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STRATEGIZING OF STARTUP ACTIVITY COMPANY: INITIALIZATION AND PROJECT IMPLEMENTATION

СТРАТЕГУВАННЯ СТАРТАП АКТИВНОСТІ КОМПАНІЇ: ІНІЦІАЛІЗАЦІЯ ТА ВПРОВАДЖЕННЯ ПРОЄКТУ

In the article the modern concept of strategizing of startup activity are considered. The conceptual principles of strategizing startup activity are systematized and its institutional design in modern conditions is specified on the example of Igor Sikorsky Kyiv Polytechnic Institute. The technology of strategizing startup activity consists of essential and organizational components. The technology of strategizing startup activity is proposed as a set of essential component: strategic analysis; actual resource analysis; strategy implementation plan; strategic synthesis of key development factors; formation of the desired future; generation of strategic goals and relevant development priorities; development of forecast scenarios; development of a set of programs and projects related to the "goal tree"; development of mechanisms for strategy implementation and monitoring. The technology of organizational component of strategic works is based on the use of means of organizing activities, co-organization of participants in the strategic process, as well as on the procedures for developing, launching and implementing development strategies. As a research base the results of the Jean Monnet Module «European business models: transformation, harmonization and implementation in Ukraine» are used to show the opportunities for startup activity in Ukraine. Also, data from Ukrainian statistic agency and the open international rankings were used. The general socio-economic situation for startup is partly revealed by tendencies of innovative activity of Ukrainian companies. The main indicators of small businesses development in Ukraine in 2013-2019 are analyzed. As the optimal management model, Igor Sikorsky KPI was represented like a model with a combination of innovative ecosystem and a set of endeavor projects in framework of mission and general strategy. The case project shows positive reinforcement of students' skills of transforming innovative business ideas into a business model; proposes the first practical experience of effective team interaction in solving business simulation.

Keywords: strategizing, startup activity, project implementation, strategic management.

У статті розглянуто сучасну концепцію стратегування стартап активності. Систематизовано концептуальні принципи стратегування стартап активності та конкретизовано їх інституційне оформлення в сучасних умовах на прикладі КПІ ім. Ігоря

Сікорського. Технологія стратегування стартап активності складається зі змістовної і організаційних компонентів. Технологія стратегування стартап активності пропонується як сукупність змістовної компоненти: стратегічний аналіз; фактичний аналіз ресурсів; план реалізації стратегії; стратегічний синтез ключових факторів розвитку; формування бажаного майбутнього; формування стратегічних цілей та відповідних пріоритетів розвитку; розробка прогнозних сценаріїв; розробка набору програм і проектів, пов'язаних з "деревом цілей"; розробка механізмів реалізації стратегії та моніторингу. Технологія організаційної складової стратегічних робіт базується на використанні засобів організації діяльності, спільної організації учасників стратегічного процесу, а також на процедурах розробки, запуску та реалізації стратегій розвитку. В якості дослідницької бази результати Модулю Жан Моне «Європейські бізнес-моделі: трансформація, гармонізація та впровадження в Україні» використовуються для показу можливостей стартап активності в Україні. Також були використані дані українського статистичного агентства та відкриті міжнародні рейтинги. Загальна соціально-економічна ситуація для стартапів частково виявляється тенденціями інноваційної діяльності українських компаній. Проаналізовано основні показники розвитку малого бізнесу в Україні у 2013-2019 роках. Як оптимальну модель управління подано КПП ім. Ігоря Сікорського з поєднанням інноваційної екосистеми та набором проектів у рамках місії та загальної стратегії. Кейс-проект демонструє позитивне зміцнення навичок студентів щодо перетворення інноваційних бізнес-ідей на бізнес-модель; пропонує перший практичний досвід ефективної командної взаємодії у бізнес-симуляціях.

Ключові слова: стратегування, стартап активність, реалізація проекту, стратегічний менеджмент.

Introduction. Many practitioners emphasize that in a broad sense, innovation involves much more than just the introduction of new technologies. Continuing the idea, the environment for startup activities involves the transition from linear models to systems approaches and common networks, where, in fact, is the exchange of information and the learning. In this context, the ideology of strategizing as efforts to achieve the desirable future of a particular entity is scientifically interesting.

