of higher education remains unresolved.

Table 1. Students' entrepreneurial skills and learning elements

Groups of Competencies	Students' entrepreneurial skills	Learning elements
Common entrepreneurial competencies	To form and evaluate an idea To see problems as opportunities To identify key stakeholders To assess the needs of business development The emotional intelligence and business ethics	Business planning Project management
Competencies connected with the management	To know how to build relationships with stakeholders and manage them	Business Storytelling Business law Team building
Competencies connected with entrepreneurship	Business plan development, business growth planning Setting standards and performance criteria Marketing analysis and sales strategies Choice of financial strategies using professional counselling skills	Operations management Strategic planning Accounting, audit, analysis of activities Marketing Risk management

Entrepreneurial values	<p>Initiative willingness to take responsibility Autonomy Intuitive decision making with limited information Ability to interact and persuade result orientation Willingness to take risks</p>	Participation in business games, hackathons, start-up, battles
Awareness of the entrepreneurial lifestyle	understanding the advantages and disadvantages of an entrepreneurial career versus an employee career	

Source: Own processing.

The presented ways of grouping entrepreneurial skills and competencies, in our opinion, is archaic. The modern understanding of knowledge, abilities, skills, and competencies is associated with their division into hard skills and soft skills:

Entrepreneurs' hard skills competency (Chou, 2010) is a competence that consists of the ability of human resource management, marketing capability, production capability, management capability, financial capability.

Entrepreneurs' soft skills competency (Spencer, 1993) is a competency that consists of 13 dimensions: initiative, see and take advantage of opportunities, perseverance, searching for information, focus on the high level of performance, commitment to the job, orientation on efficiency, systematic planning, problem-solving, confidence, the persuasive ability, influencing strategies, assertiveness.

Of the entrepreneurs' hard skill competencies for non-business department students listed, the production capability is the most significant that significantly influences the intention to become an entrepreneur (Benedicta Prihatin Dwi Riyanti, 2016; Chou, 2010). This is because this competence becomes the basis for choosing a professional role in a team with the participation of a student in business games, hackathons, start-up battles, during an internship or practice.

The main entrepreneurs' soft skills competencies for non-business department students, which propel them to entrepreneurial activity, are initiative and self-confidence. They have had a significant impact on the intention to become an entrepreneur, and only persistence is the only real competence that has a significant impact on the intention to become an entrepreneur for non-business department students.

Entrepreneurship intent is usually defined as the intention of an individual to start a new business venture (Krueger, 2009). Despite the importance of measuring intent in the entrepreneurial setting, universities are more interested in measuring learning and performance, given that they are expected to measure program learning outcomes (Mozahem, Aldouni, 2020).

As the entrepreneurship process is not linear; therefore, creativity is central, and finding structure is an unstructured process (Linton, Klinton, 2019). But, entrepreneurship is a complex process that lacks linearity of business thinking and entrepreneurship students need to master uncertain environments (Neck, Greene, 2011). So, educators in entrepreneurship have the task to educate students to have the skills to survive in a fast, and rapidly changing environment. The development of entrepreneurial skills can be improved by providing a learning environment in which students interact with real businesses in live projects (Chang, Rieple, 2013).

In Ukraine, the development of educational programs and curricula is carried out based on the national higher education standards (Higher Education Standards, 2020). They should be the conductor of entrepreneurial competencies in the training system for both non-business department students and students of economic and managerial specialties. Currently, 150 national standards of higher education for bachelor's and master's degrees in 105 specialties have been developed and implemented. Their analysis made it possible to identify common competencies corresponding to entrepreneurs' soft skills competencies (see Table 2).

Table 2. Students' entrepreneurs' soft skills competencies according to the Higher Education Standards of Ukraine

Level of Education	Students' entrepreneurial soft skills competencies	Learning elements
The first level of higher education (bachelor)	<p>Ability to communicate in state and foreign languages both orally and in writing Ability to communicate with representatives of other professional groups of different levels (with experts from other fields of knowledge/types of economic activity) Ability to generate new ideas (creativity); ability to work in a team Interpersonal skills Ability to adapt and act in a new situation Ability to identify, pose and solve problems</p>	<p>Native and foreign languages of professional direction Participation in business games, hackathons, start-up, battles</p>

Second level of higher education (master)	Ability to make informed decisions Ability to generate new ideas (creativity) Ability to develop and manage projects Ability to communicate in a foreign language The ability to motivate people and move towards a common goal	Project Management Foreign languages of professional direction
---	---	---

Source: Own processing.

It should be noted separately that “entrepreneurship” or “self-employment” is not found in the explanatory note as a field of graduate employment. At the same time, consulting activities following the branch of knowledge and specialty are present in 10% of the bachelor's level standards and 15% of the master's level standards.

