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## **START-UP AS A TOOL FOR IMPLEMENTATION OF INVESTMENT DECISIONS**

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**Introduction.** Start-up is the first necessary stage of a life cycle of innovations. Discovering of foreign experience shows us a limited count of theoretical researches in case of the start-up business methodology. A high-speed system of a support of the start-ups is the fundament for an activation of innovations deals, the increase of the volume of innovations production, the export of high-tech product.

**Aim and tasks.** The aim of the article is discovering of the matter and conditions of Ukrainian IT-business, finding the main sources of a financing of the start-ups in conditions of national economy instability and the detection of potential investment sources for some innovation projects on the data of the start-ups modern financing condition. This article uses dialectical method of research of economy actions and processes in their development and interconnection, systematically way for researching issues.

**Research results.** The start-up business has differences from the ordinary business, because the investors invest money in it in the beginning of existence, not in time of successful working. One of the main spheres of the modern start-up business is IT-industry.

The biggest spheres of modern investment: the outsourcing, the "Angels' investments", the crowdfunding. The Venture Capital and Direct Investment Association (UVCAeu) was founded in Ukraine and the task of this association is the assistance for global companies development in Ukraine and connecting Ukrainian and world's start-up communities.

**Conclusions.** Ukraine is becoming the IT-nation. The Technology talent is the unique feature of our country. The one we really need is the entrepreneurial grip in meaning of the right presentation of our product. Today we have to be confident in our start-ups prospective, and each year the world will talk more and more about the success of the Ukrainian projects and our country in general.

**Key words:** start-up, investment, IT-company, outsourcing, crowdfunding, "angelic investments", gadget, Ukrainian association of venture capital and direct investments, project.

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## СТАРТАП ЯК ІНСТРУМЕНТ РЕАЛІЗАЦІЇ ІНВЕСТИЦІЙНИХ РІШЕНЬ

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**Проблема.** Стартап є першим необхідним етапом життєвого циклу інновацій. Вивчення зарубіжного досвіду демонструє обмежене коло досліджень теоретичного характеру щодо методології стартап-бізнесу. Активно працююча система підтримка стартапів є основою активізації інноваційної діяльності, зростання обсягів інноваційних продуктів, експорту високотехнологічних товарів.

**Мета та завдання.** Метою цієї роботи є розкриття сутності та стану українського ІТ-бізнесу, визначення основних джерел фінансування стартапів в умовах перманентних трансформацій та виявлення можливості капіталізації для інноваційних проєктів на основі аналізу сучасного стану фінансового забезпечення стартапів.

У статті використано діалектичний метод дослідження економічних явищ та процесів у їх взаємозв'язку і розвитку, системний підхід до проблем, що розглядаються.

**Результати.** Стартап-бізнес відрізняється від звичайного бізнесу тим, що інвестори вкладають в нього кошти не тоді, коли він вже успішно працює, а з самого початку. Одним із основних напрямів сучасного стартап-бізнесу є ІТ-індустрія.

Основні сучасні напрямки інвестування: аутсорсинг, «Янгольські інвестиції», краудфандинг. В Україні створена асоціація венчурного капіталу та прямих інвестицій (UVCA.eu), завдання якої допомагати розвитку глобальних компаній в Україні, будувати міст між українською і світовою стартап-спільнотою.

**Висновки.** Україна вже стає ІТ-нацією. Технологічний талант - це унікальна особливість нашої країни. Єдине, чого поки не вистачає, це підприємницької хватки - вміння правильно презентувати свій продукт. На сьогодні в перспективах наших стартапів можна бути впевненими, і що з кожним роком в світі будуть все більше говорити про успіхи не тільки окремих українських проєктів, а й країни в цілому.

**Ключові слова:** стартап, інвестування, ІТ-компанія, аутсорсинг, краудфандинг, «янгольські інвестиції», гаджет, Українська асоціація венчурного капіталу та прямих інвестицій, проєкт.

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**Introduction.** The “start-up” is the first necessary stage of a life cycle of innovations. Discovering of foreign experience shows us a limited count of theoretical researches in case of the start-up business methodology. A high-speed system of a support of the start-ups is the fundament for an activation of innovations deals, the increase of the volume of innovations production, the export of high-tech product.

Quite young and not yet very popular in Ukraine, but a very promising way for investors is project financing and participation in business projects, start-ups.

