










“Creative management: Model for the development of entrepreneurial competencies”

AUTHORS	Maksym W. Sitnicki   Alla Stepanova   Vasyl Pryimak   Oksana Zhylynska  
ARTICLE INFO	Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak and Oksana Zhylynska (2022). Creative management: Model for the development of entrepreneurial competencies. <i>Problems and Perspectives in Management</i> , 20(3), 310-324. doi: 10.21511/ppm.20(3).2022.25
DOI	http://dx.doi.org/10.21511/ppm.20(3).2022.25
RELEASED ON	Monday, 12 September 2022
RECEIVED ON	Tuesday, 14 June 2022
ACCEPTED ON	Wednesday, 17 August 2022
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Problems and Perspectives in Management"
ISSN PRINT	1727-7051
ISSN ONLINE	1810-5467
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

49



NUMBER OF FIGURES

4



NUMBER OF TABLES

1

© The author(s) 2022. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Received on: 14th of June, 2022
Accepted on: 17th of August, 2022
Published on: 12th of September, 2022

© Maksym W. Sitnicki, Alla Stepanova,
Vasyl Pryimak, Oksana Zhylynska, 2022

Maksym W. Sitnicki, Dr.Sc.,
Professor, Head of the Department
of Management of Innovative and
Investment Activity, Taras Shevchenko
National University of Kyiv, Ukraine.
(Corresponding author)

Alla Stepanova, Ph.D., Associate
Professor, Department of Management
of Innovative and Investment Activity,
Taras Shevchenko National University
of Kyiv, Ukraine.

Vasyl Pryimak, Ph.D., Associate
Professor, Department of Management
of Innovative and Investment Activity,
Taras Shevchenko National University
of Kyiv, Ukraine.

Oksana Zhylynska, Dr.Sc., Professor,
Department of Management of
Innovative and Investment Activity,
Taras Shevchenko National University
of Kyiv, Ukraine.



This is an Open Access article,
distributed under the terms of the
[Creative Commons Attribution 4.0
International license](https://creativecommons.org/licenses/by/4.0/), which permits
unrestricted re-use, distribution, and
reproduction in any medium, provided
the original work is properly cited.

Conflict of interest statement:
Author(s) reported no conflict of interest

Maksym W. Sitnicki (Ukraine), Alla Stepanova (Ukraine), Vasyl Pryimak (Ukraine),
Oksana Zhylynska (Ukraine)

CREATIVE MANAGEMENT: MODEL FOR THE DEVELOPMENT OF ENTREPRENEURIAL COMPETENCIES

Abstract

A model is presented for developing creative entrepreneurial competences (CEC), which is focused on the formation of creative entrepreneurial and practical skills in a timely manner (Just-in-Time Learning). The proposed model assumes a high level of motivation, deep immersion, and full dedication of individuals and has a cyclical nature throughout their working life (Lifelong Education Cycle). The central figure of the model is an individual who, by choosing an active form of education and following a precise algorithm of actions, can obtain high performance and achieve entrepreneurial success. The formation of an individual's business consciousness is divided into five stages: UnConscious InCompetence, Conscious InCompetence, Conscious Competence, UnConscious Competence, and the second Conscious InCompetence stage. It is established that the minimum level of creative entrepreneurial competences consists of a combination of basic professional competences, elementary competences of IT&S literacy, and key communicative competences. Furthermore, it is found that an individual's professionalism will grow until the pace of their learning exceeds the pace of the external environment's dynamics.

Keywords

creative entrepreneurship, innovation, organizational training, creative entrepreneurial competencies, self-management

JEL Classification

M12, L26

INTRODUCTION

A high level of motivation for entrepreneurial activity is realized through self-management, which contributes to the creative self-development of an individual and the growth of society's intellectual capital. The use of intellectual capital is a competitive advantage for successful operations in the modern business world. Creativity primarily means non-standardized approaches to solving simple tasks. However, standard approaches do not always produce the desired result. In order to obtain such a competitive advantage as creativity in any market segment, it is necessary to learn, develop, and look for new directions of creative growth and scientific research while conducting business in unrelated areas and branches. The possibility of realizing a person's creative potential in entrepreneurial activity is the driver of scientific and technical progress. However, the potential needs to be developed. For these purposes, it is worth optimizing the training system, which would allow combining the maximum number of structural elements within a single center. The presence of a single platform where it is possible to unite all participants in the process (entrepreneurs, businesses in the form of big corporations, potentially interested participants in the development of their own business, and consultants in creative entrepreneurship) will not allow a number of

strategically important tasks that arise today to be solved. However, it will allow reducing the time from the idea's inception to its implementation, optimizing the information diffusion processes among the participants.

It is not enough for an employee to have professional competences, because the needs of the modern business environment encourage the acquisition of creative skills that contribute to the formation of creative ideas and innovations regarding the possibility of creating, conducting, and improving modern business processes. Motivation, determination, innovations, creativity, and a high standard of living are all interconnected with entrepreneurship and are the basis for the development of creative entrepreneurial competencies.

1. THEORETICAL BASIS

The role of collective and individual knowledge in society is paramount in accordance with the business environment requirements. Therefore, there is a need to have a formalized representation of them to preserve and distinguish a complex of creative entrepreneurial competencies. Moreover, it is necessary to develop a single platform for their development to actualize them.

Numerous scientific studies on the definition and characteristics of creative entrepreneurial competencies demonstrate their variety and that the acquisition of characteristic features depends on the field of application.

The study of such concepts as "competence," "entrepreneurial competence," and their consistency in various fields of application was thoroughly systematized and highlighted by Tittel and Terzidis (2020). However, approaches to the definition of competence are often associated with different phases of the entrepreneurial cycle or specific tasks from the point of view of the process (Bacigalupo et al., 2016; Bozward & Rogers-Draycott, 2017; Man et al., 2002).

The term "entrepreneurial competence" is used here to include two terms with the same definition: competence and competency. Novojen and Birnaz (2022) define "competence" as knowledge, skills, and attitudes which lead to practical actions and excellent results. Competence is an assessment of performance in a certain field of activity, while competency is a class of things that researchers can use to characterize people and their behavior. For example, the term "competency" is used in education to describe the learned behav-

ior of a teacher. Therefore, competence represents tendencies of successful actions, and competency means learned behavior.

Entrepreneurial competence includes knowledge, skills, and attitudes (Korpysa et al., 2020). Kusumawijaya and Astuti (2021) believe that entrepreneurial skills have recently become vital in creating a business in any field of activity. Mishra and Zachary (2014) define entrepreneurial competence as an asymmetric advantage for the entrepreneur that their competitors do not consider worthwhile to pursue (i.e., they consider that the opportunity does not justify its competitors' costs to carry out the activity).

The development of this type of competence plays a vital role in entrepreneurial activity. However, this must be accompanied by the ability to use this knowledge and the belief that one has access to it (Fayolle & Redford, 2014).

