DEVELOPMENT OF CREATIVE ENTREPRENEURSHIP IN UKRAINIAN TECHNICAL UNIVERSITIES

Purpose. To analyse the management features of the application and adaptation of the British experience in the development of creative entrepreneurship in the educational, scientific and cultural environment of technical universities in Ukraine.

Methodology. As the main research methods, the authors used the comparative approach and the expert assessment method. The methods of “thick description”, functional analysis and content analysis were used as additional ones.

Findings. The authors analysed the experience of the development and functioning of the culture of creative entrepreneurship in the universities of Great Britain and studied the peculiarities of its application in Ukrainian technical universities, taking into account the legislative and cultural characteristics. The authors investigated the main methods and forms of the development of creative entrepreneurship in technical universities of Ukraine, which include creation of centres for creative entrepreneurship on the basis of scientific libraries of universities, and so on.

Originality. Based on their own international and national experience in the development and implementation of the culture of creative entrepreneurship in classical universities of Ukraine (within the framework of the project “National Centre for Creative Entrepreneurship” supported by the British Council Ukraine), the authors substantiated an interdisciplinary methodology for the development and implementation of the culture of creative entrepreneurship in technical universities of Ukraine, which unites managerial, philosophical and ideological, educational, scientific, organizational and economic components. The authors’ model of the development of the culture of creative entrepreneurship provides for three main levels: 1) pre-university training and vocational guidance services; 2) educational process at all three levels of higher education (Bachelor, Master, Doctor of Philosophy); 3) advanced training for the teaching staff in cooperation with independent experts, entrepreneurs and non-governmental scientific, educational and cultural organizations.

Practical value. The research results can be used to develop the culture of creative entrepreneurship in Ukrainian technical universities, in particular, university centres for creative entrepreneurship and scientific libraries of universities. The use of the research results by the senior leadership of Ukrainian technical universities can increase with high probability the level of entrepreneurial activity of students, post-graduates, researchers and faculty, intensify cooperation between universities with national and international business and, consequently, significantly increase the level of attracting additional extra-budgetary funds to Ukrainian technical universities.

Keywords: creative entrepreneurship, Ukrainian technical universities, university management, creative thinking, university centre of creative entrepreneurship

Introduction. The peculiarities of the existing world labour market and the changes that have taken place in personal orientation to work highlight the skills of organizing creative entrepreneurship. To meet the prevailing demand, classical and technical universities were forced to develop and implement courses in creative entrepreneurship in the educational, scientific, and cultural environment. The new methods and forms of development of creative entrepreneurship have made teaching students more effective and thematic [1].

Creative entrepreneurship is a competence that helps create products and services of cultural value and commercial potential through the implementation of one’s own or someone else’s creative and/or intellectual capital. Creative entrepreneurship is investing in one’s own talents or the talents of others.

The European Commission recognizes creative entrepreneurship as a tool that helps young people not only learn how to run a business and create new jobs, but also develop many skills related to this field. Creative entrepreneurship is at the heart of innovation, productivity growth, competitiveness, economic growth and job creation [2].

The European Union officially supports creative entrepreneurship in its targeted programmes such as Horizon 2020, the COSME programme for small and medium-sized enterprises (including Erasmus for Young Entrepreneurs), Start-up Europe, Erasmus+, INTERREG – Territorial Cooperation, as well as in various funds.

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This article aims to analyse the management features of the application and adaptation of the British experience in the development of creative entrepreneurship in the educational, scientific, and cultural environment of Ukrainian technical universities.

Results. In 1998 and 2001, the Department for Culture, Media and Sport of the United Kingdom published the Creative Industries Mapping Document. For the first time, the document fully disclosed the size, scope, and impact of creative entrepreneurship on the UK economy [3]. In addition, for the first time, it was found that up to 42% of profitable businesses are small businesses (up to 10 employees) or private entrepreneurship founded by one or more people with creative thinking.

The published statistics have stimulated the British government to introduce creative education courses in the higher education system and allocate significant amounts of funding for the development of creative entrepreneurship in developing countries. As a result, a “creative industries” model was developed, and the British Council was commissioned to promote it. The British Council is a British government organization dedicated to international cultural and educational opportunities. The British Council promotes UK national interests as well as national security projects. The organization’s annual budget was around £ 1 billion in 2015 [4].