Of course, the risk of losing money is large. According to statistics, there are only 20 really successful invested projects out of 100. But the peculiarity is the profit from even one successful start-up can cover the losses of all the others.

We live in the era of the information technology, the innovations and the revolutionary interfaces. They have entered in the life of everyone. Today, the information technology is one of the few industries that have retained the ability of growing even now. Today, IT is an area whose influence on the development of the economy of any country can't be overestimated. Ukraine is not exception, so researching of this topic is very relevant.

**Analysis of recent researches and publications.** Today the topic of the development of the start-ups business is the subject of wide speculation. It is analyzed by such Ukrainian and foreign scientists as V.Nuzhnyi, I. Kabachynskyi, A.Andrusiak [1], N.V. Yudina [2], A.O. Altynpara [3], P.Kharlamov, O.Chashko [4], A. Danylyn, A. Sliusarenko [5], M.Pinto [6], O Konotopskyi, V.A. Petrenko [7], K.O. Boiarynova, K.O. Kopishynska [8], etc.

**Previously unsettled problem constituent.** Ukrainian and foreign scientists investigated the status and the development of IT business, the questions of innovative technologies and their impact on the economic development of Ukrainian enterprises, but they have unresolved questions now.

**Aim and tasks.** The aim of the article is discovering of the matter and conditions of Ukrainian IT-business, finding the main sources of a financing of the start-ups in conditions of national economy instability and the detection of potential investment sources for some innovation projects on the data of the start-ups modern financing condition.

This article uses dialectical method of research of economy actions and processes in their development and interconnection, systematically way for researching issues.

**Results.** There isn't the clear definition “start-up” and how it differs from the classical business in Ukrainian business - environment. The “start-up” means “begin to work”. For the first time, the term "start-up" was used by Forbes in August, 1976 and by the Business Week in September, 1977 to refer the companies with a short history of operations. The term was fixed in the 1990's and widely spread during the dotcom boom. The creator of the methodology of customer development, American entrepreneur, Steve Blank defined the “start-ups” are temporary structures and they search for a business model.

In practice, the start-up is often identified with the start of any business to introduce the certain innovation. According to experts, the start-up is the process of developing a "breakthrough" technology; a business project includes the innovation that improves any real circumstances of people's lives.

The start-up is characterized by:

- Innovation. Its basis can be the opening of a new market in the world or a certain region.

- Limited of initial investment. In most cases, the initial investors are the personal funds of the project's founders.

- Fast development. The average term of the start-up development is 3-4 months. An exception can be high-tech start-ups, the launching which can go on throughout the year.

- Low chances of success. According to statistics, 70% of start-ups stop their activities in the first year of existence, and the remaining 30%, do not "live" until the second birthday.

The process of the start-up transforming into a full-fledged successful company provides for the project to go through several stages.

The first is the stage of origination. At this stage, there are only entrepreneur's ideas, and in the best case, patents or single product samples. The project has initiators, but the management link and business processes are not yet formed.

The second stage is the formation of the company. During this period, usually the production is already established by the start-up, but its activities are still unprofitable. It happens because the business processes aren't completely established and the team of managers isn't formed. At this stage of the start-up, it is necessary to put in order the financial and legal documentation of the company [2].

The third is the stage of the early growth. This is the period of entry of companies of production turnover. It occupies an appropriate niche in the market and can already exit the status of a loss-making enterprise, starting to bring the first insignificant profit.

The stage of business expansion follows after the stage of early growth. The startup increases the volume of operations and already receives a stable profit. At this stage, the position of the company in the market acquires stable positions, its business processes are well-established, and it is quite possible to transfer them to new markets or projects.

Start-up business differs from the usual business: investors invest in business not when it has already successfully worked, but from the very outset.

It means the investor believes in the idea. Therefore, most start-ups are connected to the Internet. The business on the Internet requires small cost, and if it meets with success, it will begin to seize the market and in fact it won't have any boundaries. Investors consider the best start-ups connected to: Internet commerce, the social gaming networks, the mobile application development and "green" technologies. So, the start-up is the company with an innovative idea. It is started from scratch with the support of investors.

Most of start-up companies are small companies. They are designed for the rapid implementation of their ideas.

The start-ups are always the investment in young heads and young hands. Usually the age of participants is 20-25 years. At this age, the person is ambitious, can work hard and thinks mostly about his business, and not about personal needs. Therefore, one of the components of the investor's success is the formation of the team [2].