Strategizing of startup activity has the same theoretical origins as strategic management in general. Researchers consider the modern development of strategic management and strategic entrepreneurship [1] on the basis of the concept of "strategizing". J. Matthews [2] understands strategizing as "the maneuvering of firms in positioning and differentiating (differences) from each other and the search for competitive advantage in conditions of imbalance. Strategies are based on three fundamental categories designed to explain firms' strategic choices: resources; actions that can be taken in relation to resources and procedures that combine the two previous categories". In terms of terminology, strategy in relation to the firm is interpreted as the development of a strategic plan and strategy planning that allows to develop a mechanism for achieving goals that are manageable and achievable. A.Zeldner [3] assumes the following scenario for strategy: the goal - ways and methods of decision, sources of financing, economic levers and incentives to achieve the result and systematic monitoring. The key methodological aspects of

strategy in innovation are the renovation (improvement of the structure) of the process and the result of the activity (product) [4]. The strategizing of startup activity is not clear determined and that caused the article main idea of further strategizing concept development that covers the shift from forecasting, planning to implementation of future startup activities.

Problem statement. The purpose of the work is an attempt to systematize the conceptual principles of strategizing startup activity and to specific its institutional design in modern conditions on the example of National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute".

Methodology. The results of the Jean Monnet Module «European business models: transformation, harmonization and implementation in Ukraine» (the joint project of National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" and Erasmus+ Jean Monnet Fund and Education, Audiovisual and Culture Executive Agency, supported by the EU) are used to determine the opportunities for startup activity in Ukraine. Also, data from Ukrainian statistic agency and the open international rankings were used. The analytic-synthetic method and the Strategizing startup activity is the choice of the optimal management model while minimizing strategic challenges, threats, risks to ensure sustainable development and implementation of selected economic priorities. inductive-deductive method were used for the analyzing and concluding.

Research results. The technology of strategizing startup activity consists of essential and organizational components: strategic analysis of socio-economic and organizational-managerial situation (at different scaling); actual resource analysis, development strategy, organizational analysis; strategy implementation plan, strategy reengineering, strategic revision of the management system, as well as strategic motivation [5]; strategic synthesis of key development factors; formation of the desired future; generation of strategic goals and relevant development priorities; development of forecast scenarios; development of a set of programs and projects related to the "goal tree"; development of mechanisms for strategy implementation and monitoring.

The general socio-economic situation is partly showed by tendencies of innovative activity of Ukrainian companies. In 2010-2018 the total innovation of Ukrainian industrial enterprises was at the level from 13.8 to 18.9% (Figure 1). The graph shows that the share of companies that implement innovations in the industrial sector in Ukraine is about 16% from all industrial companies. And more innovative are large enterprises (employing over 249 employees).

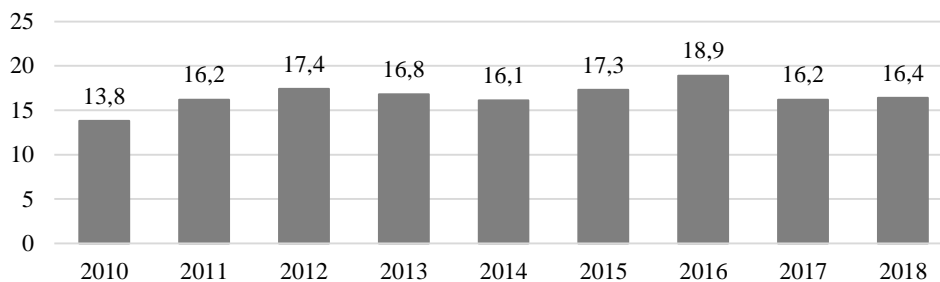


Figure 1 – Share of companies that implemented innovations in the industrial sector in Ukraine in 2010-2018* (in %)

* data for 2015-2018 are given for legal entities from industrial sector with 50 and more employees
Source: [6, 14]

During 2010-2018, the average level of innovation activity of small enterprises is 17% in industry and 16% - in services; the average level of innovation activity of medium enterprises is 25% and 23%, respectively; the average level of innovation activity of large enterprises is 48% and 30%, respectively (Figure 2, 3).