Promotion of creative entrepreneurship as the British Council project outlined the main goal of the British government — to identify creative-minded young people within the

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country and in developing countries in order to involve them in the development of the UK economy. The UK government was the first to declare the creative industries a strategic priority for the country’s development [3].

In 2000, Richard E. Caves, a Harvard economist, formulated seven “bedrock” properties that distinguish creative entrepreneurship from typical business entrepreneurship or social entrepreneurship. These are: 1) demand is uncertain; 2) creative workers care about their product; 3) some creative products require diverse skills; 4) differentiated products; 5) vertically differentiated skills; 6) time is of the essence; 7) durable products and durable rents [5].

The UK experience in developing creative entrepreneurship in classical and technical universities was picked up by other countries and universities. Its effectiveness for sustainable development and prosperity of the country was obvious and was based on the traditional Platonic tradition in education, which provided for the disclosure of personal qualities and inner creative potential [6]. At the present stage of economic development, the disclosed internal creative potential began to be considered as an important part of intangible assets of the country, whose value was higher than physical assets (equipment, buildings, and so on). Intangible assets are quoted by modern economists on a par with the financial assets of the country.

By 2010, leading university rankings highlighted the quality of creative entrepreneurship implementation as a separate indicator. M. W. Sitnicki studied the features of the influence of new indicators of university rankings on the development of research universities in the European Union [7]. Ranking indicators determine the development priorities of universities. Sitnicki proved that strengthening of the leadership potential and developing entrepreneurial thinking is a modern trend in the development of research universities [7].

Ukraine has been actively involved in the European Union programmes, including creative entrepreneurship development programmes, since 2014. Currently, the relations between Ukraine and the European Union are regulated by two main documents. These are Ukraine-European Union Association Agreement (2014) and the Deep and Comprehensive Free Trade Area (DCFTA) (2016). Based on these documents, Ukraine joined the Creative Europe programme in 2015. It is worth noting that by then, creative entrepreneurship accounted for up to 5% of the GDP of the European Union [4], while in Ukraine, it was not regulated by laws and was not taken into account in economic indicators.

Over five years of its participation in the Creative Europe programmes, the British Council has supported 38 Ukrainian projects in the amount of €5,472,228.12. In total, within the framework of the programme, during 2015—2020, 11,325 projects were supported for the amount of €1,199,949,000.76 [8]. Of these, in the field of architecture 1.19% of projects were supported, in the area of design and applied arts – 2.48%, literature – 37.80%, performance art – 33.26%, cultural heritage – 11.99%, visual art – 8.53%, others – 4.75% [8].

Involvement of Ukraine in the programmes of creative industries, including the programmes of the British Council, led to the fact that in 2016 the Ministry of Culture of Ukraine (currently the Ministry of Culture and Information Policy of Ukraine) created the Department of Cultural and Creative Industries Development. Creative entrepreneurship shows both trans-sectoral and cross-sectoral potential. Therefore, the work of the newly created department was aimed at overcoming the outdated economic models that existed in Ukraine in the post-Soviet period. Furthermore, the department develops organizational approaches and management solutions that adapt the European experience of organizing creative entrepreneurship in accordance with the legislation of Ukraine.

On June 19, 2018, the Verkhovna Rada of Ukraine adopted the law “On the introduction of amendments to the Law of Ukraine “On Culture” regarding the definition of the concept “creative industries” [9]. The law defines concept of “creative industries.” These are “the economic activities aimed at creating added value and jobs through cultural (artistic) and/or creative expression, and their products and services are the result of individual creativity” [9].

The formation of a creative economy directly depends on the development of creative entrepreneurship. However, creating the necessary infrastructure and promoting the creative sector cannot only be an initiative of entrepreneurs. This economic sector requires the involvement of local authorities and public organizations to create a full-fledged entrepreneurship development ecosystem. The state and regional authorities should be interested in the activities of effective competitive creative entrepreneurship, which can provide an appropriate level of employment and contribute to an increase in the standard of living of the population. The development of creative entrepreneurship develops on the basis of a favourable business environment and the introduction of educational programmes for the preparation of creative talents and creative thinking.

To support creative entrepreneurship in Ukraine, the Creative Enterprise Programme was launched. This is a global training programme in the field of cultural and creative industries, which the British Council carries out in cooperation with the British innovation agency Nesta in more than 15 countries of the world [4]. The programme is aimed at training the skills of creating sustainable micro-enterprises with fewer than 10 people in the creative and cultural industries. The programme confirms the significant social impacts of such enterprises and their important role in the national economy.