One of the main directions of modern start-up business is the IT industry. According to the results of 2016-2017, Ukraine raised more than \$ 2.5 billion of export revenue (25% more than in the previous years) from the sale of IT products and services. According to the research of the Department of Innovation and Intellectual Property of the Ministry of Economic Development and Trade, the total volume of IT services exports for the year could exceed \$ 3 billion. But even if you rely only on official statistics, the absolute growth figures are impressive: \$ 500,000,000 per year. Not only the IT sector's revenues grow, but also the number of specialists working in it. Ukraine has the problem - the active emigration of professionals to the United States and Europe (the last two years, 9,000 IT people left up Ukraine), but the influx of young professionals and "switchers" (people who decided to change their previous profession to the specialty of a programmer, designer or developer) compensates it [1].

According to The Internet edition of Dou.ua, there are the five largest IT companies in Ukraine - EPAM, SoftServe, Luxoft, GlobalLogic and Ciklum. 17,000 employees work there. They were 15,000 year ago. About 1,400 vacancies were opened. The deficit of staff exceeds 2,200 specialists in the 25 largest Ukrainian IT companies. In a few years, the industry will need another 100,000 workers. If it maintains the growth rates of revenue, then the "IT people" will be able to earn \$ 7 billion on exports. Today the comparable indicators show the agro-industrial and metallurgical complexes [1].

The main components of IT application in the business enterprise are: productivity - the ability of providing more services for less money; efficiency - the optimization of business processes by improving information

flows, reducing the time to market and simplifying the processing of transactions; innovation - helping an enterprise to increase its market share by differentiating its products and services [1].

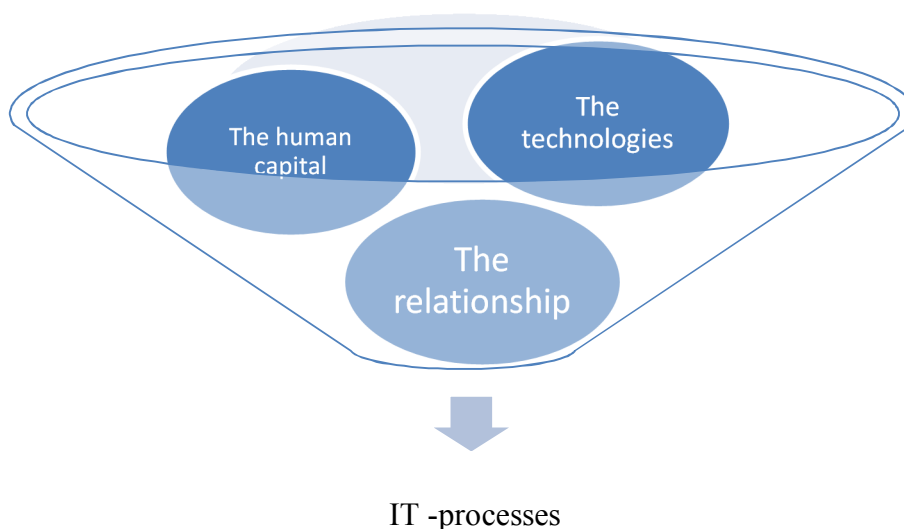
An important task of the information technology is to support and accelerate the implementation of business processes of the enterprise. Therefore, the information technologies do not improve the position of the organization on the market alone, they do not reduce the material intensity of the final product, but equip the managerial staff with new weapons-technologies, and the effectiveness of their using directly depends on how well the relationship between IT capabilities and business opportunities is established specific organization [2].

The introduction of the information technology is associated with capital investments (the acquisition of computer equipment, the development of projects, the performance of preparatory work and the training of personnel) [12]. The main fact - the

enterprise invests in the information technology – can't guarantee a tangible impact on the efficiency of the operation.

The investments in IT have positive consequences for the enterprise only when the intermediate links - resources and funds - are channeled in the right direction. The expenses for information technology should be transformed into appropriate information resources. Proper using of such resources leads to the fact that the technologies begin to work. The value of information technology for enterprises, according to Danilin A, Slyusarenko A., is realized through the using of three independent types of resources:

- the human capital (competent, highly motivated IT staff, focused on meeting the needs of enterprise development);
- the technologies (shared data and platforms)
- the relationship between IT and business (mutual understanding, joint acceptance of risks and responsibilities) [6].