The global network of expert organizations Youth Business International (YBI) has developed four groups of entrepreneurial soft skills (Table 3) that are currently most valuable for young entrepreneurs, skills that need to be developed and strengthened in a changing world (Youth Business International (YBI), 2019).

Table 3.YBI entrepreneurial soft skills framework

Skill Group	Today's Skills	Future Skills
Intra- and interpersonal skills	Positive self-concept	Mindfulness (new) Self-awareness and self-realization (amplified)
	Communication skills	Business Storytelling (new) Negotiating networks, crowds, and movements (amplified)
	Social and interpersonal skills	Working with networks, crowds, and movements (new) Empathy and compassion (amplified) Emotional/social intelligence and influence (amplified)
Create and solve skills	Planning, organizing, executing, and management	Adaptive planning and management (new) Time management (amplified)
	Higher-order thinking skills	Systems thinking (new) Complex problem-solving (amplified)
	Creativity and innovation	Co-design (new) Co-creativity and innovation (amplified)
Information, opportunity, and risk management skills	Opportunity seeking, recognition, and assessment	Building and managing online reputation (new)
	Information seeking and management	Complex information management (amplified)
	Coping with ambiguity, uncertainty, and risk	Wellness management (new) VUCA coping skills (amplified)
Growth mindset skills	Persistence, tenacity, and resilience	Grit (new)
	Flexibility and adaptability	Agility (new)
	Future orientation	Active learning skills (new) Motivation to continuously learn (amplified)

Source: YBI. Entrepreneurial soft skills for the future: a scoping study (2019).

It should be noted that modern Ukrainian entrepreneurs are already actively using entrepreneurial soft skills:

Mindfulness - most entrepreneurs keep their accounting records of their activities, form and submit reports to the tax service and other regulatory authorities.

Working with networks, crowds, and movements, and building and managing their online reputations. Even before the pandemic, most entrepreneurs built their company websites actively creating a digital presence, attracting subscribers and delivering valuable content to them, pages on the most popular social networks - Instagram, Facebook, Telegram channels for interaction with clients, for conducting marketing research, for promoting or testing new business ideas.

The need for systems thinking is compensated for in an entrepreneurial environment by the growth of consulting activity of narrow specialists and the intensification of applied scientific research at universities.

Thus, part of entrepreneurial soft skills ceased to be skills of the future and strengthened as a skill today, but comparing the YBI entrepreneurial soft skills framework with Students' entrepreneurs' soft skills competencies

according to the Higher Education Standards of Ukraine comes an understanding that the latest standards, some of which are adopted in 2020 are hopelessly outdated, requiring updating following the modern trends and challenges of the changing world.

The entrepreneurship education is a complex set of measures that affects all levels of education (including teacher training), all subjects, and all parties involved in education: education policymakers, education administration, school administrations, teachers, students, the neighbouring communities, etc. (Bikse, Riemere, 2013). It brings the necessity to involve all the stakeholders in the educational process.

The feasibility and necessity of teaching entrepreneurial skills for non-business department students are justified by Martin Lackeus (Lackeus, 2015). He focuses on key entrepreneurial competencies like knowledge, skills, and attitudes that affect a person's readiness and ability to conduct entrepreneurship:

Marketing skills – Conducting market research. Assessing the marketplace. Marketing products and services. Persuasion. Getting people excited about your ideas. Dealing with customers. Communicating a vision.

Resource skills – Creating a business plan. Creating a financial plan. Obtaining financing. Securing access to resources.

Opportunity skills – Recognizing and acting on business opportunities and other kinds of opportunities. Product / service / concept development skills.

Interpersonal skills – Leadership. Motivating others. Managing people. Listening. Resolving conflict. Socializing.

Learning skills – Active learning. Adapting to new situations. Coping with uncertainty.

Strategic skills – Setting priorities (goal setting) and focusing on goals. Defining a vision. Developing a strategy. Identifying strategic partners.

These entrepreneurship skills can be formed among university students by focusing their activity on long-term teamwork to solve real problems of external stakeholders. That is using complexity and multidisciplinary for setting educational tasks, social interaction for their implementation, using process focus in learning with the obligatory commitment, and practice-based learning methods.

Conclusion

The basic competencies of a manager are based on competence, which contributes to the successful performance of the relevant work activity, in which competencies are usually assessed according to professional knowledge, such as acquired education and professional skill, which the manager acquires mainly through regular training and sufficient practice. The role of the manager in the organization is also shaped by social maturity, which is manifested by character traits. It is projected in the style of management and management work, in which the manager plays the role of a manager. The manager performs the tasks here in the usual ways, which are usually repeated. The individual style of managerial work is shaped by the personality of the manager, but also by the conditions in which the manager works, such as the team. In practice, there are ten typical characteristics of a manager that he should have, such as vision, devotion, openness, integrity, creativity, assertiveness, generosity, modesty, justice, and a sense of humour.