The presence of entrepreneurs' creativity, the advantages it provides, and the definition of a creative entrepreneur are discussed by Bujor and Avasilcai (2016). The authors described the result of combining creative and intellectual capital and noted that the presence of initiative and result-orientation, as well as investing in one's own development, are the main characteristics of a creative entrepreneur. Mooney (1963) defined creativity depending on the four main aspects of the problem that an individual uses to achieve his initial expectations: Environment acquires the characteristics of a Creative Environment, and similarly, Product – Creative Product, Process – Creative Process, Person – Creative Person. Thus, the manifestation of creativity is important not only for learning, teaching, and successfully solving prob-

lem situations but also for providing business consulting service.

Gruzina (2020) claims that the presence of certain competencies in an employee creates his internal potential and determines the so-called degree of his readiness to work effectively in a specific work situation. His competence in a particular field of professional activity is a prerequisite for successful work in a specific position or company in general. Applying the competence approach in strategic management is becoming an undoubted necessity today.

Smaliychuk (2020) concluded that the key indicators of an employee's competence are entrepreneurial, professional, social, and personal competence, the ability to learn different languages, and current family status.

The formation of the skills development structure and the necessary competencies for future education in member countries of the Organization for Economic Cooperation and Development (OECD) were investigated by Nagai et al. (2019). They proposed a structure of organizational learning based on STEAM (science, technology, engineering, art and design, and mathematics) with the addition of design thinking, which is interpreted as "... creative process of human-centered discovery." Emphasis is placed on conducting educational events to promote the specified competencies. Humenna and Chala (2019) analyze the international experience of the functioning of creative hubs at universities, which contribute to the disclosure of individuality, the capitalization of ideas, the creation of innovative products and services, and the diffusion of intellectual property rights. Education in entrepreneurship should prepare students for entrepreneurial practice and develop entrepreneurial competencies (Lackeus, 2015; Tohochynskyi, 2018).

Graczyk-Kucharska et al. (2020) generated an educational model to develop the ability to quickly acquire competences required by the business environment. They proposed a model that was developed based on the analysis of data collected in four European Union countries: Poland, Finland, Slovakia, and Slovenia. It is difficult to overestimate the importance and role of education in the formation of an entrepreneur's compe-

tencies and their future consequences (Morris et al., 2013). The modeling of entrepreneurial competencies, which makes it possible for the entrepreneur to demonstrate the use of the entrepreneurial ability in combination with individual characteristics, is highlighted by Schneider and Alborno (2018). Küttim et al. (2011) considered the problems and needs of the creative industry and its employees. As the researchers note, the weaknesses of creative entrepreneurs lie in the differentiation of entrepreneurial competencies, while the best ways to acquire these competencies are education, experience, and communication. At the same time, the authors pay attention to the training methods for obtaining relevant skills, which should include soft skills such as communication, negotiation, and conflict management to meet the requirements of creative entrepreneurship.

Worcu (2019) found that entrepreneurial skills and education significantly impact the profitability of all types of enterprises. The influence of teamwork, namely, internal (trust) and external (business contacts, external professional activity) relationships on the creativity of each participant was investigated by Long and Wang (2019). They noted the positive nature of such influence and its interactive effect on the behavior of external and internal connections of entrepreneurial teams. Pryimak and Faichak (2017) consider such a tool as teambuilding to coordinate the actions of all participants in the teamwork process. It is thanks to teambuilding that it is possible to combine experience, ideas, and knowledge and obtain a synergistic effect.

Mehmood et al. (2020) analyzed the influence of entrepreneurial leadership on the formation of creative competences through the prism of social learning theory. They noted that the relationship between knowledge sharing and the acquisition of creative skills is influenced by learning goals – the higher the level of learning goal focus, the stronger the mediating effect of knowledge sharing.

Sitnicki et al. (2020) pay attention to the components that form creative competences and contribute to their development. They note creative thinking as a creative process that occurs in various spheres of an individual's activity.

Suciu (2008) claims that the formation of creative managerial competence is influenced by creative and innovative managerial activity. It characterizes economic development and is based on the interrelationship of four most important factors: talent – people; technology – ideas; capital – resources; know-how – knowledge.

Howkins (2001) identifies eleven rules for successful creative entrepreneurs. They are: invent yourself, because you have unique talents; put the priority on ideas, not on data-creation and grow your own creative imagination; be nomadic; form your own unique thinking; learn endlessly and implementation of innovations; explore and use someone else's experience; perceive virtual reality as real and vice versa; be kind; admire the success of others; and, most importantly, have fun; and be ambitious.

Formation of an entrepreneur's creative competencies takes place using various tools, one of which is organizational training. The problems of infrastructural provision of knowledge management are reflected by Sytnik (2017), who proves the acquisition of competencies in the process of creation, exchange, dissemination, and use of knowledge. It is also noted that the growth of competencies among employees is the result of the functioning of the knowledge management system. The functioning of the knowledge bank of creative entrepreneurial competencies is ensured by a rational combination of Knowledge Management (KM)-oriented models (organizational memory model (Walsh & Ungson, 1991), forms of knowledge preservation (including predicates, frames, semantic and neural networks), knowledge management rules and approaches (UZ standards), and sufficiently developed IT&S and artificial intelligence. At the same time, the necessary and sufficient condition for the functioning of the KM-oriented basis of the business education system is the compliance of the set of educational technologies with the basic international standards, regulations, recommendations, and effective models proven in practice. These models include knowledge management (Collison & Parcell, 2004), the Johari Window model (Luft & Ingham, 1955), and the SECI (Nonaka & Takeuchi, 1995) model of knowledge dissemination. This is a guarantee of their successful operation and implementation of leading practices, methods, and tools of effective

business management, creation of prerequisites for the growth of entrepreneurial maturity of an enterprise, and formation of innovative and investment business consciousness. The knowledge-oriented business environment is the key stimulus that forms a sustainable motivation of entrepreneurial identity and organizational involvement, which through business training activates an individual's intellectual potential and contributes to the growth of society's intellectual capital.

Regarding the practical component in the development of creative entrepreneurial competences, there are various international support programs for entrepreneurs of small, medium, and micro businesses (Appendix A, Table A1). In Ukraine, at the state level, it is worth highlighting several support programs for entrepreneurs (some have been active since 2014 and have already ended, others are still active today) (Appendix B).

In addition, since 2018, a five-year initiative of the British Council – Creative Spark – has been operating in Ukraine, which is aimed at supporting international university and institutional partnerships for the development of entrepreneurial skills and creative economy in the following countries: Ukraine, the countries of the South Caucasus (Armenia, Azerbaijan, and Georgia), and Central Asia (Kazakhstan, Kyrgyzstan, and Uzbekistan). This “Creative Spark” initiative is aimed at developing entrepreneurial education at the level of educational institutions, students, and budding entrepreneurs, as well as at the governmental level. It also forms strategic approaches to developing business competencies in the higher education system, which consider the experience of Great Britain and partners' initiatives.

Taking into account all of the above, this paper aims to study creative entrepreneurial competencies and develop proposals for making a single platform for developing entrepreneurial competencies.

