

*Електронний журнал «Ефективна економіка» включено до переліку наукових фахових видань України з питань економіки (Категорія «Б», Наказ Міністерства освіти і науки України № 975 від 11.07.2019). Спеціальності – 051, 071, 072, 073, 075, 076, 292. Ефективна економіка. 2024. № 3.*

**DOI: <http://doi.org/10.32702/2307-2105.2024.3.22>  
УДК 330.3:330.3:338.2**

*S. Breus,*

*Doctor of Economic Sciences, Professor, Professor of the Department of Management and Innovative Providing, European University, Kyiv, Ukraine*

*ORCID ID: <https://orcid.org/0000-0003-0624-0219>*

*M. Denysenko,*

*Doctor of Economic Sciences, Professor, Habilitated Doctor of Economic Sciences, Professor of Economic Sciences, Professor of the Department of Management and Entrepreneurship, Volodymyr Vynnychenko Central Ukrainian State University, Kropyvnytskyi, Ukraine*

*ORCID ID: <https://orcid.org/0000-0001-8767-9762>*

*A. Omelchenko,*

*Master's Degree, European University, Kyiv, Ukraine*

*Master's Degree, Akademia WSB (WSB University), Dąbrowa Górnicza, Poland*

*ORCID ID: <https://orcid.org/0009-0000-7283-6139>*

*O. Yanitskyi,*

*Bachelor's Degree, European University, Kyiv, Ukraine*

*ORCID ID: <https://orcid.org/0009-0004-7844-117X>*

**THE MAIN ASPECTS OF THE PHENOMENON OF ECONOMIC  
INCLUSION IN THE MANAGEMENT OF STARTUPS IN THE IT SPHERE**

*С. В. Бреус,*

*д. е. н., професор, професор кафедри менеджменту та інноваційного провайдингу, Європейський університет, м. Київ, Україна*

*М. П. Денисенко,*

*д. е. н., професор, doktor habilitovaný nauk ekonomických, profesor nauk ekonomických, професор кафедри менеджменту та підприємництва, Центральноукраїнський державний університет імені Володимира Винниченка, м. Кропивницький, Україна*

*А. А. Омельченко,*

*магістр, Європейський університет, м. Київ, Україна,  
магістр, Академія WSB, м. Домброва-Гурнича, Польща*

*О. В. Яніцький,*

*здобувач вищої освіти, Європейський університет, м. Київ, Україна*

## **ОСНОВНІ АСПЕКТИ ФЕНОМЕНУ ЕКОНОМІЧНОЇ ІНКЛЮЗІЇ ПРИ УПРАВЛІННІ СТАРТАПАМИ У СФЕРІ ІТ**

*The article conducts research and considers the main aspects of the phenomenon of economic inclusion in the management of startups in the IT sphere. It was determined that currently the category "startup" is a complex and vague, multifaceted concept. It is considered from different aspects: as a process, as a project, as a newly created enterprise before registration, as an innovation, as a business. It was considered and determined that the legislation of Ukraine (and other countries) lacks a clear definition of a startup, which leads to its intuitive perception. It has been studied that startups are a phenomenon of post-industrial society, the driving force of the economies of various countries, within which production problems are solved, however, startups are available to other societies thanks to modern telecommunications and information technologies, primarily the Internet, payment systems (Visa, Master Card) and social networks, while the startups are in any case aimed at the markets of post-industrial societies.*

*It was determined that the world market (first of all the USA, as well as Europe) has effective means (including state) of stimulating the emergence and development of startups: the legal system, IT services, crowdfunding platforms, venture funds, private investors, competence centers (in primarily universities), business accelerators, expert environment (mentors), infrastructure companies, technology parks, stock exchanges. There are also agents of change: visionaries, journalists, celebrities, etc., who really contribute to the spread of new ideas, and most importantly in the global market there is a market and potential consumers of startup products. This forms an ecosystem of startups.*

*There is a similar local ecosystem of startups in Ukraine, but it should be considered as an outsourced part of the global ecosystem of startups, it has no independent importance for objective reasons. It was determined that startups usually operate in conditions of limited resources, the most important of which are proposed to include creative energy, time and finances. The revealed peculiarities of the functioning of startups in conditions of limited resources allowed to determine the main direction of improving their management in such conditions: the search for opportunities to save creative energy. Modern startups are closely related to telecommunications and information technologies, so they are often associated with the IT industry, but there are quite a few startups aimed specifically at the IT sphere (improvement of computing equipment or software development tools). Based on the study of existing methodical approaches to analyzing startups, it was concluded that the most effective of them should be considered those that involve taking into account and determining the current indicators of their activity at the early stages of existence: "idea generation", "team selection" and "minimum product creation". namely: a comparison of startup idea generation methods. In general, in the conditions of the Great War, it is considered expedient to take into account the main resources: creative potential, time and finances for the effective management of startups in the IT sphere.*