**Fig.1. The value of IT (resources)**

*Source: made by author.*

These resources (Fig. 1) can be realized at the expense of three key IT processes:

- the innovations in the field of IT - identification and planning of the creation of appropriate application systems;

- the designing, the purchase, the development, the configuration and the implementation;

- maintenance and operation services - operational support and support of the systems in the period after implementation.

Market participants argue that the Ukrainian IT industry would develop even faster, if the following constraining factors weren't:

The state still does not properly assess the potential of the Ukrainian IT business. It loses valuable personnel and, as a consequence, the prospects of the development for the country. Ukraine is already a leading country in providing IT outsourcing, and our start-ups are becoming competitive on the world market. Although foreign investors are paying increasing attention to Ukraine, the country's market doesn't still have the funds in comparison with other European countries.

Europe needs "IT people", 1 million people, as much in the United States. To keep people in Ukraine is possible due to high salaries for the country - a qualified programmer's salary can be from \$ 1000 per month. To satisfy the staff hunger is the executable task, it is only a matter of time.

This topic is becoming relevance now, because Ukraine, as a possible country for doing business, often becomes a topic of discussions of foreign investors. We need to look for ways that Ukraine is associated with the high technologies, and our specialists had the opportunity to realize their talents here.

- It is very important for the Ukrainian IT industry to find its link in the international market. Such link should be R & D - research and development. First, Ukrainian engineers already create a highly qualified solution for world brands. Secondly, the demand for high-tech and grouped solutions around the world only increases due to the daily introduction of the Internet product by a huge number of customers who were not previously associated with IT, but decided to take advantage of innovations for their business. For example, Israel has become one of the major R & D centers in the world in spite of small population. They abandoned the cheap outsourcing projects and organized the high-tech development. Consequently, this path is possible for the Ukrainian market [3].

- The next constraint is the security of IT-business. And it's not just about military operations in the east of Ukraine. Undoubtedly,

the threat of escalation of the conflict discourages the foreign customers. It is important for them the projects must work all time. The development of IT products is the important process, many customers do not like breaks in processes. The government factors have high risk for the industry image [4].

Even in spite of these problems, investors do not stop to put money in the Ukrainian IT sector. Last year, Ukrainian IT companies attracted \$ 100 million of investment. Among them there are notable players in the outsourcing firm Ciklum and the online store Rozetka, and newcomers. In January of this year, the number of signed agreements has already reached \$ 10 million. For example, the photo service Depositphotos received \$ 5 million from the EBRD and TMT Investments. The Petcube start-up attracted \$ 2,600,000, and another ten young projects - \$ 100,000-200,000. The image of the industry in local and western investors is still high - in Ukraine there are enough segments that can bring a decent return on investment [4].

Every start-up manager should understand: his project should be profitable and be a business, regardless of size. It is the investors that make up today the financial backbone for start-up projects. "When there is a clear understanding of the problem being solved, the target audience, which will be ready to pay for this decision, then it makes sense to look for people with experience and certain achievements. They will be able to assess the prospects, believe in the team and give the first \$ 10,000-50,000 to check the product / market fit," explains co-founder of the aggregator of online content Newzmate Alexey Cup, which in March this year attracted \$ 300,000 of investment from the Polish venture fund Xevin Investments and the famous business angel of Bas Goska [4].

1) Outsourcing is signing of the contract between two companies on transfer of some functions, tasks, business processes.

One of the largest investments in the history of the Ukrainian IT market has attracted an outsourcing segment. The famous American investor George Soros has redeemed a share of Horizon Capital investment fund in the Ciklum

company which comprises the five of the largest IT outsourcers of the country. The part of the shares to Soros was sold by the founder and the head of the company Torben Maygaard. The exact amount of transaction isn't disclosed; Forbes estimates it at tens of millions of dollars.

Outsourcing companies are the largest employer for local technical specialists. In Ukraine, nine out of ten employees in this area are working in the outsourcing segment. It generates most of the revenue of the IT sector.

Most often, outsourcing is perceived as "selling talents as raw materials." But it is the business that has become the starting point for many local companies and start-ups, which create their own unique products today. A lot of successful IT entrepreneurs received experience and knowledge in outsourcing companies, without which they would hardly be able to launch their business.

Over the past few years, the largest Ukrainian companies have implemented the PDS (product development systems) approach. This format implies not just the execution of some part of a large project, but the creation of a ready-made product. This is a complete development cycle - from the stages of creating a concept and business analysis to testing and supporting the developed software product. At a certain stage of development, the outsourcing company already has enough knowledge, experience and understanding of the market to implement the full cycle of product creation. This is a natural development format.