2. RESULTS

The development of creative entrepreneurial competencies in the training of specialists in educational institutions and in the process of self-management is directly related to market competition,

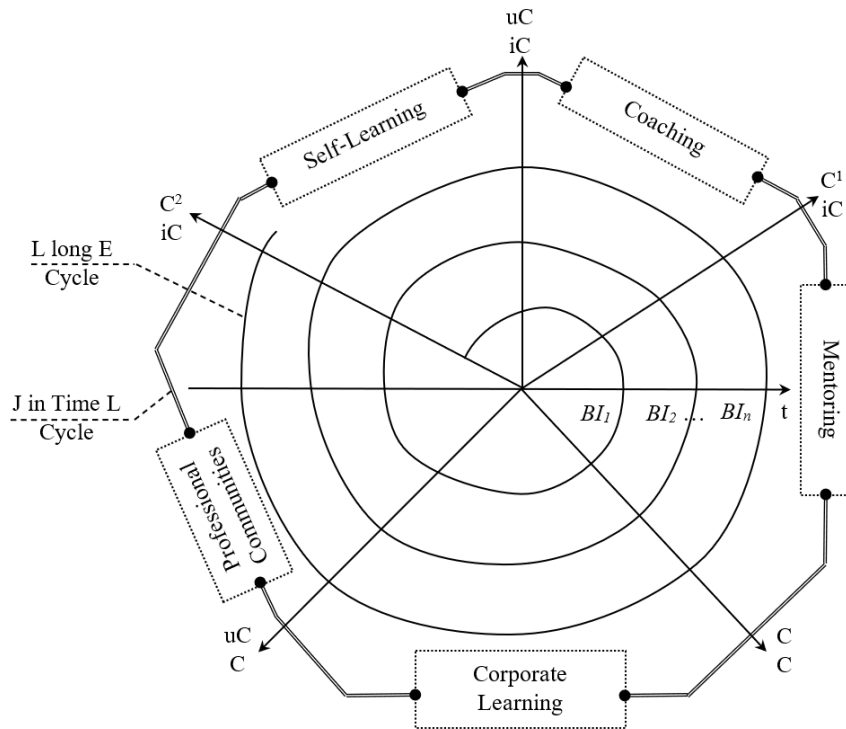


Figure 1. Model for the development of creative entrepreneurial competences (CEC)

new requirements on the labour market, management knowledge, intellectual property, economics, information technology, and relevant professional skills and abilities. However, the mechanisms of formation and use of professional competences require a comprehensive, deep scientific understanding, methodological formalization, and substantiation of their measurement methods. This will make it possible to single out and investigate the system of creative entrepreneurial competences in accordance with the requirements of the market business environment and establish the relationship between the effectiveness of managerial activity and its professional identity, self-actualization, and value orientations. One of these mechanisms can be the model for the development of creative entrepreneurial competences (CEM), which is focused on the acquisition of creative skills and practical skills. It also provides for a high level of motivation, deep immersion, and full dedication and has a cyclical nature throughout the entire working life of an individual (LlongE – Lifelong Education Cycle) (Figure 1). At the same time, each iteration is focused on implementing the desired business idea (BI_i) or project.

The existence of a five-factor basis is a necessary and sufficient condition for the implementation of

the model for the development of creative entrepreneurial competences. The toolkit of active forms of learning (SL – Self-Learning, C – Coaching, M – Mentoring, CL – Corporate Learning, PC – Professional Communities) contains educational tools with a cyclical nature that are focused on the optimal approach to developing individual entrepreneurial competencies following the current level of self-identification of the individual in the business environment (Figure 2).

One of the effective forms in the implementation of tools for the development of entrepreneurial competences is training (in the form of case studies, business games, role-playing games, the basket method, Secondment). Thus, it has gained particular popularity in the applied work of key players in the market of educational services. Several main types of training for the development of creative entrepreneurial competences can be identified:

- personal growth training which stimulates individual development of creativity, increases self-esteem, develops entrepreneurial thinking;
- socio-psychological training (development of socio-emotional awareness, formation of so-

Source: Developed by the authors based on Pryimak and Pavlenko (2019).

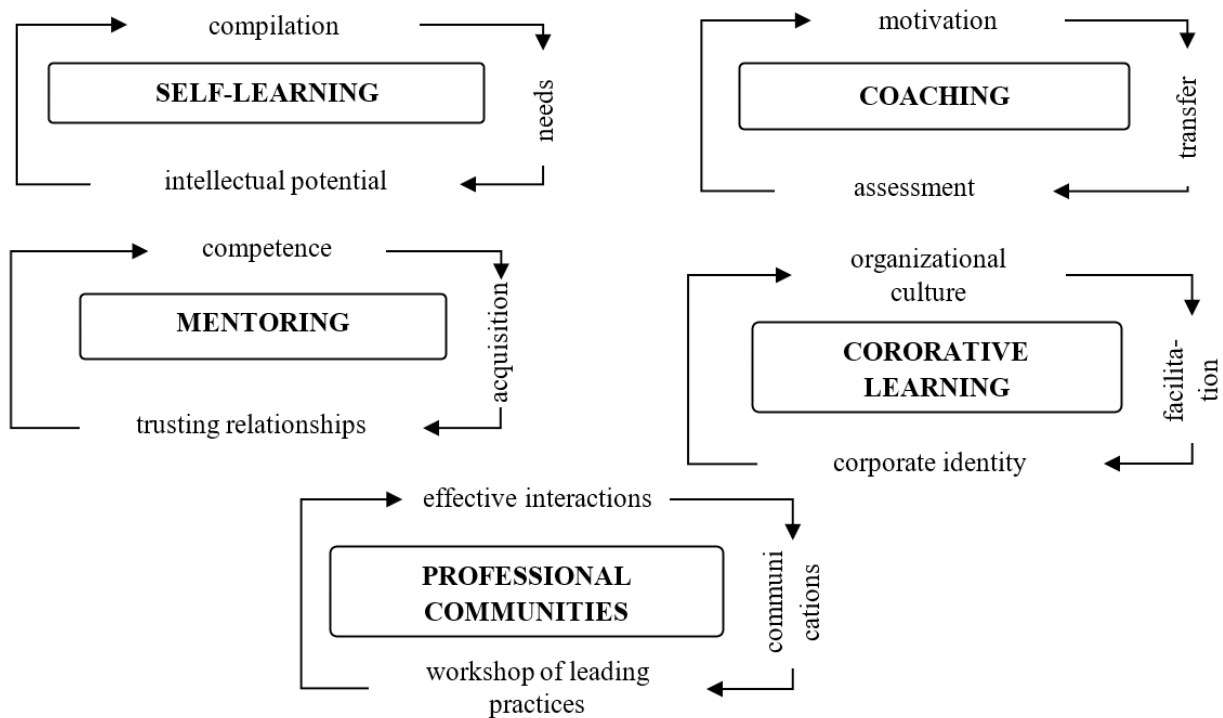


Figure 2. Toolkit of active forms in the development of creative entrepreneurial competences

cial attitudes, skills and experience in the field of interpersonal business communications, emotional entrepreneurial competence);

- business training (systematic educational actions to acquire new professional knowledge and skills, development of creative entrepreneurial competences that increase the efficiency of professional activity, as well as sustainable skills to adequately perform professional tasks in a specific subject area.).