*У статті проведено дослідження та розглянуто основні аспекти феномену економічної інклюзії при управлінні стартапами у сфері ІТ. Визначено, що на даний час категорія «стартап» є комплексним та нечітким, різноаспектним поняттям. Його розглядають з різних аспектів: як процес, як проєкт, як новостворене підприємство до реєстрації, як інновацію, як бізнес. Розглянуто та визначено, що у законодавстві України (та інших країн) відсутнє чітке визначення стартапу, що призводить до його інтуїтивного сприйняття. Досліджено, що стартапи є феноменом постіндустріального суспільства, рушійною силою економік різних країн, в межах яких вирішені проблеми виробництва, однак, стартапи доступні іншим суспільствам завдяки сучасним телекомунікаційним та інформаційним технологіям в першу чергу Internet, платіжних систем (Visa, Master Card) та соціальних мереж, при цьому стартапи в будь-якому разі спрямовані на ринки постіндустріальних суспільств.*

*Визначено, що на світовому ринку (перед усім США, а також Європи) є дієві засоби (в тому числі державні) стимулювання появи та розвитку стартапів: правова система, ІТ-сервіси, краудфандингові платформи, венчурні фонди, приватні інвестори, центри компетентності (в першу чергу університети), бізнес акселератори, експертне середовище (ментори), інфраструктурні компанії, технопарки, фондові біржі. Є також агенти змін: візіонери, журналісти, селебріті тощо, які дійсно сприяють розповсюдженню нових ідей, а головне на глобальному ринку має місце ринок і потенційні споживачі продуктів стартапів. Це формує екосистему стартапів.*

*В Україні є схожа локальна екосистема стартапів, але її слід розглядати як аутсорс частину глобальної екосистеми стартапів вона не має самостійного значення із об'єктивних причин. Визначено, що стартапи зазвичай діють в умовах обмежених ресурсів, до найважливіших із яких запропоновано віднести творчу енергію, час та фінанси. Виявлені особливості функціонування стартапів в умовах обмеженості ресурсів дозволили визначити основний напрям удосконалення управління ними в таких умовах: пошук*

можливостей економії творчої енергії. Сучасні стартапи тісно пов'язані із телекомунікаційними та інформаційними технологіями, тому їх часто асоціюють із IT-індустрією, однак стартапів спрямованих саме на IT-сферу (покращення обчислювального обладнання, чи засобів розробки програмного забезпечення) досить мало. На основі дослідження існуючих методичних підходів аналізування стартапів зроблено висновок, що найефективнішими з них слід вважати ті, які передбачають врахування та визначення поточних показників їх діяльності на ранніх етапах існування: «генерація ідеї», «підбір команди» та «створення мінімального продукту», а саме: порівняння методів генерації ідей стартапів. Загалом в умовах Великої війни доцільним вбачається для ефективного управління стартапами у сфері IT враховувати основні ресурси: творчий потенціал, час та фінанси.

**Keywords:** *startup, management of startups, economic inclusion, IT sphere, lean startup, methodical approaches to analyzing startups.*

**Ключові слова:** *стартап, управління стартапами, економічна інклюзія, IT-сфера, ощадливий стартап, методичні підходи до аналізування стартапів.*

### **General statement of the problem and its link with major scientific or practical challenges.**

Innovative economy in general, economic inclusion and startups in particular, are topics that have been actively researched during the last decades in the world, and during the pre-war and post-war years and in Ukraine, as evidenced by the constantly growing number of scientific publications, specialized conferences, etc. The development of technologies, primarily information technologies, determines the trends of modern management, one of which is currently oriented towards the use of startup technology to create new products and services. Startups have become one of the driving forces of the economies of developed countries and communities (the largest startup markets are the USA and the EU), to which Ukraine aspires to join. At the same time, startups need to study their specifics for effective management. One of

such features of startups is the focus on the business idea and limited resources at the initial stages of operation. This is especially relevant for Ukrainian startups, which in modern conditions do not have the opportunity to attract significant financial resources, and also face problems of attracting highly qualified specialists.

### **Analysis of recent research and publications.**

The essence of startups, the peculiarities of their use, advantages and disadvantages, etc. have been considered in the scientific works of both domestic and foreign specialists. At the same time, classic world authors in the sphere of startups are: S. Blank, B. Dorf, E. Ris, P. Til, A. Maurya and others, domestic scientists who cover the topic of the development of startups in modern conditions are: O. Havrysh, K. Boiarynova, K. Kopishynska, N. Sytnyk, O. Duma, T. Sak, S. Hlivko, M. Kravchenko, Ye. Chazov, S. Solntsev and others. However, despite the presence of a significant amount of scientific work of scientists on the research problem, it should be noted that aspects related to with the study of the phenomenon of economic inclusion in the management of startups in the IT sphere.

### **Formulation of the article objectives (task statement).**

The purpose of the article is to summarize the results of the work of scientists devoted to the management of startups in the IT sphere and research in this context the possibilities of developing methods of managing them in conditions of limited resources for the study of the phenomenon of economic inclusion.