Leading methodologies of strategies and measures for teaching creative entrepreneurship in higher education are offered in the collection “Teaching Entrepreneurship: The Path to Success” [10]. It is published by the European Commission and recommended for harmonization of lifelong entrepreneurship education in universities. The European Framework of Reference for Core Competencies for Lifelong Learning defines entrepreneurial competence as follows: “the ability to turn ideas into action. Entrepreneurship includes creativity, innovation, and risk, as well as the ability to plan and manage projects to achieve goals. The person is aware of the context of their work and is able to use the opportunities that arise. It is the basis for acquiring more specific skills and knowledge needed by those involved in or contributing to social or commercial activities. Entrepreneurship must include awareness of ethical values and promotion of conscientious management” [10].

The authors of the article are the participants in the “National Centre for Creative Entrepreneurship” project. The project is currently being implemented by Taras Shevchenko National University of Kyiv in cooperation with the British Council in Ukraine and a number of British Universities (Northumbria University, Oxford University). The present article is a “logical” result of the authors’ work and asserts the development of centres for creative entrepreneurship as important innovation platforms for the interaction of science and education with the real sectors of the economy. In the previous studies, the authors disclosed certain aspects of their managerial experience in creating the Centre for Creative Entrepreneurship and organizing training courses [11, 12].

To date, there has not been a single Centre for Creative Entrepreneurship in Ukrainian technical universities. In the present article, the authors propose a methodology for creating such a centre based on real experience and adapted to Ukrainian realities. The use of this experience is highly likely to increase the level of entrepreneurial activity of students, graduate students, researchers and faculty. In addition, the proposed study results can intensify the cooperation of Ukrainian realities.
nian technical universities with national and international business and, as a result, significantly increase the level of attracting additional extra-budgetary funds to technical universities in Ukraine [13].

The authors’ model assumes the creation of the Centre for Creative Entrepreneurship with two heads. The first head of the Centre represents a technical university of Ukraine. The second head represents a foreign university; moreover, his/her main quality is the experience of creating and working in such centres. For example, the National Centre for Creative Entrepreneurship (NCCE), created at Taras Shevchenko National University of Kyiv, has two heads. On the Ukrainian part, the project manager is Maksym W. Sitnicki, Doctor of Economics, Head of the Department of Innovation and Investment Management at Taras Shevchenko National University of Kyiv. It was professor Sitnicki who developed the idea and won a grant from the British Council (Creative Spark: Higher Education Enterprise Programme) to create the National Centre for Creative Entrepreneurship Development (NCCE) (2019–2013) [14].

The second head of the NCCE project is Professor Becky Strachan [14]. Professor Strachan has long been in charge of the doctoral school of the University of Northumbria at Newcastle upon Tyne (UNN), UK, and is also the Principal Fellow of the Higher Education Academy (since 2019), which develops the UK professional standards framework (UKPSF) for teaching and supporting learning in higher education. Becky Strachan has experience in organizing creative entrepreneurship at Leeds Polytechnic and over 13 years at Northumbria University, which is based on Newcastle Polytechnic. Northumbria University ranks first among the British universities in the Times Higher Education’s Young Universities Rankings, 2020.

The Centre for Creative Entrepreneurship at the technical university is created as a regional resource centre providing innovative programmes and courses. The Centre for Creative Entrepreneurship performs the following tasks:

1. Developing and implementing interdisciplinary research programmes at the intersection of law, technology, social sciences and humanities. For example, these are “Creative Industries,” “Public Domain,” “Competition,” “Markets,” “Creative Thinking” programmes, and so on.

2. Developing a strong cooperative relationship with business partners and potential employers through guest lectures, seminars, and entrepreneurial success stories for students.

3. Organizing competitions (festivals) to identify promising regional projects of creative industries: information technology and multimedia, cinema, theatres, design, fashion, architecture, advertising, computer games, music.

For example, in 2020, the National Centre for Creative Entrepreneurship (NCCE) developed and implemented three training courses for students in the educational process of Taras Shevchenko National University of Kyiv: Creative Thinking, Soft Skills for Entrepreneurs and Creative Leadership. Textbooks with the same titles were published, in which the history of creative entrepreneurship is considered, the definitions to key concepts are given, and proprietary methodologies, applied techniques and tools are proposed [14, 15].