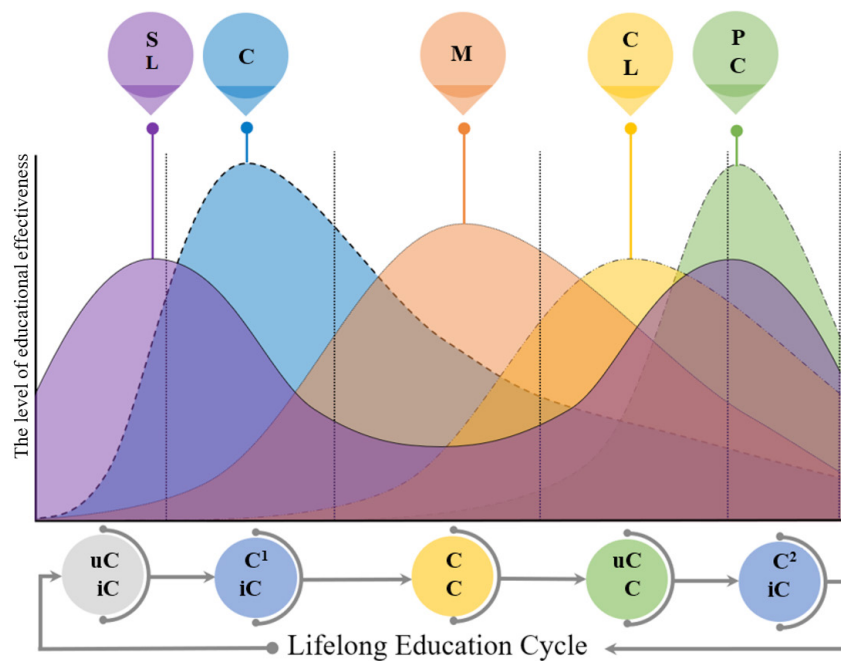
Each of the tools of active learning forms can target professional competencies (Figure 3). However, the highest level of effectiveness and the speed of acquisition of creative entrepreneurial competences are achieved when using the most productive training method according to the specific stage of the individual's business consciousness (Pryimak & Pavlenko, 2019). In particular: at stage (C²-iC) of realizing the need to acquire new competencies it is advisable to use the self-study method (Self-Study), which will make it possible to delve deeper into the problems of a new business idea, then, at stage (C¹-iC), when it has already become known, what knowledge, skills, and abilities are necessary for

the successful implementation of a business idea, coaching will be the most successful one.

After analyzing Figures 1-3, it is worth highlighting the following results for the formation of entrepreneurial competencies:

- A clear sequence of actions (Bandura-Kolb cycle (Bandura, 1977; A. Kolb & D. Kolb, 2013)). To keep up with technical and social changes in the environment, each individual with an entrepreneurial mindset must be ready to fully reveal his creative potential through a timely educational process (JinTimeL – Just-in-Time Learning), which should continue throughout the entire active working life (Lifelong Education).
- Motivation to acquire knowledge, skills, and abilities: an optimal combination, along with self-learning, time-tested, well-established, and effective technologies for the development of creative entrepreneurial competences, such as coaching, mentoring, systems of organizational learning methods, dissemination of knowledge and best applied practices through professional communities and associations. The necessary (minimum) level of

Source: Developed by the authors.



SL – Self-Learning, C – Coaching, M – Mentoring, CL – Corporate Learning, PC – Professional Communities
 uC-iC – UnConscious InCompetence – knowledge and skills are absent, skills are not formed
 C¹-iC – Conscious InCompetence – education, training, acquisition of skills
 C-C – Conscious Competence – conscious application (use) of skills
 uC-C – UnConscious Competence – (skills and abilities brought to perfection (automatism))
 C²-iC – Conscious InCompetence – awareness of the need to develop new competencies

Figure 3. Interrelationship of processes in the development of creative entrepreneurial competences and self-management of an individual

creative entrepreneurial competences consists of a complex of:

- basic professional competencies (professional, intellectual, situational, social competencies, etc.) in a specific subject area;
- elementary competencies of IT&S literacy (competencies in the field of Internet, telecommunications, work with office equipment, skills of working in at least one automated information and analytical system);
- key communicative competences (basic business communication skills, negotiation, CRM technologies, social network technologies, fluency in at least one foreign language).
- Increase in productivity, entrepreneurial success (adaptation to the environment, the abil-

ity to achieve goals in the business environment), and happiness (internal harmony and a state of satisfaction with oneself and one's achievements.). The algorithm for the successful development of creative entrepreneurial competencies – the individual's professionalism will grow until the pace of his learning exceeds the pace of external environment dynamics. That is, the individual should learn more than the speed of changes in the development of the business environment.

In today's hyperdynamic society, with its crises, pandemics, and rapid changes, people realize the value of learning and developing entrepreneurial business thinking, finding in these circumstances new advantages, opportunities for growth, and new challenges. A way out of the current situation is possible only through a complex of adequate scientifically based radical changes in the approach to the development of creative entrepreneurial competences. They are based on a knowledge-focused competence approach and involve the cre-

Source: Developed by the authors.