### **Presentation of the most important research material, with a full justification of the scientific results obtained.**

The development of the economy of modern developed countries is inextricably linked with such a term as "startup". A startup assumes the presence of a certain breakthrough innovative business idea that has not yet been implemented in the form of a commercial product and needs to determine the ways of its organizational design, financing, development and commercialization in the conditions, as a rule, of the global market [1]. Management of startups: supporting their creation and growth is one of the key tools for the development of innovative entrepreneurship in modern conditions and a significant field of opportunities for

researching the phenomenon of economic inclusion in the management of a startup in the IT sphere. At the same time, for the effective management of startups, it is necessary to research information about the essence of this concept, a deep analysis of the current situation, study the experience of successfully implemented startups, existing startup ecosystems that help the team of startup creators to develop and implement their business idea.

The development of technologies, primarily information technologies, determines the trends of modern management, one of which is currently oriented towards the use of startup technology to create new products and services. In literary sources, the most common definition is as follows: Startup (English Startup – lit. "launch"), a startup company is a recently created company (which may not yet be officially registered, but such registration is planned), which does business on the basis of innovations or innovative technologies, has not yet entered the mass market (or has just begun to enter it) and has limited resources for existence and development [2].

Usually, the idea is to create a significantly new product (service) that is fundamentally different from the existing ones, that solves the problems of consumers and has commercial value for them. Startups usually do not have enough resources, which usually include: time, finances, knowledge, skills and experience (intellectual property) of founders and teams. At the same time, it is worth noting that at the initial stage, when testing an idea and developing a prototype, which is commonly called a "minimum viable product" (MVP), the need for external investments may be objectively minimal.

The functioning of a startup is accompanied by uncertainty from the very beginning. The innovativeness of the product (service) determines the fact that at the stage of creating a startup, it is impossible to predict how the consumer will meet the product based on some formal methodical evaluation approaches.

As a rule, startups are implemented by small teams and therefore look like small businesses. But startups expect rapid growth and are focused on growing the business, often followed by a sale. In this activity, they rely more on innovation, form

a competitive advantage based on the latest technologies, attract venture capital and are oriented towards global markets. That is, classical entrepreneurship, more often than not, begins with a startup, at the same time, it differs from small entrepreneurship in the level of innovation, growth rates, and in general, the behavior of the entrepreneur himself.

The main features of modern startups include the following [3]:

- like classic enterprises, they are created to make a profit, although mainly in the future, so they cannot be called a non-profit organization, they are commercial enterprises or business entities;

- the startup is based on an original business idea, which, according to the forecast, has significant value for a sufficiently large circle of potential consumers;

- a startup is created for the production of fundamentally new goods (services), i.e., it is oriented towards the development of a new innovative product that must satisfy certain needs of a not yet existing market;

- these are new business entities, that is, they are characterized by existence on the market for a certain period: after a few years, a successful startup either turns into a full-fledged company, or is sold or absorbed – becomes a division of another company;

- high development potential and focus on business growth.

Also, nowadays, startup technologies are used not only by individual entrepreneurs, but also by large companies to create fundamentally new products and services for themselves. Startups solve customer problems. Regardless of the risks of the market, those firms that most successfully solve problems and people make their way [4].

However, startup technologies have certain disadvantages due to their nature: since startups are created to bring to the market fundamentally new products and services, it is usually impossible to conduct sufficient study of the target audience and other research. As a result, startup technologies involve significant "freedom of will" of the manager when making management decisions.

The use of startups to create new profitable businesses is indeed one of the

trends of modern management, which, along with advantages, has a number of disadvantages that can be eliminated if feedback from consumers of the product or service is received as soon as possible.

You can increase the efficiency of startups by:

- specialized training of startup management;
- using scientific approaches to quick analysis of the market and its changes;
- informal practices of finding non-standard solutions;
- constant contact with potential consumers for a timely response to changes in demand and the ability to change the direction of the search for optimal product (service) parameters.

A number of additional differences also distinguish startups from ordinary businesses [5]:

- startups create and develop mainly potential bearers of innovative ideas. It is a promising idea that creates the value of a startup. The uniqueness of the startup idea is the basis of its successful development, while it should interest potential consumers as a means of solving their needs, both existing and hidden;

- due to the fact that at this stage, efficiency in any field is related to the level of use of information technologies in this field, startups most often arise in the IT sphere and the service sphere (although startups are possible in various spheres, the decisive thing is the idea);

- startups usually do not have sufficient initial capital of their own. It is formed in the process of development mostly by investors as an investment in the project. Therefore, the lack of sufficient capital for the implementation of a business idea, or its complete absence at all, is a characteristic feature of a startup;

- startups are characterized by constant changes in the development process, and changes can affect the essence of the project, the purpose of the product and the target audience. In turn, this inevitably leads to disputes within the startup team, especially if the author and developers of the project are different people;

- startups are characterized by a higher risk of failure compared to traditional business for objective reasons – targeting a non-existent market and often unproven

technology or service;

– often, the return on capital invested in a startup is not created directly on the basis of the startup's revenues, but by bringing it to the next round of investments. In this case, the development of a startup involves establishing the process of expanding the capabilities of the initial product to meet the needs of a wider range of consumers. Therefore, startups are short-term project organizations or teams created with the aim of finding highly productive and dynamic business activities.

Considering the above, it should be noted that the phenomenon of economic inclusion manifests itself at all stages of managing a startup in the IT sphere.