2) "Angel Investments" is an investment of a private venture investor, provides financial and expert support to companies in the early stages of development.

More than two years ago the founder of the transport company GLS Transport, Alexander Yakovenko, decided to try himself in angel investment - direct investments of his own money into start-ups. Together with the partner he financed the software company 111PIX UA. The advantage of such "angel investments" can be considered avoiding the risks of offline business, since online business is less dependent on political and some economic factors in modern conditions. The first "angel" experience paid off with a vengeance: after the

sale of its share partners received a profit that many times exceeded the amount of investment. Today the businessman approaches investing systematically: he became a co-founder of the start-incubator iQSpace. The goal is to attract people to general investing in syndicates, which will allow investing in several projects simultaneously, reduce risks, help other investors to protect themselves from incorrect startup appraisals.

One of the successful business angels was the Odessa Internet entrepreneur Alexander Bornyakov. Having built his own online business, three years ago he for the first time invested \$ 100,000 in the platform for the promotion of mobile applications Clickky. Bornyakov understood how to help the founder of the start-up Vadim Rogovsky not only with money: he generously shared his experience and knowledge. Today Clickky is estimated at \$ 20-25 million. The next successful investment of A. Borneyakov was ClickGanic's online advertising network. The allocated \$ 20,000 helped the start-up to increase the team's size from two to 10 employees and bring the monthly revenue of \$ 100,000.

In general, the businessman together with other investors invested in 15 start-ups. Two companies have already achieved success. Two more, according to Bornyakov, have a good chance of becoming profitable. One of them is the Ukrainian project Kwambio, which developed its own 3D printer. At the stage of attracting starting capital, Bornyakov invested \$ 100,000 in Kwambio for the company's valuation of \$ 3 million. Now Kwambio is preparing the first round of financing, its preliminary estimate has grown to \$ 15 million. Investing in start-ups makes it possible to obtain greater profitability, but with greater risk. Today, when the yield of traditional investment instruments is declining, such alternatives are of great interest.

3) Crowdfunding ("iron investments") is a technology of collective financing, based on voluntary contributions.

More often than not, Ukrainian hardware start-ups are attracting money by crowdfunding. Over the past few years, they have managed to collect around \$ 1,500,000 on the popular Kickstarter and Indiegogo

platforms. To finance the development and launch of devices in production, these sites are convenient. They guarantee to give the first buyers, attract interest to the devices (especially in the main gadget market - in the US) and help to find potential partners.

Crowdfunding is the cooperation of people who voluntarily provide financial support for any start-up, project or idea.

But there is another reason why hardware start-ups choose crowdfunding: they find it more difficult to find an investor. It's not easy to prove that the new gadget has potential, while sales have not begun, in addition, you still need to be able to launch the product into mass production. Crowdfunding is a fast B2C-model of sale. There is a product - start a campaign. Searching for an investor - on the contrary, is a long process. In fact, this is a B2B model, in which there are many peculiarities, according to A. Konotopsky, director of Ajax Systems, which produces security systems. Ukraine has lost power in the production of electronics,

In February investors allocated for the project about \$ 2,600,000. The advantage for working in Ukraine was the high qualification of engineers and not the high cost of their services. In addition, Ukraine is geographically located near to the potential market for Petcube devices.

Another thing is that it is not easy to sell Ukrainian gadgets at the home market. In the crisis, \$ 100-200 per device - a tangible blow for the pocket of the mass consumer. That's why, when choosing a project for financing, investors should better look at start-ups, immediately aimed at the global market. This is a convenient aspect not only for investment in a hardware company. Let the future investor decide to invest in the segment of the IT industry, the orientation of his clients to foreign customers is an absolute plus [3]. Ukrainian start-ups as of mid-August 2017 raised \$ 1,895,000 in crowdfunding platforms, which is four times more than the total initial goal that the Ukrainian Venture Capital and Private Equity Association (UVCA.eu) predicted. Following the results of January-July, 2017

became one of the "richest" in the successful crowd edging campaign in the history of Ukrainian start-ups [4].

The Ukrainian Association of Venture Capital and Direct Investment (UVCA.eu) is modeled after the European Venture and Private Equity Association (InvestEurope). UVCA already includes more than 40 members - leaders of the international and Ukrainian investment market: Almaz Capital, AVentures Capital, Digital Future, Horizon Capital, HP Tech Ventures, KM Core, Intel Capital, EBRD and others.