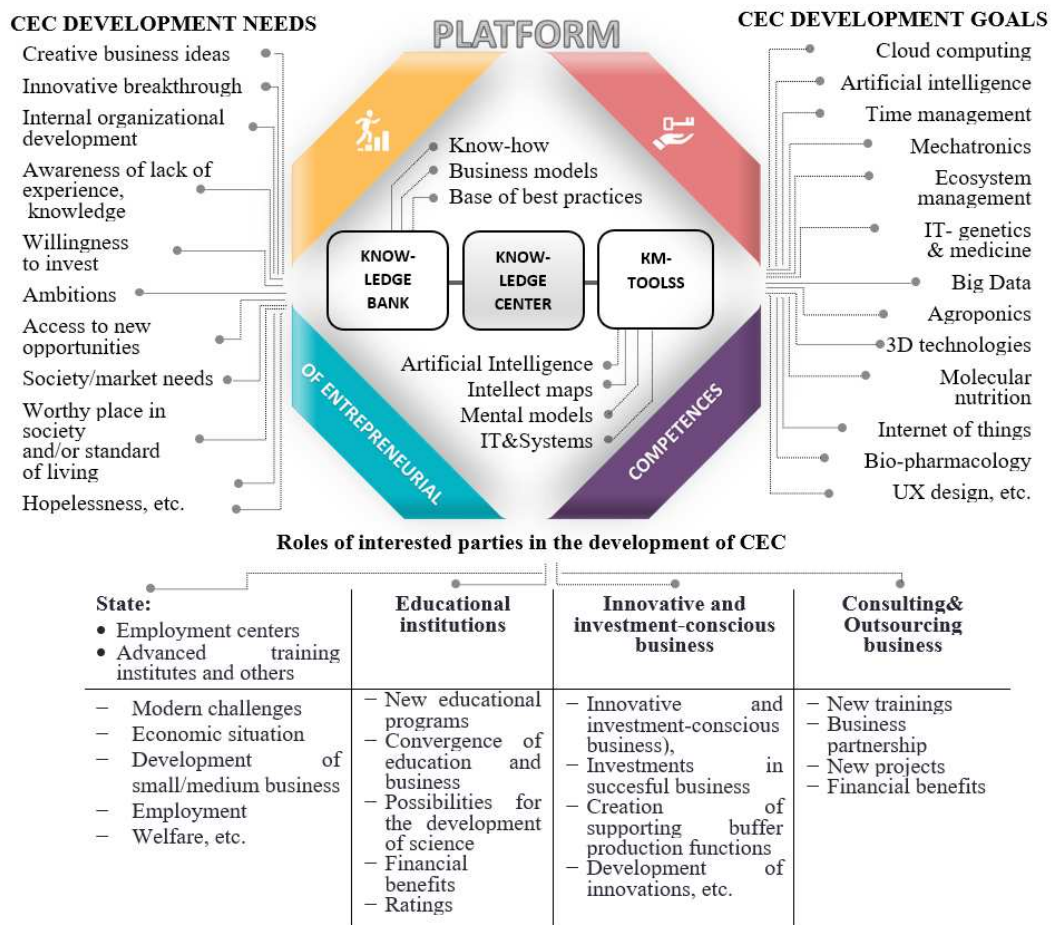


Figure 4. Platform for the development of entrepreneurial competences

ation of a single platform for the development of creative entrepreneurial competences (Figure 4).

Undoubtedly, such radical changes are not possible without the participation of the main consumers of educational services (enterprises, organizations, and institutions, small and medium-sized businesses) and the main players on the market of educational services (the state, educational institutions, consulting and outsourcing businesses, innovative and investment-conscious business and others). Only joint efforts can solve all the challenges and form the prerequisites for developing creative entrepreneurial competencies of the future.

3. DISCUSSION

Ukraine's exit from the protracted systemic crisis and entering the path of stabilization and development requires a rethinking of priorities of so-

cial existence by both the power structures and every citizen. The prerequisite is the realization that Ukraine has exhausted almost all the reserves of currently working technologies, such as technologies of power, management, and production technologies. The exception is some isolated cases in which Western technologies are used based on foreign capital, which have exhausted their innovative resource and are introduced solely for the purpose of obtaining a quick profit with the maximum use of Ukraine's national assets. However, this applies to individual cases that are not of a systematic nature, and is also leveled by close cooperation with European partners in the field of development of creative entrepreneurial thinking.

The current stage of development of a knowledge-oriented society, when the role of individual and collective knowledge is growing, requires mechanisms for the formalized presentation of knowledge and its storage in a material form. At

the theoretical level, this stage is characterized by the formation of the conceptual apparatus of intellectual capital, solving the problems of research and measurement of knowledge in the conditions of information and innovation environment, and in practice – the creation of technological media and knowledge-oriented management systems.

The shortage of specialists with creative entrepreneurial thinking and a sufficient level of professional competences is associated with systemic dysfunctions of the higher education system (commercialization of educational services – excessive emphasis on commercialization of educational services caused a loss of connection between the education system and real business; low external/internal standards for educational spheres; high level of “image demand” of the population for higher education and its accessibility; formal approach to the implementation of quality standards of educational services). Moreover, there are the needs of the modern business environment (insufficient level of innovation and investment business awareness; mistrust of the level of professional training of educational institutions’ graduates; low level of corporate social responsibility). As a result, the relationship between business and education in Ukraine has been challenged. On the one hand, a business cannot clearly determine what professional competencies of specialists are necessary for effective management; on the other hand, the education system of Ukraine trains, to a greater extent, those who are not in demand or partially in demand on the labor market.

Business participation in the process of organizational training and dissemination of best practices is conditional and formal, which is determined by certain factors, in particular:

- the myth of confidentiality (most companies unreasonably believe that a disclosure of organizational and management mechanisms of doing business will lead to the loss of competitive advantages);
- big companies partially solved their needs in the development of the necessary professional competences of their employees by creating special units in the company struc-

ture: training centers, professional academies, knowledge centers, and/or by using products of the market of information and consulting services;

- in the absence of sufficient free funds and the situation related to the pandemic, medium-sized and small businesses mostly use professional adaptation methods. This significantly increases the time of “employees entry into profession” and acquiring the necessary professional competencies adequate for the workplace (requires additional costs for remuneration, risk of individual professional unsuitability) and/or involvement of consulting or additional professional training.

Therefore, a model was developed that is focused on timely (Just-in-Time Learning) development of creative entrepreneurial skills and practical skills, which has a cyclical nature throughout the life of an individual (Lifelong Education Cycle).

According to Nettleton (2022), Just-in-Time Learning is the presentation of short pieces of information when needed. An employee’s ability to instantly use newly acquired information makes it just-in-time.

The basis of the developed model is the Just-in-Time Learning method with its following advantages:

- flexibility, because it is much easier to find time to complete a 5-minute class for one employee than for all of them together; flexibility can reduce stress and cause more interest in the employee to achieve certain entrepreneurial competencies;
- accessibility – short lessons available through mobile devices and the mobile Internet do not require additional equipment or training;
- highly relevant content (micro-learning) that can be completed in 5 minutes or less;
- the gathering of all employees is not required – individual employees can access knowledge to eliminate competence gaps independently of colleagues;

- increased efficiency – employees can access knowledge according to their schedule and individual needs, leading to increased learning efficiency.
- asynchronous learning, that is, more can be achieved in less time.

The model is generated based on five approaches: Self-Study, Coaching, Mentoring, Corporate Learning, and Professional Communities. In the context of the presented model, these approaches are the most effective for the effective development of creative entrepreneurial competencies. They do not require high costs for the entrepreneur, both financial and time.

The formation of entrepreneurial business consciousness is divided into 5 stages, because at the beginning of training an employee lacks knowledge and skills, and the skills to perform certain aspects of work are not formed (UnConscious InCompetence). This is followed by an employee attending training and, as a result, acquiring professional skills (Conscious InCompetence). The third stage involves the practical application of acquired skills and knowledge (Conscious Competence). Gradually, the third stage flows into the 4th stage – an em-

ployee brings skills and abilities to automatism (UnConscious Competence). The final stage is the employee's awareness of the need to develop new competencies (Conscious InCompetence). The fifth stage conveys the main idea of the developed model of entrepreneurial competencies. Therefore, every employee must constantly strive to improve his professional skills and abilities throughout his working life.