The founders of startups are always people, except for the case when it is created independently by a team, who are usually also product developers. It is also possible to create startups on the initiative or interaction of the team with large enterprises.

At the same time, modern researchers of the startup phenomenon do not pay enough attention to the main resource that determines the emergence of a startup as such - the creative potential of the founders and the team. In this, to a large extent, inclusion in general and economic inclusion in particular is manifested.

It is accepted to distinguish five stages of implementation of a startup as an innovative project: 1) seed stage – "seeding" stage; 2) startup stage – launch stage; 3) growth stage – growth stage; 4) expansion stage – expansion stage; 5) exit stage – "exit" stage.

It is customary to divide the stages according to the results of the startup's development, which determine its readiness to move to the next stage of development. Stages 1-3 are passed by all startups, regardless of the final goal, whether it is a sale or transformation into a sustainable business. Stages 4 and 5 have different results: it is either the integration of the startup into a large company as a separate project or subsidiary if the startup is large, or transformation into a full-fledged independent company that functions as a classic enterprise. The details of implementing a startup as an innovative project may differ depending on the industry and other features of the startup's product (material value, service, software product,

etc.). In accordance with this, various startup implementation concepts were formed, among which the Startup Genome, the Blank model of the Massachusetts Institute of Technology, and the ChangeLab accelerator methodology are the basic ones (Table 1).

**Table 1. Basic concepts of startup implementation**

No.	Concept	Features
1.	Startup Genome	<p>It focuses on the implementation of the project stages of the startup:</p> <ol style="list-style-type: none"> <li>1) pre-sowing stage (English pre-seed). The stage is characterized by the presence of only an idea without a developed mechanism for its implementation, the absence of research and a team;</li> <li>2) seed stage (English seed stage). At this stage, a team is gradually formed, market research begins, an initial project roadmap (alpha roadmap) is developed, and attempts are made to find investors;</li> <li>3) prototype and working prototype (English prototype/working prototype). At the stage, the first model of the product is created to identify the possibility of its implementation and check its effectiveness;</li> <li>4) alpha version (English alpha). The stage involves the development of an alpha version of the product, its testing is carried out, shortcomings are identified and changes are made;</li> <li>5) closed beta version (English private beta). At the stage, a ready, viable product (Minimum Viable Product, MVP) is created. The product is tested on a small closed group of consumers, the result of which is further actions on the product to bring it to meet the needs of consumers;</li> <li>6) open beta version (English public beta). The stage is characterized by the introduction of the product to a wide audience, sales begin. According to the results of which and the so-called feedback intended for the user (English feedback) - feedback about the product, minor revisions are possible.</li> </ol>
2.	MIT model	<p>According to the model, the startup goes through the zero stage of startup development, the initial (inception), seed stage, the "Mezzanine" stage of growth and development, at which the startup is implemented.</p>
3.	Model of S. Blank	<p>A startup is considered a temporary structure, a certain project. Its feature is the emphasis on systemic interaction with consumers in the development of a startup, which involves the following stages:</p> <ol style="list-style-type: none"> <li>1) identification of consumers. The stage involves the team working out ideas for solving customer problems, defining them and specifying the need for the product;</li> <li>2) consumer verification. Hypotheses put forward at the first stage are tested in practice during market research. The first customers are identified;</li> <li>3) attracting consumers. After product development and identification of potential customers, at this stage the first sales begin and product promotion activities are implemented;</li> <li>4) creation of a company. The final stage involves the registration of a startup into a full-fledged company with a branched structure. Such a company ensures the implementation of work processes to verify the experience gained, the success of the minimum viable product and the chosen business model.</li> </ol>

*Continuation of table 1.*

No.	Concept	Features
4.	ChangeLab accelerator methodology	<p>It provides for six key stages, which, among others, include fundraising, achievement of project control points and possible corrective actions. The model emphasizes that at the end of each stage there should be a clear result of its implementation:</p> <ol style="list-style-type: none"> <li>1) project initiation. At this stage, a decision is made to implement the project, an information map of the project is developed and approved;</li> <li>2) fundraising (attraction of resources). The result of the completion of the stage is the involved resources for the implementation of the project.</li> <li>3) planning of project implementation. Based on the results of this stage, a calendar plan for project implementation should be developed and approved;</li> <li>4) implementation of the project, i.e. execution of all planned actions;</li> <li>5) monitoring and control. The stage is carried out in parallel with the stage of implementation and involves monitoring the achievement of the control points of the project, as well as the implementation of corrective actions;</li> <li>6) completion of the project. At the stage of completion of the project, documentation is drawn up regarding the results and effectiveness of its implementation regarding the verification of consumer interest in the product, its advantages and attitude to the minimum viable product, as well as a thorough verification of the selected and formed business model. Each stage of the startup as a project is assigned a specific implementation period in accordance with the goal and actions. Their observance allows the implementation of these stages for no more than a year. In particular, opening a startup should not last more than 5-7 months, and verification - no more than 3-5 months. Otherwise, under increased competition, a similar product or idea may be launched on the market.</li> </ol>

*Source \*. Author's development, formed using data [5].*

Taking into account the above, it can be noted that the category "startup" is a complex and vague, multifaceted concept. It is considered from different aspects: as a process, as a project, as a newly created enterprise before registration, as an innovation, as a business.