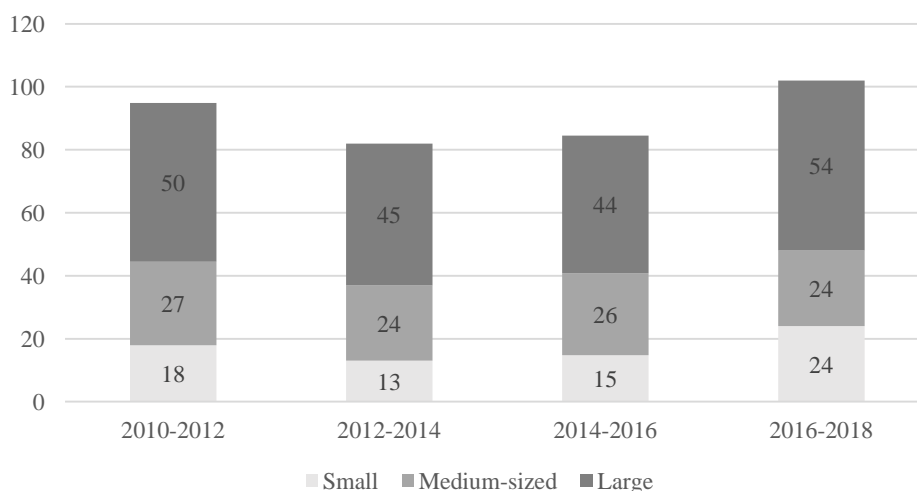


Figure 2 – Industrial innovative enterprises in Ukraine in 2010-2018 (in %)

Source: [6, 14].

This background is explained by high risks of unsuccessful scientific and technological research at the initial stage of innovation and, accordingly, inefficient investment costs, so such activities are often carried out by large enterprises and organizations for which such costs are acceptable [6].

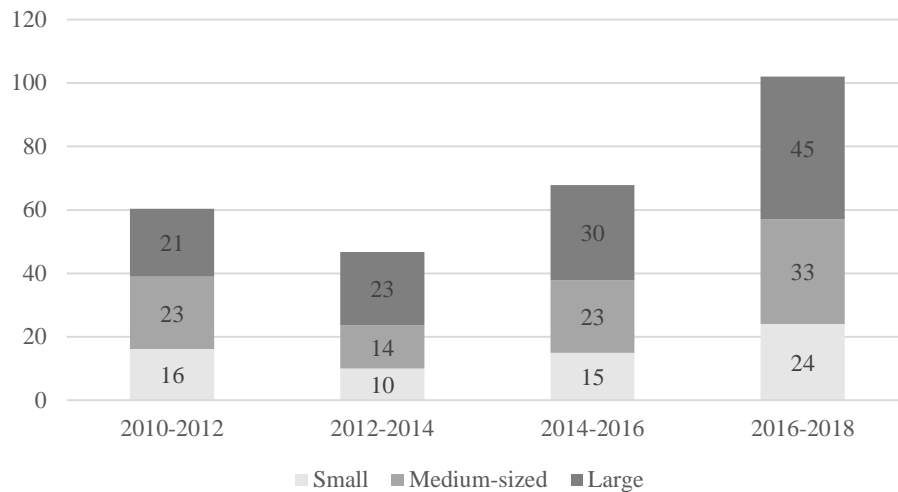


Figure 3 – Innovative enterprises in service sector in Ukraine in 2010-2018 (in %)

Source: [6, 14].

At the same time, if we consider the difference between innovation activity and startup activity, it is worth considering startup dynamics in Ukraine to understand the environment (Table 1). Start-up activities are the events and behaviors of individuals who are engaged in the process of starting a new venture and constitute the "micro-foundations of entrepreneurial action" [7]. Quite the same understanding is in framework of the Kauffman Index of Startup Activity as an early indicator of the beginnings of entrepreneurship in the United States. The Startup Activity Index integrates several high-quality sources of timely entrepreneurship information into one composite indicator, relying on three components to measure startup activity: rate of new entrepreneurs; opportunity share of new entrepreneurs; startup density [8].