Entrepreneurial skills, knowledge, and mindset are crucial factors contributing to the growth of the economy and the benefit of society (Maaravi et al., 2020). The focus in the educational process is to be not only to help students to develop the skills to become full-fledged entrepreneurs but to present a universally applicable skill set.

Currently, within the students' entrepreneurial skills formation it is important to take risks, the ability to quickly adapt to changing environmental conditions, the ability to interact with stakeholders, including within remote work, working with networks, crowds and movements. These entrepreneurial soft skills are to be formed at the first level of higher education (bachelor). As to the entrepreneurial hard skills that are obligatory to formation at bachelor level the business plan development and business growth are the main. They include the minimal skills in planning, organizing, marketing, sales, and finance. Further entrepreneurial soft skills for bachelors are to be added by business storytelling, and entrepreneurial hard skills are to be followed with adaptive planning and management. It will support the bachelor graduates from non-business department to integrate into the job market not only as a staff but as sole entrepreneurs.

For the second level of higher education (master) the analytical skills are refocused on overcoming resource constraints and maintaining social / community values in a competitive environment. The emphasis on awareness of the regulatory aspects of entrepreneurial activity needs to be shifting towards creativity, creative thinking, and non-standard management decision-making. It will help to follow challenges of the changing world.

References

1. Krakovetskaya, I., Dalibozhko, A., Slesarenko, I. Forming hard and soft skills for university graduates employability enhancement. *Proceedings of the 31st International Business Information*

- Management Association Conference, IBIMA 2018: Innovation Management and Education Excellence through Vision 2020*. 2454-2466 (2018).
2. Dardiri, A., Alfianto, I., Kuncoro, T., Usman, H., Sugiono, Entrepreneurial leadership for excellent technical and vocational education institutions. *World Transactions on Engineering and Technology Education*. 16 (4), 441-447 (2018).
 3. Malaikosa, Y.M.L., Ulfatin, N., Degeng, N.S., Maisyaroh, Curriculum management and learning with creative economics to shape life skills. *International Journal of Innovation, Creativity and Change*. 12 (12), 444-456 (2020).
 4. Tomy, S., Pardede, E., An entrepreneurial intention model focusing on higher education. *International Journal of Entrepreneurial Behavior & Research*, Vol. ahead-of-print [online], Available at: <https://doi.org/10.1108/IJEER-06-2019-0370> (2020).
 5. Turner, J., Mulholland, G., Enterprise education: Towards a framework for effective engagement with the learners of today. *Journal of Management Development*. 36(6), 801-816 (2017).
 6. Rowe, C. Clarifying the use of competence and competency models in recruitment, assessment and staff development. *Industrial and Commercial training*, v. 27, n. 11, p. 12-17, 1995.
 7. Gonzi, A. Competency-based learning: a dubious past-an assured future?. In: Boud, D.; Garrick, J. (Ed.). *Understanding learning at work*. Londres: Routledge, 1999. p. 180-194.
 8. Brandao, H., Borges-Andrade, J. Causas e efeitos da expressão de competências no trabalho: para entender melhor a noção de competência. *Revista de Administração Mackenzie*, v. 8, n. 3, p. 32-49, 2008.
 9. Ukrainian Venture Capital & Private Equity Association. Access to Information, *Ukrainian Venture Capital and Private Equity Overview 2019* [online], Available at: [http://uvca.eu/ua/news/investments-into-ukrainian-startups-in-2019-overview\(2020\)](http://uvca.eu/ua/news/investments-into-ukrainian-startups-in-2019-overview(2020)).
 10. Ministry of Education and Science of Ukraine. Access to Information, *Presentation of the Entrepreneurial University Initiative* [online], Available at: <https://mon.gov.ua/ua/events/22-veresnya-onlajn-prezentaciya-iniciativi-pidpriyemnickij-universitet> (2020).
 11. Гуляева, Л., Жук, Л., Стартап-движение в Украине как инновационная модель для устойчивого развития бизнеса. *Икономика на устойчивото развитие*, 2, 21-30 [online], Available at: https://www.researchgate.net/publication/311327646_STARTAP-DVIZENIE_V_UKRAINE_KAK_INNOVACIONNAA_MODEL_DLA_USTOJCIVOGO_RAZVITIA_BIZNESA_The_development_of_startup_entrepreneurship_in_Ukraine_as_an_innovation_model_for_sustainable_development_of_busines (2016).
 12. Coursera. Access to Information, *Global Skills Index 2020* [online], Available at: <https://www.coursera.org/gsi> (2020).
 13. Doyle, A. Essential Skills for Entrepreneurs. Access to Information, *The Balance Careers* [online], Available at: <https://www.thebalancecareers.com/list-of-skills-entrepreneurs-need-2062391> (2020).
 14. Oosterbeek, H., VanPraag, M., Ijsselstein, A. The impact of entrepreneurship education on entrepreneurship skills and motivation. *European Economic Review*, 54 (3), 442-454. (2010).
 15. Andrea, I. Frank, Entrepreneurship and enterprise skills: A missing element of planning education? *Planning, Practice & Research*, 22, 635-648 [online], Available at: [https://rsa.tandfonline.com/doi/pdf/10.1080/02697450701770142\(2007\)](https://rsa.tandfonline.com/doi/pdf/10.1080/02697450701770142(2007)).
 16. Chou, C. M., Shen, C. H., Hsiao, H. C., Chen, S. C., A Study on Constructing Entrepreneurial competence indicators for business department students of vocational and technical colleges in Taiwan. *World Transactions on Engineering and Technology Education*, 8 (3), 316-320. [online], Available at: [http://wiete.com.au/journals/WTE&TE/Pages/Vol.8,%20No.3%20\(2010\)/12-24-Chou.pdf](http://wiete.com.au/journals/WTE&TE/Pages/Vol.8,%20No.3%20(2010)/12-24-Chou.pdf) (2010).
 17. Spencer, L. M., *Competence at work: Models for superior performance*, American: John Wiley Sons Inc, 1993.
 18. Benedicta Prihatin Dwi Riyanti, Christine Winstinindah Sandroto, M. Tri Warmiyati D.W., Soft Skill Competencies, Hard Skill Competencies, and Intention to Become Entrepreneur of Vocational Graduates. *International Research Journal of Business Studies*, 9 (2), 119-132. [online], Available at: https://www.researchgate.net/publication/314651203_Soft_Skill_Competencies_Hard_Skill_Competencies_and_Intention_to_Become_Entrepreneur_of_Vocational_Graduates (2016).
 19. Krueger, N. Entrepreneurial Intentions are Dead: Long Live Entrepreneurial Intentions. In: Carsrud A., Brännback M. (eds) *Understanding the Entrepreneurial Mind*. *International Studies in*