The startup is a phenomenon of the post-industrial society, the driving force of the economies of various countries, within which production problems are solved, however, the startup is available to other societies thanks to modern telecommunications and information technologies, primarily the Internet, payment systems (Visa, Master Card) and social networks, while startups in any case are aimed at the markets of post-industrial societies.

The formation of startup ecosystems of developed countries continued from the 70s of the 20th century and during this time, considerable experience was accumulated in organizing and supporting the functioning of such an ecosystem

within the economy of states (USA) or their communities (EU). The work of both scientists and participants in the process: entrepreneurs, investors, etc. is devoted to the study of the startup ecosystem. The most famous among them are: S. Blank, B. Dorf, U. Dreiper, V. Kharnish, N. Sytnyk and others [6].

Ecosystem components are closely related to each other, which ensures mutual influence through a complex network of interactions between startups, organizations and the market environment.

There are several formalized models of the startup ecosystem by Kh. Kaleb and B. Shpihel. The most common model for describing the ecosystem of startups is the model of Kh. Kaleb [6]. The author assigns the main role in this model to entrepreneurs, as their leadership is key to the success of the startup economy. Support for entrepreneurship is provided from the following main sources: local (state) authorities, universities, mentors, service companies, corporations, investors, public events. For the successful functioning of the startup ecosystem, it is important to have at least a few components from each source of support. B. Spiegel considers the organizational and social formations that H. Kaleb calls sources of support to be factors of the internal development of startup ecosystems. These factors are classified as cultural (general entrepreneurial culture, stories of successful business creation), social (human talent, investment capital, social networks and mentors) and material, which have a specific geographical location (government institutions, universities, service companies, physical infrastructure and open local markets). Internal factors operate according to the principle of feedback: they not only control the processes occurring in the ecosystem, but are themselves influenced by them.

The functioning of various organizations, institutions and individuals as subjects of the startup ecosystem is carried out according to one of the five key directions necessary for the successful development of startups: 1) state regulation; 2) financing of startups; 3) training of startup participants; 4) information support; 5) infrastructural support for startups.

On the world market (primarily the USA and Europe) there are effective means (including state) of stimulating the emergence and development of startups: the legal

system, IT services, crowdfunding platforms, venture funds, private investors, competence centers (primarily universities), business accelerators, an expert environment (mentors), infrastructure companies, technology parks, stock exchanges, as well as agents of change: visionaries, journalists, celebrities, etc., who really contribute to the spread of new ideas, and the most important thing in the global market is the market and potential consumers of startup products. This forms an ecosystem of startups.

The US startup ecosystem, as always, was and remains the world leader in startups. And in it, as before, the best indicators of Silicon Valley startups. But in recent years, the positions and level of startups in New York, Los Angeles, Boston, and Austin have grown greatly.

Startups in the US are very people-oriented, and they focus on the team first and build a strong foundation before developing their other capabilities. Most successful startup hubs in the US are located in Silicon Valley, New York, and Boston, which have close ties to leading universities such as Stanford University, MIT, Harvard, UC Berkeley, and others, which have strong, talented international student communities. The US has a higher concentration of early adopters, making it an ideal hub for innovation and creativity.

There is a European startup ecosystem that is developing most successfully in London, Paris, Amsterdam, Berlin, and Zurich. It shows the greatest growth – by hundreds of percent in recent years.

There is a similar local ecosystem of startups in Ukraine, but it should be considered as an outsourced part of the global ecosystem of startups, it has no independent significance for objective reasons. In today's conditions, when there is a full-scale invasion of the Russian Federation into Ukraine, the activation of entrepreneurial activity, in particular due to the development of the business environment of startups, becomes especially relevant in the context of the post-war recovery of the state's economy and its future prosperity in the post-war period.

Despite its more than 75-year history, the concept of "startup" (from its first mention in the United States of America) is a common phenomenon for the domestic

market, especially for IT services [3], however, for the legal system of Ukraine, this category remains a multifaceted phenomenon that causes there are many discussions surrounding it, in particular of a legal nature, since the Ukrainian legislation of Ukraine does not sufficiently regulate and unify this issue. To a greater extent, discussions are related to the specifics of registration and taxation of this business, regulatory and legal regulation of economic activity, the order of investment, etc. [7-8].

Paying tribute to the scientific achievements of the authors in terms of research issues [9], it is considered appropriate to emphasize that a startup is an innovative business project, the ultimate goal of which is to make a profit. Modern startups are often based on the use of information technologies, and therefore in the vast majority of cases we are talking about IT startups [8-9].

Most domestic sources are devoted to the technological aspects of creating a startup: formulating a business idea, creating a team, etc. [10], and only separate publications in special publications are devoted to organizational and legal ones [11].

Kyiv and Ukraine in general occupy high places in the world rankings of startup ecosystems [12]. In particular, according to Stanford Graduate School of Business, Ukrainians are among the top 10 nations with the most unicorn founders (among non-American founders), overtaking such technologically advanced countries as Taiwan or Germany.