When creating the Centre for Creative Entrepreneurship at the technical university, special attention should be paid to the following.

First. The Centre must develop a culture of creative entrepreneurship. Building the culture of creative entrepreneurship involves three main levels:

1. Pre-university training and providing vocational guidance services.

2. Educational process at all three levels of higher education (Bachelor, Master, Doctor of Philosophy).

3. Advanced training of the teaching staff in cooperation with independent experts, entrepreneurs and non-governmental scientific, educational and cultural organizations.

The culture of creative entrepreneurship is based on student awareness of the factors that have the greatest impact on their intention to engage in entrepreneurial activity. The authors identify three main factors that determine creative entrepreneurship. It is the awareness of motivation, personal requirements, and characteristics of perceiving the environment. Awareness of these three factors determines the culture of creative entrepreneurship and creative thinking.

Second. The Centre for Creative Entrepreneurship in Ukrainian technical university is better to be based on the university scientific library. The modern scientific library of a university is a high-quality educational resource centre with a constantly developing and updated database of information resources of remote access, including the largest scientific information databases, such as Elsevier Freedom Collection, Springer, Web of Science, etc. The university scientific library allows educators, students, and researchers to do the following:

1. Get prompt access to new research and technology.

2. Obtain authoritative and verified content.

3. Identify the most cited publications in specialized areas of knowledge.

4. Create a work and learning environment in which the researcher and student can demonstrate their maximum abilities.

5. Promote promising projects of creative industries on social networks, e.g. Facebook, Twitter, and others.

Modern scientific libraries of universities have their own computer labs and specially equipped rooms for group studies, which allow working on group projects and joint learning. The university scientific library is a venue for public speaking, conferences and current events.

Third. The creation of the Centre for Creative Entrepreneurship provides for the introduction of trainings on creative entrepreneurship into the educational process of advanced training for the teaching staff of technical universities. Trainings are conducted by certified trainers in creative entrepreneurship as part of the Creative Spark project, British Council. The purpose of the trainings is to educate the teaching staff in the basics of design-thinking and the use of the Canvas business model. Design thinking involves solving problems focused on the interests of the user, and the Canvas business model is a tool for visualizing a business idea. The faculty is trained in the adapted practices necessary to generate creative ideas and test them in order to create their own business. The practices are developed by the British Council, Creative Economy and transmit British experience in creating a creative economy due to “the presence of highly qualified specialists, rich cultural heritage, avid interest in new areas of economic activity, stable government support, as well as recognition of teaching entrepreneurial skills at all levels – from school to university – as the priority area of education” [4]. The following practices can be highlighted: “brainstorming,” “yes, and...”, “fantastic binomial,” “double association,” “mental provocation,” “the 3 Disney chairs,” “six thinking hats,” “synectics,” “morphological box,” “mind mapping,” “Warthegg circle” [15].

Fourth. The creation of the Centre for Creative Entrepreneurship provides for the use of elements of creative entrepreneurship, starting with pre-university training and vocational guidance for applicants. I. Liashenko researched this issue and proved that pre-university training bridges the gap between school education and the requirements of higher education and also helps applicants make a more conscious choice of their future specialty [11]. Applicants get acquainted with the prospects for the development of creative economy, with the possibilities of free training in creative entrepreneurship, the English language, as well as participation in the international competition for creative entrepreneurship within the framework of the Creative Spark programme funded by the British Council [4]. The primary awareness of motivation, personal
requirements and characteristics of perceiving the environment occurs precisely in the process of pre-university training and vocational guidance for applicants.

**Fifth.** The creation of the Centre for Creative Entrepreneurship provides for cooperation with non-governmental scientific, educational and cultural organizations, programmes, and funds in the field of creative entrepreneurship. For example:

1. COSME. Europe’s programme for small and medium-sized enterprises, 2014–2020, within the budget of €2.3 billion. The programme envisaged the following goals [16]:
   - facilitating the access to funds for small and medium-sized enterprises at all stages of their life cycle – launching, expanding, or transferring a business;
   - helping business gain access to markets in the EU and beyond. The program funded the European Enterprise Network, which helped small and medium-sized enterprises find business and technology partners and adapt them to EU legislation;
   - supporting entrepreneurs by stimulating teaching entrepreneurship, mentoring, and management. The programme provided access to the opportunities offered by today’s advanced digital technologies;
   - seeking to reduce the administrative and regulatory burden on small and medium-sized enterprises by creating a favourable business environment. The programme supported the competitiveness of entrepreneurs by encouraging them to adopt new business models and innovative practices in areas with high growth potential, such as the tourism sector.