The platform for the development of entrepreneurial competencies is a so-called multifunctional system. It is based on the chain: Knowledge Bank-Knowledge Center-Knowledge management tools (artificial intelligence, map intelligence, mental models, IT technologies). For the practical application of the proposed platform, the entrepreneur must take into account the needs in developing competencies, the goals of their development, and the roles of all interested parties.

The study examines only the theoretical aspect of entrepreneurial competencies, therefore, in order to expand the obtained results, the goal of further research should be to apply the developments in practice. After all, the use of both the model and the platform on the example of real enterprises will make it possible to prove their effectiveness and efficiency in the activities of enterprises.

CONCLUSION

The study focused on the research of creative entrepreneurial competencies, development of proposals for creating a single platform, and a model for developing these competencies. The highest level of effectiveness and the speed of acquisition of creative entrepreneurial competencies are achieved when using the most productive training method (Self-Study, Coaching, Mentoring, Corporate Learning, Professional Communities) in accordance with the specific stage of the individual's business consciousness (UnConscious InCompetence, Conscious InCompetence, Conscious Competence, UnConscious Competence, Conscious Incompetence). In the research process, it was found that the joint efforts of modern business and educational services can be a practical step in solving the problem situation regarding the development of creative entrepreneurial competences, namely, the creation of a single platform for the development of entrepreneurial competences. This will bring together all interested parties and contribute to deep penetration of the "real practice" of doing business. This approach requires a high level of motivation, deep immersion, and complete self-sacrifice of the business entity, which is aimed at achieving maximum effectiveness from an entrepreneurial business idea. At the same time, national and international programs and state support for creative entrepreneurship in the form of the proposed platform for developing creative entrepreneurial competences can become an effective addition to forming a stable entrepreneurial business environment.

AUTHOR CONTRIBUTIONS

Conceptualization: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.
Data curation: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.
Formal analysis: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.
Funding acquisition: Maksym W. Sitnicki.
Investigation: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.
Methodology: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.
Project administration: Maksym W. Sitnicki.
Resources: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.
Software: Vasyl Pryimak.
Supervision: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.
Validation: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.
Visualization: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.
Writing – original draft: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.
Writing – review & editing: Maksym W. Sitnicki, Alla Stepanova, Vasyl Pryimak, Oksana Zhylynska.

ACKNOWLEDGMENTS

This scientific paper is published with support by British Council's 'Creative Spark: Higher Education Enterprise Programme', project № 5742783597 – the 'National Centre for Creative Entrepreneurship Development' (NCCE) and Kingston University London. English language proof-reading and comments were provided by Dr Martha Mador and Dr Alan Flowers, Kingston University London, UK.

REFERENCES

1. Bacigalupo, M., Kampylis, P., Punie, Y., & Van de Brande, G. (2016). *EntreComp: The entrepreneurship competence framework*. Luxembourg: Publication Office of the European Union. Retrieved from <https://ec.europa.eu/jrc/en/entrecomp>
2. Bandura, A. (1977). *Social learning theory* (247 p.). Englewood Cliffs, NJ: Prentice Hall.
3. Bozward, D., & Rogers-Draycott, M. (2017). Developing a staged competency based approach to enterprise creation. *International conference for entrepreneurship, innovation and regional development*. Thessaloniki, Greece. Retrieved from <https://www.semanticscholar.org/paper/Developing-a-Staged-Competency-Based-Approach-to-Bozward-Rogers-Draycott/a9aeac9b3217e0d0d1ce9d-2cf61fd20d539a159>
4. British Council. (2018). *Creative Spark*. Retrieved from <https://www.britishcouncil.org/ua/en/programmes/education/creative-spark>
5. Bujor, A., & Avasilcai, S. (2016). The Creative Entrepreneur: A Framework of Analysis. *Procedia – Social and Behavioral Sciences*, 221, 21-28. <https://doi.org/10.1016/j.sbspro.2016.05.086>
6. Collison, Ch., & Parcell, G. (2004). *Learning to Fly: Practical Knowledge Management from Leading and Learning Organizations* (2nd ed.). Wiley.
7. Diia. (n.d.). *yeRobota*. (In Ukrainian). Retrieved from <https://diia.gov.ua/services/categories/biznesu/yerobota>
8. EU4Business. (n.d.). *Rozvyvaiemo maliy ta serednii biznes [Developing small and medium-sized businesses]*. (In Ukrainian). Retrieved from <https://eu4business.org.ua/>
9. European Business Association (EBA). (n.d.). *Pidtrymka ta rozvytok maloho biznesu [Small business support and development]*. (In Ukrainian). Retrieved from <https://eba.com.ua/unlimit-ukraine/>
10. European Innovation Council (EIC). (2022). *European Innovation Council: €20 million support for Ukrainian start-ups*. Retrieved from https://eic.ec.europa.eu/news/european-innovation-council-eu20-million-support-ukrainian-start-ups-2022-06-09_en
11. Fayolle, A., & Redford, D. T. (2014). *Handbook on the Entrepreneurial University* (496 p.). Edward Elgar Publishing. Retrieved from <https://www.worldcat.org/title/handbook-on-the-entrepreneurial-university/oclc/1132192516>
12. Google for Start-ups. (n.d.). *Google for Startups Ukraine Support Fund [UA]*. Retrieved from <https://gfepublic.secure.force.com/events/EventTrackRegistrationForm?id=a2h3a000000vyReAAI&lang=en>
13. Graczyk-Kucharska, M., Özmen, A., Szafranski, M., Weber, G. W., Goliński, M., & Sychała, M. (2020). Knowledge accelerator by transversal competences and multivariate adaptive regres-