In addition, the number of venture capital funds more than doubled from 2017 to 2021, according to research by the USAID Competitive Economy of Ukraine Program and UVCA. This is a result of both the presence of significant talent and entrepreneurial ideas, and the resources to bring them to market as products and global businesses.

In recent years, strong regional players such as Lviv and Kharkiv IT - clusters that unite hundreds of IT companies – have appeared on the market. Many effective incubators and accelerators appeared, for example, GeenCubator, eo Business Incubators or Startup Wise Guys, and the number of venture funds and angel investors increased significantly.

The state also took an active role in the development of the technological sector – a modern and dynamic Ministry of Digital Transformation was created, as well as the Ukrainian Startup Fund, which demonstrated a new level of openness, accountability and efficiency of the state institution before the market and society.

The development of IT education in Ukraine played not the least role in building a solid foundation of the tech sphere. The influx of talent into IT and startups is increasing every year, but a serious challenge for Ukraine will be to retain these talents during the war and keep them in the educational and business orbit of Ukraine.

Thus, in recent years, the tech market of Ukraine has strengthened its position in the international arena and has become one of the most demanded in Europe. The war, of course, dealt a blow to the startup ecosystem: the outflow of investment, the temporary stoppage of the work of IT enterprises, the reduction of the domestic market, etc. However, despite all the challenges, IT continues to develop, supporting the economic front of the country.

The largest concentration of ideas, talents, money and entrepreneurial flair in the technological sphere today is in Silicon Valley. Therefore, it is very difficult to stand out among the mass of startups and projects there. Success requires an extensive network of contacts that will help you advance in the technological world and find relevant partnerships. Ukraine is gradually becoming part of this community. Silicon Valley already knows Ukrainian companies, such as Grammarly or GitLab, which have gained leading positions in the world.

Ukrainian startups are increasingly participating in Silicon Valley's top accelerators, including The Alchemist and Y Combinator. So, in October 2022, 10 Ukrainian startups took part for the first time in one of the most famous startup events in the world, TechCrunch Disrupt 2022 in San Francisco, USA, within the Ukrainian Startup Pavilion. Ukrainian startups and companies that join such trips get the necessary experience to enter the global market, as well as share contacts and market insights with colleagues and other startups. That is, the participation of just a few startups in similar events ("events") helps to build the technological market of the entire country.

Modern startups are closely related to telecommunications and information technologies, so they are often associated with the IT industry, but there are quite a few startups aimed specifically at the IT sphere (improvement of computing equipment or software development tools). "IT startups" are often incorrectly referred to as "IT startups" because the current state of technology development is characterized by the wide use of computers and information technologies in all areas of human activity.

Startups in general almost always have limited resources, especially in the early stages. Even the classic description of startups is given by Eric Ries in a book called: "Business from scratch. The Lean Startup method for rapid testing of ideas" (Lean – "frugal" from English). But, as researchers [12] point out, the limited resources for the implementation of a startup, as well as the lack of time for systematic scaling, encourage more and more startups to look for new approaches to functioning. This issue is especially relevant for Ukrainian startups, which in today's conditions are left without the opportunity to attract significant financial resources, and also face problems attracting highly qualified employees.

A lean startup (English: Lean Startup) is a concept of "lean" startup and development of companies, based on the most optimal use of resources, based on a scientific approach to the introduction of any new product, service or idea: scaling the idea in case of success, determined by testing and evaluating results by metrics.

A characteristic feature of the lean startup concept is that a business plan is not considered an effective planning tool for a startup. The concept of a frugal startup is based on the uniqueness of its business model and the impossibility of using traditional or copying business models of existing enterprises.

In a lean startup, the Lean Canvas is not the model of A. Osterwalder and Y. Pigneur – Business Model Canvas – used for the launch of new projects. Although the models are somewhat similar, there are differences between them in terms of focusing attention on various factors of ensuring competitiveness, emphasis in interaction with consumers and the purpose of using certain factors.

Lean Canvas is a business model template that allows you to collect key

information about a startup on a single page. Often, at the beginning of work, entrepreneurs do not fully understand what they want to do and what will come out in the end. Especially if we are talking about a startup. Lean Canvas helps to formulate the idea more clearly - and if something changes during the work on the product, the model can be easily changed.

American entrepreneur A. Maurya developed the Lean Canvas model. A. Osterwalder's Business Model Canvas was taken as a basis and adapted to the so-called frugal approach, the essence of which is the minimization of any costs.

In general, the use of the methodology of a frugal startup involves the implementation of tasks for its development by stages: the formation of a product idea, the launch of a minimum viable product, its regular evaluation based on interaction with consumers, and continuous training.

### **Conclusions.**

This gives grounds for concluding that well-known methodical approaches to the analysis and evaluation of a frugal startup are primarily aimed at minimizing material costs and startup planning costs. At the same time, none of them exposes the possibility of optimizing the creative potential of the startup team. Taking into account the peculiarities of the operation of startups in conditions of limited resources, the main direction of improving the management of startups in such conditions is the search for opportunities to save the creative energy of the startup team. Based on the research of the existing methodical approaches to the analysis of startups, it is considered appropriate to consider the most effective of them, which involve taking into account and determining the current indicators of startup activity at the early stages of existence: "idea generation", "team selection" and "minimum product creation", namely: comparison of startup idea generation methods.