The Association forms the future direction of the development of the direct investment industry by promoting investment opportunities in Ukraine, represents the interests of private investors for politicians, contributes to improving the investment and business climate of the country [5].

Several projects can be identified, for which investors provided financing in 2016-2017 and which brought success (Table 1).

About 3,000 start-ups today are creating their product in various fields. And not only the quantity, but also the quality of projects is growing. We have large IT product companies, they already sell their designs around the world.

There are also start-ups – beginners, which teams consist of 2-5 people. Many of these projects are already closely monitored by foreign investors, who monitor their achievements and make contracts on their basis.

In January 2017, together with the WNISEF Foundation, our Association for the first time organized a pavilion of Ukrainian start-ups at the largest consumer technologies exhibition - CES-2017.

The Ukrainians represented 8 projects - among them projects developed in virtual reality, Internet of things (IoT), etc. These areas remain the most popular next to E-commerce projects. At the height of popularity, there are also start-ups at the "technology interface", that is, new agro-technologies or health devices.



**Table 1. Successful start-ups in Ukraine in 2016-2017**

Name	Characteristics
Sixa is service for creating a virtual "cloud" computer	When Sixa is used, users are charged hourly or monthly for a monthly fee of \$ 49. Last year, the start-up was able to pass the Y Combinator accelerating program and raise \$ 120,000 in investments. After several rounds of the seed stage, the Ukrainian team was able to get another \$ 3,500,000 from the Californian fund Tandem Capital, Ukrainian Digital Future and Horizon Capital.
eTachki is online auction of used cars	Immediately after the restart, the investment company TA Ventures entered the project. This helped attract \$ 1 million.
Allset is service for ordering meals and booking tables in restaurants	Developers tested various business models and launched an application in the US, which helps to order a table and food in restaurants in advance. With each order the startup earns \$ 2 - one from the restaurant, the second - from the user. Since 2016, the project has attracted \$ 3,350,000 from Andreessen Horowitz and several other investors.
Mevics is gadget for back	The startup attracted \$ 500 thousand from the investment consulting company UBTower. The gadget will allow to maintain back health and develop a correct posture for those who lead a sitting lifestyle.
Hideez Key is Key fob for storing passwords	Hideez Technology has developed a digital key fob that identifies its owner in the digital world and stores its passwords. In August 2016, Aji Hidez Key started in Ukraine at a price of 1299 UAH, in Germany the recommended price is 49 euros. The second development of the company is the Hideez Band bracelet with the same functions as the key fob, but the device is activated only after scanning the retina. The bracelet has only a prototype, the estimated cost is \$ 150.
Cardiomo is a thin overlay for monitoring the work of the heart	The device continuously monitors vital indicators. It is fixed on the chest and records the basic biometric parameters: pulse, ECG, respiratory rate, body temperature and instantly sends them through a connected smartphone to the cloud service. The developers assure that doctors can trust its accuracy. The data collection algorithm tracks any deviations in the work of the heart and gives recommendations on what to do. Technology diagnoses disease. If the user does not respond to a warning device, it is sent to relatives [6]

*Source: made by author.*

**Conclusions.** The article presents a theoretical generalization of the essence and directions of start-up investment. It is proved that the main direction of start-up investments is investment in the IT industry. It is justified that Ukrainian start-up projects are quite competitive in comparison with companies of other countries. The use of high technology, top ideas, often unique, has been studied. In Ukraine, there are already many "success

stories". However, the information about them is not widely spread. The task of UVCA is to help the development of global companies in Ukraine, to build a bridge between the Ukrainian and the world start-up community.

Ukraine is already becoming an IT-nation. Technological talent is a unique feature of our country. The only thing that is lacking is entrepreneurial grasp - the ability to properly present your product.

After all, you need to remember that technology is only 20% of successful business. Now young entrepreneurs get acquainted with industry leaders, investors, learn the ability to show their product.

The dynamic development of the startup market in Ukraine, especially in the IT sector encourages further research. Today, you can be confident in the prospects of Ukrainian start-ups. Every year the world will talk more and

more about the success of not only individual Ukrainian projects, but also of the country as a whole.

The prospects for future research in this area may concern the legal regulation of the activities of start-up companies, the creation of a modern marketing strategy for the introduction of start-ups.

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