- Entrepreneurship*, vol **24**. Springer, New York, NY. https://doi.org/10.1007/978-1-4419-0443-0_4 (2009).
20. Mozahem, N., Adlouni, R., Using Entrepreneurial Self-Efficacy as an Indirect Measure of Entrepreneurial Education. *The International Journal of Management Education*, [online], Available at: <https://doi.org/10.1016/j.ijme.2020.100385> (2020).
 21. Linton, G., Klinton, M., University entrepreneurship education: a design thinking approach to learning. *Journal of Innovations and Entrepreneurship* 8. [online], Available at: <https://doi.org/10.1186/s13731-018-0098-z> (2019).
 22. Neck, H. M., Greene, P. G., Entrepreneurship education: Known worlds and new Frontiers. *Journal of Small Business Management*, 49 (1), 55–70. [online], Available at <https://doi.org/10.1111/j.1540-627X.2010.00314.x>. (2011).
 23. Chang, J., Rieple, A., "Assessing students' entrepreneurial skills development in live projects", *Journal of Small Business and Enterprise Development*, Vol. 20 No. 1, pp. 225-241. <https://doi.org/10.1108/14626001311298501> (2013).
 24. Ministry of Education and Science of Ukraine. *Access to Information, Higher Education Standards* [online], Available at: <https://mon.gov.ua/ua/osvita/visha-osvita/naukovo-metodichna-rada-ministerstva-osviti-i-nauki-ukrayini/zatverdzeni-standarti-vishoyi-osviti> (2020).
 25. Youth Business International (YBI). *Access to Information, Entrepreneurial soft skills for the future: a scoping study* [online], Available at: https://www.youthbusiness.org/file_uploads/YBI-SoftSkillsForTheFuture.pdf (2019).
 26. Bikse, V., Riemere, I., The Development of Entrepreneurial Competences for Students of Mathematics and the Science Subjects: The Latvian Experience. *Procedia - Social and Behavioural Sciences*, 82, 511 – 519. (2013).
 27. Lackéus, M., Entrepreneurship in education. [online], Available at: https://www.oecd.org/cfe/leed/BGP_Entrepreneurship-in-Education.pdf (2015).
 28. Maaravi, Y., Heller, B., Amar, S. et al. Training techniques for entrepreneurial value creation. *Entrepreneurship Education*, **3**, 215–238 (2020). <https://doi.org/10.1007/s41959-020-00028>.