In the conditions of the Great War, it is considered appropriate for the effective management [13-15] of startups in the IT sphere to take into account the main resources: creative potential, time, finances. What is relevant taking into account the phenomenon of economic inclusion in the management of startups in the IT sphere,

and this generally constitutes the prospects for further exploration in this direction of research using the best world practices of foreign countries.

## Література

1. Заїка С. О. Менеджмент стартапів: конспект лекцій для здобувачів вищої освіти денної та заочної форми навчання. Харків : ДБТУ. 2023. 121 с. URL:

[https://repo.btu.kharkov.ua/bitstream/123456789/35073/1/KL\\_Menedzhment%20startapiv\\_23.pdf](https://repo.btu.kharkov.ua/bitstream/123456789/35073/1/KL_Menedzhment%20startapiv_23.pdf) (дата звернення: 04.01.2024).

2. Поліщук В. В. StartUp проекти та їх оцінювання (StartUp projects and their evaluation) : конспект лекцій для здобувачів другого (магістерського) рівня вищої освіти, спеціальностей 121 Інженерія програмного забезпечення та 126 Інформаційні системи та технології факультету інформаційних технологій УжНУ. Ужгород : 2023. 70 с. URL: <https://www.uzhnu.edu.ua/en/infocentre/get/60553> (дата звернення: 04.01.2024).

3. Самоходський І., Лебедєв Д., Ткаченко Р. Зелена книга. Сфера продуктивних ІТ-компаній та стартапів. Київ : 2021. 50 с. URL: [https://cdn.regulation.gov.ua/aa/8a/75/59/regulation.gov.ua\\_IT-product-companies-startups\\_web.pdf](https://cdn.regulation.gov.ua/aa/8a/75/59/regulation.gov.ua_IT-product-companies-startups_web.pdf) (дата звернення: 04.01.2024).

4. Бреус С. В., Омельченко А. А. Стартап-технології як тренд сучасного менеджменту: переваги та недоліки. *Стратегія розвитку України: фінансово-економічний та гуманітарний аспекти: матеріали X Міжнародної науково-практичної конференції*. Київ, Інтерсервіс, 2023. 622 с. С. 376-377.

5. Управління стартапами : підручник для здобувачів вищої освіти за економічними спеціальностями / О. А. Гавриш, К. О. Бояринова, М. О. Кравченко, К. О. Копішинська; за заг. ред. О. А. Гавриша. Київ : КПІ ім. Ігоря Сікорського, Видавництво «Політехніка», 2020. 716 с.

6. Дума О. І., Завтура К. О. Екосистема стартапів в Європі: кращі практики та уроки для України. *Менеджмент та підприємництво в Україні: етапи становлення і проблеми розвитку*. 2021. № 3 (1). С. 119-130. URL:

<https://science.lpnu.ua/sites/default/files/journal-paper/2021/jun/23780/menedzhment121-121-132.pdf> (дата звернення: 04.01.2024).

7. Стартап і його реєстрація в Україні. *Юридична компанія «Правова Допомога»*. URL: <https://pravdop.com.ua/publications/kommentarii-zakonodatelstva/startap-i-ego-registraciya/> (дата звернення: 04.01.2024).

8. Бреус С. В., Омельченко А. А. Основні аспекти розвитку бізнес-середовища стартапів. *Економіко-правові аспекти господарювання: сучасний стан, ефективність та перспективи: матеріали ІХ Міжнародної науково-практичної конференції (Одеса, 22-23 вересня 2023 р.)*. Одеса, 2023. 610 с. С. 339-342.

9. Глібко С. В., Розгон О. В., Георгієвський Ю. В. Правове забезпечення Національної інноваційної системи у сучасних умовах. Харків : НДІ прав. забезп. інновац. розвитку НАПрН України, 2020. 360 с.

10. Успішний стартап: від ідеї до масштабування. Prometheus. [https://prometheus.org.ua/course/course-v1:UkrainianStartupFund+S\\_STARTUP101+2023\\_T1](https://prometheus.org.ua/course/course-v1:UkrainianStartupFund+S_STARTUP101+2023_T1) (дата звернення: 04.01.2024)

11. Ушакова Л. Кількісний та сумовий критерії Дія Сіті: нюанси розрахунку. Податки & бухоблік. 2022. № 74. URL: <https://i.factor.ua/ukr/journals/nibu/2022/october/issue-74/article-122264.html> (дата звернення: 04.01.2024).

12. Добровольський Д. Українська стартап-екосистема: місце у світі та роль у повоєнній відбудові. URL: <https://blog.liga.net/user/vdobrovolskyi/article/47930> (дата звернення: 04.01.2024).

13. Breus S., Bielialov T., Denysenko M., Zarichniak A., Al-Tmeizi A. Strategic management of deployment of innovation projects at the enterprise. *Academy of Strategic Management Journal*. 2019. Volume 18 (Special Issue 1). P. 1-5.