Table 1 – The main indicators of small businesses development in Ukraine in 2013-2019

Indicators	Years						
	2013	2014	2015	2016	2017	2018	2019
The share of small business in the business structure, %	98,8	99,1	99,2	99,2	99,1	99,1	99,0
Number of small businesses, thousand	1702,2	1915,1	1958,4	1850,1	1789,4	1822,7	1923,0
Number of employees in small business, thousand people	2010,7	1686,9	1576,4	1591,7	1658,9	1641,0	1746,6

Source: [6,14].

The value of the share of small business in the overall structure of entrepreneurship (98.8-99.2%) is quite significant. However, the share of small business in GDP is insignificant. At the same time, in economically developed countries, the contribution of small businesses to GDP averages about 60%.

If a start-up is defined as a project-based organization or company in various business fields that commercializes a new business model by combining innovative ideas or advanced technologies to deal with uncertain environments [9], it is reasonable to look at Startup Ranking service, based on the analysis of the number of startups in the world, in which Ukraine ranks 40th (331 startups), ahead of Austria and Hungary (www.startupranking.com/countries).

It is seen that the activity in the creation of enterprises is big, but their success is small. This is partly explained by lack of practical skills to work on own projects, lack of business experience, underdeveloped soft-skills, including communication, perseverance, problem-solving skills.

According to European Startup Monitor, the average founder holds a university degree (84.8%) and is about 35 years old when founding the business [10]. This emphasizes how well-equipped most founders actually are, with competencies acquired through a university education, practical knowledge, and experience. 78% of the startups have more than one founder, founding a startup is regularly a cooperative endeavor [11].

The technology of organizational component of strategic works is based on the use of means of organizing activities, co-organization of participants in the strategic process, as well as on the procedures for developing, launching and implementing development strategies.

In the Strategy of Development for 2020-2025, the mission of Igor Sikorsky KPI is aimed at promoting the formation of the future society on the principles of the concept of sustainable development through internationalization and integration of education, the latest research and innovative developments. The main directions are the deepening of the internationalization of the university, research and educational technologies in order to prepare competitive professionals to work in the global markets of education, science and innovation.

The university supports creative youth and scientists who want to create innovative entrepreneurs. Sikorsky Challenge at Igor Sikorsky KPI (www.sikorskychallenge.com) includes Startup School Sikorsky Challenge; Sikorsky Challenge Festival of Innovative Projects; Sikorsky Challenge Business Incubator; innovative technological environment "Sikorsky Lab"; intellectual property center; Sikorsky Challenge Venture Fund.

Also according to the Strategy Development for 2020-2025 of Igor Sikorsky KPI the project «European business models: transformation, harmonization and implementation in Ukraine» was developed in 2017 year by professors with the

support of the ERASMUS + Program of the European Union in accordance with the terms of the grant by the Jean Monnet Fund. The aim of the module is an in-depth study of European practices of competitiveness and promotion of the EU transformation process benefits [12].

During the implementation phase, the project team divided three main activities, which have special value to the target groups. The target groups of the project were students, postgraduate students, young scientists, businessmen from all regions of Ukraine, including the temporarily displaced persons from Donetsk, Lugansk regions, Crimea, students with disabilities, students from other countries (Turkey, Azerbaijan, Uzbekistan, Turkmenistan, Iraq, Vietnam, China). Therefore, the synergistic effect of research results would have been disseminated in the regions of Ukraine and partner countries.

The first activity were the public lectures and seminars for the large number of students of management, economic and technical specialties at KPI. These activities enhance interest in the new scientific research and analytical work about the European experience of doing business.

The second activity was an interdisciplinary training, which involves motivated target audience: bachelors, masters, graduate students, young teachers. An important achievement of this component were own business projects focused on European competition policy; first experience of effective team interaction in solving business simulation.

For instance, the training course “The EU as Endeavour Entrepreneur” was aimed in showing the EU as entrepreneur that gives advantages and perspectives both for individuals and for the society. Trainer (Pichugina M., associate professor from management department of KPI) tried to give students a vision of European integration impact on the certain Ukrainian industries and the whole country; to consider the positive experience of EU support MIP; to teach students how to work with web platforms that provide information; to explain the basics of project management and business planning; to provide the examples of the best European successful projects. The course helped students to work with the EU web platforms and grant projects; improved skills in developing their own projects.