- sion splines. *Central European Journal of Operations Research*, 28, 645-669. <https://doi.org/10.1007/s10100-019-00636-x>
14. Gruzina, I. (2020). The essence and features of the competency-based approach to strategic enterprise management. *Development Management*, 18(4), 30-40. [https://doi.org/10.21511/dm.18\(4\).2020.04](https://doi.org/10.21511/dm.18(4).2020.04)
 15. Howkins, J. (2001). *The Creative Economy. How people make money from ideas* (288 p.). The Penguin Press.
 16. Humenna, O., & Chala, N. (2019). Stvorennia kreatyvykh khabiv pry universytetakh: svitovy dosvid ta chynnyky uspikhu [Creation of a University Creative Hub: World Experience and Factors of Success]. *Naukovi zapysky NaUKMA. Ekonomichni nauky – Scientific Papers NaUKMA. Economics*, 4(1), 27-33. (In Ukrainian). <https://doi.org/10.18523/2519-4739.20194.1.27-33>
 17. Kolb, A. Y., & Kolb, D. A. (2013). *The Kolb Learning Style Inventory 4.0 (A Comprehensive Guide to the Theory, Psychometrics, Research on Validity and Educational Applications)*. Experience Based Learning Systems, Inc. Retrieved from <https://learningfromexperience.com/downloads/research-library/the-kolb-learning-style-inventory-4-0.pdf>
 18. Korpysa, J., Halicki, M., & Lopatka, A. (2020). Entrepreneurial management of project supply chain – a model approach. *Problems and Perspectives in Management*, 18(3), 211-223. [https://doi.org/10.21511/ppm.18\(3\).2020.18](https://doi.org/10.21511/ppm.18(3).2020.18)
 19. Kusumawijaya, I. K., & Astuti, P. D. (2021). Mediating role of entrepreneurial competencies: Influence of personality traits on entrepreneurial intention. *Problems and Perspectives in Management*, 19(3), 211-220. [https://doi.org/10.21511/ppm.19\(3\).2021.18](https://doi.org/10.21511/ppm.19(3).2021.18)
 20. Küttim, M., Arvola, K., & Venesaar, U. (2011). Development of creative entrepreneurship: opinion of managers from Estonia, Latvia, Finland and Sweden. *Business: Theory and Practice*, 12(4), 369-378. <http://dx.doi.org/10.3846/btp.2011.38>
 21. Lackeus, M. (2015). *Entrepreneurship in education – What, why, when, how*. *Entrepreneurship 360* (Background paper). OECD, Paris. Retrieved from https://www.oecd.org/cfe/leed/BGP_Entrepreneurship-in-Education.pdf
 22. Long, J., & Wang, L. (2019). Networking and creativity: Entrepreneurial teams in high-technology start-up enterprises in China. *Social Behavior and Personality: an International Journal*, 47(8), 1-14. <https://doi.org/10.2224/sbp.7972>
 23. Luft, J., & Ingham, H. (1955). The Johari Window, a Graphic Model of Interpersonal Awareness. *Proceedings of the Western Training Laboratory in Group Development*. UCLA, Los Angeles.
 24. Man, T. W. Y., Lau, T., & Chan, K. F. (2002). The competitiveness of small and medium e enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*, 17(2), 123-142. [https://doi.org/10.1016/S0883-9026\(00\)00058-6](https://doi.org/10.1016/S0883-9026(00)00058-6)
 25. Mehmood, M. S., Jian, Z., & Akram, U. (2020). Be so creative they can't ignore you! How can entrepreneurial leader enhance the employee creativity? *Thinking Skills and Creativity*, 38, 100721. <https://doi.org/10.1016/j.tsc.2020.100721>
 26. Ministry of Economy of Ukraine. (2022). *2.3 mlrd yevro prohramy COSME teper dostupni dlia ukrain-tziv [2.3 billion euros of COSME programs are now available to Ukrainians]*. (In Ukrainian). Retrieved from <https://www.me.gov.ua/News/Detail?lang=uk-UA&id=29ea673c-b45f-4dc9-8c5a-bc7d32811e02&title=2-3-Mlrd-vroProgramiCosmeTe-perDostupniDliaUkrain-tziv>
 27. Ministry of Education and Science of Ukraine. (2022). *Horyzont 2020*. (In Ukrainian). Retrieved from <https://mon.gov.ua/ua/nauka/yevrointegraciya/ramkovi-programi-z-doslidzhen-ta-innovacij-gorizont-2020-ta-gorizont-yev-ropa-ta-iniciativi-yevropejskoyi-komisiyi-yevropejskij-zelenij-kurs/gorizont-2020>
 28. Mishra C. S., & Zachary, R. K. (2014). *The Theory of Entrepreneurship. Creating and Sustaining Entrepreneurial Value* (303 p.). New York: Palgrave Macmillan. <https://doi.org/10.1057/9781137371461>
 29. Mooney, R. (1963). A Conceptual Model for Integrating Four Approaches to the Identification of Creative Talent. In C. W. Taylor & F. Barron (Eds.), *Scientific Creativity: Its Recognition and Development* (pp. 331-340). New York: John Wiley & Sons.
 30. Morris, M. H., Webb, J. W., Fu, J., & Singhal, S. (2013). A Competency-Based Perspective on Entrepreneurship Education: Conceptual and Empirical Insights. *Journal of Small Business Management*, 51(3), 352-369. <https://doi.org/10.1111/jsbm.12023>
 31. Nagai, Y., Shimogoori, A., Ariga, M., & Georgiev, G. (2019). Future Learning and Design Creativity Competency. *Proceedings of the Design Society: International Conference on Engineering Design*, 1(1), 499-508. <https://doi.org/10.1017/dsi.2019.54>
 32. Nettleton, A. (2022). *What is Just in Time Learning? A Complete Guide for Educators*. My eLearning World. Retrieved from <https://myelearningworld.com/what-is-just-in-time-learning/>
 33. Nonaka, I., & Takeuchi, H. (1995). *The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation* (284 p.). New York: Oxford University Press.
 34. Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, Ba, and Leadership: a Unified Model of Dynamic Knowledge Creation. *Long Range Planning*, 33(1), 5-34. [https://doi.org/10.1016/S0024-6301\(99\)00115-6](https://doi.org/10.1016/S0024-6301(99)00115-6)
 35. Novojen, O., & Birnaz, N. (2022). Ecosystem of Learning in Initial Vocational Education and Training: An Innovative Mode for Development of Entrepreneurial