14. Breus S., Solokha D., Bieliakova O., Derii Z., Dielini M. Entrepreneurship development model under conditions of business social responsibility. *Academy of Entrepreneurship Journal*. 2020. Volume. 26. Issue 3. P. 1-8.

15. Shamborovskyi G., Nehoda Y., Demidova N., Tarashchenko V., Breus S. Modeling Study on Risk Identification in the Process of Anti-Crisis Enterprise Management. *J. Risk Financial Manag.* 2021. Volume 14. Issue 2, 67. P. 1-14.

### References

1. Zaika, S. O. (2023), *Menedzhment startapiv* [Management For Startups], DBTU, Kharkiv, Ukraine.

2. Polishchuk, V. V. (2023), *StartUp proekty ta yikh otsiniuvannia* [StartUp projects and their evaluation], Uzhhorod, Ukraine.

3. Samokhodsky, I., Lebediev, D. and Tkachenko, R. (2021), *Zelena knyha. Sfera produktovykh IT-kompanii ta startapiv* [Green book. The field of product IT companies and startups], Kyiv, Ukraine.

4. Breus, S. V. and Omelchenko, A. A. (2023), “Startup technologies as a trend of modern management: advantages and disadvantages”, *Stratehiia rozvytku Ukrainy: finansovo-ekonomichnyi ta humanitarnyi aspekty: materialy X Mizhnarodnoi naukovo-praktychnoi konferentsii* [Development strategy of Ukraine: financial, economic and humanitarian aspects. X International Scientific and Practical Conference], Interservis, Kyiv, Ukraine, pp. 376–377.

5. Havrysh, O. A., Boiarynova, K. O., Kravchenko, M. O. and Kopishynska, K. O. (2020), *Upravlinnia startapamy* [Startups Management], Politekhnik, Kyiv, Ukraine.

6. Duma, O. I. and Zavtura, K. O. (2021), “Startup ecosystem in Europe: best practices and lessons for Ukraine”, *Management and Entrepreneurship in Ukraine*, [Online], vol. 3 (1), available at: <https://science.lpnu.ua/sites/default/files/journal-paper/2021/jun/23780/menedzhment121-121-132.pdf> (Accessed 4 January 2024).

7. Law company "Pravova Dopomoga". (2014), “Startup and its registration in Ukraine”, available at: <https://pravdop.com/ua/publications/komentarii-zakonodatelstva/startap-i-ego-registraciya/> (Accessed 4 January 2024).

8. Breus, S. V. and Omelchenko, A. A. (2023), “The main aspects of the development of the business environment of startups”, *Ekonomiko-pravovi aspekty*

*hospodariuvannia: suchasnyi stan, efektyvnist ta perspektyvy: materialy IX Mizhnarodnoi naukovo-praktychnoi konferentsii* [Economic and legal aspects of management: current state, effectiveness and prospects. IX International Scientific and Practical Conference], Odesa, Ukraine, pp. 339–342.

9. Hlibko, S. V., Rozghon, O. V. and Heorhiievskyi, Yu. V. (2020), *Pravove zabezpechennia Natsionalnoi innovatsiinoi systemy u suchasnykh umovakh* [Legal support of the National Innovation System in modern conditions], NDI prav. zabezp. innovats. rozvytku NAPrN Ukrainy, Kharkiv, Ukraine.

10. Prometheus (2023), “A successful startup: from idea to scaling”, available at: [https://prometheus.org.ua/course/course-v1:UkrainianStartupFund+S\\_STARTUP101+2023\\_T1](https://prometheus.org.ua/course/course-v1:UkrainianStartupFund+S_STARTUP101+2023_T1) (Accessed 4 January 2024).

11. Ushakova, L. (2022), “Quantitative and total criteria of Diya City: nuances of calculation”, *Podatky & bukhoblik*, [Online], vol. 74, available at: <https://i.factor.ua/ukr/journals/nibu/2022/october/issue-74/article-122264.html> (Accessed 4 January 2024).

12. Dobrovolskyi, D. (2022), “Ukrainian startup ecosystem: place in the world and role in post-war reconstruction”, available at: <https://blog.liga.net/user/vdobrovolskyi/article/47930> (Accessed 4 January 2024).

13. Breus, S., Bielialov, T., Denysenko, M., Zarichniak, A. and Al-Tmeizi, A. (2019), “Strategic management of deployment of innovation projects at the enterprise”, *Academy of Strategic Management Journal*, vol. 18 (Special Issue 1), pp. 1-5.

14. Breus, S., Solokha, D., Bieliakova, O., Derii, Z. and Dielini, M. (2020), “Entrepreneurship development model under conditions of business social responsibility”, *Academy of Entrepreneurship Journal*, vol. 26, Issue 3, pp. 1-8.

15. Shamborovskyi, G., Nehoda, Y., Demidova, N., Tarashchenko, V. and Breus, S. (2021), “Modeling Study on Risk Identification in the Process of Anti-Crisis Enterprise Management”, *J. Risk Financial Manag*, vol. 14, Issue 2, 67, pp. 1-14.

*Стаття надійшла до редакції 15.03.2024 р.*