2. The Startup Europe One Stop Shop, which offers entrepreneurs, investors and ecosystem developers reliable information and support on topics ranging from intensive growth, investment opportunities to networking [17].

3. Interreg Europe programme, run by the European Regional Development Fund. Interreg Europe helps regional and local authorities across Europe to develop and implement better policies for public investment, innovation, and efforts to implement and sustain impacts on people and their residence. The programme supports:
   a) research and innovation;
   b) competitiveness of small and medium-sized businesses;
   c) low-carbon economy;
   d) environment and resource efficiency. In addition, the programme introduces the principle of “doing more with less” [18].

**Conclusions.** Thus, based on their own international and national experience in the development and implementation of the culture of creative entrepreneurship in classical universities of Ukraine (within the framework of the project “National Centre for Creative Entrepreneurship” supported by the British Council Ukraine), the authors substantiated an interdisciplinary methodology for the development and implementation of the culture of creative entrepreneurship in Ukrainian technical universities, which combines managerial, philosophical and worldview, educational, scientific, organizational and economic components.

The authors described their experience of creating and functioning of the National Centre for Creative Entrepreneurship and also substantiated the effectiveness of its functioning on the basis of the university scientific library. Furthermore, the authors proved the managerial and economic efficiency of the University Centre for Creative Entrepreneurship for the direct practicing of developing practical skills of creative entrepreneurship in Ukrainian technical universities, as well as for the interaction between universities in Ukraine and business, the development of business start-up projects of students, graduate students, and alumni.

**References.**


### Розвиток креативного підприємництва в українських технічних університетах

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**Мета.** Аналіз управлінських особливостей застосування та адаптації британського досвіду розвитку креативного підприємництва до освітнього, наукового й культурного середовища технічних університетів України.

**Методика.** У якості основного методу дослідження автори використали порівняльний підхід і метод експертної оцінки. У якості додаткових автори використали методи “насиченого опису”, метод функціонального аналізу, метод контент-аналізу.

**Результати.** Автори проаналізували досвід розвитку та функціонування культури креативного підприємництва в університетах Великої Британії та дослідили особливості його застосування в технічних університетах України, враховуючи законодавчі й культурні особливості. Якщо ви глядаєте цей текст через бібліотечне приладдя, натисніть кнопку "Перетворити на текст" для отримання спрощеного текстового вигляду.
тори дослідили головні методи та форми розвитку креаТивного підприємництва в технічних університетах України, до яких слід віднести створення центрів креаТивного підприємництва на базі наукових бібліотек університетів та інш.

Наукова новизна. На основі власного міжнародного й національного досвіду розвитку та впровадження культури креаТивного підприємництва у класичних університетах України (у рамках проекту «Національний центр креаТивного підприємництва» за підтримки British Council Ukraine) автори обґрунтували міждисциплінарну методику розвитку та впровадження культури креаТивного підприємництва в технічних університетах України, що поєднує управлінські, філософсько-світо-гліздні, освітні, наукові, організаційні та економічні компоненти. Авторська модель розвитку культури креаТивного підприємництва передбачає три основні рівні: 1) доуніверситетська підготовка й робота із професійної орієнтації; 2) освітній процес на усіх трьох рівнях вищої освіти (бакалавр, магістр, доктор філософії); 3) підвищення кваліфікації професорсько-викладацького складу у взаємодії з незалежними експертами, підприємцями та недержавними науковими, освітніми й культурними організаціями.

Практична значимість. Результати дослідження можуть бути застосовані для розвитку культури креаТивного підприємництва в технічних університетах України, зокрема, університетських центрів креаТивного підприємництва й наукових бібліотек університетів. Використання результатів дослідження адміністрацією технічних університетів України може з високою віро-гліздністю підвищити рівень підприємницької діяльнос-ті студентів, аспірантів, науковців і професорсько-викладацького складу, активізації співпраці університе-тів із національним і міжнародним бізнесом та, як на-слідок, суттєво підвищити рівень залучення додаткових позабюджетних коштів до технічних університетів України.

Ключові слова: креаТивне підприємництво, українські технічні університети, управління університетом, креаТивне мислення, університетський центр креаТивного підприємництва

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