- Competence. In *Research Anthology on Vocational Education and Preparing Future Workers* (pp. 131-147). Information Resources Management Association (USA). <https://doi.org/10.4018/978-1-6684-5696-5>
36. Oshchadbank. (2021). *Oshchadbank pidbyv pidsumky chotyryrichnoi roboty prohramy "Budui svoie" [Oshchadbank summed up the results of the four-year work of the "Build Your Own" program]*. (In Ukrainian). Retrieved from <https://www.oschadbank.ua/news/osadbank-pidbiv-pidsumki-cotiriricnoi-roboti-programi-buduj-svoe>
 37. Pryimak, V. (2012). Model Profesiinykh Kompetentsii Suchasnoho Menedzhera [Model's Professional Competencies a Modern Manager]. *Visnyk Kyivskoho natsionalnoho universytetu imeni Tarasa Shevchenka. Ekonomika – Bulletin of Taras Shevchenko National University of Kyiv. Economics*, 137, 49-52. (In Ukrainian). Retrieved from <http://bulletin-econom.univ.kiev.ua/ua/archives/3396>
 38. Pryimak, V., & Faichak, I. (2017). Teambuilding: synergy of team work. In *Management of the 21st century: globalization challenges* (pp. 629-638). Poltava: Publisher house Simon.
 39. Pryimak, V., & Pavlenko, N. (2019). Organizational learning in the project management system. In *The potential of modern science* (pp. 160-172). London, UK: Sciencce Publishing.
 40. Revans, R. (2011). *ABC of Action Learning* (160 p.). Routledge.
 41. Schneider, K., & Albornoz, C. (2018). Theoretical Model of Fundamental Entrepreneurial Competencies. *Science Journal of Education*, 6(1), 8-16. <https://doi.org/10.11648/j.sjedu.20180601.12>
 42. Sitnicki, M., Zhylynska, O., Rudenko, S., Horbas, I., & Vialkova, V. (2020). *Kreatyvne Myslennia [Creative Thinking]* (100 p.). Kyiv: Lira-K. (In Ukrainian). Retrieved from <https://ncce.knu.ua/kreativne-mislennya/>
 43. Smaliychuk, G. (2020). Formation of international employee competencies in the conditions of the global labor market transformation. *Social and Labour Relations: Theory and Practice*, 10(2), 1-9. [https://doi.org/10.21511/slrrp.10\(2\).2020.01](https://doi.org/10.21511/slrrp.10(2).2020.01)
 44. Suci, M.-C. (2008). The Creative Economy. *Lex ET Scientia International Journal*, 15, 145-154. Retrieved from http://lexetscientia.univnt.ro/download/195_lesij_es_XV_1_2008_art_17.pdf
 45. Sytnik, N. (2017). Organizational learning as a component of knowledge management. *Marketing and Management of Innovations*, 3, 346-354. (In Ukrainian). <https://doi.org/10.21272/mmi.2017.3-32>
 46. Tittel, A., & Terzidis, O. (2020). Entrepreneurial competences revised: developing a consolidated and categorized list of entrepreneurial competences. *Entrepreneurship Education*, 3, 1-35. <https://doi.org/10.1007/s41959-019-00021-4>
 47. Tohochynskyi, O. (2018). Formation of future penitentiary managers' professional competence in Ukraine. *Knowledge and Performance Management*, 2(1), 47-58. [https://doi.org/10.21511/kpm.02\(1\).2018.05](https://doi.org/10.21511/kpm.02(1).2018.05)
 48. Walsh, J. P., & Ungson, G. R. (1991). Organizational Memory. *Academy of Management Review*, 16, 57-91. <https://doi.org/10.5465/amr.1991.4278992>
 49. Worku, Z. (2019). Factors that affect customer loyalty in small enterprises. *Innovative Marketing*, 15(4), 78-87. [https://doi.org/10.21511/im.15\(4\).2019.07](https://doi.org/10.21511/im.15(4).2019.07)

APPENDIX A

Table A1. Support programs for entrepreneurs in Ukraine, 2014–2020

Source: Developed by the authors.

Support program for entrepreneurs	The essence of the program	Program directions	Development of creative competences
EU4Business EU SURE (EU Support to Ukraine to Re-launch the Economy)	An initiative of the European Union that helps small and medium-sized enterprises in six countries of the Eastern Partnership to effectively realize their potential and stimulate economic growth.	<ol style="list-style-type: none"> 1. Access to financing. 2. Regulation of business. 3. Anti-crisis services for business support. 	The direction "Anti-crisis services for business support" includes consultations and online training, in particular, industry educational programs, online pieces of training, and consultations from well-known experts (online platform Merezha, EEN, EYE, the European platform for cluster cooperation – ECCP)
EU program "Competitiveness of small and medium enterprises (COSME)	A program of the European Union that promotes entering the EU market and the markets of the program's partners (through the European Enterprise Network – EEN), business internships abroad at a functioning enterprise (Erasmus programs), and obtaining easy access to information on conducting business activities (through online portals Your European business portal, Trade helpdesk, European cluster collaboration platform); participation in special competitions for state authorities that form and implement policy to ensure a better business climate in the country.	<p>Access to foreign markets Increased competitiveness Formation of business culture.</p>	The direction "Formation of business culture" allows Ukrainian applicants to gain access to participate in thematic training, seminars, and conferences from foreign companies or other participants, which will contribute to the improvement of production processes in the company and give impetus to the modernization of company management following the best global practices.
Program for management personnel in the sphere of entrepreneurship of Ukraine (Fit for partnership with Germany)	The program is implemented by the governments of Ukraine and the Federal Republic of Germany for managers to improve their professional competence in the field of business, acquire new competences for conducting foreign economic activities, establish business contacts with German and other foreign partners, and promote Ukrainian products and services on international markets.	<ol style="list-style-type: none"> 1. Economic cooperation (without industry specifics) 2. Economic cooperation in the following areas: <ol style="list-style-type: none"> 2.1. economic cooperation in the agricultural sector, in food production. 2.2. economic cooperation in the field of energy efficiency. 2.3. economic cooperation in the healthcare sector/ healthcare industry. 2.4. Industry 4.0. 	The following activities of the program will contribute to the formation of skills: becoming part of the international business community with exclusive access to participants from other countries that are partners of the program in various fields; acquiring information, knowledge, skills, and intercultural management competences that help establish cooperation with German companies; gain practical experience in negotiations with potential German partners; become a specialist in international business; career growth/ expansion of personal horizons/ personality development.
Unlimit Ukraine by EBA – Program for the development and support of small Ukrainian businesses	The European Business Association initiated the project, which is designed to develop small and micro businesses without restrictions on the types of activities.	Support of small and micro business initiatives by big international and domestic companies.	The development of professional skills occurs as a result of participation in the educational programs of the Association's Center for Professional Development

APPENDIX B

Support programs for entrepreneurs in Ukraine:

- EU4Business (EU4Business, 2022).
- EU programs supporting the private sector in Ukraine – EU SURE (EU Support to Ukraine to e-launch the Economy).
- The scientific research and training program of the European Atomic Energy Community Horizon 2020. This program was active during 2014–2020 (Ministry of Education and Science of Ukraine, 2022).
- EU program “Competitiveness of small and medium enterprises COSME 2014–2020” (Ministry of Economy of Ukraine, 2022).
- The program for management personnel in the sphere of entrepreneurship of Ukraine (Fit for partnership with Germany).
- Unlimit Ukraine by EBA (EBA, 2022) – Program for developing and supporting small Ukrainian businesses.
- Google for Startups Ukraine Support Fund – Google’s Ukrainian start-up support fund will allocate five million dollars to support Ukrainian businesses. About 50 companies founded in Ukraine during 2022 can receive grants. In addition, each start-up will receive Google Cloud, as well as support from Google managers (Google for Start-ups, 2022).
- EIC Ukrainian Tech (European Innovation Council, 2022) – The pan-European network of start-up associations launched a project to support Ukrainian start-ups in 2022. For this, they allocated 20 million euros from the budget. As a result, 200 Ukrainian start-ups and SMEs (small and medium-sized enterprises) have a chance to receive up to 60,000 euros from the EU. In addition, free consultations and help in finding partners will be provided. The main goal of grant support is the integration of Ukrainian businesses into the European market and support of the Ukrainian economy.
- Support of small and medium-sized enterprises at the international level (international credit lines).
- Banking products and programs to help small and medium-sized businesses (an initiative of JSC “Oschadbank” (Oschadbank, 2021) – the program “Build Your Own,” within which small and medium-sized businesses receive financial support, training opportunities, and consulting services for start-ups).
- Support of small and medium-sized enterprises at the regional level.
- Support of small and medium-sized enterprises at the state level. For example, on July 1, 2022, JEROBOTA grant program was launched in Ukraine (Action, 2022). This is financial support for start-ups, and small and medium-sized businesses.