As part of the project, the training course “Benchmarking and Strategic Implementation the European Business Model for Ukraine” (Artemenko L., associate professor from management department of KPI) gained competencies and practical skills in developing own business models, business projects, focused on European competition policy. The feature was the focus on the trainees needs: the involvement of a participant as a partner in the process of finding solutions through case studies, business simulations, and group discussions to develop business model, using modern European and training simulations. The combination of IT and economics students, the involvement of faculty and IT professionals in a cycle of projects, in addition to interdisciplinary exchange of ideas, understanding of

interrelated needs and skills development, can result in the development of own businesses [13].

The technology of organizational component of strategic works is based on the use of means of organizing activities, co-organization of participants in the strategic process, as well as on the procedures for developing, launching and implementing development strategies. The set of tools for organizing strategy includes conceptualization, forecasting development, programming, design, planning and other tools for working with the future.

As results of both trainings, 20 projects were developed by the student teams. 10 students were invited to an internship at a company that specializes in the Internet marketing.

The format of the training and truly multidisciplinary teams of participants contribute to the development of skills of orientation in a changing information space and team skills.

Table 2 – Dynamics of training participants 2017-2020

	2017	2018	2019	2020	Number of participants, total
Actual number of participants	32	62	66	42 (online)	202
The planned number of participants	30	60	60	30	180

Source: By authors

All activities of the project team led to the achievement of the complex of following detailed goals. In the context of startup activity:

1) The participation in trainings and other events provided by project's team promoted changes in the labor market and educational space through the motivation of student self-employment. The success of the participants and their professional growth testify the most to the social efficiency. Thus, 12 participants provided information on improving their position in enterprises, 7 started their own business, 18 continued training and development of entrepreneurial skills in other projects and programs, including the YEP program and the Creative Spark competition.

2) Assistance to students from temporarily occupied territory of Ukraine was provided, especially if they were interested in the project activities (in line with KPI policy to support persons who moved from temporarily occupied territory).

3) During the project implementation, the ability of teachers to project and train activities, their training through trainings, consultations and internships was assessed. Thanks to the project, its executors and participants today cooperate with 9+ faculties and institutes of Igor Sikorsky KPI, as well as with 26+ universities of Ukraine to initiate joint research and activities, improve the quality of education.

Project results were presented: İstanbul Şehir Üniversitesi (Turkey), Alexandru Ioan Cuza University of Iasi (Romania), Czestochowa University of Technology (Poland), Dumlupınar Üniversitesi (Turkey), Luxembourg University (Luxembourg), Ankara Üniversitesi (Turkey), Ludwigsburg University of Education (Germany), University of Ecology and Management in Warsaw (Poland).

4) 12 participants provided information on improving their position in enterprises, 7 started their own business, 18 continued training and development of entrepreneurial skills in other projects and programs.

The main outputs: student projects aimed at solving urgent problems of Ukrainian business structures using the experience of enterprises of the EU countries; implementing of creative methods of teaching.

Main outcomes and impact: creating interdisciplinary scientific and social platform in KPI to solve urgent economic problems in our country taking into account the experience of EU countries; forming leaders' community capable of working with the use of the European model of management.

Conclusions. Thus, strategizing is a system of implementation of innovative priorities that ensure the achievement of goals and the multiplier effect. Strategizing startup activity is the choice of the optimal management model while minimizing strategic challenges, threats, risks to ensure sustainable development and implementation of selected economic priorities.

The optimal management model can be a combination of innovative ecosystem and a set of endeavor projects in framework of mission and general strategy. Igor Sikorsky KPI was represented as a case of such management model. It has an ecosystem - Sikorsky Challenge and supports projects to promote the interdisciplinary educational opportunities and to develop managerial and engineering creativity. Thus, the long-term positive impact will be reached in Igor Sikorsky KPI, in Ukraine education and throughout the world. The case project shows positive reinforcement of successful practices of doing business in Europe and enhances students' skills of transforming innovative business ideas into a business model; proposes the first practical experience of effective team interaction in solving business simulation. Synergistic effect is expected to be distributed in the regions of Ukraine through the creation of family business, small and medium businesses that will contribute to the development of transboundary cooperation and improvement of business environment in the future.

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